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1885.
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CHAPTER IV.
AGRICULTURE.

According to the 1881 census, agriculture supports about 500,000 people or 56 per cent of the population. The details are:

**Poona Agricultural Population, 1881.**

<table>
<thead>
<tr>
<th>Age</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under Fifteen</td>
<td>103,258</td>
<td>97,174</td>
<td>200,432</td>
</tr>
<tr>
<td>Over Fifteen</td>
<td>155,407</td>
<td>156,074</td>
<td>311,481</td>
</tr>
<tr>
<td>Total</td>
<td>258,665</td>
<td>253,248</td>
<td>511,913</td>
</tr>
</tbody>
</table>

2 Kunbis and Mális, though the chief, are by no means the only husbandmen. Men of all classes, Bráhmans, Gujar Márwár and Lingáyat Vánis, Dhangars, Nhávis, Kolis, Rámoshis, Mhárs, Chámabhárs, and Musalmáns own land. About four-fifths of the landholders till with their own hands. The rest rent the land to tenants and add to their rents by the practice of some craft or calling. Kunbis depend almost entirely on the produce of their fields. They work more steadily, and have greater bodily strength than other husbandmen, and they show high skill both in dry-crop tillage and in cultivating the watered lands in which cereals are grown. At the same time, especially at a distance from trade centres, they are slow to adopt improvements, and, especially in the east, are not careful to keep their fields clear of weeds. Mális or gardeners cultivate a large area of garden and watered land. Some of them depend entirely on the produce of their fields, and manage their garden lands with great care and skill. Though, like Kunbis, Mális are slow to change their modes of tillage, they are ready to grow any new crop that seems likely to pay. They are most skilful in mixing and varying crops, and are the most regular and thorough ploughers and the cleanest weoders in the district. Where there is a constant drain on the land they are careful to use every available particle of manure and in the neighbourhood of Poona have completely overcome their dislike to the use of poudrette. Mális are of four kinds, Phul or flower Mális, Haldya or turmeric Mális, Lingáyat or ling-wearing Mális generally of southern or Karnátak origin, and Jire or cumin-seed Mális. Bráhmans generally have their lands tilled by hired labour, themselves superintending.

---

1 Details about Field-tools, Agricultural Processes, and Crops are chiefly taken from Mr. W. Fletcher's Deccan Agriculture.
2 From materials supplied by Messrs. J. G. Moore, C.S. and A. Keyser, C.S.
and directing the workmen, but, in parts of Khed, and occasionally elsewhere in the west, Bráhmans have for generations worked their fields without the help of hired labour. Vánis are perhaps the only class who never till with their own hands. They let their lands to tenants who pay them either in money or in kind. A large section of the landholders are Dhangars or shepherds by caste. Most Dhangars, besides tilling their lands, rear sheep and weave blankets, but some have given up rearing sheep and live entirely on the produce of their lands. Except the Haldya or turmeric Mális, no husbandmen grow only one crop.

The uncertain rainfall over a great part of the district, the poverty of much of the soil, the want of variety in the crops grown, and a carelessness in their dealings with moneylenders, have, since the beginning of British rule, combined to keep the bulk of the Poona landholders poor and in debt. Between 1863 and 1868 they suffered from the introduction of revised rates of assessment based on very high produce prices which were wrongly believed to have risen to a permanent level. To their loss from the fall in produce prices was added the suffering and ruin of the 1876-77 famine. In spite of these recent causes of depression, the records of former years seem to show that except during the ten years of unusual prosperity ending about 1870, when great public works and the very high price of cotton and other field produce threw much wealth into the district, the mass of the landholding classes, though poor and largely in debt, are probably at present less harassed, and better fed, better clothed, and better housed than they have been at any time since the beginning of the present century. In the west, where famines are unknown and scarcity is unusual, the husbandmen are fairly off. But in Indápur and Bhimthadi and in parts of Sirur and Purandhar they have not recovered the distress and indebtedness caused by the 1876-77 famine. In 1876-77, a large area of land was thrown out of tillage and the low price of grain during the two years ending 1882-83 has made it difficult for the landholders to recover what they lost in the year of distress. At the same time the Mutha canals and other water-works, by introducing a variety of crops and fostering more careful tillage, have done much to enrich the landholders. As a class the landholders are hardworking, frugal, and orderly. But, except near Poona, whose market quickens their energies, they are slower and less intelligent than the landholders of most other parts of the Presidency. Their tillage is careless, at times even slovenly, and they fail to strengthen the land by deep ploughing, by change of crops, or by the sufficient use of manure. This is due to poverty forcing them to take all they can from the land, rather than to laziness or to ignorance of the value of suitable ploughing, of plentiful manure, of clean weeding, of fallows, and of changes of crops. Their greatest want, and this with the spread of irrigation is more

1 In Indápur, jédrí sold at seventy-six pounds in 1881-82 and at sixty-two pounds in 1882-83. The corresponding average price during the twenty years before 1881-82 was thirty-seven pounds.
and more felt, is manure. As there are almost no leaf-yielding forests, as grass is scarce, and as most of the straw-giving crops are millets whose stalks are valuable fodder, there is a great scarcity of stable-litter, and from the want of other fuel most of the cowdung is lost to the land. In 1837 Colonel Sykes thought the mixing of several grains and pulses in one field was one of the chief blemishes in the Poona tillage. More recent writers, including among them the revenue and survey officers of the district, do not share Colonel Sykes' opinion. Over most of the district the chief danger against which the husbandman has to guard is a failure of rain. Millet may perish in a year in which the hardier and less thirsty pulse will thrive or at worst will yield a fair crop. If the millet succeeds it smothers the pulse and takes no harm. The mixing of crops has also the advantage of lessening the drain on the land by taking different elements out of it.

In Poona all arable land comes under one or other of three great heads, jirýat or dry-crop land, bógyat or watered land, and ávan or rice land. Dry-crop lands are divided into kharif or early and rabi or late. The early crops are brought to maturity by the rains of the south-west monsoon; the late crops depend on dews, on watering, and on the partial fair-weather showers which occasionally fall between November and March. Early or kharif crops are sown in June and July and are reaped in September and October or November. In the Maval or wet and hilly west, whose staple is rice and whose other crops are the coarse or varkas grains vari, sáva, náchni, and khurásni the chief harvest is the early harvest. The exposure to the cold damp of the south-west rains severely tries the husbandmen of the west. But they are a hardy cheerful race and their labour is seldom made useless by a failure of crops or unprofitable from the want of a market.

In the Desh or eastern plain, where the south-west rain is light and uncertain, the early or kharif harvest is less important than in the west. The chief early crops are spiked millet or báýri mixed with the hardy tur and early Indian millet or jvári. These are sown in late May or in June on the first sufficient rainfall. In good years they ripen in late September and October; in bad years not till November. When the early crops are reaped in September and where the land permits, a second or dusota crop is raised. As, after October, rain rarely falls in the hilly west, except a little wheat grown on the eastern fringe, the late or rabi dry-crop harvest is of comparatively little importance. In the east of the district which is within the range of the north-east rains, the late or rabi harvest is more important than the early harvest. There the late crops are sown in October and November and ripen in February and March. They are chiefly shálu and other cold-weather Indian millets and gram, lentils, and other pulses.

2 The soil of the district is lighter in the west than in the east. It

1 Report British Association (1837), 324.
2 Mr. A. Keyser, C.S., and Captain H. Robertson (1821) in East India Papers, IV. 565, 566.
belongs to three classes, black or kālī, red or támbdi, and coarse gray or barad. In some places each class of soil blends with the other in varying proportions and in turn is modified by sand, gravel, lime-salts, and other ingredients. The kālī soil is generally black or nearly black, and has sometimes a gray or a bluish tinge. It is commonly found in layers several feet deep. It belongs to the plain east rather than to the hilly west, and covers wide areas near rivers and large streams. In such places it is of great and uniform depth. It is sometimes injured by being mixed with lime nodules; and, occasionally, from the action of water or the presence of mineral salts, it becomes stiff and clayey, which, except in years of heavy rainfall, much lessens its richness. Excellent black soil of small and varying depth, with its surface covered with black basalt stones, is found on tablelands. Black soils are richer than either red or coarse gray soils. The sun does not harden their surface but cracks and crumbles it, and as they keep their moisture longer than other soils they are the favourite land for late or rabi crops. They yield all the produce of the Deccan in abundance and are specially suited for the growth of wheat, gram, and sugarcane. Towards the west as the level rises the black soil shallows till in the waving slopes that skirt the hills it changes to red or gray. The black soil is of two kinds, the gaping black soil known as dombi and kevaldhās and the stony black called khaḍkal or dhondal. Though better than the stony black the gaping black soil is very thirsty and requires plentiful and constant watering to bring out its powers and keep them in action. If it is not continually drenched while the crop is growing the people say that the crops pine and wither. The stones in the stony black are said to make it firmer and better able to hold water. This is the most valued land for the ordinary dry-crops whose supply of water depends on the local rainfall. This stony black is not so strong and as a rule is shallower than the gaping black. Being lighter the gaping black is more easily worked, but has to be ploughed oftener than the stony black and wants more manure. The best black soil yields year after year apparently without suffering though its powers might have become exhausted if it were not for the relief given by sowing a mixed crop. Other and poorer black soils occur mixed with sand and clay. The reddish or copper-coloured soils called támbat or támbdi are always shallower and coarser than the black. They are probably the ruins of the iron-bearing rocks without the decayed vegetable element which deepens the colour of the black soils. They are often injured by a mixture of gravel, but when watered by frequent showers are generally well suited for the kharif or early crops. The red soil is commoner and richer in the west than in the east. It has many varieties, for it includes lands on the skirts of hills and other most barren soils. Red soil is generally rough and stiff and requires deep ploughing. The best red soils are found near Pábal, midway between Khed and Sirur, where also the ploughing is very deep. The red soil of Pábal itself is very powerful, but requires great labour. It is a mixture of sand with a smaller quantity of clay. There are three varieties of red soil, pure red or
niral támðá, upland or mál jamin, and sandy or valsári jamin. The pure red or niral támðá is lighter and richer than the others and has perhaps a larger proportion of sand. The upland or mál jamin is a reddish soil thick-spread over rock. According to its depth and the quantity of sand and friable stones it is of two varieties mál murud that is plain red land and támðá malsi that is hill red land. Sandy or valsári jamin when deep enough yields fair crops. Higher up the slopes or covering the tops of the lower uplands of the eastern plain is the coarse gray or barad. It varies in colour from a light reddish brown to gray, is of a coarse gravelly or loose friable texture, and is greatly wanting in cohesion. It is decomposed basalt with a mixture of iron ore. It does not yield wheat, peas, or any late or cold-weather crops; but in seasons of heavy rainfall spiked millet and the early pulses give a good return. When waste it bears nothing but scanty spear-grass. It does not occur in the hilly west. Gávkhar pándhari or white village soil is much like the coarse gray in colour, but is finer and is often of great depth. It is only found close to villages or on deserted village sites. Its special appearance is probably due to the manure which gathers on village sites and gives the soil a chalky character. It is a clean light soil and on a basis of black mould yields excellent crops, especially of tobacco. There are also patches of stiff clayey soil called shedvat that is white clayey or chopan that is clayey or loamy and of chôkni or pure clay in which nothing grows. Clayey patches, black brown or white in colour, are generally found on the banks of rivers. A rare swampy or undrained soil of a clayey texture is termed shembat that is stony and upal that is sodden. A rich alluvial soil called dheli or kevtal that is soil left by the overflowing of rivers, ranges in colour from pale yellow to dark brown. It covers a limited area, but, partly from the vegetable matter it holds and partly because it is regularly strengthened by fresh deposits, it is the richest soil in the district. Near some of the larger rivers within flood limits is a narrow belt of land of no great value known as malai or vegetable land. In the hilly west is a barren blackish soil called murmád that is crumbly rock. It is very stiff and hard and is found mostly at the foots of hills wherever water lodges. Here and there in black and other rich soils spots yield wretched crops compared with the surrounding fields. These spots are called chunkhadi or lime-laden because limestone is always found near the surface.

Of an area of 5347 square miles 5198 square miles or 3,327,283 acres or 97.21 per cent have been surveyed in detail. Of these 467,884 acres or 14.06 per cent are the lands of alienated villages. The rest contains, according to the revenue survey, 2,113,221 acres or 63.51 per cent of arable land; 272,271 acres or 8.18 per cent of unarable; 21,107 acres or 0.63 per cent of grass or kurun; 263,777 acres or 7.92 per cent of forest; and 189,003 acres or 5.68 per cent of village sites, roads, and river beds. In 1881-82 of the 2,113,221 acres of arable land in Government villages, of which 193,224 or 9.14 per cent are alienated, 1,786,065 acres or 84.51 per cent were held for tillage. Of this 54,503 or 2.50 per cent were garden land.

1 The forest area has lately been increased to 422,400 acres or 661 square miles.
27,674 acres or 1.54 per cent were rice land, and 1,713,888 acres or 95.96 per cent were dry-crop land.

Though large holdings are found in many villages the holdings as a rule are small. They are also so divided among members of different families that the entries in the Government books are not a complete guide to the average size of a holding. In the hilly west, where the chief grains are rice, naïgli, and other coarse grains, which require great attention and labour, the holdings are generally smaller than in the east. In 1882-83, including alienated lands, the total number of holdings was 227,871 with an average area of about nine acres. Of the whole number, 86,193 were holdings of not more than five acres; 43,898 of six to ten acres; 45,359 of eleven to twenty acres; 30,677 of twenty-one to fifty acres; 11,340 of thirty-one to forty acres; 7575 of forty-one to fifty acres; 2739 of fifty-one to one hundred acres; seventy-six of 101 to 200 acres; thirteen of 201 to 300 acres; and one above 300 acres. More than 100 acres of dry-crop land is considered a large holding, fifty to 100 acres is considered a middle-sized holding, and less than twenty-five acres is considered a small holding:

**Poona Holdings, 1882-83.**

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>1-5 Acres.</th>
<th>6-10 Acres.</th>
<th>11-20 Acres.</th>
<th>21-30 Acres.</th>
<th>31-40 Acres.</th>
<th>41-50 Acres.</th>
<th>51-100 Acres.</th>
<th>101-200 Acres.</th>
<th>Over 200 Acres.</th>
<th>Total</th>
<th>Land Revenue</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junnar</td>
<td>21,048</td>
<td>5,004</td>
<td>4,152</td>
<td>1,594</td>
<td>629</td>
<td>191</td>
<td>160</td>
<td>20</td>
<td>2</td>
<td>32,844</td>
<td>14,747</td>
<td>221,731</td>
</tr>
<tr>
<td>Khed</td>
<td>27,524</td>
<td>8,115</td>
<td>6,829</td>
<td>2,032</td>
<td>544</td>
<td>130</td>
<td>84</td>
<td>6</td>
<td>1</td>
<td>45,474</td>
<td>15,981</td>
<td>283,824</td>
</tr>
<tr>
<td>Maval</td>
<td>8,978</td>
<td>6,317</td>
<td>4,939</td>
<td>4,127</td>
<td>3,414</td>
<td>615</td>
<td>1,092</td>
<td>3</td>
<td>2</td>
<td>34,010</td>
<td>7,681</td>
<td>125,087</td>
</tr>
<tr>
<td>Haveli</td>
<td>14,458</td>
<td>13,235</td>
<td>11,829</td>
<td>9,916</td>
<td>11,225</td>
<td>105</td>
<td>103</td>
<td>5</td>
<td>4</td>
<td>51,430</td>
<td>18,852</td>
<td>281,956</td>
</tr>
<tr>
<td>Sirur</td>
<td>6,920</td>
<td>3,795</td>
<td>4,835</td>
<td>2,150</td>
<td>783</td>
<td>119</td>
<td>71</td>
<td>6</td>
<td>4</td>
<td>17,719</td>
<td>18,694</td>
<td>286,312</td>
</tr>
<tr>
<td>Purandhar</td>
<td>8,405</td>
<td>3,066</td>
<td>3,848</td>
<td>2,439</td>
<td>2,582</td>
<td>106</td>
<td>117</td>
<td>5</td>
<td>6</td>
<td>19,399</td>
<td>9798</td>
<td>186,316</td>
</tr>
<tr>
<td>Bhimatlhad</td>
<td>3,943</td>
<td>2,945</td>
<td>7,889</td>
<td>6,443</td>
<td>2,794</td>
<td>780</td>
<td>378</td>
<td>51</td>
<td>1</td>
<td>24,206</td>
<td>23,445</td>
<td>451,197</td>
</tr>
<tr>
<td>Indapur</td>
<td>3,900</td>
<td>671</td>
<td>1,461</td>
<td>1,967</td>
<td>1,076</td>
<td>901</td>
<td>734</td>
<td>13</td>
<td>1</td>
<td>8,709</td>
<td>10,645</td>
<td>230,748</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>86,193</td>
<td>45,896</td>
<td>45,559</td>
<td>30,677</td>
<td>11,340</td>
<td>7,576</td>
<td>2,728</td>
<td>78</td>
<td>13</td>
<td>227,871</td>
<td>114,902</td>
<td>1,907,278</td>
</tr>
</tbody>
</table>

As in other famine districts farm stock considerably decreased in 1876-77, and has not yet reached its former level. In 1875-76, the year before the famine, the stock included 21,857 carts, 68,629 ploughs, 233,759 bullocks, 160,097 cows, 12,107 he-buffaloes, 45,765 she-buffaloes, 12,790 horses including mares and foals, 4932 asses, and 342,081 sheep and goats. According to the 1882-83 returns the farm stock included 21,044 carts, 52,630 ploughs, 227,619 bullocks, 144,949 cows, 12,084 he-buffaloes, 40,046 she-buffaloes, 11,163 horses including mares and foals, 6745 asses, and 289,688 sheep and goats. The details are:

1 Horses and asses, though almost never used for field purposes, are usually classed with agricultural stock.
### POONA AGRICULTURAL STOCK, 1882-83.

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>Cattle</th>
<th>Buffaloes</th>
<th>Sheep and Goats</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rising</td>
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<td>With Four Bullocks</td>
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With four oxen a Kunbi will till some sixty acres of light soil. Sixty acres of shallowish black soil require six or eight oxen. Eight oxen can till some fifty acres of deep black soil, provided that in occasional years when ploughing is necessary the landholder is able to hire two more pairs of bullocks. With eight pairs of oxen, and the power where necessary of making use of two pairs more, an acre or two of the sixty might be kept under the lighter garden crops. Many husbandmen have much less than the proper number of cattle, and have to join with their neighbours before their fields can be ploughed.

In 1881-82, of 1,786,065 acres, the whole area held for tillage, 209,447 acres or 11.72 per cent were fallow or under grass. Of the remaining 1,576,618 acres, 18,740 were twice cropped. Of the 1,595,358 acres under tillage, grain crops occupied 1,374,702 acres or 86.16 per cent, of which 588,502 were under Indian millet, jowari, Sorghum vulgare; 557,807 under spiked millet, bājri, Pennicilla scipica; 60,524 under wheat, gahu, Triticum aestivum; 52,365 under rāgi or nāchni, Eleusine corokana; 47,885 under rice, bhāt, Oryza sativa; 32,342 under sāva and vari, Panicum milicaceum and miliace; 3844 under maise, makka, Zea mays; 1084 under vāla or kāng, Panicum italicum; 397 under kudra or harik, Paspalum frumentaceum; 141 under barley, jaw, Hordeum hexastichon; and 29,811 under other grains of which details are not given. Pulses occupied 85,919 acres or 5.38 per cent, of which 28,879 were under gram, harbhāra, Cicer arietinum; 13,065 under kuilth or kuilthī, Dolichos biflorus; 12,851 under tur, Cajanus indicus; 3900 under muq, Phaseolus mungo; 1519 under uḍid, Phaseolus radiatus; 836 under peas, vātāna, Pisum sativum; 836 under masur, Brumy lens; and 24,033 under other pulses. Oilseeds occupied 102,786 acres or 6.44 per cent, of which 29,449 were under gingersly seed, til, Sesamum indicum; 159 under linseed, ḍhāla, Linum usitatissimum; and 73,178 under other oilseeds. Fibres occupied 8382 acres or 0.52 per cent, of which 4565 were under cotton, kāpū, Gossypium herbaceum; 1875 under Bombay hemp, san or tāg, Crotalaria juncea; 18 under brown hemp, ambādī, Hibiscus cannabinus; and 2424 under other fibres. Miscellaneous crops occupied 23,569 acres or 1.47 per cent of which 8089 were under chillies, mirchī, Capsicum frutescens; 5502 under sugarcane,
Agriculture.

The field tools are, the plough, nángar; the seed-drills, pábhar and moghad; the hoes, kulav, kulpe or joli, and pharát; the beam-harrow, maind; the dredge or scoop, petári; and the cart, gúda.

The plough, nángar or when small nángri, is usually of báhhul Acacia arabica wood. It contains five distinct pieces, the pole halas, the share or coulter nángar, the yoke ju or shilvat, the tail rumane, and the handle muthya. These five parts are kept together by a leather rope, vetohan, which passes back from the yoke behind the plough tail, and forward again to the yoke. To the share a moveable iron shoe or phál is fixed by a ring called vasu. A large plough for stiff soil which works nine inches deep requires seven to ten yoke of oxen. In the light eastern Desh soils the plough requires only two yoke. In the west, where it is fit only for stirring flooded rice land and for breaking the surface after it has been softened by rain, the plough is light enough to be carried on a man's shoulder and one yoke of oxen are enough to draw it. The large plough is an efficient implement passing under the hard crust, turning the soil in great lumps, and exposing a large surface to the weather. It can be made to cut a deep or a shallow furrow by changing the angle of the share or coulter. The Kunbis manage the plough with considerable skill. One man can work a plough with two yoke of oxen turning them at the end of the furrow by voice alone. With a team of six or seven pair a boy is usually seated on the yoke of the third pair and hustles them along with whip and voice. Each ox knows his name and obeys the boy's voice. The furrows are never straight and the field is usually ploughed crosswise as well as lengthwise. In the plain east, the plough is often left in the field when not in use, the iron shoe the ropes and the yokes being taken home. In the east, a plough with four separate yokes varies in value from 16s. to £1 (Rs. 8-10). With yearly repairs costing about 3s. (Rs. 1.5), a plough lasts for five years. In the west a complete plough costs 4s. to 5s. (Rs. 2-2.5).²

The seed-drill, pábhar, is a model of simplicity and ingenuity and is cheap and effective. It consists of two to four wooden iron-shod shares or coulter called phans, fed with seed through bamboo tubes from a wooden bowl or cháde into which the seed is dropped by hand. The whole is held together by ropes strained in different directions. It is drawn by two oxen. Gram and wheat are sown by a larger drill called moghad drawn by four oxen. Its tubes are larger and the shares or coulters stronger so as to pass deeper into the soil. It sows four to six inches deep to suit some of the cold-weather

¹ Mr. Shearer, the agricultural instructor in the Poona College of Science, has found that, by using an iron share instead of the heavy wood block, the native plough becomes an excellent subsoiler, passing through the most caked and hardened surface, and cutting the roots of bushes which had formerly to be dug out by the hatchet. These adapted ploughs have been made at the workshops of the College of Science at a cost of £1 5s. (Rs. 12.5). They have also been successfully copied by village blacksmiths. Mr. Shearer to Collector of Poona, 105, 14th July 1882.
crops. Both the small and the large seed-drill are often used as harrows by removing the middle shares, the bamboo tubes, and the bowl. A drill costs about 5s. (Rs. 2½) and with care lasts four or five years.

The hoe, kulav, is used for breaking the clods thrown up by the plough, for loosening the surface when the plough is not used, for removing weeds, for filling cracks or fissures, and for covering the seed. The hoe is two shares or coulters joined by a level cross iron blade or phás set obliquely in a wooden beam. A pole unites it to the yoke and it is guided by an upright handle. When he wishes to work the hoe deep the driver stands on the wooden beam or lays heavy stones upon it. It requires only one yoke of oxen, costs about 7s. (Rs. 3½), and lasts four or five years. The kulpe also called the joli is a weeding hoe. It is two iron blades or golis like a mason’s square with their inward ends six inches apart set in a piece of wood to which the yoke is joined by a pole and ropes. It has two handles the rumane and the veski, the veski being a loose forked stick which is held on the top. It is drawn by two oxen and is driven so that the row of young plants passes through the space between the blades. The kulpe is often worked double, that is two kulpes are drawn by one pair of oxen. It requires much care in working, costs about 4½s. (Rs. 9), and lasts five years. The pharát is like the kulav, only its blade is longer, three feet six inches in length, and its workwood is lighter. It is used to follow the seed-drill and cover the seed and is drawn by two oxen. It costs about 4s. (Rs. 2).

The beam-harrow, maind or phálā, is a large beam of wood fitted with a yoke and upright handle. It requires four oxen and two men to work it. It is used chiefly in high tillage to break clods and level the surface. It is also used after the wheat and gram are in the ground to press the soil, as pressed soil keeps its moisture longer than loose soil. It costs about 8s. (Rs. 4) and lasts many years.

The scoop or dredge, petāri, is used only in rice lands. The bottom lip is formed by a plank three feet long to which the oxen are harnessed. A stout handle fixed into the middle of the plank sloping back forms a support to a series of bamboo slips laced together with string which rise one above the other about two feet six inches, presenting a curved sloping surface against which as the scoop passes through the ground the loose earth gathers. It is drawn by two oxen and costs about 3s. (Rs. 1½).

Up till 1836 the carts or gadās, of which there were very few, were cumbersome vehicles consisting of a large strong frame of wood supported on two solid wooden wheels over which the sides projected on props that rested on the axle outside of the wheels. The naves of the wheels were fitted inside with iron tubes in which the axles worked. These and the wheel tires were the only iron-work as the whole construction was held together by tightly strained ropes. The cart was used to carry crops, and with the addition of a large shallow basket to carry manure. It cost about £10 (Rs. 100) and was usually the joint property of three or four landholders. The axles being wooden often broke and new wheels and tires were needed at long intervals. With these repairs the cart lasted from generation to
generation. Colonel Sykes mentions a cart called *jang* or *jangia* used for carrying manure. It was a common cart with a basket of *nirgundi*, Vitex trifolia, and *tur*, Cajanus indicus, stems tied to the top of it. In 1836 Lieutenant Gaisford, of the Revenue Survey, planned a new cart with high light wheels and a light body. The new carts were first made at Tembhurni in Sholapur and the craftsmen of the villages round were trained to repair them. At first very few landholders would buy the new carts. Afterwards the opening of roads which did away with the necessity of very heavy and massive carts, and the abolition of transit duties which made it possible to carry local produce to distant markets, increased the number of carts in Indapur from 291 in 1835-36 to 1165 or 300 per cent in 1865-66, in Bhimthadi from 273 in 1840-41 to 1011 or 270 per cent in 1870-71, in Pabalg in 1840-41 to 1304 or 73 per cent in 1870-71, in Haveli from 1146 in 1840-41 to 2284 or 99-80 per cent in 1871-72, and in Purandhar from 191 in 1843 to 578 or 202 per cent in 1873. In spite of the opening of the railway, which greatly reduced the number of carts employed in long journeys, the latest returns show a total of 18,321 carts throughout the district. The present carts cost £6 to £8 (Rs. 60-80) and hold ten to twenty hundredweights (16-30 *mans*). They are drawn by one pair of bullocks, and are chiefly made of *bābhul* and teak wood by local carpenters.

Besides the tools worked with the help of bullocks there are five hand tools: the pick, *kudal*, costing 1s. (8 as.); the hoe, *khore*, costing 1s. to 1½s. (8-12 as.); the sickle, *khurpe*, used for weeding and grass-cutting, costing 3d. to 6d. (2-4 as.); the billhook, *koyata*, used only in the west and carried behind the back in a wooden socket, costing 1s. to 2s. (Rs. ½-1); and the rake, *dānt dét*, made of wood with four or five broad teeth, used to gather chaff in the thrashing floor and in the west to gather grass and tree loppings to burn on the rice fields. These tools can all be easily bought in any village, and every Kunbi owns a fairly complete set worth about £2 (Rs. 20). A yearly charge of 6s. to 8s. (Rs. 3-4) keeps them in good order. If fresh tools are wanted the Kunbi, if necessary, buys a tree, fells it, strips it, and hales it to the village. The carpenter fashions the tools, and the iron-work is bought from wandering blacksmiths. The ropes are made either by the Kunbi himself or by the village Māṅ from fibre grown in the Kunbi’s field.

A field is not ploughed every year. In dry-crop lands thorough ploughing is rare. The usual practice both in the west and in the east is to plough the shallower black and light soils every other year, on the alternate years going over the land only with the hoe or *kula*. Many deep heavy soils are ploughed not oftener than once in four or five years. In the in terval the hoe or perhaps the harrow is used. Early or *kharif* land is ploughed in December, January, and February, and the hoe is used to break the surface immediately before sowing. As the soil is lighter, the heavy eastern plough with six or eight pairs of bullocks is not required in the west.

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1 Bombay Government Selections, CLI, 33-34.
A lighter plough with one or two pairs of bullocks is enough in the western plains, and on the steep hill-sides where a plough cannot work the shallow soil is loosened by the hand with a bent piece of wood tipped with iron.

The Kunbi is very careful in his choice of seed. If his own crop is good he picks the largest and best-filled heads and keeps their grains separate as seed for the next year. The produce of special heads is often sold as seed and fetches half as much again as ordinary grain of the same kind. Vánis also keep good seed grain in stock which they advance to Kunbis, exacting fifty or a hundred per cent more in kind at harvest time. The sowing of the early or kharif crops begins in May or in June after the soil is well moistened by rain. In the plain country the seed is sown by the drill and covered by the long-bladed hoe or pharát which follows close behind the drill. When a mixed crop is to be sown one of the drill tubes is stopped and a man follows the drill, holding a horn-tipped tube fastened by a rope from which he sows seed in the furrow left by the stopped tube. This process is called moghane. In the west for the early or kharif crops a small plot is chosen, and, in March or April is covered a foot or so deep with cowdung, grass, leaves, and branches, which are burnt. In this plot, after a good fall of rain in May or June, the surface is loosened by an iron-tipped wooden hoe and the seed is sown broadcast and thick. In the course of a month when the thick-sown seedlings are about a foot high they are planted in irregular rows in patches of prepared land.

The people understand the value of manure, but litter and cowdung are scarce and mineral and other rich manures are too dear to be used in the growth of the ordinary crops. In the plain part of the district east of Pábal, where the rainfall is scanty or uncertain, dry-crop land is seldom manured. This is partly because manure is scarce and partly it is said because if the rainfall is scanty, manure does more harm than good to the crop. In the hilly west and in the western fringe of plain land where the rain is regular and plentiful, manure is carefully hoarded and used whenever possible. The quantity used seems to be regulated entirely by the supply. Even here manure is scarce and weak, merely wood-ashes and sweepings. In the case of watered crops, hemp or tág Crotalaria juncea, methi Trigonella foonum-graecum, or khurásni Verbesina sativa are sown and when about five inches high are ploughed and the land is flooded and left for twenty days. Mális or gardeners and all others who raise crops all the year round are very careful to save every available particle of manure. In the land about Poona, which is watered all the year round, poudrette, the dung of cattle sheep and goats, stable litter, and refuse are used. The use of poudrette as a rule is restricted to a range of ten miles to the east of Poona along the line of the Mutha canals. Formerly there was a strong feeling against the import into a village of outside manure. This feeling has passed away, and manure is eagerly sought and frequently brought from long distances. The sewage of the cantonment and city of Poona, after being buried for three or four months, is bought by the husbandmen of the surrounding villages, and it has become a recognized and allowed
practice for Kunbis to cart and handle this manure, which not many years ago they held in horror. The manure is sold in the trench at about three cartloads or one ton for 2s. (Re. 1). In 1874-75, the year when the right bank Mutha canal was opened, the quantity of pou- drette turned out by the Poona municipality was 2220 cubic yards and the value realised was £76 12s. (Rs. 766); in 1881-82 the quantity turned out was 11,760 cubic yards and its value £3077 12s. (Rs. 30,776). Cowdung is used only by those who have stall-fed cattle or who are rich enough to buy it. As cowdung cakes are the fuel of Poona most of the cowdung within twenty miles of the city is carefully stored, made into cakes, and sent in large cartloads to Poona where it is also used for burning the dead.\textsuperscript{1} In dry land and in watered lands in outlying towns and villages, cowdung, goat and sheep dung, stable-litter, and village refuse are the chief manures. The dung and urine of sheep are a valuable manure and owners of flocks are hired to graze their sheep in fields for two or three nights at a time. Dhangars usually wander from village to village in a regular yearly circuit, in the plains during the rains and cold weather, and in the west during the hot months. They are paid by the husbandmen to fold their sheep in their fields. In some places they get only their food, in other places where gardens abound as much as 1s. or 2s. (Re. ½ -1) is paid for one night of a hundred sheep. No chemical or imported manures are used, but the district officials are making experiments with bone-dust.

Watered land is of two classes, motasthal or bag-watered, and palasthal or channel-watered. Well or bag irrigation is of great importance in Indapur and other drought-stricken parts of the east.

Wells used for irrigation are circular, eight to ten feet across and twenty to fifty feet deep. They are sometimes pitched with brick or stone and mortar, more usually they are lined with dry cut-stone, and frequently they are built only on the side on which the bag is worked. An unpitched well costs £10 to £20 (Rs. 100 - 200), a well lined with dry stone £25 to £50 (Rs. 250 - 500), and with brick or stone and mortar £40 to £200 (Rs. 400 - 2000). The water is raised in a leather-bag or mot, one half of which is two feet broad and is stretched open at the mouth by an iron ring, the other end is much narrower and is not stretched. A thick rope is fixed to the centre of two stout bars, which, at right angles to each other, cross the broad mouth of the bucket, and is passed over a small wheel some four feet above the lip of the water-trough or thárole where it is supported by a rough wooden frame. A second thinner rope is fastened to the small mouth of the bucket and passed over a roller which works on the lip of the trough. Both these ropes are fastened to a yoke drawn by oxen. The length of the ropes is so adjusted that the narrow half of the bucket doubles along the broad half and in passing up or down the well the two mouths are

\textsuperscript{1} Not even cowdung cakes escape adulteration. There are two kinds of cowdung cakes the kunken or pure cake and the valshen or mixed cake half earth and half cowdung. Mr. J.G. Moore, C.S.
brought on a level with each other. When the full bucket reaches the top of the well the narrow mouth follows its own rope over the roller into the trough and allows the water to escape while the broad mouth is drawn up by its rope to the wheel four feet higher. The water-bag or mot is of two sizes, one measuring about ten feet from mouth to mouth and worked in deep wells and by four oxen, the other five to six feet and worked in small wells and by two oxen. The bag and its appliances cost about £1 10s. (Rs. 15).  

The bucket lasts ten or twelve months and the wooden work and the ring four or five years. The thicker rope lasts a year and the thinner rope six months. A six feet long bag on an average raises 57 gallons and 3 quarts of water each time it is emptied. In this way a man and a pair of bullocks raise 2931 gallons of water in an hour or 20,517 gallons in a working day of seven hours. The same man with two buckets and two pairs of bullocks raises 41,034 gallons of water which at eight pounds to the gallon is equal to 328,272 pounds Troy.

In 1882-83, of 18,651 wells about 3208 were step-wells and 15,448 dip-wells. A well generally waters one to thirteen acres and the depth varies from twenty feet in Haveli and Sirur to fifty feet in Junnar and Bhimthadi. The cost of building varies from £50 to £500 (Rs. 500 - 5000) in the case of a step-well, and from £10 to £200 (Rs. 100 - 2000) in the case of a dip-well. There were also 888 ponds or reservoirs:

### POONA WELLS AND PONDS, 1882-83.

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<tr>
<td>Total</td>
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A class of people called Pánádis, that is water-showers, who are generally Maráthás, Mhárs or Gosávis by caste, are employed to point out where water will be found. They examine the soil and the adjoining wells and sometimes lie down with one of their ears to the ground to ascertain the flow of water below. The people still consult them though they are said to be less trusted than they used to be. The water-shower is paid a small fee in advance and a larger fee if water is found.

1 The details are: The leather part 16s. to £1 (Rs. 8 - 10), the iron ring 2s. to 3s. (Rs. 1.1), the upper or thick rope 1s. 6d. to 2s. (Rs. 2.1), the lower rope about 6d. (4 as.), the wheel including its iron axle 1s. 6d. (12 as.), the roller from 6d. to 1s. (6-8 as.), and the rough wood frame 2s. (Rs. 1).

2 Of these 8105 were used in 1881-82 for drinking and washing, and 15,423 for watering the land.
Chapter IV.  
Agriculture.  

Pātasthal or channel-watering from the great saving of labour is far more profitable than well-watering. At the same time it is much less common as the number of sites with a sufficient head of water and command of land is limited. The chief channel water-works are across the Mina at Kusur, Vaduj, and Nārāyangaon, which water respectively twenty-five, seventy-eight, and 367 acres of garden land. The Nārāyangaon work is of some magnitude, the irrigating channels being two miles in length. None of these last through the year; the supply in almost all cases fails in February or March. Where sugarcane and other twelve-month crops are grown the channel supply is eked out from wells. Except the Government canals, channel water-works on a large scale are hardly known. The majority of the dams or bandhārās are built of mud, and are renewed every year after the rains. A masonry dam which commands 500 to 600 acres and has cost £300 to £400 (Rs. 3000-4000) is considered a large work. The channels are not bridged, hedged, or otherwise sheltered, and the village cattle and carts cause much injury and waste. When the water in the river begins to fall below the level of the dam or channel head it is usual, if the distance is not great, to lift the water into the channel by a large wooden shovel or scoop hung by a rope at the proper level from a rough tripod of sticks. The scoop is swung to and fro by one or two men in such a way as at each swing to scoop up and throw a small quantity of water into the channel. This method does not raise water more than a foot or eighteen inches, but is useful when perhaps only one watering is required to complete the irrigation of a crop. The wells are the property of individuals, but the channel water is shared by all who originally built or who yearly rebuild the dam. The shares are portioned out in time, hours or days. This system of division by time works smoothly. The arrangement is superintended and regulated by one or more men called pātkaris or channel-keepers who prevent disputes and keep the canals in working order. They are paid sometimes by grants of land and more often by small shares of garden produce.

Government Water Works.  

1 The chief water-works made or repaired by the British Government are the Mutha and Nira canals, and the Kāsurdi, Mātoba, Shirsuphal, and Bhādalvādi reservoirs. Of these the Mutha and Nira canals draw their supply from the Mutha and Nira rivers which rise in the Sahyādris and have a never failing flow of water. The Mātoba reservoir is fed from the right bank Mutha canal; the remaining reservoirs entirely depend on local rain. No landholders are forced to make use of water. Landholders who wish to have water apply to the subordinate resident on the works, and, either at the time of asking or at some later time, sign a form showing for how long and for what crop water is required. At the end of the season the areas watered are measured by the canal staff and the area and the charges sanctioned by Government are shown in a form which is sent to the Collector to recover the amount. The water rates,

1 The Poona Water Works Account owes much to corrections and additions by Mr. W. Clerke, M.Inst.C.E., Executive Engineer for Irrigation, Poona.
which are in addition to and distinct from the land rates, are fixed under the orders of Government on a scale which varies according to the crop for which water is required.

Since the beginning of British rule the scanty and uncertain rainfall in the country to the east of Poona had caused frequent failure of crops and much loss and suffering. In 1863-64, a more than usually severe drought caused such distress that Government determined to find how far this tract could be protected from famine by water-works. The inquiry was entrusted to Captain, now Lieutenant-General, Fife, R. E., who, as small reservoirs were then in favour, spent the season of 1863-64 in surveying the district to find sites for storage lakes. In a report dated the 25th of February 1864, Colonel Fife submitted the result of his investigation. This comprised detailed plans and estimates for six small reservoirs at Kásurdi where there was an old work, at Mátoba, Khateka Durva, Khâmbgaon, Bhâdgaoa, and Chutorikur, all in Bhimthadi. Many other sites were examined and found unfavourable. His experience in this part of Poona satisfied Colonel Fife that small reservoirs were enormously costly and were open to the fatal objection that in any season of severe drought they would be useless as the streams that feed them entirely fail. He recommended that water should be led from the Mutha river by a high level canal starting from above Poona and extending to near Indápur, a distance of about a hundred miles. The Bombay Government agreed with Colonel Fife that small lakes were useless and that the only certain means of protection from famine was the water of rivers whose source is in the Sahyádris. The Mutha canal works were sanctioned, and the experience since gained, which embraces both river and lake works, leaves no question that Colonel Fife was right in holding that small storage lakes would fail to guard east Poona from famine.1

Of the water-works which have been made since 1864 the chief are Lake Fife and the Mutha Canals. The final plans and estimates for the Mutha Canals scheme were submitted in 1868 and the work was begun in December of that year. The scheme included a large storage reservoir or lake at Khadakvâsâla on the Mutha river ten miles west of Poona, which has since been named Lake Fife.2 From Lake Fife two canals start, one on each bank of the river. The right bank canal was designed to be 99½ miles long, but the actual completed length is 69½ miles ending in the village of Pátas. The discharge at the head is 412 cubic feet a second and this can be increased to 535 cubic feet. The canal passes through the station of Poona. It was designed to command 230 square miles or 147,200 acres of land. As the complete design has not been carried out the actual area under command is 147 square miles or

1 Colonel, now Major-General, Strachey, then Inspector-General of Irrigation, expressed similar opinions with regard to Gujârsat, Khândesh, and the Deccan. Mutha Canals Report, 14th February 1879.

2 By placing the headworks on the Mutha river an unfailling supply of water was secured as the source of the Mutha is among the Sahyâdri hills where there is a certain rainfall of about 200 inches. The suggestion to use the Mutha river water for irrigation was recorded by the Honourable Mr. Reeves in 1855. Mutha Canals Report, 14th February 1879.
Chapter IV.

Agriculture.


94,080 acres, the whole of which suffers from scanty and uncertain rainfall.\(^1\) The left bank canal is eighteen miles long, passing a short distance beyond Kirkee. It commands an area of 3500 acres and the full supply discharge at the head is 38.5 cubic feet the second. The area which the complete scheme commanded was thus 150,700 acres which by shortening the right-bank canal has been reduced to 97,580 acres. Besides providing water for this parched tract of country, the work furnishes an abundant supply of pure drinking water to the city and cantonment of Poona, the Powder Works at Kirkee, and the numerous villages along the course of the canals.\(^2\)

---

\(^1\) The details of the rainfall at six places on the canal during the three years ending 1881 are:

<table>
<thead>
<tr>
<th>Month</th>
<th>Head-Works, Lake Pipe</th>
<th>Poona, 10th Mile.</th>
<th>Ushuli, 35th Mile.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1879</td>
<td>1880</td>
<td>1881</td>
</tr>
<tr>
<td>January</td>
<td>In</td>
<td>In</td>
<td>In</td>
</tr>
<tr>
<td>February</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>March</td>
<td></td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>April</td>
<td></td>
<td>0.45</td>
<td></td>
</tr>
<tr>
<td>May</td>
<td>3.48</td>
<td>3.16</td>
<td></td>
</tr>
<tr>
<td>June</td>
<td>10.10</td>
<td>1.12</td>
<td></td>
</tr>
<tr>
<td>July</td>
<td>0.74</td>
<td>0.57</td>
<td></td>
</tr>
<tr>
<td>August</td>
<td>11.13</td>
<td>0.63</td>
<td></td>
</tr>
<tr>
<td>September</td>
<td>2.28</td>
<td>3.22</td>
<td></td>
</tr>
<tr>
<td>October</td>
<td>0.61</td>
<td>0.30</td>
<td></td>
</tr>
<tr>
<td>November</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14.70</td>
<td>24.63</td>
<td>20.90</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td></td>
<td>1879</td>
<td>1880</td>
<td>1881</td>
</tr>
<tr>
<td>January</td>
<td>In</td>
<td>In</td>
<td>In</td>
</tr>
<tr>
<td>February</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>March</td>
<td></td>
<td>0.42</td>
<td></td>
</tr>
<tr>
<td>April</td>
<td></td>
<td>0.39</td>
<td></td>
</tr>
<tr>
<td>May</td>
<td>2.04</td>
<td>0.57</td>
<td></td>
</tr>
<tr>
<td>June</td>
<td>4.04</td>
<td>0.44</td>
<td></td>
</tr>
<tr>
<td>July</td>
<td>0.25</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>August</td>
<td>2.37</td>
<td>1.24</td>
<td></td>
</tr>
<tr>
<td>September</td>
<td>0.25</td>
<td>1.15</td>
<td></td>
</tr>
<tr>
<td>October</td>
<td>1.24</td>
<td>2.65</td>
<td></td>
</tr>
<tr>
<td>November</td>
<td>0.12</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17.55</td>
<td>7.44</td>
<td>9.78</td>
</tr>
</tbody>
</table>

---

\(^2\) The Poona Municipality pays £1000 (Rs. 10,000) a year for the supply of about 750,000 gallons daily delivered at the canal-bank. This supply is practically unlimited. Any excess is charged 4½d. (3 as.) the 1000 gallons. The following are
Lake Pifo is formed by a masonry dam founded on solid rock. The dam is of partly coursed and partly uncoursed rubble masonry and is one of the largest works of its kind in the world. Exclusive of the waste weir which is 1393 feet long, the dam is 3687 feet long and rises ninety-nine feet above the river bed; the greatest height above the foundation level is 107 feet. The crest of the waste weir is eleven feet below the top of the dam. The contents of the reservoir are 4911 millions of cubic feet and the area of the water surface is 8535 acres or 5? square miles. To gain sufficient elevation to command the station of Poona and the country beyond, the bed of the canals is fixed at fifty-nine feet above the river bed or bottom of the reservoir. The volume of water stored above the canal level is 3161 millions of cubic feet. At the site of the dam the river has a catchment area of 196 square miles. During an average season it is calculated that the reservoir will fill sixteen times. The canals are completely bridged and regulated throughout. The right-bank canal is navigable in the ten miles to Poona. In the tenth mile the water-supply for the city is drawn off. To avoid interfering with the buildings and the parade-ground, the canal is carried through the station of Poona in two tunnels. On leaving the first tunnel in the centre of the cantonment, there is a drop in the canal bed. By means of an undershot wheel this fall is used to drive pumps for raising the water for the supply of the cantonment into the settling tanks, filter beds,

<table>
<thead>
<tr>
<th>SOLIDS</th>
<th>CHLORINE</th>
<th>AMMONIA</th>
<th>ALBUMINOID AMMONIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grains per Gallon.</td>
<td>Parts per Million.</td>
<td>Remarks</td>
<td></td>
</tr>
<tr>
<td>No. 1. Taken from the canal near head-works at 4 P.M. 11th June 1878.</td>
<td>7-70</td>
<td>0-42</td>
<td>0-16</td>
</tr>
<tr>
<td>No. 2. Taken from the canal near St. Mary's Church, Poona, 10 A.M. 12th June 1878.</td>
<td>5-25</td>
<td>0-42</td>
<td>0-04</td>
</tr>
<tr>
<td>No. 3. Taken from dispense reservoirs at 10 A.M. 12th June 1878.</td>
<td>5-00</td>
<td>0-42</td>
<td>0-06</td>
</tr>
<tr>
<td>No. 1. Taken from the canal near head-works at 6 P.M. 20th March 1879.</td>
<td>5-60</td>
<td>0-42</td>
<td>0-04</td>
</tr>
<tr>
<td>No. 2. Taken from the canal near St. Mary's Church at 6 A.M. 31st March 1879.</td>
<td>5-25</td>
<td>0-42</td>
<td>0-04</td>
</tr>
<tr>
<td>No. 3. Taken from dispense reservoirs at 6 P.M. on 21st March 1879.</td>
<td>5-60</td>
<td>0-42</td>
<td>0-02</td>
</tr>
<tr>
<td>No. 1. Taken from the canal near head-works at 6 P.M. on 23rd January 1880.</td>
<td>4-20</td>
<td>0-70</td>
<td>0-05</td>
</tr>
<tr>
<td>No. 2. Taken from the canal near St. Mary's Church at 6 A.M. 26th January 1880.</td>
<td>3-59</td>
<td>0-70</td>
<td>0-05</td>
</tr>
<tr>
<td>No. 3. Taken from the canal from distribution pipe in Poona at 6 P.M. on the 26th January 1880.</td>
<td>4-99</td>
<td>0-70</td>
<td>...</td>
</tr>
</tbody>
</table>
and covered dispense-reservoirs of the high and middle service systems. From the canal itself low service mains and branches are led off. For irrigation beyond Poona there is provision for complete distribution. The total estimated cost of the works, including the Poona water-supply and indirect charges, that is capitalization of abatement of land revenue leave and pension allowances and interest on direct outlay, is £937,436 (Rs. 98,74,360). The works were partly completed in November 1873. Enough of the dam and waste weir was completed to store the water of the lake twelve feet above the level of the canal sluices and the canal was nearly finished to Poona. At first water was supplied only for house purposes in Poona. In February 1874 it was made available for crops, the area under command up to Poona being 3040 acres. Before June 1874, the depth of storage was increased to fourteen feet and the distribution arrangements in the station of Poona were begun, and with the exception of the high service distribution were completed during the two following years. By 1877-78 the depth of storage was increased to twenty-five feet. The right-bank canal earthworks were completed as far as the sixty-fourth mile, but water was admitted only as far as the forty-fourth mile. By the fifteenth of January 1878 the eighteen miles of the left-bank canal were opened; commanding 3500 acres, and the high service distribution for water-supply to the station of Poona was completed. In 1879-80 the parapet of the dam at Lake Fife and the earthwork on the rear side of the dam were completed. The unfinished parts of the waste weir were raised by temporary earthen banks so as to impound water up to the full supply level, twenty-nine feet above the sill of the sluices. The masonry works on the right-bank canal were completed and water admitted as far as the sixty-fifth mile. By 1882 the waste weir was completed with the exception of 500 feet at the west end, which was one foot below full supply level; the masonry works of the seventh portion to Pátas were completed and the whole of the 69½ miles of the right-bank canal were made available for use, thus practically completing the work. The following statement compares the areas irrigated and assessed, and the actual revenue, working expenses, and net revenue during the nine years ending 1881-82:

**MUTHA CANALS RECEIPTS, 1873-1882.**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>AREA WATERED</th>
<th>ASSESSMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1873-74</td>
<td>44</td>
<td>£16</td>
</tr>
<tr>
<td>1874-75</td>
<td>85</td>
<td>32</td>
</tr>
<tr>
<td>1875-76</td>
<td>732</td>
<td>303</td>
</tr>
<tr>
<td>1876-77</td>
<td>2034</td>
<td>1137</td>
</tr>
<tr>
<td>1877-78</td>
<td>5301</td>
<td>2875</td>
</tr>
<tr>
<td>1878-79</td>
<td>4913</td>
<td>2899</td>
</tr>
<tr>
<td>1879-80</td>
<td>7029</td>
<td>4665</td>
</tr>
<tr>
<td>1880-81</td>
<td>11,201</td>
<td>5854</td>
</tr>
<tr>
<td>1881-82</td>
<td>8973</td>
<td>6070</td>
</tr>
<tr>
<td>Total</td>
<td>41,662</td>
<td>23,274</td>
</tr>
</tbody>
</table>
MUTHA CANALS RECEIPTS, 1873-1882—continued.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Water Charges</th>
<th>Town Water</th>
<th>Other</th>
<th>Total</th>
<th>Savings</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1873-74</td>
<td>£2</td>
<td>£2</td>
<td></td>
<td>£4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1874-75</td>
<td>£16</td>
<td>£57</td>
<td>£206</td>
<td>£222</td>
<td>£216</td>
<td>£216</td>
</tr>
<tr>
<td>1875-76</td>
<td>£81</td>
<td>£235</td>
<td>£295</td>
<td>£586</td>
<td>£534</td>
<td>£534</td>
</tr>
<tr>
<td>1876-77</td>
<td>£108</td>
<td>£10,963</td>
<td>£60</td>
<td>£12,963</td>
<td>£925</td>
<td>£925</td>
</tr>
<tr>
<td>1877-78</td>
<td>£261</td>
<td>£615</td>
<td>£39</td>
<td>£816</td>
<td>£784</td>
<td>£784</td>
</tr>
<tr>
<td>1878-79</td>
<td>£292</td>
<td>£372</td>
<td>£69</td>
<td>£463</td>
<td>£531</td>
<td>£531</td>
</tr>
<tr>
<td>1879-80</td>
<td>£432</td>
<td>£679</td>
<td>£129</td>
<td>£1,030</td>
<td>£909</td>
<td>£909</td>
</tr>
<tr>
<td>1880-81</td>
<td>£732</td>
<td>£679</td>
<td>£131</td>
<td>£1,542</td>
<td>£1,542</td>
<td>£1,542</td>
</tr>
<tr>
<td>1881-82</td>
<td>£1,044</td>
<td>£42,687</td>
<td>£724</td>
<td>£45,095</td>
<td>£3,235</td>
<td>£3,235</td>
</tr>
</tbody>
</table>

The following statement gives a comparison of the area watered and the rainfall during the same period:

MUTHA CANALS IRRIGATION AND RAINFALL, 1873-1882.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>IRRIGATION</th>
<th>RAINFALL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Early</td>
<td>Late</td>
</tr>
<tr>
<td>1873-74</td>
<td>1</td>
<td>44</td>
</tr>
<tr>
<td>1874-75</td>
<td>401</td>
<td>331</td>
</tr>
<tr>
<td>1875-76</td>
<td>288</td>
<td>172</td>
</tr>
<tr>
<td>1876-77</td>
<td>292</td>
<td>227</td>
</tr>
<tr>
<td>1877-78</td>
<td>2695</td>
<td>2696</td>
</tr>
<tr>
<td>1878-79</td>
<td>2225</td>
<td>2288</td>
</tr>
<tr>
<td>1879-80</td>
<td>3320</td>
<td>2397</td>
</tr>
<tr>
<td>1880-81</td>
<td>4466</td>
<td>4517</td>
</tr>
</tbody>
</table>

In 1880-81 the area watered was sixty-six per cent greater than in 1879-80. This was partly due to short rainfall but mostly to the extension of distributing channels. In 1880-81 the crops irrigated under the canals were cereals 8339 acres, pulses 967 acres, sugarcane 1966 acres, and other garden produce 929 acres. The irrigation rates at present in force belong to five classes with an acre charge on the first class of £1 to £2 10s. (Rs.10-25), on the second of 8s. to 10s. (Rs.4-5), on the third of 8s. to 4s. (Rs.1½-2), on the fourth of 6d. to 1s. (4-8 as.), and on the fifth of 9d. (6 as.). After the opening of the Mutha canals the amount of vegetables and green fruits booked at the Poona station rose from 4574 tons (128,094 mams) in 1871 to 7008 tons (196,236 mams) in 1876. The first effect of the opening of the canal was that the people gave up their wells and took to canal water. Of ninety-nine wells on the lands commanded by the canal by the end of 1876 sixty-five had ceased to be used. Since its opening the sowing of bābhul seed and the planting of trees along the banks of the canal have been steadily carried on. In some places the trees have grown freely and the line of the canal is marked by a belt of green. Other places are too rocky for trees. Still year by year as the sowing of bābhul seed is persevered with the breaks in the line are gradually becoming fewer and shorter. The Mutha canals project is in every respect the most promising of the water-works yet undertaken in the Deccan. The
rapid spread of irrigation has been satisfactory, and there can be little doubt that it will ere long pay the interest on its borrowed capital. So much of the canal passes through crumbly trap or murrum that loss from leakage is serious and somewhat interferes with the original estimate of the area which the canal can water. Besides the direct receipts the canal confers many indirect gains on the country through which it passes. Villages in which during the greater part of the year there was formerly a great scarcity of water have now an abundant supply for drinking and for cattle.

A white marble tablet with the following inscription cut in black letters, and a companion Marathi tablet, have been let into the bridge by which the right bank canal crosses the Sholapur road about thirty-eight miles east of Poona:

\[\text{V. R. ET I.} \]

\[\text{THE MUTHA CANAL} \]

Supplied by Lake Fife situated 10 miles west of Poona, Extends to Patas, in the Bhimthadi Taluka. Its total length is 69i miles.

The earthworks of this section, extending from 29 to 69i miles, afforded employment for the people during the Famine of 1876-77. On an average, 10,000 people of all ages were employed daily for a period of fourteen months, the highest number on any one day being 21,000. The expenditure was Rs. 3,90,000 on wages and charitable relief, and the value of the work executed was Rs. 2,17,000.

The masonry works were subsequently completed, and water was admitted up to the 65th mile in September 1879.


The Nira Canal is designed to irrigate the left bank of the Nira valley and a part of the Bhima valley near the meeting of the two rivers, to supply towns and villages along the valley with water for household purposes wherever the wells are insufficient or brackish, and to utilize the water power that will be generated at the headworks and near the tail of the canal at Indapur. In 1864, as part of his inquiry into the best means of protecting East Poona from famine Colonel Fife, R. E., organised surveys of the Nira river. These surveys showed that by starting near Shirval about thirty-two miles south of Poona, a canal would reach the parts of Bhimthadi and Indapur which chiefly required water. Nothing further appears to have been done till January 1868, when, in consequence of a threatened failure of crops, a committee consisting of Colonel Francis, Survey and Settlement Commissioner Northern Division, Mr. J. E. Oliphant C. S., Collector of Poona, and the late Lieutenant Buckle, R. E., Executive Engineer for Irrigation, were appointed to consider what survey operations should be undertaken for irrigational works.

1 Contributed by Mr. J. E. Whiting, M.A., M.Inst.C.E., Executive Engineer for Irrigation Nira Canal.
This committee reported that the tract most deserving of attention was the part of Indapur which lies between the Bhima and the Nira. In this tract the annual rainfall was so uncertain and capricious that the crops frequently failed several years in succession; it might with reason be termed a drought-stricken region. In these opinions Mr. A. F. Bellasis, C. S. the Revenue Commissioner concurred and Mr. J. W. Hadow, C. S. Revenue Commissioner Southern Division, in forwarding Colonel Francis’ report, speaks of Indapur as having a worse rainfall than almost any part of the Deccan or of the Bombay Karnátak. In consequence of these recommendations in 1868 the surveys of the Nira project were resumed by Lieutenant Buckle. At the close of 1868 the Mutha works required Lieutenant Buckle’s whole attention, and early in 1869 Mr. J. E. Whiting, M. A. M.Inst.C.E., was appointed to the survey under Colonel Fife’s orders. Detailed surveys for the canal alignment, the choice of the site for the reservoir and the site for the canal headworks, together with the making of plans and estimates and writing the final report, occupied Mr. Whiting and his staff for two and a half years. During this period, in consequence of a severe drought, fifty per cent remissions were granted in forty-three dry-crop villages and twenty-five per cent in thirteen other villages of Indapur. The plans had been reviewed by the Chief Engineer, but further progress was stopped by order of the Government of India. Mr. Whiting was appointed Executive Engineer for Irrigation in Poona, and nothing more was done until the failure of rain in 1876. Towards the close of 1876 Mr. Whiting, with four of the staff that had formerly helped in making the Nira surveys, was sent to recover the old line and to modify the plans so as to make the work suitable for famine relief. Early in 1877 earthworks were opened for gangs sent by the Collectors of Sholapur, Sátára, and Poona. The numbers rapidly rose from 5000 to 24,132 persons, who, with their sick and children, were employed or received relief on the Nira canal. Towards the end of 1877 as the famine was over relief-works were closed; but the high price of grain caused so much distress that for six months in 1878 relief-works had to be re-opened on the Nira canal and again on account of damage done to the crops by rats in 1879. The relief-works were finally closed in March 1880. During twenty-six months they had given employment to an average of 8096 persons of all ages. Mr. Moore, C. S. Collector of Poona, Mr. Richey, C. S. acting Collector, and Mr. Robertson, C. S. Revenue Commissioner Central Division, urged the necessity of completing the works. Petitions from forty-six villages representing over 60,000 acres of land in Indapur were received praying for the early construction of the canal and promising to pay the water rates. The matter was strongly pressed by the Government of Bombay and their views were submitted by the Government of India to the Secretary of State in August 1880. Sanction to complete the head-works and the first thirty-five miles of the canal from ordinary funds was granted by the Secretary of State in November 1880. In 1881 the Government of India accorded sanction to the first two stages of the Nira canal project as a protective work at an estimated cost of £415,000 (Rs. 41½ lakhs). Of this £80,000 (Rs. 8 lakhs) had been
spent. To complete the project funds were provided from the grant for Protective Public Works and the execution of the project was entrusted to Mr. Whiting, Executive Engineer 1st Grade, Mr. J. H. E. Hart being Chief Engineer for Irrigation.

The Nira canal lies along the left bank of the Nira river. It has a length of 103 miles exclusive of distributing channels, and commands 280,000 acres of arable land in ninety villages in the Purandhar, Bhimthadi, and Indápur sub-divisions. The works will furnish an unfailing supply of water to 106,500 acres. The Nira and its three large feeders rise in the Sahyádris and up to the canal head have a catchment area of over 700 square miles. During the south-west monsoon, that is from mid-June to mid-October, the Nira continuously discharges far more water than can be used in the canal. It has also in ordinary seasons a considerable flow to the end of December. To ensure the supply during the rest of the dry season very extensive storage works were required. A reservoir nineteen miles long and with an area of 7¼ square miles, or nearly two square miles more than the area of Lake Fife, is to be formed on the Velvandi, a feeder of the Nira, at Bhátghar near the town of Bhor by a masonry dam over 3000 feet long and over 100 feet high. This lake will have a capacity of 4641 million cubic feet, which by the use of falling shutters designed for the weir can be increased to 5500 millions. This gives a storage cost of £18 2s. (Rs. 181) per million cubic feet, a low rate compared with the cost in other reservoirs. Twenty large under-sluices are provided to carry off the early silt-laden floods. The headworks of the canal are at Virvádí in Purandhar, nineteen miles further down the river, where a weir of concrete faced with rubble masonry forty-two feet high and 2300 feet long and backed by subsidiary weirs about half its height has been built across the Nira and the Vir near their meeting. This will raise the water to the full supply level in the canal, to which it will be admitted by large iron sluice gates. The supply basin above the weir will extend about eleven miles to Shirval, which is half-way between Vir and Bhátghar. After leaving Vir the canal crosses the old Sátára road about two miles north of the Nira bridge and passes above all the larger villages in the valley. These are, Vadgaon at the 26th mile, Korhále at the 29th mile, Pandar at the 35th, Málégaon at the 40th, Bárámáti at the 48th, Sansar at the 64th, Háturne at the 76th, Shelgaon at the 81st, Gotundi at the 87th, and Nimgaon at the 92nd. Near Nimgaon the canal crosses the water-shed above the town of Indápur into the Bhima valley and ends at Bijávdi at the 77th mile of the Poona and Sholápur road. The Mutha right bank canal ends near the 40th mile of that road and the Shirupsphal and Bhádalvádi reservoirs with their distributaries have been constructed between the ends of the two chief irrigation canals. In addition to the Nira canal two large reservoirs have been designed, one just above the town of Indápur and the other at Vadápuri near Nimgaon. These have little or no natural catchments, but will be filled from the canal during the south-west monsoon and will thus increase the supply available during the dry weather at the end of the valley, most distant from the main reservoir at Bhátghar. A branch canal
has also been proposed, which will leave the main canal near Pandar at the thirty-fourth mile, and cross the river Nira at Kamleshvar in order to water the drought-stricken sub-division of Malsiras in Sholapur on the right bank of the valley. These extra works and the necessary widening of the canal will probably be undertaken only if famine breaks out afresh and if employment is again required for the relief of neighbouring sub-divisions or if the demand for water under the canal exceeds the supply available from the first two stages, namely the Bhátghar reservoir and the present canal.

In many places the hilly nature of the ground has made the course of the canal winding. In several cases, as at Korhále, Málegaon, and Níngaon, rocky spurs have been cut through to avoid long detours. At those places the cuttings are thirty-five feet deep at the centre and half a mile long. Many large watercourses had also to be crossed so that twenty aqueducts, ninety-four culverts, and nine over-passages had to be constructed. Of the watercourses the largest is the Karhá, which drains 440 square miles and has a steep and generally rocky bed. The canal crosses it at the forty-fifth mile near Bárámáti by an aqueduct of thirteen spans of thirty feet and twenty-three feet headway. This is probably the most favourable crossing in India of a large and dangerous torrent by an aqueduct. The over-passages are of somewhat novel design and appear like huge inverts over which the streams are passed while the canal runs underneath, through double galleries arched across. In two of the over-passages, one near Vadgaon and one at Pandar, the inverts have a span of ninety feet. There are thirty-seven road and accommodation bridges and several foot and cattle bridges. Most of the aqueducts and culverts have been made so as to allow carts or cattle to pass under them, so that on an average there is some crossing provided at about every half mile of the canal. First class bungalows have been built at Bhátghar, at Virvádi, and at Bárámáti, and smaller bungalows at the Níra bridge, Vadgaon, Pandar, Sansar, Háturne, Gotundi, and Tarangvádi. The population of the valley has greatly decreased of late years, but the soil is generally good and capable of maintaining a much larger population than it now supports. It is expected that the first fifty-two miles of the canal will be opened so as to utilize the Níra water in the monsoon of 1884. There can be little doubt that when the valley is protected from drought capital will flow into it and enable the people to utilize the water to the utmost. It is hoped that this canal, whose primary object is to protect the area under command from the effects of drought, will ultimately develop a net revenue more than enough to cover the interest on the outlay.

A white marble tablet with the following inscription cut in black letters and a companion Maráthi tablet have been set at the canal headworks twenty miles east of Bhátghar:

V. R. ET I.

THE NÍRA CANAL.

Designed for the irrigation of the lands of 90 villages.
On the left bank of the Níra River.
Comprising a culturable area of 437 square miles.
DISTRICTS.

Is 103 miles in length, excluding branches.
Its supply is rendered perennial by a storage lake at Bhatghar on the Velwandri river, 20 miles west of this place.

The canal was commenced for the employment of the people during the Famine in 1876-77. For twenty-six months an average of 8096 persons of all ages were employed, the highest number in any one day being 24,132. The expenditure was Rs. 7,556,873 on wages and charitable relief. The value of the work executed was Rs. 5,00,305.

On the cessation of the distress caused by the Famine and subsequent period of high prices, the works were suspended in March 1880. They were resumed in January 1881, and the canal was first opened for irrigation in 1884. J. E. Whiting, M.A., M.Inst.C.E., Executive Engineer, Nira Canal.

At Kásurdi in Bhimthadi, twenty-four miles east of Poona, at a cost of £1182 8s. (Rs.11,824) a reservoir was made in 1838 under the advice of the Revenue Commissioner Mr. Williamson. In 1843, the whole of the earthen embankment was washed away, but the masonry was unhurt. Its restoration was begun by the irrigation department as a famine relief work in 1864, and it was completed as an ordinary work when the necessity for relief ceased. It is a small reservoir, dependent for its supply on the local rainfall over an area of six square miles. It was finished to test the value of reservoirs which depended for their supply on local rainfall. The restored reservoir holds 14½ millions of cubic feet of water and is furnished with two distributing channels commanding 585 acres. The work was finished in 1869 and the pond was filled for the first time in August of that year. The total cost was £4749 12s. (Rs. 47,496), that is at the rate of £8 (Rs.80) on every acre under command. From 1869 to 1883 the supply has been most uncertain. In some years the reservoir has filled; in others it has remained almost dry. The irrigation rates at present in force are the same as those sanctioned for the Mutha canal beyond the eight mile radius from Poona. Bábhul seed has been sown below the embankment and has thriven fairly. A few trees of other kinds have also been planted. As this work depends for its supply on a restricted area in a tract of very uncertain rainfall, the results can never be satisfactory.

In the village of Pimpalgaon in Bhimthadi, twenty-eight miles east of Poona, near the railway station of Yevat, a reservoir called Mátoo after a neighbouring temple of Mátoo or Matakmal, was made in 1876-77. The reservoir is designed to store the surplus waters of the right bank Mutha canal and water the land between it and the Mutha-Mula river. At full supply level it has an area of 470 acres and a capacity of 229 millions of cubic feet. The site was chosen and surveyed by Colonel Fife, R. E., in 1863, when examining the best means for irrigating the country east of Poona. As the Mutha canal project was undertaken, the scheme for the Mátoo reservoir

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1 Mr. Whiting mentions the names of Messrs. E. Behrman, assistant engineer, D. Henry and Bárjí Trimbak sub-engineers, Rokmájí Naráyán, supervisor, and Ganesh Janárdan and Naráyán Vishnu overseers. The chief contractor was a Nágar Bráhman of Surat named Navtamáram Úttamáram.
was laid aside. In 1876-77, when famine relief works were started, the Executive Engineer for Poona, Mr. Clerke, revised the plans and estimates and recommended the project because as the Mutha right-bank canal passes close above the site of the lake it would form an auxiliary to the canal, whose surplus waters might during the south-west monsoon be stored for use in the dry season. The work was begun in December 1876 and completed almost entirely by famine labour in August 1877. The reservoir is formed by an earthen dam 6095 feet long and forty-eight feet in greatest height. The full supply level is nine feet below the top of the dam. The waste weir on the left flank of the dam is 600 feet long. The cutlet whose level is ten feet above the bottom consists of a masonry culvert under the dam where it abuts on the right flank and three twelve-inch iron sluice valves of the ordinary pattern in use for watersupply mains. These valves are attached to lengths of pipes set in concrete at the inner end of the culvert and are worked by iron rods laid along the dam slope. The main distributing channel is $1\frac{1}{4}$ miles long and is capable of discharging twenty-six cubic feet a second. It has a main branch to the village of Pimpalgaon which again divides into two branches of a total length of six miles. Of 8550 acres under command, 3600 acres are in Pimpalgaon, 2900 in Delavdi, fifty in Khatbáí, and 2000 in Párgaon. The catchment area is only ten square miles and the average rainfall under twenty inches, but with the aid of the surplus water from the right bank Mutha canal the monsoon demand for water can be supplied and the reservoir can always be left full in October when the south-west monsoon closes. A regulating bridge is built across the Mutha canal at the 49\textsuperscript{2}3\textsubscript{4} mile from Poona by which the water in the canal can at any time be turned into the reservoir. From the fifth of August 1878 water from the Mutha canal began to be available. The irrigation rates at present in force are the same as those sanctioned for the Mutha canals beyond the eight mile radius from Poona. For a length of four miles the boundary of the land taken for the reservoir is fenced with aloe. The margin above the water level has been sown with bábhul seed, which at the upper end has grown remarkably well.

A white marble tablet with the following inscription carved in black letters and a companion Maráthí tablet have been set at the west end of the dam:

\[
V. R. ET I.
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THE MATOBA TANK

Designed for storing surplus water from the Mutha Canal and irrigating the tract of land lying between the Tank and the Mutha-Mula River

Has an area of 470 acres and a capacity of 229 millions of cubic feet.

The earthworks of the dam were commenced for the employment of the people during the Famine of 1876-77.

For eighteen months they afforded employment for, on an average, 3100 people of all ages, the highest number on any one day being 8800.
One and a half miles above the Bhimthadi village of Rávangaon, fifty miles east of Poona, on the Rotimal, a small feeder, is the Shirnphal reservoir called after the village of that name three miles further up the stream. The reservoir was designed to water the lands on the left bank of the Rotimal. At full supply it has an area of 834 acres and a capacity of 367 millions of cubic feet. In January 1877, when it became necessary to provide work for the destitute people of East Poona, plans and estimates were prepared by Mr. Clerke the Executive Engineer for Irrigation. Work was begun in February 1877 and finished in October 1878. The dam is of earth, 2200 feet long and fifty-three feet in greatest height. The full supply level is eleven feet below the top of the dam, and the outlet level is eleven feet above the bottom of the reservoir. The waste weir channel, which is on the right flank of the dam, is 300 feet wide. The outlet, a masonry culvert under the dam where it abuts on the right flank and three twelve-inch iron sluice valves, is of the same pattern as that described for the Mátoba reservoir. The canal leading from the reservoir is 12½ miles long, with a fall of three feet a mile and a discharging capacity at the head of thirty cubic feet a second. Of 4500 acres under command 800 are in Rávangaon, 1500 in Kharki, and 2200 in Chincholi. The catchment basin has an area of twenty-three square miles, with an average rainfall of eighteen to twenty inches. The reservoir fills only during years in which the rainfall is considerably above the average, but the additional storage capacity admits of the supply of favourable years being stored for use in years of short rainfall and thus ensures a large average supply. In 1880-81 the irrigated crops were cereals 661 acres, pulses 55 acres, sugarcane 4 acres, garden produce 4 acres, and condiments 14 acres. The water rates at present in force are based on the classified lists sanctioned for the Mutha canals. There are five classes with an acre charge on the first class of £1 (Rs. 10), on the second of 8s. (Rs. 4), on the third of 4s. (Rs. 2), on the fourth of 2s. (Rs. 1), and on the fifth of 8s. (Rs. 4). The margin of the reservoir above the line of full supply has been fenced with aloe and sown with bábhul seed, but owing to the stony soil the bábhul has not done well. Bábhul seed sown below the dam has thriven remarkably well and now forms a belt of good-sized trees. As the rainfall on the catchment is very uncertain the supply of water is precarious and in some years the irrigation has to be much restricted; this is to be regretted as the holders of the land commanded by the reservoir have shown themselves anxious to obtain a supply of water.

A white marble tablet with the following inscription cut in black letters and a companion Maráthí tablet have been set at the west end of the dam:
POONA.

V. R. ET I.

THE SHIRSUPHAL TANK.

Designed for the irrigation of the lands lying on the Left Bank of the Rotimal Nala,
Has an area of 834 acres and a capacity of 387 millions of cubic feet.

The earthworks of the dam were commenced for the employment of the people during the Famine of 1876-77.

For sixteen months they afforded employment for, on an average, 2400 people of all ages, the highest number on any one day being 9000.
The expenditure was Rs. 1,58,000 on wages and charitable relief, and the value of the work executed was Rs. 1,45,000.

The Tank was completed and opened for Irrigation in October 1878.

William Clerke, C.E., Executive Engineer for Irrigation, Poona Division.

In the Indápur village of Bhádalvádi, on a feeder of the Bhima, about sixty-four miles east of Poona, the Bhádalvádi reservoir was begun as a relief work in the famine of 1876-77, and finished and opened for irrigation in May 1881. It was designed to water the lands of the villages of Daluj and Palasdev. At full supply it has an area of 335 acres and a capacity of 222 millions of cubic feet. It is formed by an earthen dam 2725 feet long and fifty-five feet at its greatest height. The drainage area above the dam is twenty-three square miles. During the five years ending 1882-83 the average rainfall has been 21.53 inches. The waste weir on the left flank is 400 feet long with a crest eleven feet below the top of the dam.

A white marble tablet with the following inscription cut in black letters and a companion Maráthi tablet have been set at the north end of the dam:

V. R. ET I.

THE BHADALVADI TANK

Designed for the irrigation of lands in the villages of Daluj and Palasdev.
Has an area of 335 acres and a capacity of 222 millions of cubic feet.

The earthworks of the dam were commenced for the employment of the people during the Famine of 1876-77.

For twelve months they afforded employment for, on an average, 1600 people of all ages, the highest number on any one day being 5400.
The expenditure was Rs. 54,000 on wages and charitable relief, and the value of the work executed was Rs. 48,000.

The Tank was completed and opened for Irrigation in May 1881.

William Clerke, M.Inst.C.E., Executive Engineer for Irrigation, Poona.

The outlet, which is on the right flank of the dam, is of similar construction to those described in the Mátoba and Shirsuphal reservoirs. Its sill is thirty-five feet below full supply level. From it a
canal or distributing channel, with, at the head a discharging capacity of fifteen cubic feet the second, is led 6½ miles along the right bank of the stream. The area under command is 1900 acres. A distributing channel heading from the same outlet in the left bank of the stream is also projected. Its length will be 3½ miles and it will command 1100 acres. The work was opened in 1881. The irrigation rates are the same as those mentioned under the Shirsuphal reservoir.

Besides these works designed for irrigation, there are two large reservoirs at Kátraj and Páshán and two more at Pátas and Supa. The Pátas and Supa reservoirs were made as relief works during the 1876-77 famine.

In the high land about two miles to the north of the Kátraj pass and about six miles south of Poona is the Kátraj lake, which was built in 1750 by Peshwa Báláji Bajírào. It covers an area of 5½ acres and has a dam of rubble masonry 1000 feet long and forty feet high. It holds water all the year round and has a greatest depth of forty feet. The water is used only for drinking. Masonry conduits lead to Poona where there are cisterns or hauḍás in different parts of the town.

In the Bhimthadi village of Pátas, about thirty-seven miles east of Poona, a reservoir was begun as a famine relief work in January 1877 and finished in 1879. It is a small reservoir with a full supply area of forty-six acres, a capacity of fifteen millions of cubic feet, and a catchment area of three square miles. The earthen dam is 2900 feet long and twenty-nine feet in greatest height. The waste weir is 170 feet long and is seven feet below the top of the dam. The total cost was £3400 (Rs. 34,000). The site is very unfavourable and the cost is out of proportion to the capacity of the reservoir. Its only use is to provide water for house purposes and cattle in the village of Pátas. It was carried out only to afford relief which was urgently needed.

About one mile north-west of the Bhimthadi village of Supa and thirty-five miles east of Poona, the Supa reservoir was begun as a famine relief work in November 1876 and finished in 1877. An earthen dam is laid across a gap in an old embankment thrown up from the excavation of a small pond many years old. The total cost was £220 (Rs. 2200). This is a trifling work useful only for cattle. It was carried out solely to relieve distress in the immediate neighbourhood.

On a feeder of the Mula in the village of Páshán six miles west of Poona a reservoir was made in 1867-68 at a cost of £16,700 (Rs. 1,67,000) to furnish water for the station of Kirkee and Government House, Ganeshkhind. It is formed by an earthen dam 2750 feet in length with a greatest height of fifty-two feet. The waste weir is 400 feet long and its crest is ten feet below the top of the dam. The full supply area of the lake is 153 acres. Its available capacity is seventy-three millions of cubic feet, and the catchment area is sixteen square miles. The water is led from the reservoir in a ten-inch cast-iron main which goes through the Government House grounds, by the cantonment of Kirkee, on to the Powder Works. The water is fully distributed in Government
House and in Kirkee barracks and cantonment. It was of great use before the left bank Mutha canal was made.

There are two modes of weeding, by a sickle or *khurpe* which is generally practised in hill-lands, and by a small hoe or *kulpe*. When the crop is six inches high, to clear it of weeds, the small hoe or *kulpe* is usually used twice at intervals of ten to twelve days. The hoe is drawn by two muzzled oxen and is driven so that the row of springing crop passes through the space between the blades. It is often used double, that is one pair of oxen draw two hoes. The uprooted weeds are gathered and are either thrown away or left to rot on the spot. Besides lessening the drain on the soil, weeding loosens the soil and enables it to take in and hold more moisture. The crop roots have free scope and the plants grow vigorously. If weeding is neglected the surface grows hard and crusted and the water failing to soak in washes away the particles of soil. Cold-weather crops seldom want weeding, as the ground is both too carefully cleaned and too dry to yield any large supply of weeds. Mālis are the cleanest weeder; Kunbis, especially in the east, are careless.

From the time the grain forms, to drive off birds the crop is watched from a wooden shed called *māla* generally set on a platform or in a tree about ten feet from the ground. The watcher, who is generally a boy, shouts and throws stones from a sling called *gophan*.

When ripe the crop is either reaped by the sickle or *vila* or pulled up by the roots, and bound in sheaves. It is carried in carts to the thrashing-floor or *khale* and stored there till it is dry. The largest and best filled heads are separated and their grain kept for seed. In the sowing season this seed grain realizes half as much again as ordinary grain.

The crops are taken in carts to the thrashing-floor or *khale*. The thrashing-floor is made in the hardest part of the field or sometimes near the village site, by wetting and beating the ground till it is hard and smooth, and then smearing it with cowdung. An upright post or *tivda* is set in the centre and a sheaf of the crop is tied to the top of the post. In the case of Indian millet or *jvāri* and spiked millet or *bājri* the heads of grain are broken off by women and thrown round the central post five or six inches deep; of wheat and rice the whole plant is thrashed; and of *math*, *mug*, and other pulses sometimes the whole plant and sometimes only the stalks are thrashed. Six, eight, or more muzzled oxen are tied to the pole, half on one side half on the other, facing opposite ways, and driven round and round treading out the grain. *Tur* pods and barley heads are beaten against a log of wood so that the grain falls on the floor.

The grain is winnowed from the chaff with the help of the wind. The chaff is filled into baskets which are handed by one man to a second man who stands on a high three-legged stool called *vādū* and empties the basket slowly with a shaking motion. The heavy grain falls, the light grain and chaff are blown aside. A man at the foot of the stool sweeps the chaff from the edge of the grain with a small broom called *hātnī*. To cleanse it still further the grain is afterwards passed through a sieve or *chālan*. 
In the east grain is often stored in underground chambers or 
pevs. Grain is also often in the east and always in the west stored 
in large cylindrical baskets called kanings or kangiis made of 
nirgundi or tur twigs and smeared inside and out with cowdung. 
The surface of the grain is also thick plastered with cowdung and the 
basket is covered with a conical thatch roof. In the west, the baskets 
stand at some little distance in front of the house for safety from 
fire, with a few loose stones under them to keep out white ants. In 
the east they usually stand in the veranda of the house.

In the lighter eastern soils as many as six grains may be seen 
growing together year after year. A field with one crop is seldom 
seen. In the May or June sowings bájri, tur, ambádi, gingelly seed, 
rála, mug, and shálú jvári may all or almost all be seen together. 
In the late crops, safflower is almost always mixed with the staple 
crop gram or shálú jvári. Linseed is sown in rows with gram and 
wheat. The practice of mixed sowings arises chiefly from the poverty 
which dares not risk the total failure of a single crop. It was fostered 
by a custom which prevailed under former Governments of attaching 
the staple crop until the assessment was paid. In such a case the 
Kunbi could still make something out of a mixed crop.

Wood-ash tillage, called dalhi or kumrī, is confined to the hilly 
west. The word dalhi is taken from the small hill-side plots or 
dalhás where none but hand tools can be used. The spots 
cultivated are often extremely steep. Operations are begun in 
the cold weather by felling the brushwood and small trees and lopping 
the branches of the larger trees. At the end of the hot weather 
the dry branches are burnt and the ground is at once cleared and 
manured. After rain has fallen the soil is loosened with the hand 
hoe or kodal and the crop is planted or sown as the case may be. 
Khuránsí, nágli, sáva, várí, and kodra or harik are the crops. 
Tillage is generally continued for five years beginning with khurmánsí 
and ending with kodru. The subsequent fallow lasts ten to fifteen 
years. This form of tillage was never practised except by Kolis, 
Thákurs, and other half-wild tribes. It is now confined within very 
narrow limits.

Rotation of crops is not unknown though the practice of mixed 
sowings robs it of half its value. In the lighter soils jvári and bájri 
mixed as above alternate, the plough being used after jvári on the 
borders of the west, and after bájri in the east. Bájri is often 
grown three or four years running; jvári is seldom repeated so 
often as it takes more out of the ground. In the heavy deep soils 
cold-weather millet or shálú jvári is grown for several years 
routing, relieved sometimes by a crop of gram or wheat. Where 
wheat is the staple late crop it alternates with gram, but is not 
grown year by year. In the west the rotation in early or kharif lands 
is more elaborate. Fallow land is ploughed and sown with khuránsí 
the first year, with nágli the second year, and with várí, sáva, rála, 
bháádi, or kodru the third and fourth years. In the fifth year 
khuránsí is again sown and the land is left fallow for four or five years. 
The land is ploughed before each crop, but, except in the nágli and 
várí seed beds no manure is used. This course of crops is sometimes
cut short by sowing <em>khurāsni</em> in the third year succeeded by the fallow. It is also occasionally prolonged a year or two with similar crops, <em>khurāsni</em> being always the last. Under the most favourable circumstances the rotation in gardens lasts three years. The course begins in July with <em>tāg</em> or hemp, <em>Hibiscus sabi</em>us, a crop which requires water about once in fifteen days. In October, after the larger plants have been picked and set aside for rope-making, the rest is ploughed into the ground as manure. The land is then flooded and left for twenty days, when it is ploughed twice and prepared for sugarcane. When the cane begins to sprout <em>vāl</em> pulse is sown. The sugarcane is cut in the following March, the leaves are lopped on the spot and burnt as soon as they are dry, and the land is flooded. The land is ploughed with shallow furrows and <em>vāl</em> is sown as fodder. The <em>vāl</em> is taken up before July when the land has to be prepared for <em>kamod</em> rice. The rice is sown in July and cut in December. After two or three ploughings wheat is sown and cut in the end of April. The land is now ploughed and lies uncropped till July when perhaps earthnuts are planted and dug up in October. This order is liable to many changes according to the varying qualities of soil, water-supply, and the circumstances and opinions of the husbandman. Sometimes <em>methi</em>, that is Greek grass, or <em>khurāsni</em> are ploughed into the soil instead of <em>tāg</em> or hemp, and a four-year or even a five-year rotation is followed. In well-watered lands a three-year rotation is not common, for, in addition to the expense of well irrigation, the water-supply lacks the power supplied by the combination and co-operation which are distinctive of canal watered lands.

In the plain parts of the district land is sometimes left fallow, but it is a question how far husbandmen leave plain land fallow simply for to rest it. The fallow in wood-ash or <em>dalhi</em> land is certainly with the object of resting the land and lasts ten to fifteen years.

1 The moderate climate and fertile soil of the Poona district offer every inducement to gardening. Yet the area under gardens is not large. Of late near Poona the best garden soil to a great extent has been given to the less troublesome and very profitable cultivation of sugarcane. This land will probably remain under sugarcane until it is exhausted of soluble silicates when it will doubtless be given to garden crops until it is again fit to bear sugarcane. The best garden soil is a dark brown friable loam lying on loose open trap rock. In such positions, if walls have been built to keep the soil over three feet deep, and water is available, it bears excellent crops of cabbage, cauliflower, beet, cucumber, radish, spinach of several kinds, and other nutritious vegetables, and custard apples, pomegranates, oranges, guavas, mangoes, plantains, and other fruit. Another very similar soil is found on river banks. This is also a dark-yellow or brown loam but its particles are finer and in consequence it is sometimes apt to hold too much water and to stick in hard lumps. Its situation makes it liable to floods, and it

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1 Mr. G. M. Woodrow, Superintendent Botanical Garden, Poona.
contains a very small proportion of lime. Still on the whole it is an admirable soil, specially suited for *popai* and plantain trees and flowering shrubs, and if it is some height above flood level is excellent for orange and mango trees. The black soil overlying open calcareous marl is also a valuable garden soil. With liberal manuring and watering it bears first-rate vegetables and flowers, but is less suited to fruit trees as they are apt to run to wood.

In preparing the soil even in market gardens the native plough is the favourite tool. When drawn by four pairs of willing oxen, and when the furrows cross and recross and pass as deep as fifteen inches below the surface, the native plough is remarkably efficient. Though it is costly to work it can be used during many days on which European and American ploughs must remain idle. A stout hoe, or *pdvde* and a small weeding-hook or *khurpe* almost complete the list of market garden tools; while in ornamental grounds the pick, rake, Dutch hoe, pruning shears, budding knife, watering pot, syringe, lawn-mowing machine, and other tools may be seen in use. The spade is seldom employed. The soil is so sticky when wet and so hard when dry, that the spade cannot often be used with advantage. In watering a garden plot the ground is laid out in ridges about fifteen inches apart and ten inches high, and the hollow between is flooded. The ground is also arranged in flat beds about ten feet by ten feet divided by one ridge or by a pair of ridges. The pair of ridges forms a water channel; and the single ridge separates one line of beds from the next line. The quantity of water given weekly averages in dry weather eighty tons the acre to plantains; sixty tons to cabbage, cauliflower, and other quick-growing garden crops; and forty tons to rose trees and similar crops. According to the age of the plant and the nature of the soil five to fifteen days pass between the waterings.

The chief garden manure is the ashes of cowdung cakes mixed with goat's dung and vegetable refuse. When kept in a pit so that it may be moist and yet not have its soluble constituents washed away by rain, this is an excellent manure and is applied to all garden crops. Poudrette prepared by mixing fresh nightsoil with dry cowdung and wood-ashes has of late come into general use. It is specially suited for quick-growing leaf or root crops such as cabbage, cauliflower, potatoes, plantains, and sugarcane, and for maize and flowering plants which require regular watering. Cowdung mixed with vegetable refuse which has been kept moist until it is well decayed is perhaps the safest and most generally useful garden manure. If the cattle are fed with oil-cake or grain it is particularly rich; in any case it is safe and gentle and can be used without fear of ill effects. Dried fish and castor-oil cake are also used for garden crops of rapid growth and are especially profitable when applied to cabbage, cauliflower, beet, and sugarcane.

The best seed-sowing season is about the end of June; the heavy rains with which the south-west monsoon bursts are over, and the air is cooled to a temperate warmth. At this season green fly and other insect pests abound, and so much care is required to protect young cabbage and cauliflower plants that their sowing is generally
put off till August or September. Beans, beet, brinjals, carrots, celery, cress, knob-kohl, lettuces, mustard, onions, parsley, peas, radishes, spinach, and tomatoes among vegetables; and asters, balsams, convolvulus, nasturtium, pinks, phlox, and many other flower seeds, and the seeds of all local trees or trees belonging to districts with a similar climate may be sown about the end of June and repeated at intervals for succession up to September. In the hot air of October good seed often fails. November and December are the proper seasons for sowing lucerne and asparagus, for planting potatoes, and most of the vegetables and flowers in the previous list; also for larkspur and mignonette. In February and March several kinds of melons are sown in river-beds where water is near the surface. In April, early crops of beet, celery, cucumbers, knob-kohl, lettuce, spinach, and tomato are sown. In sowing at this season great care must be taken to provide proper shade and moisture. If complete shelter from the impending burst of the south-west rains is available the April sowings may be repeated in May and annual flower seeds be sown in pots in moist shady places. Sweet-smelling flowers are grown to a large extent in market gardens. Among the commonest kinds are roses, jessamines called jai and mogra, the tuberose called guchhabu, chrysanthemums or shevris, and oleanders or haners. In rearing these flowers the chief rule is to keep the plant growing. With this object, as soon as one crop of flowers is gathered, the plants are pruned to within a few buds of the old wood, manure is dug in between the plants, and if the weather is dry the ground is watered. By this treatment three crops of flowers are raised in the year, but the plants soon grow weakly and have to be replaced, and the flowers are small. Michelia champaca, son chápha, Plumbieria acuminata chápha, Tagetes Marigold jhendi, Canna indica kardali, and Pandanus odoratissimus kevda are also grown as market flowers. The list of vegetables includes nearly all the chief kinds known in Europe. Several fine spinaches are raised from pokla Amaranthus, pálak Chenopodium, methi Fóenugrecem, and ambádi Hibiscus cannabinus. A large white radish or mula is grown for its roots, and the pods of the bhendi Hibiscus esculentus are a favourite crop. The chief fruit trees are the custard apple, pomegranate, fig, grape, mango, jámbhul, bor, and orange. The betel-leaf pán Piper betel is also grown in large quantities.

Among the commonest ornamental plants are allamanda, aloasia, beaumontia, begonia, bignonia, bougainvillea, caladium, convolvulus, cupresses, ferns, geranium, gesnera, hibiscus, nelumbium, nymphea, palms, poivrea, quisqualis, rose, and tabernœmontana.

The art of grafting by buds called handi, and grafting by enarching or kalam are practised to a limited extent. The better kinds of rose, orange, pomelo, and bor may be budded at any time during the rainy or cold season if the sap is flowing freely. Enarching or grafting by approach is employed to propagate the finer kinds of mango, guava, and bor. The true graft, that is uniting a branch entirely removed from its parent tree on to a
separate tree, is occasionally practised during November, to improve mango trees.

The use of the pruning knife is well understood. In pruning the rule followed in most cases is to cut back the shoot that has borne flowers or fruit to within a few buds from the base, and to remove weakly and decaying branches. Flowering shrubs of all kinds, the vine, and the fig tree are regularly pruned by cutting back the branches which have fruited. Other fruit trees are kept free from unsound wood.

The moving of small plants which can be guarded from strong wind and from the sun is carried on during the rainy season with success. To move large shrubs or trees the best time of the year is between November and January. In spite of the dryness of the cold season large trees can be moved more easily in Poona than in Europe.

The following are the chief details of the leading local field and garden crops. Of cereals there are thirteen:

<table>
<thead>
<tr>
<th>Proportion</th>
<th>NAME</th>
<th>Sown</th>
<th>Reaped</th>
</tr>
</thead>
<tbody>
<tr>
<td>74</td>
<td>Udid</td>
<td>May-June</td>
<td>August-September</td>
</tr>
<tr>
<td>13</td>
<td>Maize</td>
<td>Do</td>
<td>Do</td>
</tr>
<tr>
<td>32</td>
<td>Matki</td>
<td>Do</td>
<td>Do</td>
</tr>
<tr>
<td>23</td>
<td>Ral</td>
<td>Do</td>
<td>Do</td>
</tr>
<tr>
<td>63</td>
<td>Sitra</td>
<td>June-July</td>
<td>October</td>
</tr>
<tr>
<td>2</td>
<td>Tur</td>
<td>Do</td>
<td>Do</td>
</tr>
<tr>
<td>11</td>
<td>Bejri</td>
<td>Do</td>
<td>Do</td>
</tr>
<tr>
<td>1</td>
<td>Rice</td>
<td>Do</td>
<td>October-November</td>
</tr>
<tr>
<td>1</td>
<td>Nâ that or Nagri</td>
<td>Do</td>
<td>Do</td>
</tr>
<tr>
<td>1</td>
<td>Til</td>
<td>Do</td>
<td>September-October</td>
</tr>
<tr>
<td>1</td>
<td>Bhuddi</td>
<td>Do</td>
<td>Do</td>
</tr>
<tr>
<td>1</td>
<td>Fari</td>
<td>Do</td>
<td>Do</td>
</tr>
<tr>
<td>1</td>
<td>Bhejma</td>
<td>Do</td>
<td>Do</td>
</tr>
<tr>
<td>1</td>
<td>Wheat</td>
<td>September-October</td>
<td>December</td>
</tr>
<tr>
<td>1</td>
<td>Gram</td>
<td>Do</td>
<td>Do</td>
</tr>
<tr>
<td>1</td>
<td>Aâtan</td>
<td>October-November</td>
<td>Do</td>
</tr>
<tr>
<td>1</td>
<td>Haur</td>
<td>Do</td>
<td>Do</td>
</tr>
<tr>
<td>1</td>
<td>Math</td>
<td>June-July</td>
<td>Do</td>
</tr>
<tr>
<td>1</td>
<td>Hulga or Kâith</td>
<td>Do</td>
<td>Do</td>
</tr>
<tr>
<td>1</td>
<td>Sugarcane</td>
<td>Do</td>
<td>After twelve months</td>
</tr>
<tr>
<td>1</td>
<td>Sweet Potatoes</td>
<td>June and January</td>
<td>After five months</td>
</tr>
<tr>
<td>1</td>
<td>Oilums and Garlic</td>
<td>All the year</td>
<td>April and December</td>
</tr>
<tr>
<td>1</td>
<td>Chullies</td>
<td>June-July</td>
<td>January-February</td>
</tr>
<tr>
<td>1</td>
<td>Betal Leaves</td>
<td>July-August</td>
<td>July-August</td>
</tr>
<tr>
<td>1</td>
<td>Radish</td>
<td>April-May</td>
<td>October-February</td>
</tr>
<tr>
<td>1</td>
<td>Carrot</td>
<td>October-November</td>
<td>January-February</td>
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<tr>
<td>1</td>
<td>Kauti</td>
<td>May-June</td>
<td>September-October</td>
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<tr>
<td>1</td>
<td>Barley</td>
<td>October-November</td>
<td>February-March</td>
</tr>
<tr>
<td>1</td>
<td>Tobacco</td>
<td></td>
<td>November-December</td>
</tr>
<tr>
<td>1</td>
<td>Chât, Ambâdî, Kârdî</td>
<td>June</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Pâte, Aleshî, Cotton</td>
<td></td>
<td></td>
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</tbody>
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1 The following interesting statement was prepared by Captain Robertson, the first Collector of Poona in 1821. It shows the chief products of the district, the proportion each bore to the whole outturn, and the times of sowing and reaping:

Poona Crops, 1881.

East India Papers, IV. 575.
1. Bájri, Spiked Millet, * Panicellaria spicata*, in 1881-82 covered 557,807 acres, 116,306 acres of them in Sirur, 108,599 in Junnar, 107,856 in Khed, 82,159 in Bhimthadi, 81,283 in Haveli, 32,840 in Purandhar, 24,136 in Indápur, and 4648 in Mával. Bájri with *jwári* is the staple crop of the district. It is grown all over the district but in small quantities in the hilly west of Junnar, Khed, Mával, and Haveli. It is a finer grain than *jwári* and requires more careful tillage. There are three varieties of *bájri* which can hardly be distinguished except by the initiated, *gari* or early, an inferior variety maturing in three and a half months; *hátí* or late, a finer variety taking longer to mature; and *sajír*, a quickly maturing variety with a smaller grain and grown chiefly under water. Bájri is sown in June or July usually in shallow black or light gravelly soils mixed with *rála* a coarse grain, *math* a pulse, *ambádi* hemp, *til* sesameum, and *tur* a pulse. These grains are mixed in the following proportions: *bájri* 32, *rála* 1, *math* 4, *ambádi* 2, *til* 1, and *tur* 4. In rich soils *tur* is commonly sown in alternate rows with *bájri* and in poor soils a small legume called *kulga* or *kulíth* Dolichos biflorus is always sown. A brown mould partly of red and partly of black soil is considered best for the growth of *bájri*. Two to two and a half pounds of the mixed seed is sown to the acre, the better the soil the less the seed. Bájri is seldom watered or manured. It depends less on the soil and more on the rain than *jwári*. It never yields so large a crop as *jwári* and where both can grow *jwári* is always chosen. Bájri wants more ploughing, manuring, and weeding than *jwári*. When the crop is four or five inches high the weeds and grass are cleared. A timely fall in August favours the growth of *bájri*, but, especially in shallow soils, too much rain settles at the roots and rots the stalks. Bájri is harvested in October and November, and from mid-October to mid-February the crops grown with it ripen, first the panicó *rála*, then the pulse *math*, then the hemp *ambádi*, then the sesameum *til*, and last the pulse *tur*. The average yield of *bájri* on different unwatered soils in good and bad years is 300 to 400 pounds. The green ears are parched and eaten under the name of *limbur* or *nimbur*. The ripe grain is sometimes parched and made into *léhíis*. Bájri is chiefly used as a bread grain, being kneaded with salt into round cakes about five inches across and half an inch thick. It is not liked by the working classes, but is the favourite food of the upper classes especially of the people of Poona. The stalks called *sarmád*
are given to cattle, but unless trodden into chaff are held inferior to almost all other fodder.

2. Bárti commonly bari,1 Passalum scrobiculatum or flavidum, is grown almost entirely in the east of the district, usually in separate furrows in fields of bájri. It is sown in June and July, and, without water or manure, ripens in October. The grain, which is white and round, is about the size of bájri, and grows on crooked finger-like side shoots which stand out at distinct intervals from the main stem of the ear. The grain has to be pounded to separate the husk, and is usually boiled and eaten like rice. It is much esteemed by the poor and is said to be most wholesome.

3. Bhádli, Panicum pilosum, is grown almost entirely in the east of the district and usually in the same fields as bájri. It is sown in June, and, without water or manure is reaped in October or November. Bhádli is much like red rála and is sometimes confounded with it. It is larger, grows well in poorer soil, and the ripe ear is reddish brown and bristly, while the ripe rála is smooth and of a pale yellow. The grain is unhusked by pounding. It is eaten by the poor, chiefly in the east. It is sometimes boiled and eaten whole, and more rarely ground to flour. The straw is used as fodder.

4. Bhát,2 Rice, Oryza sativa, in 1881-82 covered 47,585 acres, 21,104 of them in Haveli, 14,990 in Mával, 5998 in Khed, 4169 in Junnar, 1489 in Purandhar, 102 in Indápur, and 33 in Bhimthadi. It is the chief product of the west lands or Mávals, and is sometimes found in moist places in the eastern plain. About eleven kinds of rice are grown in the Poona district. One kind, kamod, the best rice in the district was brought by Dr. Gibson from Kaira in 1842. It is grown as a channel-watered crop. Four kinds, ámbemonhär, kále, rávbág, and rúbával, are sown in late May in manured seed-beds, planted into wet fields in July-August, and reaped in late October. Five poor sorts, chimansál, dodke, kolambe, kothimbare, and varangal, are generally sown broadcast or by drill in poor rice-fields or on high-lying ground in June and reaped in September.3 Much the greater part of the Poona rice is grown under the planting system. In March or April a plot is chosen for the seed-bed either in the rice field itself or on higher ground close to the field and ploughed once and levelled. Cowdung, grass, and leaves are spread on the ground, a second layer is added of branches and brushwood covered with grass, and fine earth is sprinkled over 'all. These layers of cowdung, brushwood, and grass are called rúb.4 In early May the brushwood is fired on the leeward side to ensure slow and thorough burning and the ashes remain guarded from the wind by the upper

1 Bárti is said by Colonel Sykes to be the same as kodru or harík Passalum frumentaceum. Inquiry in different parts of the Deccan satisfied Mr. Fletcher that the two are different.
2 The Maráthi names of rice in its various stages are the seed bhát, the seedlings rop, the plants déwán, the planted rice bhát, the husked seed tándul, the straw pandha or bhát, and the husk to which the grain clings konda.
4 The chief difference between rúb and dalhi, the two forms of wood-ash tillage, is that in dalhi the bushes are burnt where they grow and in rúb they are brought from somewhere else.
layer of earth. After the first rain in June the seed is sown broadcast and covered by the hand-hoe or kudal. In July, when five or six inches high, the seedlings are pulled up, tied in small bundles, and taken and planted by hand in the rice-field in bundles of four to six plants. This planting is expensive. To plant about 110 acres (150 bighás) is a day’s work for 150 men. The planting of rice takes longer than the planting of náchā and varí as in the case of these coarser and hardier grains it is enough to throw the plants on the ground. Rice-fields, which are called kháchars in Maráthi, are formed by throwing earthen banks across the beds of water-courses or lines of drainage, by holding back the muddy deposit, and controlling the supply of water which during the rainy months comes from the higher lands. The best rice soil is a bright yellow deepening to black as the quality declines. At the same time the yield of rice depends as much on the plentiful and constant supply of water as on the character of the soil. Once in two or three years, to prevent their siltion, rice-fields are three or four times ploughed in opposite directions. The clods are broken with the kulav and the petári is then used to clear the loose soil out of the bottom of the field, and heap it on the bank. In June and early July while the seedlings are getting ready for planting, the flooded rice-field is ploughed and trodden by oxen into a mass of soft slushy mud. Fifteen days after planting, when the seedlings have begun to shoot, their dead leaves are plucked off by the hand. As the planting is usually done during pouring rain and in deep mud the head and back of the planter are always shaded by a water-tight shell made of wicker-work and teak leaves called virle or pānghongadi, and a stool or tivas, whose seat and bottom are two parallel planks separated by a single log of wood, is used to sit on. After the planting is over the water is kept standing in the field at a certain depth till the crop ripens when it is allowed to dry. Between September and November planted rice is reaped with the sickle or vila and carried as cut and laid on the bank lest the ripe grain should be injured by lying on the wet ground. In eight or nine days a man and his wife can cut about four acres (5 bighás) of rice. As the whole crop should be carried and stacked before the grain dries labourers have to be hired to carry the sheaves to the thrashing-floor. To separate the husk from the grain rice has to be pounded or ground. Except where it is grown rice is eaten by the poor on feast days only; it enters into the daily food of all the middle and upper classes, whether Hindus or Musalmáns. It is most commonly simply boiled; it is also eaten parched as lāhíś and poháś and murmúraś.1 These are most useful as ready-cooked food for a journey and are generally given along with dâle or parched gram pulse as rations to Hindu soldiers on a

1 To make poháś the husked rice is soaked in cold water for three days, scalded, and left to drain dry in an open basket. It is then slightly parched and pounded in a stone mortar. The crushed pulp forms into flat lozenge-shaped pieces and the husk is separated by a winnowing fan. Poháś are sometimes ground to flour and used in sweetmeats. For murmúraś the husked rice is partially dried in the sun after a three days’ soaking and scalding. It is slightly parched and the husk separated by braying in a mortar. Salt water is next thrown over it and the grain is again parched in hot sand which makes it puffy and swell.
sea voyage. The flour is also used in various preparations; the straw or pendha is used as cattle fodder.

5. Gahu, Wheat, Triticum aestivum, in 1881-82 covered 60,524 acres 21,677 of them in Junnar, 9557 in Maval, 8688 in Bhimthadi, 8205 in Khed, 4919 in Sirur, 3503 in Haveli, 2983 in Indapur, and 1012 in Purandhar. Wheat is a late or cold-weather (October-March) crop. It is grown over the whole district but in small quantities in the west lands of Junnar, Khed, and Haveli. It requires a moister climate than jári and in the eastern fringe of the west lands is generally grown as a dry-crop. Elsewhere it is grown as a dry-crop only in favoured places, but over the whole eastern plain it is largely grown as watered crop. Wheat wants black or rich soil. The best soil is the alluvial loam known as gavkháli or the wheat land. Wheat also thrives in the lowlying black or better brown clay soils in low lands where drainage gathers. Four kinds of wheat are grown, bakshi, káte, khaple also called jod, and pote that is big-bellied.  

Bakshi requires good black soil. It is sown in October or November, is usually watered and manured, and is reaped in February or March. This wheat is of the finest quality, but as it is delicate it is not largely grown. The stem is sometimes as much as five feet high, the grain is larger than the grain of other kinds of wheat, and the beard, when ripe, is tipped with black. Káte wheat is sown in good black soil in October, is usually watered but not manured, and is reaped in February. It is shorter-stalked and smaller-grained than either the bakshi or khaple, is harder than the bakshi, and is the wheat commonly grown in dry lands. Khaple or jod, husk wheat, is sown in black soil in November, is always both watered and manured, and is reaped in March. Khaple is the wheat usually grown in gardens. It is very hardy. It owes its name to the fact that the grain cannot be separated from the husk without pounding. It is sown as a second or dusota crop in January and February in irrigated lands after bájri, maize, tobacco, chillies, or wheat with good results. Pote or big-bellied wheat is less esteemed than other varieties. It is sown in poor black soils in November, is neither watered nor manured, and is reaped in February. Other varieties known in the district are dáudkhání and káte-kusál. Two and a half to three and a half pounds of wheat are sown to the acre, the better the soil the less the seed. The average acre yield from all kinds of wheat in unwatered land is 500 to 600 pounds and in watered land 1000 to 1100 pounds. In garden land wheat follows rice and in dry-crop land it comes best after bájri, maize, tobacco, or chillies. After two or three ploughings the wheat is sown and the land is levelled with the harrow. When the seed has begun to sprout, to regulate the watering, ridges and small water-courses are made with a large rake in the shape of squares or váphás. Wheat after it has come into ear is affected by mildew called támbera and garva or khaira. These diseases are said to be commoner in fields where mustard is grown than elsewhere. Támbera appears after unseasonable and

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1 In 1842 Dr. Gibson is said to have introduced about thirty-eight choice varieties of wheat. Bom. Gov. Rev. Rec, 1453 of 1843, 79.
heavy rain and covers the crop with small swellings containing a reddish powder. It very seriously injures if it does not totally destroy the crop. Garva or khaira appears after cloudy and misty weather in circles at distances from each other. It covers the crop with small swellings containing a dark brown powder. The grain becomes small and shrivelled. Garva is neither so common nor so destructive as tômbera. Green wheat ears called ombya are parched and eaten. The ripe grain is used only as bread. It is seldom eaten by the poor except on feast days as it is never eaten without the addition of clarified butter or tup. The flour is used largely in pasty and sweetmeats. Wheat straw is eaten as fodder with or without a mixture of chaff.

6. Harîk or Kodru, Paspalum frumentaceum, in 1881-82 covered 397 acres in Junnar. It is grown almost entirely in the western hill-sides and light soils. It is sown in June and reaped in October or November. The grain, which is round and flattish and of the size of a mustard seed, forms in double rows on one side of a flat stem, and until ripe the ear remains enclosed in a sheath. New harîk is said to be powerfully narcotic and is eaten only by the poor who prepare it in various ways, and from use are able to eat it with impunity. The straw is hurtful to cattle.

7. Jvârî, Indian Millet, Sorghum vulgare, the most largely grown cereal in Poona, in 1881-82 covered 588,502 acres, 226,152 of which were in Haveli, 129,069 in Indâpur, 73,026 in Purandhar, 58,239 in Sirur, 54,877 in Bhimthadi, 28,782 in Khed, 16,438 in Junnar, and 2918 in Mâval. It is grown over the whole district but in the hilly west of Junnar, Khed, Mâval, and Haveli only in small quantities. It is the staple grain of the eastern plain. There are many varieties of Indian millet some of which belong to the early and others to the late harvest. The early varieties are found only in the belt which fringes the east of the western districts, and are sown thickly for fodder rather than grain. The late varieties are grown in the eastern plain, yield grain plentifully, and their fodder though less abundant is of better quality than that of the early varieties. There are three chief early varieties argadî, kâlbbhondî, and nilva. Argadî, also called utâvî, is sown in June or July in shallow black or light soil, and, without the help of water or as a rule of manure, is grown and cut in November. The stalk is sometimes ten feet high; the head is small. This variety is also sown as a watered crop in April and matures in June or July. When grown as a watered crop it is called khondî or hundî. This crop is sometimes sown broadcast and thick and cut for fodder before the head appears. Kâlbbhondî, that is black husk, is sown in June or July without either water or manure, and is harvested in November. The stem is six or eight feet high and the head large. Nilva, that is blue-husk, a variety much grown in Khândesh, is sown in June in black soils without either water or manure and is cut in November. The stem is very tall and coarse and the head

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1 Mr. Sinclair, G.S., found that in Thâna the grain was intoxicating when grown for the second or third time in the same land. Fletcher's Deccan Agriculture.

2 Khondî or hundî is described as a separate variety by Colonel Sykes.
large. The fodder is prized for milch cattle. There are three late varieties of Indian millet *shālu*, *dudh-mogra*, and *tāmbdī*. The best of the late kinds is *shālu*. It is sown in black soils from mid-August to mid-October and harvested from mid-January to mid-February. The stalk is three to five feet long and sweet-juiced, and the grain white. *Dudh-mogra* is sown with *shālu* either mixed in the same furrow or in separate furrows. The straight hard stalk is poor fodder and the scattered feather head has the merit of being too light to give birds a foothold. The full milky grain parches into excellent *lāhīs*. A dark-husked variety of *dudh-mogra* has a stem which is sometimes used as a weaver's hand-rod. *Tāmbdī*, that is red, Marshall’s Sorghum devia, is sown generally in light soils in late July and early August, and, without either water or manure, ripens in early January to early February. The stem is three to four feet high and poor as fodder, and the grain is white and hard. Four to five pounds of late *jvārī* are sown to the acre, the better the soil the less the seed. The early Indian millets take eight to ten pounds of seed an acre. Unwatered *jvārī* in all kinds of soil gives an average yield of 400 to 500 pounds the acre, and watered *jvārī* yields 1000 to 1200 pounds. *Shālu* is the most productive variety sometimes yielding as much as 2500 pounds the acre. Before the head forms the plant is called *kadval* and when perfect *bātuk*. *Jvārī* is the only cereal whose straw or *kadba* is used as fodder in its natural state. The straw of all other cereals and of all soft stemmed pulses is trodden to pieces, mixed with chaff, and stowed in large baskets, and is called *bhuskat*. *Jvārī* stalks are stacked and thatched in the rainy west; in the drier east they are stowed in long grave-like ridges and covered with clods of black soil. The grain is chiefly used as a bread grain, but is also eaten parched as *lāhī*. When in season the parched unripe *jvārī* heads form a chief item of food with the labouring classes and are called *hurda*.

8. *Mātka*, Indian Corn, *Zea mays*, in 1881-82 covered 3844 acres, 2435 of which were in Purandhar, 720 in Bhimthadi, 630 in Indapur, fifty in Haveli, and nine in Sirur. In 1842 the American maize was naturalised at the experimental garden at Hivra in Junnar. It is sown in the eastern sub-divisions in black soil. When unwatered it is sown in June and ripens in August; when watered it may be grown at any season. The heads or *būtās* are usually eaten parched or boiled while green and the ripe grain is also parched and made into *lāhī*, and after grinding is used as flour. The stalk is a very coarse fodder.

9. *Nāgli* or *Náchni*, Eleusine corocana, in 1881-82 covered 52,365 acres, 16,310 of which were in Khed, 14,036 in Māval, 12,572 in Haveli, 6983 in Junnar, and 2464 in Purandhar. It is grown only in the hilly west sometimes in wet lands by planting like rice or by sowing with the drill, and often in high lands. In planting *nāchni* the seedlings are simply thrown on the ground in little trenches at about equal distances apart and left to root as they can. *Náchni*

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1 *Bātuk* is also applied to the plants of tur sown in a crop of *bājri*.

does not want a deep or a rich soil, but in any but a moist soil it perishes. It is sown in June and ripens in October or November. As the stalk is hard, reaping is difficult and costly. It takes four persons eight days to cut about three acres (2 bighás) of náchní. The carrying and stacking are also expensive. Náchní should be carried as soon as possible after the crop is cut, and the sheaves should be carried only in the morning when the heads are wet with dew. Later in the day the heat of the sun shrivels the husk and loosens the seed. Under the name of hurda the green heads are parched and eaten. The ripe grain is eaten in cakes by the west country poor and the flour is made into a cooling drink called ámbil. The straw, powdered and mixed with chaff, is used as fodder.

10. Bálá, Panicum italicum, in 1881-82 covered 1084 acres, 681 of which were in Purandhar, 136 in Bhimthadi, 113 in Haveli, eighty-one in Indùpur, sixty-eight in Sirur, and one in Junnar. It is grown chiefly in the east of the district in shallow black or light soils usually in the same fields as bájí. It is of two varieties, a red and a white, which differ only in colour. It is sown in June and ripens in October. The grain is separated from the husk by pounding and is usually boiled and eaten whole. The stalk is used for fodder and thatch.

11. Sávu or Jār, Hordeum hexastichon, in 1881-82 covered 141 acres fifty-one of which are in Bhimthadi, fifty in Haveli, twenty in Purandhar, fourteen in Indùpur, and six in Junnar. It grows only in black soil, is sown in November, and, with the help of water and manure, is reaped in February. Barley is chiefly used in making the ready-cooked food called sáluče-píth or barley flour. The grain is parched, ground, and mixed with a small proportion of gram and wheat-flour and flavoured with seeds. When eaten it is usually made into little dough balls with water. The grain is also used in the shráddha or mind-rites for the dead and the flour in the shrávani or Shravana purification.

12 and 13. Sáva, Panicum miliaceum, and Vári, Panicum miliare, in 1881-82 covered 32,342 acres, 11,163 of which were in Khed, 8282 in Haveli, 7885 in Mával, 4317 in Junnar, and 689 in Purandhar. They are grown only in the west of the district usually in light red soils and on hill-sides. They are not watered or manured, but the seedlings are planted like rice-seedlings except that instead of fixing them in the ground they are simply thrown on the surface and left to root. When the plants are about a foot high sáva requires weeding. This is done for each other by the villagers at no expense except some liquor for the weedeers. In 1821, in these weeding parties a drummer was at hand who beat incessantly and at intervals stirred on the weedeers calling out Bhalere Dáda, Bhale Bhóu Dáda, Well done brothers, well done. The weedeers got as much spirit as they could drink. From the hardness of the stalks and the need of prompt and early-morning carrying, labour has to be hired in harvesting sáva and vári as well as in harvesting náchní. Both sáva and vári have

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1 Captain H. Robertson in East India Papers, IV. 579.

b 1327—6
to be unhusked by pounding. They are mostly eaten by the west country poor. They are boiled like rice and are sometimes ground to flour and made into bread. The straw is not used as fodder.

Thirteen pulses are grown in Poona. The details are:

<table>
<thead>
<tr>
<th>No.</th>
<th>M A R A'THIL</th>
<th>E N G L I S H</th>
<th>B O T A N I C A L</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Dāng Chavī</td>
<td>Gram</td>
<td>Dolichos sinensis.</td>
</tr>
<tr>
<td>15</td>
<td>Harbhara</td>
<td>Lentils</td>
<td>Cicer arietinum.</td>
</tr>
<tr>
<td>16</td>
<td>Kūthī or Hulga</td>
<td>Kidney Bean</td>
<td>Dolichos biflorus.</td>
</tr>
<tr>
<td>17</td>
<td>Lākh</td>
<td>Green Gram</td>
<td>Lathyrus sativus.</td>
</tr>
<tr>
<td>18</td>
<td>Māsur</td>
<td></td>
<td>Ervum lens.</td>
</tr>
<tr>
<td>19</td>
<td>Math or Mathi</td>
<td>Phaseolus acconitifolius.</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Mūgr</td>
<td></td>
<td>Phaseolus vulgaris.</td>
</tr>
<tr>
<td>21</td>
<td>Pāvta</td>
<td></td>
<td>Dolichos lablab.</td>
</tr>
<tr>
<td>22</td>
<td>Rūn or Shut Chavī</td>
<td>Pigeon Pea</td>
<td>Dolichos catjang.</td>
</tr>
<tr>
<td>23</td>
<td>Tūr</td>
<td>Black Gram</td>
<td>Cajunus indicus.</td>
</tr>
<tr>
<td>24</td>
<td>Uṭtīd</td>
<td>Fess</td>
<td>Phaseolus radiatus.</td>
</tr>
<tr>
<td>25</td>
<td>Vai</td>
<td></td>
<td>Dolichos stipitatis.</td>
</tr>
<tr>
<td>26</td>
<td>Vāvdāna</td>
<td></td>
<td>Fissum sativum.</td>
</tr>
</tbody>
</table>

14. Dāng Chavī, Dolichos sinensis, like but larger than rūn or shet chavī. Dolichos catjang (No. 22), is usually grown in gardens round the edge of other crops. It is a strong climber, with a pod some five or six inches long, and a rather dark seed.

15. Harbhara, Gram, Cicer arietinum, the most largely grown pulse in Poona, in 1881-82 covered 28,879 acres, 6398 of which were in Bhimthadi, 5020 in Indāpur, 4770 in Junnar, 4329 in Khed, 2678 in Māval, 2360 in Sirur, 1620 in Purandhar, and 1404 in Haveli. It is grown in the east of the district and very rarely in the west. It requires good black soil. It is sown in November and without either water or manure is harvested in February. The leaves are used as a vegetable. The grain is eaten green, is boiled as a vegetable, and is parched when it is called hola. When ripe it is split into dāl and eaten boiled in a variety of ways and in making a sweet cake called puran-poli. It is slightly soaked, parched in hot sand, and called phutanās, which are sometimes flavoured with turmeric salt and chillies. It is also given to horses. The living plants yield a quantity of vinegar or oxalic acid called āmb which gathers on the plants at night and soaks cloths which are laid over them. The dry stalks are good fodder. A light-coloured variety called kāli is seldom grown in Poona.

16. Kūthī, Horse-gram, Dolichos biflorus, in 1881-82 covered 18,065 acres, 4056 of which were in Khed, 2934 in Bhimthadi, 2220 in Junnar, 2158 in Purandhar, 942 in Sirur, 645 in Indāpur, and 110 in Haveli. It is grown throughout the district and is sown generally with bājri in separate rows in shallow light soil. It is sown in June and ripens in November without either water or manure. The pulse is boiled whole and is given to horses. It is also eaten in soup and porridge. The leaves and stalks are good fodder.

17. Lākh, Lathyrus sativus, is grown in small quantities in the west. It is sown in November or December in black soil or as a second crop after rice. It grows without water or manure. The seed is like a mottled gray pea. It is not eaten while green. The ripe pulse is boiled whole and eaten, and when split is cooked in various ways. The stalks and leaves are eaten by cattle.
18. *Masur*, Lentils, Ervum lens, in 1881-82 covered 836 acres, 440 of which were in Mával, 302 in Khed, and ninety-four in Junnar. It is grown throughout the district. It is sown in November or December in black soil or as a second crop on rice lands, grows without water or manure, and is harvested in February and March. The green pods are sometimes eaten as a vegetable, and when ripe it yields the most delicate split pulse in the Deccan. The boiled pulse is also eaten whole.

19. *Math or Matki*, Phaseolus aconitifolius, grown chiefly in the eastern plain, is sown mixed with bájri in shallow black or light stony soils in June or July and is harvested in November. The pulse is split and eaten as dál in different ways. It is ground to flour and used with the flour of other grains in making cakes. It is also eaten parched or boiled whole with condiments. The grain is given to horses and cattle and the stalks are good fodder.

20. *Mug*, Green Gram, Phaseolus mungo, in 1881-82 covered 3900 acres, 2349 acres of which were in Khed, 687 in Junnar, 351 in Bhimthadi, 250 in Purandhar, 226 in Haveli, thirty-one in Indápur, five in Sirur, and twenty-one in Mával. It is grown chiefly in the east of the district. It is sown in June by itself in shallow, black, or light stony soils, and often as a first crop on rich lands in which a second called dusota or bivaḍ crop is raised. It is neither watered nor manured, and is harvested in September. The green pods are eaten as a vegetable. The ripe green-coloured pulse is eaten boiled whole, or is split and used as dál. It is parched, ground to flour, mixed with butter and made into spice balls. It is also made into porridge. The leaves and stalks are good fodder. *Mug*, a smaller blackish variety, is sown with bájri or argâḍi in June and reaped in November. It is inclined to creep and remains longer on the ground than *mug*.

21. *Páva*, also called Sweet Vál, Dolichos lablab, is sown sometimes in June mixed with bájri and sometimes in November on the banks of rivers or in the west as a second crop after rice. Two varieties differ only in the colour of the grain, one is pale yellow the other black with a fine seam. It grows without water or manure, ripens in February-March, and goes on bearing for about two months. The boiled green seeds are eaten as a vegetable and the ripe pulse is split and eaten in many ways. The leaves and stalks are a fodder which is especially valued for milch cattle.

22. *Rán* or *Shet Chavli*, Dolichos catjang, is grown chiefly in the west lands. It is sown in June in shallow light soils and as the first of a double crop in rich soils. It grows without water or manure, and is harvested in September. The green pods which are about two inches long and the leaves are eaten as vegetables, and the pulse, which is pale yellow oval and dented on one side, is cooked in many ways, both split and whole.

23. *Tur*, Cajanus indicus, in 1881-82 covered 12,851 acres, 7830 acres of which were in Sirur, 1576 in Bhimthadi, 1399 in Khed, 769 in Junnar, 589 in Haveli, 356 in Indápur, 237 in Indápur, and ninety-five in Mával. It is grown chiefly in the eastern subdivisions mostly in shallow and sometimes in deep black soils, in the same field with bájri, in the same or in separate
furrows. It is sown in June-July, and, without water or manure, is harvested in January and February. During the eight months tur is on the ground, it is said to flower and seed eight times, all the pods remaining on the plant till harvest. It is a perennial plant, but is always pulled out after the first year. The green pods are eaten as a vegetable, and the ripe pulse is split and eaten boiled in a variety of ways. The yellow split-pulse or dal is in common use being made into porridge and mixed with vegetables, and is little less valuable than gram. The leaves and pod shells are excellent fodder, and the stem is in use for wattling house walls and roofs, and for making baskets and brooms. Tur or doll-bush that is dal-bush charcoal has long been famous for making gunpowder.

24. Udidi, Black Gram, Phaseolus radiatus, in 1881-82 covered 1519 acres, 1031 of which were in Khed, 330 in Junnar, ninety in Purandhar, forty-seven in Haveli, and twenty-one in Maval. It is grown almost entirely in the east of the district. It is sown in June frequently with bajri or argadi or in rich soils when a second crop is to follow. It is neither watered nor manured, and ripens in September. The green pods are rarely used as a vegetable. The black ripe pulse is split into dal, and is a most fattening food. It is parched and ground to make different sorts of spice balls and is the chief element in the thin wafer-biscuits called pappads. The stalks and leaves are a good fodder. Udadi is a smaller and inferior variety which does not ripen till November.

25. Vali, Dolichos spicatus, is chiefly grown in the east and centre of the district, often round or mixed with garden crops, especially in the sugarcane fields where it is sown both as fodder and for shade. When grown with or in rows round bajri or early jwari it is sown in July and without water or manure ripens in four months, and continues bearing for some time longer. The seeds are slightly bitter, smaller, and not so flat as pataka seeds, which is sometimes known as sweet vali. The green seeds are eaten boiled, the ripe pulse is used in many ways as dal or in soup, and the stalks and leaves are prized as fodder for milch cattle.

26. Valana, the Pea, Pisum sativum, in 1881-82 covered 836 acres, 329 of which were in Junnar, 329 in Khed, 100 in Haveli, seventy-six in Maval, and two in Indapur. Peas are grown in moist places throughout the district. They are sown in October or November or later as a second crop after rice, and, without water or manure, are harvested in four and a half months after sowing. The seed is eaten green as a vegetable and when ripe is boiled whole or split and eaten in various ways. The leaves and stalks are good fodder.

Seven oilseeds are grown in Poona. The details are:

<table>
<thead>
<tr>
<th>No.</th>
<th>Marathi</th>
<th>English</th>
<th>Botanical</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>Ambadi</td>
<td>Brown Hemp</td>
<td>Hibiscus cannabinus.</td>
</tr>
<tr>
<td>28</td>
<td>Bhaini</td>
<td>Earthnut</td>
<td>Arachis hypogaea.</td>
</tr>
<tr>
<td>29</td>
<td>Evandi</td>
<td>Castor-seed</td>
<td>Ricinus communis.</td>
</tr>
<tr>
<td>30</td>
<td>Janta or Athi</td>
<td>Linseed</td>
<td>Linum usitatissimum.</td>
</tr>
<tr>
<td>31</td>
<td>Korte or Khardiya</td>
<td>Nigreset</td>
<td>Vavassia sativa.</td>
</tr>
<tr>
<td>32</td>
<td>Kusumba or Kardai</td>
<td>Safflower</td>
<td>Carthamus tinctorius.</td>
</tr>
<tr>
<td>33</td>
<td>Yu</td>
<td>Sesamum</td>
<td>Sesamum indicum.</td>
</tr>
</tbody>
</table>
27. **Ambádi, Brown Hemp, Hibiscus cannabinus**, in 1881-82 covered 1375 acres, 659 of which were in Bhimthadi, 526 in Sirur, ninety-four in Indápur, eighty-nine in Purandhar, and seven in Mával. It is grown in small quantities in shallow black soils chiefly in Bhimthadi, Sirur, and Indápur. It is sown in June usually mixed with bájri, grows without water or manure, and is harvested in December or January. The young sour leaves are eaten as a vegetable. The seed is sometimes given to cattle and in times of scarcity is mixed in bread. It is chiefly used as oil-seed and, before the oil is extracted, is always mixed with kárle or linseed. The bark yields a valuable fibre which is separated from the stalk by soaking. It is made into ropes for various field purposes either by the husbandmen or village Mángs.

28. **Bhuímug, Earthnut, Arachis hypogea**, is grown both in the eastern plains and in the eastern fringe of the west lands. It is planted in June, and in the east with the help of water and manure and in the western plain with the help of manure, ripens in December, but is often dug in November and eaten raw or parched. The ripe fresh nut is sometimes boiled with condiments, and eaten as a vegetable, but is more frequently used as an oilseed. An edible oil is pressed from the nuts which are usually first mixed with kardai or rāla seeds as the pure earthnut oil is said not to keep. It is a favourite food with wild pig, and along the Mutha canals has suffered so severely from their ravages, that the people have given up growing it.

29. **Erandi, Castor-seed, Ricinus communis**, is grown in small quantities chiefly in the black soils of the eastern plain, sometimes round other crops and more often in patches by itself. It is sown either in June or November, and without water or manure is harvested in November or February. Its stem and flowers are red. The oil, which is used more for burning than as a medicine, is drawn by boiling the bruised bean and skimming the oil that rises to the surface. The proportion of oil to seed is as one to four. The leaf is applied as a guineaworm poultice and the dried root as a febrifuge. A large variety of the castor-plant, probably R. viridis, is grown in gardens round other crops. Its stem and flower are green. Both varieties are perennial and would grow to a considerable size if they were not taken out of the ground at the end of the first year.

30. **Javas or Alshi, Linseed, Linum usitatissimum**, in 1881 covered only 152 acres, seventy-seven of them in Indápur, seventy in Bhimthadi, nine in Purandhar, and three in Sirur. It is grown in small quantities solely in rich black soils in the east either in gram or wheat fields in separate furrows or less seldom as a separate crop. It is sown in November and without water or manure is harvested in February. It does not grow more than two feet high. The seed is used in making relishes or chatnis and the oil which is produced from the seed in the proportion of four to one is used in cookery. No use is made of the fibre.

31. **Kárle or Khurásni, Nigerseed, Verbesina sativa**, erroneously called kále til, is grown in considerable quantities in shallow black and light soils chiefly in the west fringe of the plains and in the
western hills. It is sown in June and without water or manure is harvested in November. The seed is eaten in relishes or chatnis, but it is chiefly known for its oil which is produced from it in the proportion of five to six, and is universally used by the lower classes in cooking. The oil-cake is much prized for milch cattle.

32. Kardai or Kusumba, Safflower, Carthamus tinctorius, is grown chiefly in the east lands with late jväri or wheat either mixed or in separate furrows. It is sown in October or November, and, without water or manure, is harvested in February or March. The young leaves are eaten boiled as a vegetable and the oil which is produced from the seed is much esteemed in cooking. Kardai and kusumba kardai are grown indiscriminately. Kardai C. tinctorius has much deep red in the flower and elsewhere is used as a dye. Kusumba kardai, probably C. persicus, has a yellow flower and is more prickly than C. tinctorius.

33. Til, Sesamum indicum, of two kinds, gora or havra white til and hála black til, covered in 1881-82 29,449 acres, 12,381 of which were in Khed, 5806 in Junnar, 5403 in Mavá, and 4392 in Haveli. It is grown throughout the district, but in considerable quantities only in Khed, Junnar, Mavá, and Haveli. It is sown in June usually with bájri either mixed in the same line or in separate lines, and is cut in November. It springs unsown in fallow lands. The seed is used in shráddha or mind-rites for the dead, forms part of many sweetmeats, and yields abundant oil which is used both in cooking and as a medicine. The oil-cake or pend is given to cattle, and in times of scarcity is eaten by the poor with salt.

Three fibre plants are grown in Poona. The details are:

**Poona Fibre Plants.**

<table>
<thead>
<tr>
<th>No.</th>
<th>Marathi</th>
<th>English</th>
<th>Botanical</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>Ambádi</td>
<td>Brown Hemp</td>
<td>Hibiscus cannabinus</td>
</tr>
<tr>
<td>35</td>
<td>Kápus</td>
<td>Cotton</td>
<td>Gossypium herbaceum</td>
</tr>
<tr>
<td>36</td>
<td>São or Tág</td>
<td>Bombay Hemp</td>
<td>Crotalaria juncea</td>
</tr>
</tbody>
</table>

34. Ambádi. See No. 27.

35. Kápus, Cotton, Gossypium herbaceum, in 1881-82 covered 4565 acres in Indápur. It is grown in black soil chiefly in the east, to a small extent in the western plain, and not at all in the hilly west. Several varieties are grown, most of which have been lately introduced. It is sown in July, is grown without water or manure, and bears in October or November. The crop, which is the woolly covering of the seed, is gathered from the growing plants in three or four pickings as the pods burst before November, when the plant ceases to bear. The seed is called sarki and is much prized as food for milch cattle. The stems are used in cheap basket-work and when the picking is over cattle are grazed on the leaves and shoots.

In 1821, the average price of cotton was about £8 10s. (Rs. 85) a khándi of 500 pounds or about 4d. (2½ as.) the pound. The Collector, Captain Robertson, was told that thirty or forty years before, in the time of Peshwa Mádhavráv (1761-1772) a large quantity of seed had been brought from the Berárs, but proved a
In 1830-31, Dr. Lush was successful in growing cotton in the botanical garden at Däpurū, about six miles west of Poona. In 1841, the only parts of the district where cotton was grown in any quantity were in Bhimthādi and Indāpur, where the soil was better suited to its growth than in any other part of the district. In that year one landholder in the Bhimthādi village of Bolvādi grew cotton, which in the Bombay market fetched a price equal to the best Broach. Dr. Gibson, the superintendent of the botanical garden at Hīvra, considered the cultivation of cotton unsuited to Poona.* In 1842-43 the area under cotton was increased by not less than 2132 acres, chiefly in Junnar and Indāpur where the people were anxious to grow cotton. The plants thrived for a time, but most of them failed from want of rain. In 1844, Indāpur was the only part of Poona where cotton was grown; there cotton was found in small quantities in every village mixed with bājri and other crops. The area under cotton was 4816 acres against 4636 in the previous year. The outturn was twenty tons (60 khandis) of which about sixteen tons (48 khandis) were sold in Poona and Sátāra for £507 2s. or at the rate of £5 (Rs. 50) for a Surat khandi of 746 pounds, that is about 1½d. (1 a.) a pound.* In the next two years the area under cotton declined. In 1847, Indāpur was again the only cotton-growing part of the district. The quantity produced was about thirty tons (90 khandis) and the area under cultivation was 3359 acres against 1½ khandi and 190 acres in the previous year. From 1841 to 1861 Government frequently tried to increase the growth of cotton, but without success. Both as regards soil and climate Poona was considered unsuited for foreign cotton and there seemed to be little prospect of any great increase of the cultivation of the local variety. The small quantity grown was almost entirely devoted to home use. The following statement shows the total area under cultivation, the area under cotton, and the area capable of producing cotton during the twenty years ending 1860-61.9

### Poona Cotton, 1841-1861.

<table>
<thead>
<tr>
<th>Year</th>
<th>Tillage Area</th>
<th>Cotton Area</th>
<th>Area fit for Cotton</th>
<th>Year</th>
<th>Tillage Area</th>
<th>Cotton Area</th>
<th>Area fit for Cotton</th>
</tr>
</thead>
<tbody>
<tr>
<td>1841-42</td>
<td>982,600</td>
<td>9684</td>
<td>100</td>
<td>1851-52</td>
<td>1,273,394</td>
<td>7015</td>
<td>100</td>
</tr>
<tr>
<td>1842-43</td>
<td>1,000,728</td>
<td>1846</td>
<td>100</td>
<td>1852-53</td>
<td>1,316,767</td>
<td>5967</td>
<td>100</td>
</tr>
<tr>
<td>1843-44</td>
<td>1,065,232</td>
<td>6586</td>
<td>100</td>
<td>1853-54</td>
<td>1,388,430</td>
<td>7472</td>
<td>100</td>
</tr>
<tr>
<td>1844-45</td>
<td>1,053,127</td>
<td>3968</td>
<td>100</td>
<td>1854-55</td>
<td>1,395,890</td>
<td>4132</td>
<td>100</td>
</tr>
<tr>
<td>1845-46</td>
<td>1,102,088</td>
<td>100</td>
<td>100</td>
<td>1855-56</td>
<td>1,447,060</td>
<td>602</td>
<td>100</td>
</tr>
<tr>
<td>1846-47</td>
<td>1,148,755</td>
<td>3389</td>
<td>100</td>
<td>1856-57</td>
<td>1,334,473</td>
<td>2534</td>
<td>100</td>
</tr>
<tr>
<td>1847-48</td>
<td>1,285,304</td>
<td>7979</td>
<td>100</td>
<td>1857-58</td>
<td>1,566,231</td>
<td>2964</td>
<td>100</td>
</tr>
<tr>
<td>1848-49</td>
<td>1,297,598</td>
<td>1693</td>
<td>100</td>
<td>1858-59</td>
<td>1,596,852</td>
<td>8867</td>
<td>100</td>
</tr>
<tr>
<td>1849-50</td>
<td>1,100,719</td>
<td>4646</td>
<td>100</td>
<td>1859-60</td>
<td>1,054,399</td>
<td>8954</td>
<td>100</td>
</tr>
<tr>
<td>1850-51</td>
<td>1,315,015</td>
<td>4682</td>
<td>100</td>
<td>1860-61</td>
<td>1,084,201</td>
<td>8130</td>
<td>100</td>
</tr>
</tbody>
</table>

1 East India Papers, IV. 590.
8 Casel’s Cotton in the Bombay Presidency, 87; Dr. P. Boyle’s Culture of Cotton in India, 397.
In 1862 the area under cotton rose to 30,049 acres in Indápur and large profits were made by the cultivators. In 1870-71 it stood at 17,072 acres. Since then, except in 1872-73, 1874-75, and 1882-83, when it stood at 10,170, 21,127, and 22,375 acres respectively, it has fluctuated between 100 acres in 1871-72 and 4565 acres in 1881-82.

36. **Táj or San**, Crotalaria juncea, grows in small quantities chiefly in the black eastern plain. It is sown in July, is grown without water or manure, and ripens in October. It is left standing for about a month after it is ripe that the leaves which are excellent manure may fall on the land. In gardens and occasionally in dry-crop lands it is grown solely for manure, the plants being ploughed into the soil when ready to flower. After it is soaked the bark yields a fibre which is considered the best material for ropes, coarse canvas, twine, and fishing nets. Almost the whole supply is used locally.

Four dyes are grown in Poona. The details are:

**POONA DYES AND PIGMENTS.**

<table>
<thead>
<tr>
<th>No.</th>
<th>Marâ’thi</th>
<th>English</th>
<th>Botanical</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>Halad</td>
<td>Turmeric</td>
<td>Curcuma longa</td>
</tr>
<tr>
<td>38</td>
<td>Kusumba or Kardai</td>
<td>Safflower</td>
<td>Calthamus tinctorius</td>
</tr>
<tr>
<td>39</td>
<td>Shendri</td>
<td>Indian Madder</td>
<td>Bixa orellana</td>
</tr>
<tr>
<td>40</td>
<td>Surungi or Æl</td>
<td></td>
<td>Morinda citrifolia</td>
</tr>
</tbody>
</table>

37. **Halad**, Turmeric, Curcuma longa is grown in good black soil chiefly in the central and western plain. It is planted generally in June or July from layers and with manure and a watering every eight or ten days matures in December or January. It is grown only by the class of men who are known as turmeric-gardeners or Haldya Mâlis. The root or halkund is boiled before it is sent to market. When steeped in a preparation of lime-juice, tincal and carbonate of soda or pàpàdghâr it is called rava. This yields a brilliant crimson dye which is used in painting the Hindu brow-mark. Men paint, putting the dye on wet, rubbing the root with water on a stone and applying the crimson with the finger; women powder, rubbing a small circle of wax on the brow and pressing redpowder on the wax. The redpowder is called kunku or pinjar. The root is in universal use as a condiment, being the staple of curry powder. Ambe halad, probably Curcuma ledoaria, a variety of C. longa and grown in the same way, is used only as a drug.

38. **Kusumba.** See No. 32.

39. **Shendri**, Bixa orellana, is a shrub grown rarely and in small quantities in garden lands. The powder surrounding the ripe seeds yields a deep red orange dye which is the ornotto of commerce.

40. **Surungi** or Æl, Indian Madder, Morinda citrifolia, is seldom seen in the west, but is largely grown in deep soils in the east. It is sown in June, often in fields overgrown with grass and weeds, and without water or manure grows for two years. In the third year the roots are dug from a depth of three feet. The roots yield a red dye.

Three narcotics are found in Poona. The details are:
41. **Gánja** Hemp *Canabis sativa* is grown to a small extent in the best black soil in the eastern sub-divisions. It is sown in June or July, is grown with water and occasionally with manure, and is ready for cutting in December. When about two feet high the stem is twisted half round, a few inches above the root. This checks the upward growth and causes the plant to throw out side shoots. The fruit-yielding part is bruised just before the seed begins to ripen. When cut in December the plants are at once stacked and loaded with weights. The leaves fall when dry and the pods are used and known as gánja. The infusion made from the pods is called bháng. The pods or gánja are also smoked with or without tobacco, and several intoxicating drinks and a sweetmeat called májum are made. The fibre of this hemp is never used.

42. **Nőqet** or **Pán** Betel-leaf *Piper betel* is an important garden crop, especially in the Haveli villages of Kondi Budruk, Kondi Khurd, Undri, Muhammadvád, and Phursangí. It is grown in light red soil and requires much manure and constant watering. It generally lasts fifteen or if well cared for twenty years. It is grown in a betel-vine garden or pán mala which generally covers about an acre of ground. The vines are trained up slender hadga, pácára, shevri, and bakán trees planted in rows one to four feet apart and having leaves only at the top. The vines are grown by layers. They want water every fifth or sixth day. The whole garden has to be sheltered from wind and sun by high hedges or screens of grass or mats. Vines begin to bear in the third year, are at their best from the fourth to the thirteenth year, and, under favourable circumstances, go on yielding till the twentieth year. Every year in March, April, and May, the upper half of the vine is cut and the lower half is coiled away and buried above the root under fresh red earth and manure. Portions of the garden are thus treated in rotation, so that those first cut are ready to bear before the last are cut. A betel-leaf garden wants a considerable capital to start, and in weeding, watering, insect-killing, and leaf-picking, wants constant labour and attention throughout the year. Still it is a favourite crop. The returns from the sale of the leaves come in monthly, and the profits are greater than from any other garden crop. The betel-vine is almost always grown from well water. The people say channel-water does not suit the vine. Mr. Fletcher thinks the probable reason is that from the division of ownership it is difficult to secure a constant supply of channel water. Mális and some well-to-do castes including Bráhmanek near the betel-vine, some with their own hands and some with hired labour. Tírgul Bráhmanek, who cultivate the betel-leaf as a specialty, are considered inferior to other Bráhmanek as they kill the flies that live on the vine. The betel-leaf is chewed by all classes with betelnut, quicklime, catechu, and some-
times with tobacco and several spices. Several varieties are distinguished.

43. *Tambákh* Tobacco *Nicotiana tabacum* in 1881-82 covered 817 acres, 275 of which are in Junnar, 239 in Khed, 181 in Bhimthadi, eighty-four in Sirur, and thirty-eight in Indapur. It is grown to a considerable extent in rich soils in the western fringe of the plain country and to a small extent further east. The village of Ghode in Khed has more than 200 acres under tobacco. Low and alluvial land is generally preferred. It is sown in seed-beds in August and planted in September. It is seldom watered but is generally manured. The plant is not allowed to flower. All buds and branch shoots are nipped off as they appear, and only eight or ten leaves are allowed to remain. Because the buds of the plant have to be destroyed, Kunbis seldom grow tobacco themselves, but allow it to be grown in their lands by Mhárs, Mángs, and other low castes, who give the landholder half the produce. The plants are cut in January or February about four inches from the ground, spread in the sun till they are thoroughly dry, sprinkled with water mixed with surad grass or with cow's urine, and while damp closely packed in a pit or stacked under weights and covered for eight days during which fermentation sets in. When taken from the pit or stack the leaves are made into bundles and are ready for sale. Though the stumps left in the ground shoot again the leaves are almost valueless and are used only by the poor. The quality is poor. The average acre-yield of tobacco is about 300 pounds (2.375 māns). The wholesale price of cured tobacco is about 2d. a pound (Rs. 7 the man) and the retail price about 3d. a pound (Rs. 10 a man). Tobacco is smoked and chewed by all classes and is made into snuff. In 1821, according to the Collector Captain Robertson, tobacco did not thrive. It does not appear in his list of crops. Its cultivation was introduced before 1841. In 1841 Government forwarded to the Collector a box of Syrian tobacco seed to ascertain how it suited the soil and climate of Poona. The seed was distributed and sown in different parts of the district. Some sowings succeeded and others failed. At the Hafiz Bāğ, about two miles east of Junnar, Mr. Dickinson sowed it in good soil, and planted it in the usual way. When the plants were young, Mr. Dickinson thought they did not promise so well as the local plant. He thought they might thrive better in the richest alluvial soil.

Eight spices are grown in Poona. The details are:

**POONA SPICES AND CONDIMENTS.**

<table>
<thead>
<tr>
<th>No.</th>
<th>Marāthi</th>
<th>English</th>
<th>Botanical</th>
</tr>
</thead>
<tbody>
<tr>
<td>44</td>
<td>A‘le</td>
<td>Ginger</td>
<td>Zingiber officinale.</td>
</tr>
<tr>
<td>45</td>
<td>Badčep</td>
<td>Sweet Fennel</td>
<td>Anthemum falicatum.</td>
</tr>
<tr>
<td>46</td>
<td>Hulād</td>
<td>Turmeric</td>
<td>Curcuma longa.</td>
</tr>
<tr>
<td>47</td>
<td>Kothimbir</td>
<td>Coriander</td>
<td>Coriandrum sativum.</td>
</tr>
<tr>
<td>48</td>
<td>Mirči</td>
<td>Chillies</td>
<td>Capsicum annuum.</td>
</tr>
<tr>
<td>49</td>
<td>Oon</td>
<td>…</td>
<td>Pycocis ajowan or Linguisticum agitans.</td>
</tr>
<tr>
<td>50</td>
<td>Shgu</td>
<td>Fennel</td>
<td>Anthemum sowa or Graveolus.</td>
</tr>
<tr>
<td>51</td>
<td>Us</td>
<td>Sugarcane</td>
<td>Saccharum officinarum.</td>
</tr>
</tbody>
</table>

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1 East India Papers, IV. 50. 2 Bom. Rev. Rec. 1453 of 1843, 75-76.
44. Ale Ginger Zinziber officinale is grown in good black soil. It is raised from layers at any time of the year, and, with manure and water every ten or twelve days, is ready for use green in five and mature in six months. The dry root called sunth is eaten as a condiment and is a favourite cure for colds.

45. Badishep Sweet Fennel Anethum fonicatum is sown in gardens at any time and on the edges of dry crops in July and August. It matures in two months. The seed is eaten in curry and used as a condiment and an infusion of it is taken as a cooling drink.

46. Halad Turmeric Curcuma longa is in universal use as a condiment and forms the staple of curry powder. Details have been given under No. 37.

47. Kothimbir Coriander Coriandrum sativum is grown in small quantities in good black soil with or without water and manure in the east and centre of the district. Among garden crops it is sown in any month and with bajri or other dry crops in July and August. The leaves are ready for use in three weeks and the seed or dhane in two months. The leaves and young shoots are much used as a garnish in curry and relishes and sometimes as a vegetable. The ripe seed is one of the most popular condiments.

48. Mirchi Chillies Capsicum annuum in 1881-82 covered 8089 acres, 3708 acres of them in Khed, 1867 in Junnar, 1131 in Sirur, 724 in Bhimthadi, 264 in Indapur, 221 in Haveli, 140 in Purandhar, and thirty-four in Maval. It is grown in the western fringe of the plain country. It is sown in May in a manured seed plot and is planted after fifteen days or a month. It begins to bear at the end of two months more, and, if occasionally watered, goes on bearing five or six months. The plant lasts two years but is almost always pulled up after about ten months. The first yield is much the finest and is usually sent to market, the rest being kept for home use. Chillies are eaten both green and ripe by all classes and are as much a necessary of life to the people as salt. According to Colonel Sykes the leaves are eaten as a pot-herb. The two commonest varieties are putomi a long chilly and motvi about two inches long Capsicum frutescens. Other occasional varieties are lavangi, C. minimum, C. grossum, C. ceraciforme, and C. purpureum.

49. Ova Pycodis ajowan or Lingusticum agivae is sown in gardens at any time of the year and with dry crops in July and August. It matures in three months. The seed is used as a stomachic.

50. Shepu Fennel Anethum sowa or graveolus is sown in gardens in any month and with bajri and other dry crops in July and August. It is fit for use as a vegetable in six weeks and the seed ripens in two and a half months. The plant is eaten as a pot-herb and the seed is used as a stomachic. See No. 45.

51. Us Sugarcane Saccharum officinarum in 1881-82 covered 5502 acres, 2260 of which were in Haveli, 1022 in Purandhar, 968 in Junnar, 488 in Khed, 378 in Sirur, 311 in Bhimthadi, 113 in Indapur, and twenty-two in Maval. With the help of water and
manure sugarcane is grown in deep black soils all over the district except in the extreme west; in the east it is one of the chief garden products. It is also much grown in Junnar, Khed, and Haveli, where, since the opening of the Mutha canals the area under sugarcane has considerably increased. In preparing land for sugarcane the plough is driven across it seven or eight times; village manure is thrown on at the rate of about six tons (20 large carts) to the acre; and the land is once more ploughed and flooded. When the surface is beginning to dry it is levelled with the beam-harrow and in December or March the sugarcane is planted. The layers, which are pieces of mature cane about six inches long, are set in deep furrows drawn by the plough. Sugarcane thus planted is called nāngria us or plough-cane to distinguish it from pdvlya us or trodden cane which is pressed on by the foot after the land has been ploughed, broken fine, and flooded. The treading system is usually followed with the poorer canes or in poor soil. Trodden cane or pdvlya us is manured ten or twelve days after the layers are put down by folding sheep on the spot. Trodden cane sprouts a month after planting; plough-cane being deeper set takes a month and a half to show but suffers less from any chance stoppage of water and reaches greater perfection. Sugarcane is either eaten raw or is made into raw sugar or gul.

The raw sugar or gul is extracted on the spot generally by the husbandmen themselves. A wooden press or gurhāl worked by two or more pairs of bullocks is set up. The appliances used in making gul are: chulvan a large fire-place; pāvde, a wooden instrument like a hoe for skimming or for drawing the juice from the boiler into its receptacle; shībi, a stick with a bamboo bowl or basket for straining the liquid; kāhil or kadhai, a boiling pan for thickening the juice; and gurhāl or charak the sugarcane-press. The press is made entirely of wood and is worked by two pairs of oxen. Two upright solid cylinders, eighteen or twenty inches across called navra-navri or husband and wife, whose upper parts work into each other with oblique cogs, are made to revolve by means of a horizontal beam fixed to the navra in the centre and yoked to the oxen at its ends. The cane, stripped of its leaves and cut into lengths of two or three feet, is thrice passed by hand between the cylinders, and the juice is caught in a vessel below, which from time to time is emptied into the kāhil a shallow circular iron boiling pan. When the pan is full the fire beneath it is lighted and fed chiefly with the pressed canes. After eight to twelve hours' boiling and skimming, the juice is partially cooled in earthen pots and finally poured into round holes dug in the earth and lined with cloth, where, when it forms into lumps called dheps or dhekuls it is fit for market. The pressing is done in the open air or in a light temporary shed and goes on night and day till the whole crop is pressed. A sugarcane press costs about £2 10s. (Rs. 25) and lasts three or four years. The boiling pan either belongs to the owner if he is well-to-do, or is hired either at a daily or a monthly rate according to the time for which it is wanted. The daily hire of a pan varies from 2s. to 4s. (Rs. 1 - 2) and the monthly hire from 10s. to £1 (Rs. 5 - 10). Each cane-mill employs about twelve workers.
Seven remove the canes from the field and strip their leaves; one cuts the canes into pieces two feet long; two are at the mill, one feeding the mill the other drawing out the pressed canes; one minds the fire and another the boiling pan. The last is the gulvia or sugarman. He is supposed to know exactly when the juice is sufficiently boiled and thickened to form lumps. As most sugarcane-growers are without this knowledge a sugar-man is hired at 6d. (4 as.) a day or £1 (Rs. 10) a month. The two feet long pieces of cane are passed between the upright cylinders two or three at a time. To stop any leaks the pan is smeared with lodan a glazed preparation of udid or náchni flour. It is then put on the fire-place and the hollow between the pan and the fire-place is closed with mud. About 600 pints (300 shers) of juice are poured into the pan and the fire is lighted. The boiling lasts six or seven hours during which the juice is constantly skimmed and lime-water and náchni flour are thrown into the juice to keep it from being too much boiled. When the sugarman thinks the proper time has come the pan is taken off the fire and the juice, with constant stirring, is allowed to cool for about an hour. When cool it is poured into cloth-lined holes in the ground two feet deep and a foot and a half across. It is left in the holes for a couple of days until it has hardened into lumps or nodules weighing fifty to sixty pounds (25 - 30 shers). When the lumps are formed they are taken away. If the sugarcane is of eighteen months’ growth it yields gul equal to one-fourth of the juice boiled; in other cases it yields about a sixth. If the juice is allowed to overboil, it cannot make the gul; it remains the boiled juice of sugarcane which is called kákavi. The people believe that sugarcane fed with well water yields one-fifth more gul than the same cane fed by channel water. The correctness of this belief is doubtful.

As far back as 1839-40 the growth of Mauritius cane spread greatly in Junnar. The land was well suited to this cane, the supply of water was abundant, and the people were anxious to grow it. Mr. Dickinson, a planter of considerable experience in the West Indies, was employed in making sugar. But the produce did not find a ready market. He turned his refuse sugar and treacle to account by manufacturing rum. In 1841, besides fifty-seven acres planted by the people on their own account, about 100 acres were planted in Junnar under contract with Mr. Dickinson, the manager of the sugar factory at Hivra. The sugar was used only by the European inhabitants of Poona and Ahmadnagar. In 1842-43, the area under Mauritius sugar rose from 157 to 385 acres. The cultivation spread from Junnar to Khed and Pábal. Sugar-works were started at Hivra by a joint stock company, and were afterwards bought by Mr. Dickinson. In Bhimthadi a Musalmán planted some cane in the Chakar Bág with the view of making sugar and some husbandmen turned out sugar equal in grain to Mr. Dickinson’s but not free from feculence. They also made gul which was sold at a higher price than that produced from the local cane. At first

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2 Bom. Rev. Rec. 23 of 1849, 149.
Mr. Dickinson was in the habit of contracting with the husbandmen to plant cane for him. He was afterwards able to obtain a sufficient supply at all times, chiefly from the gardens of Bráhmans, headmen, and well-to-do husbandmen. In 1842 Mr. Dickinson made 87,000 pounds of sugar worth £1500 (Rs. 15,000) more than the outturn of the previous year. Messrs. Sundt and Webbe also planted about three acres of land with Mauritius cane in their garden at Mundhve, about five miles north-east of Poona, and made about 2½ tons (2826 shers) of gul, which was sold at 16s. (Rs. 8) the palla of 120 shers. \(^1\) In 1844, the area under Mauritius cane rose from 388 to 547 acres. Mr. Dickinson’s farming continued successful partly because he was able to dispose of his rum and sugar by Government contracts. Many husbandmen were willing to make sugar but from want of capital and of local demand were obliged to content themselves by producing gul. \(^2\)

In 1847 Mr. Dickinson’s sugar had a good year at Hivra. He made about five tons (330 mans) of Muscavado sugar and sold it to the families of the soldiers and other Europeans at Poona and Ahmadnagar. Among the natives the demand was trifling and this discouraged its more extended manufacture. The natives even in the immediate neighbourhood, preferred the soft blanched sugars sold by the shopkeepers; their objection to Mr. Dickinson’s sugar was its colour, but to refine it would have caused a serious loss in quantity. In 1847 a committee which met in Poona to distribute prizes for the best specimens of superior field products, awarded a prize of £30 (Rs. 300) to two persons. One of the prize specimens was some grained Muscavado sugar, the other was sugar made by evaporation. Before crystallization had set in this sugar had been poured into pots with holes in the bottoms through which the treacle was allowed to pass. A prize of £20 (Rs. 200) was awarded to two other natives for the best brown sugar; and a third prize of £10 (Rs. 100) to two others for the best specimens of râsi or inferior sugar. All the prize specimens came from near Junnar, and were due to the exertions and influence of Dr. Gibson. \(^3\)

In 1881-82, in connection with sugarcane experiments, Mr. Woodrow, the superintendent of the botanical garden at Ganesh Khind, noticed that the soil of Poona had very little of the silica in combination with potash of soda and lime in the form known as soluble silicates. It was not difficult to reproduce these soluble silicates without which sugarcane cannot grow; but it would be expensive in India and could not be done in a short time.

To grow sugarcane without wearing out the land it was necessary to manure with two tons an acre of quicklime and ten loads an acre of woodash, and to sow and plough in a green crop such as hemp or black mustard.

After a crop of sugarcane the land should be manured for four years as usual and such crops grown as the soil and the markets suit, preference as far as possible being given to pulses and cereals

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\(^1\) Bom. Rev. Rec. 1568 of 1844, 83-84.  
\(^2\) Bom. Rev. Rec. 17 of 1846, 73.  
\(^3\) Rev. Rec. 23 of 1849, 154-156.
being avoided. In no case should more than one corn crop be grown. At the end of the four years if the ground is treated in the usual manner for sugarcane an average crop may be expected. Poona sugarcane soil is usually rich in lime, in some cases lime is present in excess. It would often pay to make a kiln and burn the calcareous earth on or near the field where lime was wanted.

Twelve bulb vegetables are grown in Poona. The details are:

<table>
<thead>
<tr>
<th>No.</th>
<th>Marathi</th>
<th>English</th>
<th>Botanical</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>Alu</td>
<td>Great-leaved Caladium</td>
<td>Caladium grandifolium.</td>
</tr>
<tr>
<td>53</td>
<td>Batata</td>
<td>Potato</td>
<td>Solanum tuberosum.</td>
</tr>
<tr>
<td>64</td>
<td>Gajar</td>
<td>Carrot</td>
<td>Daucus carota.</td>
</tr>
<tr>
<td>56</td>
<td>Randa</td>
<td>Onions</td>
<td>Allium cepa.</td>
</tr>
<tr>
<td>56</td>
<td>Kangar</td>
<td>Bulb-bearing Yam</td>
<td>Dioscorea fasciculata.</td>
</tr>
<tr>
<td>53</td>
<td>Kon or gava</td>
<td>Common Yam</td>
<td>&quot; &quot; bulbifera.</td>
</tr>
<tr>
<td>59</td>
<td>Lamon</td>
<td>Garlic</td>
<td>Allium sativum.</td>
</tr>
<tr>
<td>60</td>
<td>Mula</td>
<td>Radish</td>
<td>Raphanus sativum.</td>
</tr>
<tr>
<td>61</td>
<td>Rájálu</td>
<td>Arrow-leaved Caladium</td>
<td>Caladium sagittifolium.</td>
</tr>
<tr>
<td>62</td>
<td>Ratáhus</td>
<td>Sweet Potatoes</td>
<td>Convolvulus batatas.</td>
</tr>
<tr>
<td>63</td>
<td>Suran</td>
<td></td>
<td>Amophyllus campanulatus.</td>
</tr>
</tbody>
</table>

52. Alu Calladium grandifolium or Arum campanulatum with the help of manure and abundant water is grown in marshy hollows chiefly in the hilly west. It is generally planted in early June. The leaf is ready to cut in three months and the plant continues bearing for years. The leaf and stalk are eaten commonly as a vegetable, the root or bulb more seldom and on fast days. Dr. Birdwood gives three species C. grandifolium, C. ovatum, and C. sagittifolium. He says that the stem leaf and root of the first and third are edible, but only the leaf of the second. Rájálu, C. sagittifolium, has narrow pointed leaves and green instead of purplish stem and veins.

53. Batata the Potato Solanum tuberosum is grown in Khed and Junnar. Except close to the hilly west potatoes are generally watered and manured. The potato is cut into small pieces each with a bud or eye, is planted in June or July, and is ready between late September and November. The introduction of the potato into Poona is chiefly due to the exertions of the late Dr. Gibson who in 1838 brought potatoes from the Nilgiris and distributed them for seed. About 1841 potatoes and sugarcane were the chief products in the experimental garden at Hivra. Potatoes were already grown in Junnar, Khed, and Pábal in sufficient quantities to be exported to Dhulia, Aurangabad, and Bombay. They were sold at the rate of twenty pounds (10 shers) of the first sort, and thirty to forty pounds (15-20 shers) of the inferior quality to the rupee. The potatoes were large and equal to any then grown in any part of India. In 1844 the potatoes of north Poona supplied a very large portion of the Bombay market. In 1845 Dr. Gibson obtained a supply of good Irish potatoes. Since 1845 potato-growing has spread

1 Graham mentions C. ovatum and C. grandifolium; and held that C. sagittifolium was probably the same as C. ovatum.
2 These are generally known as Talegaon potatoes because they take rail at Talegaon station.
4 Bom, Rev. Rec. 1344 of 1842, 72.
5 Bom, Rev. Rec. 17 of 1846, 72.
rapidly and there is at present a considerable area of garden as well as dry-crop land under potatoes. The potato is not grown to the east of a line drawn from Shikarpur to Vadgaon Pir. Though it was at first viewed with suspicion the potato is now a favourite food with Brâhmans, and the Kunbis also eat the smaller and less saleable roots. Of two varieties one with a smooth light brown peel is the best, being mealy when cooked and fetching a higher price. The other has a rough dark skin and both in size and quality is inferior to the smooth-skinned variety. Two potato crops are raised in the year. One is planted in dry-crop lands in July and dug in late September; the other is planted in December and dug in February. The second crop requires a weekly watering.

54. Gójar Carrot Daucus carota with the help of water and manure is grown in large quantities in good black soil in the east of the district. The carrot is sown in garden lands at any time of the year and in dry-crop lands in July or August. It is ready for use in three months. The root is eaten as a vegetable both raw and boiled. It is also slit and dried in the sun when it will keep five or six months. When sun-dried it is called usris and has to be boiled before it is eaten.

55. Kánda Onion Allium cepa of two varieties, a red and a milder and more popular white, with the help of water and manure is grown in good black soil. Onions are sown in seed-beds at any time during the rains or cold weather, and planted when about a month old. It is fit for use in two months after planting and takes two months more to come to maturity. It requires good black soil and should have water every eight or twelve days. The onion is eaten by all except by a few of the very orthodox and on certain sacred days. It is almost a necessary of life to the lower classes. The leaves are eaten as a pot-herb.

56. Kangar Dioscorea fasciculata is a yam closely resembling the kon or common yam and the karânda or bulb-bearing yam. It is found in the hilly west. Its bulbs which form only below ground are like a small sweet potato in size and shape. The flesh is white and sweet.

57. Karânda is the bulb-bearing yam probably Dioscorea bulbifera. It is much like the common yam or kon in appearance and habits, and like it found in the hilly west. The karânda differs from the kon in having a rounder leaf and in bearing bulbs on the stems as well as on the root. Until it is boiled the flesh of the bulbs is slightly bitter.

58. Kon or Gorâdu the Common Yam Dioscorea alata is grown in small quantities without water or manure in the hilly west round the edges of fields or in house-yards. It is planted in June or July and by October the root is fit to eat. If left till December the root grows two feet long and eight inches across. The plant, which is a creeper with longish pointed leaves, bears two to five tubers or roots which when boiled make an excellent vegetable.

59. Losun Garlic Allium sativum according to Colonel Sykes is of two varieties a red and white. It is grown with the help of water and manure in good black soil and requires water once every ten or twelve days. Segments of the bulb are planted in any month, and mature in four or five months. All classes use garlic in their cookery. The leaves are eaten as a pot-herb.
60. Mula Radish Raphanus sativum according to Dr. Birdwood is of two varieties, D. radicula and oblonga, and according to Colonel Sykes is of four varieties, three of them the long, the short, and the turnip radish which are white and one which is red. Radishes are grown with the help of manure at any time of the year in garden lands and sometimes in dry-crop land during the rains. The leaves are fit for use in six weeks, the root in two months, and the plant bears pods or dingris in a fortnight more, and continues bearing for a month and a half. The leaves are eaten boiled as a pot-herb and raw as a salad. The root is eaten as a vegetable both raw and boiled.

61. Rājālu Arrowleaved Caladium Caladium sagitifolium, according to Dr. Birdwood of three varieties, is grown with the help of water and manure. The leaves are narrower and more pointed than alu leaves, and the stem leaves and bulb are eaten in the same way.

62. Radālu Sweet Potatoes Convolvulus batatas of two varieties a white and red, of which the red is the smaller and sweeter, are grown in the eastern sub-divisions. It is raised from layers put down any time in the rains or cold weather, and with the help of water and manure comes to maturity in six months. The young leaves and shoots are eaten as a pot-herb. The root is eaten boiled and roasted. It is also dried, ground to flour, and made into fast-day cakes. The mature vine is excellent fodder.

63. Suraṇ Amophophallus campanulatus is grown especially in the hilly west. It takes three years to mature. The root grows to a large size and though somewhat bitter is much esteemed as a vegetable. From a green tapering stem four or five inches in diameter at the base and about three feet long, five or six pennated leaves eighteen to twenty inches long shoot upwards and outwards. Every year the leaves and stem die and spring again.

Twenty fruit vegetables are grown in Poona. The details are:

<table>
<thead>
<tr>
<th>No.</th>
<th>Marāthi</th>
<th>English</th>
<th>Botanical</th>
</tr>
</thead>
<tbody>
<tr>
<td>64</td>
<td>Dhnadari</td>
<td>Sharp-cornered Cucumber</td>
<td>Luffa acutangula or Cucumis acutanguls</td>
</tr>
<tr>
<td>65</td>
<td>Dodi</td>
<td></td>
<td>Cucurbita longa</td>
</tr>
<tr>
<td>66</td>
<td>Dush-bhopla</td>
<td>The Long White Gourd</td>
<td>Luffa petandria</td>
</tr>
<tr>
<td>67</td>
<td>Ghodle</td>
<td></td>
<td>Cucurbita citrullus</td>
</tr>
<tr>
<td>68</td>
<td>Kalingd</td>
<td>Watermelon</td>
<td>Monordica charantia</td>
</tr>
<tr>
<td>69</td>
<td>Kari</td>
<td></td>
<td>Monordica divica</td>
</tr>
<tr>
<td>70</td>
<td>Korti</td>
<td></td>
<td>Cucurbita laegernia</td>
</tr>
<tr>
<td>71</td>
<td>Kishi-bhopla</td>
<td>Bottle Gourd, False Calabash</td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>Kharbai</td>
<td>Melon</td>
<td>Cucumis melo</td>
</tr>
<tr>
<td>73</td>
<td>Khira, Khira</td>
<td>Common Cucumber</td>
<td>Cucumis sativus</td>
</tr>
<tr>
<td>74</td>
<td>Kohdai</td>
<td></td>
<td>Cucurbita alba</td>
</tr>
<tr>
<td>75</td>
<td>Padval</td>
<td>Snake Gourd</td>
<td>Trichosanthes anguina</td>
</tr>
<tr>
<td>76</td>
<td>Paroar</td>
<td></td>
<td>Do. dioica or cucumerina</td>
</tr>
<tr>
<td>77</td>
<td>Tāmāda Bhopla</td>
<td>Red Pumpkin</td>
<td>Cucurbita melopepo</td>
</tr>
<tr>
<td>78</td>
<td>Tarbuj</td>
<td></td>
<td>Do. pepo</td>
</tr>
<tr>
<td>79</td>
<td>Tārkādi</td>
<td></td>
<td>Cucumis unaitasimus or Utilissimus</td>
</tr>
<tr>
<td>80</td>
<td>Tondli</td>
<td></td>
<td>Cocculia indica, Monordica monodelphina</td>
</tr>
<tr>
<td>81</td>
<td>Pālak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>82</td>
<td>Pāndi</td>
<td>Egg-plant</td>
<td></td>
</tr>
<tr>
<td>83</td>
<td>Vel Vānge</td>
<td>Tomato or Love-apple</td>
<td>Lycopersicon esculentum</td>
</tr>
</tbody>
</table>

Fruit Vegetables
64. Dhendshi is sometimes grown round the edge of gardens but generally in river-beds. It begins to bear about three months after it is sown. The fruit is about the size of the two fists and is white both within and without. It is eaten cooked as a vegetable.

65. Dodke the Sharp-cornered Cucumber Luffa acutangula or Cucumis acutangulus is grown with the help of water and manure in rich land in the centre and east of the district round the edges of other crops. It is grown in gardens at any time. In dry-crop lands it is sown in June-July, grows exceedingly fast and to a great size, and begins to bear in two or two and a half months, and goes on bearing for one or one and a half months. The fruit, which is dark green and six inches to a foot long, is seamed with sharp ridges from end to end. The fruit is eaten boiled. No other part of the plant is used.

66. Dudh-bhopla the Long White Gourd Cucurbita longa, a creeping plant, is usually grown in garden lands round the edge of the crops. It begins to bear in two or three months. The fruit, which is sometimes thirty or thirty-six inches long, has soft white flesh. It is a common and favourite vegetable. The skin and seeds are used in chatni. It is also made into a sweetmeat called halva.

67. Ghosale Luffa petandria is grown and used in the same way as the dodke (No. 65). The fruit, the only part eaten, is smooth, the same size as the dodke, and marked lengthwise with light lines. If watered the plant bears for two years.

68. Kalingad Watermelon Cucurbita citrallus, a creeping plant, is sown in the cold and hot months in moist sandy spots in river beds, and manured when six weeks old. The fruit is smooth and round, dark green mottled and striped with a lighter green. The flesh is pink and the seeds black or white. It is eaten both raw as a fruit and cooked in different ways.

69. Kärle Momordica charantia smaller both in plant and fruit, is grown and used like the dodke and the ghosale Nos. 65 and 67. The surface of the fruit is roughened with knobs and each seed fills the whole cross section of the fruit. It is slightly bitter and must be well boiled before it is eaten.

70. Kartoli Momordica dioica is a wild but saleable gourd like kärle. The fruit is eaten as a vegetable after two boilings.

71. Káshi-bhopla or Káshi-phal that is the Benares Pumpkin Cucurbita lagenaria is grown in gardens and sometimes on river-banks. Except that it is roundish and thick instead of long, the fruit is like the dudh-bhopla. It is only eaten cooked.¹

72. Kharbuj Melon Cucumis melo is sown in the cold and hot months in moist sandy spots in river-beds, sometimes with the watermelon. The plant is manured when six weeks old and the fruit ripens in the third or fourth month. The fruit is round, green, or yellowish, the skin covered with a network of raised brown lines. It is eaten uncooked in a variety of ways.

¹ The names Káshi-bhopla and Káshi-phal are also given to a large white gourd of a flattened globular shape with depressed segmental lines.
Khira or Khira Kádá Common Cucumber Cucumis sativus of two kinds, green and white fruited, is sown in dry-crop lands in July and August round the edge of early crops or in garden lands at any time. It begins to bear in about two months. The fruit is ten to sixteen inches long and is much eaten both raw and cooked.

Kohála Cucurbita alba is grown round the edge of gardens at any time of the year. It begins to bear in three or four months. The fruit is larger than the red pumpkin and the flesh is white. It is never eaten raw but is much esteemed as a vegetable and is made into a sweetmeat called halva.

Padval Snakegourd Trichosanthes anguina except that it is never raised in dry-crop land, is grown in the same parts of the district and in the same way as the dodke (No. 65). The fruit, which is about three feet long and two or three inches thick, is marked lengthways with white lines. It is eaten boiled as a vegetable. The Maráthás use the leaves, stalk, and root medicinally.

Parrar Trichosanthes dioica or cucumerina is grown early in the centre and cast along the edges of betel-leaf gardens. The fruit is small and green and is highly valued by the people as a medicine.

Támbda Bhopla Red Pumpkin Cucurbita melopepo or pepo is usually grown round the edges of garden lands. It is sown at any time of the year and begins to bear in about three months. The fruit is roundish and sometimes very large, about eighteen inches in diameter with reddish flesh. It is cooked as a vegetable, and the shoots and young leaves are used as a pot-herb. The seeds are also eaten. This pumpkin is called dánagar in some parts of the Deccan.

Tarbuj1 is generally sown with kharbuj the melon in the cold and hot months in moist sandy spots in river-beds. It is manured when six weeks old. The fruit is like the kharbuj in the colour of its flesh and seeds, but is rather longer. It is eaten as a fruit and in salad.

Tárkádá Cucumis usitatissimus or utilissimus is usually grown in river-beds in the cold and hot weather. The seed is planted in the moist sand and the plant is manured when about three weeks old. It ripens in about two and a half months. The fruit, which is smooth and about two feet long, is much eaten both raw and cooked.

Tondli Coccinia indica or Momordica monodelphia is grown in the same parts of the district and in the same way as the dodke. (No. 65). The fruit is a little smaller than a hen’s egg and when ripe is red. It is eaten as a vegetable, but is never given to children as it is supposed to blunt the faculties. There is a bitter variety which is useless. The vine sometimes lasts for years.

Váluk is grown during the rains round fields of dry crop and at other times in garden lands. It bears in about three months. The fruit is eight or ten inches long and is yellowish marked lengthwise by lines. It is sweet and is eaten raw and cooked.

1 Sir G. Birdwood gives tarbuj instead of kalingad as the vernacular of Cucurbita citrullus the watermelon. Mr. Fletcher admits that tarbuj is sometimes used for kalingad. He thinks this a mistake and that the tarbuj is more allied to the kharbuj.
82. **Vángi or Baingan** the Egg-plant *Solanum melongena* is grown with the help of manure and water in considerable quantities in rich soil often on river-bank mud in the centre and east and in gardens over the whole district except the west. In gardens it is sown at any time of the year. In dry land it is sown in June in seed-beds, planted during July, begins to bear in September, and if occasionally watered goes on bearing for four months. Its oval egg-like and slightly bitter fruit is one of the commonest and best of Deccan vegetables. It is boiled and fried, made into pickle, and sometimes slit and dried in the sun and kept in store under the name of *usris*. The leaves are said to be good for cleaning pearls. Hindus hold it wrong to use the stem as fuel. Besides the oval-fruited baingan there is a sort called *bangáli* with fruit sometimes two feet long. There is also a wild variety called *dorli vángi* with a small and nearly round fruit.

83. **Vel Vángi** Tomato or Love-apple *Lycopersicon esculentum* with the help of manure and good soil is grown in small quantities all over the district and chiefly near large markets in the centre and east. It is grown in gardens at any time. In dry-crop land it is sown in June or July and fruits in October. The fruit is eaten both raw and cooked. The tomato was brought to India from Brazil by the Portuguese.

Four pod vegetables are grown in Poona. The details are:

<table>
<thead>
<tr>
<th>NO.</th>
<th>MARÁTHIL</th>
<th>ENGLISH</th>
<th>BOTANICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>84</td>
<td><em>Abai</em> or <em>Kharámbí</em></td>
<td>...</td>
<td><em>Abelmoschus esculentus</em> or <em>Hibiscus esculentus</em></td>
</tr>
<tr>
<td>85</td>
<td><em>Bhendi</em></td>
<td><em>Eatable</em></td>
<td><em>Dolichos lablab</em></td>
</tr>
<tr>
<td>86</td>
<td><em>Ghevada</em></td>
<td><em>Gordí</em></td>
<td><em>Cynoglossus pinnatifidus</em> or <em>Dolichos tabebuia</em></td>
</tr>
<tr>
<td>87</td>
<td><em>Ghevada</em></td>
<td><em>Gordí</em></td>
<td><em>Cynoglossus pinnatifidus</em> or <em>Dolichos tabebuia</em></td>
</tr>
</tbody>
</table>

84. **Abai or Kharámbí**, a creeping plant, is grown without water or manure near houses or on the edges of garden lands in all parts of the district. It begins to bear in three months and in good soil goes on bearing three or four years. The pod when very young and tender is used as a vegetable.

85. **Bhendi** Eatable *Hibiscus* *Hibiscus esculentus* is of two varieties *gari* or early and *hali* or late. Both are grown in gardens in all parts of the district and all the year round. They are also grown without water but often with manure. As a dry crop the early or *gari bhendi* with large leaves and short thick pods is sown in June, grows about two feet high, and bears from early August to December. The late or *hali bhendi*, with small leaves and thin prickly pods, is sown in June or July along the edges of or among *bájri* crops, grows seven feet high, begins to bear in late September, and goes on bearing till the end of November. Both kinds are grown in garden lands all the year round. The green pods are eaten boiled as a vegetable or fried. The ripe seeds are used in curry and *chatni*. The bark yields a fibre which is seldom used.
86. Ghevda Dolichos lablab is of many varieties, the chief being the black-seeded, the white-seeded, the bot or finger-like, pattáde or the hanumáñ, and the white with curved white pods. It is grown with or without manure and water. It is sown in June or July on the edges of dry crops, begins to bear in October, and goes on bearing till January. As a watered crop it is grown round gardens or in the yards and porches of houses, where it goes on bearing two or three years. The pods are eaten boiled as a vegetable and the grain is used as a pulse.

87. Govári Cyamopsis psoralioides is grown in gardens at any time and during the rains on the edges or in the corners of the early grain crops. It begins to bear within three months and if watered occasionally goes on bearing for some months. The plant grows about three feet high with a single fibrous stem from which the pods grow in bunches. The pod is eaten green and is much prized as a vegetable.

Twelve leaf vegetables are grown in Poona. The details are:

<table>
<thead>
<tr>
<th>No.</th>
<th>Maráthi</th>
<th>English</th>
<th>Botanical</th>
</tr>
</thead>
<tbody>
<tr>
<td>88</td>
<td>Alvi</td>
<td>Common Cress</td>
<td>Lepidium sativum</td>
</tr>
<tr>
<td>89</td>
<td>Chákvat</td>
<td>Goose Foot</td>
<td>Chenopodium viride or album, Amaranthus polygamus</td>
</tr>
<tr>
<td>90</td>
<td>Chandanbátva</td>
<td>...</td>
<td>Chenopodium. Amaranthus polygamus</td>
</tr>
<tr>
<td>91</td>
<td>Chalvi</td>
<td>Hermaphrodite Amaranth</td>
<td></td>
</tr>
<tr>
<td>92</td>
<td>Cháuka</td>
<td>Bladder Dock, Bilater Sorrel</td>
<td>Rumex vesicarius</td>
</tr>
<tr>
<td>93</td>
<td>Mathí</td>
<td>Common Greek grass</td>
<td>Trigonella fumungrascum. Sinapis racemosa.</td>
</tr>
<tr>
<td>94</td>
<td>Methí</td>
<td>Mustard</td>
<td>Amaranthus tritae.</td>
</tr>
<tr>
<td>95</td>
<td>Mohari or Háí</td>
<td>...</td>
<td>Amaranthus.</td>
</tr>
<tr>
<td>96</td>
<td>Pohla</td>
<td>...</td>
<td>Amaranthus.</td>
</tr>
<tr>
<td>97</td>
<td>Pudina</td>
<td>Mint</td>
<td>Mentha sativa.</td>
</tr>
<tr>
<td>98</td>
<td>Bagíra</td>
<td>...</td>
<td>Amaranthus candidus.</td>
</tr>
<tr>
<td>99</td>
<td>Tándúja</td>
<td>Easyable Amaranth</td>
<td>Amaranthus olacneus.</td>
</tr>
</tbody>
</table>

88. Alvi Cress Lepidium sativum is grown in gardens as a pot-herb and for the seed which is esteemed good for women after child-birth and is used in poultices for bruises.

89. Chákvat Goose Foot Chenopodium viride or album is usually grown in gardens, but sometimes in corners of early grain fields. It is ready to cut a month after sowing. The plant is much esteemed as a pot-herb.

90. Chandanbátva Chenopodium is grown in all garden lands at any time of the year. The plant stands twelve to eighteen inches high and has the new leaves of the upper shoot red. The leaves and stalk are eaten as a pot-herb.

91. Chalvi Hermaphrodite amaranth Amaranthus polygamus is grown in gardens at any time of the year. It closely resembles tándúja but seldom grows more than six inches high and the leaves and stem are uniformly green. The leaves are eaten as a pot-herb.

92. Cháuka Bladder Dock Rumex vesicarius is grown in gardens at any time of the year and is ready for use about a month after sowing. The plant is eaten as a pot-herb and has a pleasant bitter flavour.
93. **Máth** Amaranthus tristis of two varieties red and green, is grown in gardens at any time of the year and is fit for use five or six weeks after sowing. The red variety stands three to five feet high, with a thick stem and has a small central plume as well as side flowers, and the leaves and especially the stem have a red tinge. The green variety is smaller. The leaves and young shoots are eaten boiled. A wild amaranth called káte-máth is much eaten by the lower classes.

94. **Methi** Common Greek grass Trigonella foenum-graecum is grown in gardens in all parts of the district. It is sown at any time of the year, and with the help of water and manure is fit to cut in about three weeks, and is mature in two and a half months. When young the entire plant is eaten as a pot-herb by all classes. The seed is given to cattle as a strengthener and is much used as a condiment in curry. The mature stalks are an excellent fodder.

95. **Mohari** or **Bádi** Mustard Sinapis racemosa of two kinds, red and black, is either grown at any time of the year in gardens or during the cold season round fields of wheat or gram, or among wheat and linseed. The leaves and green pods are eaten as vegetable. The seed is used in curries and relishes, a medicinal oil is extracted from it, and it is powdered and applied as a blister.

96. **Pokla** Amaranthus of two kinds green and red, grows one or two feet high in gardens at any time of the year. The leaf which is eaten as a pot-herb is ready for use in six weeks.

97. **Pudina** Mint Mentha sativa is grown in garden lands. It is a perennial and needs an occasional watering. The leaves are used as a garnish.

98. **Rágíra** of two varieties red and green Amaranthus candidus is grown in gardens at any time of the year and sometimes among watered wheat. In the green variety the seed plumes are deep crimson and the stem and leaves are tinged with crimson, otherwise the varieties do not differ. The plant stands three to five feet high and has a heavy overhanging central seed plume. The seed is exceedingly small and is usually trodden out by human feet or rubbed out by hand. It is much eaten on fast days either as láhi which is made into balls or in cakes made from the flour of the parched grain. The leaves are commonly eaten as a pot-herb.

99. **Tándulja** Eatable Amaranth Amaranthus oleraceus is grown in gardens at any time of the year and is fit for use five or six weeks after sowing. The plant grows a foot high and has the stem red near the root. It has no seed plume, but flowers at each of its side shoots. Only the leaves and top shoots are eaten as a pot-herb.

**Dráksha** the Vine Vitis vinifera is occasionally grown in the best garden land on the east border of the western belt and near

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1 Sykes mentions three varieties and gives A. oleraceus as the botanical name.
Chapter IV. 
Agriculture
Crops.
The Vine.

POONA.

Poona. The vine is grown from cuttings which are ready for planting in six or eight months. It begins to bear in the third year and is in full fruit in the sixth or seventh. With care a vine goes on bearing for sixty or even it is said for a hundred years. The vine is trained in one of two ways. It is either supported on a stout upright often a growing stump which is pruned to a pollard-like shape about five feet high, or a strong open trellis roof is thrown over the vineyard about six feet from the ground and the vines are trained horizontally on it. The vine supported on living pollards is said to pay best; the trellis-trained vine is the better preferred by the rich for its appearance and shade, and is said to encourage growth to a greater age. The vine yields sweet grapes in January February and March, and sour grapes in August. The sour grapes are very abundant, but are not encouraged as they are of little value; the sweet grape is tended in every possible way, but is apt to suffer from disease. After each crop the vine is pruned and salt, sheep’s dung, and dry fish are applied to each vine after the sour crop is over. Vines are flooded once in five or six days, the earth being previously loosened round their roots. Blight attacks them when the buds first appear and is removed by shaking the branches by the hand over a cloth into which the blight falls and is then carried to a distance and destroyed. This operation is performed three times a day, till the buds are an inch long. Six varieties are grown: kāli or black, a long fleshy grape of two kinds, abhā a large round white watery grape and phākā a long somewhat fleshy white grape, sāhābī or kerna a long white sweet grape, bedāna the seedless a small round sweet and white grape, sultāni or royal a large round bitter white grape, and sākhri or sweet a small round white and very sweet grape.

Coffee was grown in 1839 by Messrs. Sundt and Webbe in their garden at Mundhve, five miles north-east of Poona. The Bombay Chamber of Commerce considered it excellent both in quality and cleanliness, and said it would fetch the same price as the best Mocha coffee, or about 2d. the pound (Rs. 14 the Surat man of 40 pounds). To encourage the experiment, Government granted Messrs. Sundt and Webbe ten acres of land close to their garden. Red gravelly soil, according to Mr. Sundt, is the best suited for the coffee plant. The plant when young requires a great deal of shade. When about a year old it is planted in open ground where for at least four years, it must be screened from the extreme heat of the sun. To shade the coffee bushes Mr. Sundt grew castor-oil plants round the young trees. It wants no manure and water only fifteen or twenty days during the dry season. Mr. Sundt thought that much of the Poona soil was admirably suited to the coffee plant. He particularly recommended some spots of red gravelly soil between Khandala and Kālā.1 In 1842-43 Messrs. Sundt and Webbe grew plants from seed furnished them by Colonel Capon direct from Mocha. They had 7000 seedlings in their nursery ready for planting, and several berry-bearing trees which were fair specimens of fine coffee plants. A sample of

1 Bom. Rev. Rec. 1241 of 1841, 75-76.
coffee was submitted to the Chamber of Commerce who considered it equal to Mocha coffee.¹

In 1842-43 the Senna plant was grown in the Junnar sub-division by Mr. Dickinson and Dr. Gibson who supplied trees to several landlords.²

About the year 1840 an attempt was made to introduce the cochineal insect into the Deccan. The attempt was unsuccessful, not because the climate was unsuited to the insect, but because the only insect that could be procured was of the very smallest and worst kind known as the Cochineal Silvester.³

In October 1829, Signor Mutti, a native of Italy, offered his services to the Bombay Government as superintendent of any establishment that might be formed for the cultivation of silk. Government declined his offer but gave him to understand that liberal encouragement would be given to any one who might wish to grow silk on his own account. Encouraged by this assurance Signor Mutti resolved to attempt to grow silk. On his application in April 1830 the Collector of Poona was directed to make over to him the Kothrud garden in the town of Poona free of rent for fifteen years, on condition that the ground should be applied only to the growth of the mulberry. To this in 1830, 1831, and 1832, several plots of land were added. Lord Clare, then Governor of Bombay, took a strong interest in the subject, urged the desirableness of supporting Signor Mutti, and made him an advance of £600 (Rs. 6000). The Collector was at the same time authorised to remit the rent for six years on land cultivated with mulberry and to make advances for wells. In consequence of some disagreement between Signor Mutti and his partner Sorabji Patel most of the lands assigned to Signor Mutti had to be resumed; but he was left in possession of the Kothrud and Dhamdher gardens.⁴ About the same time (1829) Mr. Giberne’s experiments in growing silk in Khândesh attracted the attention of the Bombay Government, and the Bengal Government were asked to send to Bombay five convicts with their families who were skilled in the management of silk-worms and in the winding of silk. These men brought with them a quantity of eggs and were attached to the jail at Poona. But from want of careful supervision they appear to have done little either in the way of producing silk or of teaching. At the same time Mr. Owen, the surgeon at Sirur, began to manufacture silk upon a limited scale. The growth of his mulberries and the fineness of the fibre showed that the soil and climate of that place were most favourable. Excellent

⁵ Mr. Jacquesmont, the cynical French traveller and botanist, met Lord Clare at the Kothrud garden. Of several experts present each gave his opinion. Mr. Mutti for mulberry trees, and Dr. Luah, who had a botanical garden at Dapuri, for mulberry hedges. Each kept to the opinion he had brought with him and in the evening they left Kothrud as they came, Dr. Luah to grow mulberry shrubs, Mr. Mutti to plant trees, the Parsi to get rid of his investment, and the Government to think over it all. Voyages, III. 580.
silk was also produced at the Poona jail.¹ As the culture of silk was abandoned at Dhulia in Khándesh, Government determined to centre their efforts on Signor Mutti’s experiments. In 1837 he was appointed temporarily on a monthly salary of £25 (Rs. 250) with a native supervisor on £5 (Rs. 50), and was allowed to spend not more than £10 (Rs. 100) a month in starting mulberry plantations. On the 21st of July 1838, Signor Mutti submitted his first report as superintendent of silk culture in the Deccan. According to this report, besides 567,081 slips and 4252 standard trees planted by husbandmen in the Deccan, Konkan, and Bombay, there were 49,850 slips in the Government nursery at Sásvad. Signor Mutti had also at Kothrud several persons whom he had instructed in all the branches of silk-making and had succeeded in making them smart, intelligent, and active.² He had also received the most satisfactory reports of his silk from London, Glasgow, and Manchester, where it had been valued as high as 23s. 26s. and 29s. though reeled independently by natives. Upwards of twenty natives were reported to be acquainted with the winding of silk, and the people were said to be ready to take to silk-growing. In 1838, a sample of silk produced by Signor Mutti was sent for report to Mr. Joseph Ewart, a Manchester silk-broker, who reported that the thread was very good, being clean and even, and in every way showed excellent management on the part of the grower; that the silks would always be saleable as they would command a decided preference over the Bengal silks then imported, and come into close competition with Italian silks. The 1839 report is not so flourishing. Drought, the incursions of cattle, and neglect had much injured the mulberry bushes. Still the superintendent was sanguine. The dislike of the natives to plant mulberry trees, rear worms, and wind silk had been overcome, and several were engaged in making proper mulberry nurseries and transplanting and pruning the trees. The system of planting the mulberry bushes without earth had succeeded well and proved economical; the quantity of eggs produced by the butterflies had increased; they were regularly hatched and the cocoons had grown to the size of the yellow and sulphur varieties. At Kothrud the cocoons were so large that 1000 would yield two pounds (1 sher) of silk, and the people had shown themselves able to wind superior silk. The value of the mulberry plantation had been shown by the sale of the leaves.³

¹ Malcolm’s Government of India, Appendix A. 69.
² Mr. Mutti had collected many cocoons of a silk-worm probably Bombax (Saturnia) mylitta, said to breed wild near Poona of which he got basketfuls from the children at a very cheap rate. The green mucus of the animal made it very hard to clean. Still Mr. Mutti reeled it. It was a clear yellow, but with little gloss. Bengal Bráhmans were said to make beautiful stuff of it. Jacquemont’s Voyages, III. 580-81.
³ The leaves brought for feeding the worms at Vadgaon had been purchased from the husbandmen at 124. (2 a.) the pound; the greater part were the prunings of mulberry plants under one year of age from the villages of Chinchuri, Vadgaon, Náráyanagaon, Sávargaon, Gunjávádi, and Máfegaon. The people of Shivner and Pábal showed every inclination to plant the mulberry tree. The plantations were usually found in channel-watered places. The mulberry trees grew among plantains and sugarcane which did not appear to injure the leaf, and almost all kinds of produce could be grown under the trees which were usually ten to twelve feet apart. The people showed great anxiety to possess worms in order to produce cocoons. All dislike on the
In 1839, the advance of £600 (Rs. 6000) granted to Signor Mutti was written off in consideration of the benefit his exertions were calculated to confer on the country and of the loss to which he was subjected by ineffectual attempts to introduce the bush system of growing mulberries, a system afterwards abandoned by him in favour of standards.

In 1840 Messrs. Daniel and Co. started an establishment to plant mulberry bushes with the view of rearing silk-worms on a large scale. In spite of the opposition of the superintendent of silk culture they bought 533,800 cuttings with which they planted twenty-five acres of land near Narayangaon in Junnar, besides 16 1/2 acres (22 bighás) of land at Sás vad in Úrandhar. They had also 500,000 cuttings in different gardens under their management. Mr. James on their behalf reared 25,000 worms at Narayangaon, which gave thirty-five pounds (17½ shers) of cocoons. From some of their eggs he had nearly a lakh of cocoons in his garden. All this was done in four months. Mr. James spoke highly of the bush system, but by no means wished to discourage the planting of trees. He stated that if hedges were grown between the trees, it lightened the expense so much that the planter could afford to encourage their growth. Hedges he considered absolutely necessary to the success of any person rearing silk-worms and attributed Signor Mutti's failure to the want of hedges. Messrs. Daniel & Co. also established three silk-winding places or filatures, one at Kothrud near Poona, a second at Sás vad, and a third at Narayangaon. At Narayangaon there were a number of worms and cocoons. The cocoons were inferior to Signor Mutti's cocoons both in size and softness. This was supposed to be due to the fact that bush leaves had not the same strength and nourishing power as tree leaves. A number of acres were grown with the bush, but its appearance was not healthy. In 1840, Signor Mutti went to Egypt on sick leave, and an honorarium of £200 (Rs. 2000) was given him and £40 (Rs. 400) to Mr. Ramos his assistant. An increase of £5 (Rs. 50) to Signor Mutti's pay was also sanctioned by Government. In June 1840 Signor Mutti returned to India. Of his operations for the next three years distinct accounts have not been obtained. The Government seem to have been satisfied with his proceedings. In 1843 Sir G. Arthur, then Governor of Bombay, recorded a minute strongly advocating perseverance in silk-growing. In this year, according to Signor Mutti's report, in Poona, Sárábjí Patel had extensive plantations of several thousand mulberry trees two to ten years old and made a small quantity of silk. There were besides 1400 mulberry trees three to seven years old in the station of Poona, and 50,806 trees one to five years old belonging to 317 individuals in thirty-six villages. There were also mulberry hedge rows. In two villages

part of the Bráhmans to the making of silk was overcome. They were ready to wind the silk from the cocoons which could only be done by removing the cocoons in boiling water, thus depriving the grub within the cocoon of life. Many Bráhmans were thus employed. They were also ready to engage in rearing worms and in winding silk in their own houses. Bom. Rev. Rec. 1844 of 1845, 67.

1 Bom. Rev. Rec. 1241 of 1841, 75-76.  
two Bráhmans had reared worms and made good cocoons. One reared 61,000 worms with considerable success and a profitable result. Signor Mutti had mulberry plantations at Kásimbág Vadgaon, Chinchore, Cháś, Nánuri, Sankora, Náráyangaon, Hárví, Utur, Húdápúr, Dingora, Junnar, Manchar, and Ausrí. He also mentioned six breeding places under his superintendence. At one of these, Sávargaon, there were 35,000 worms. Reeling was carried on at Vadgaon. It was asserted that worms could be reared with less risk and in a shorter time than in Europe and that the worms were as good as were required for the higher qualities of Italian silk. The introduction of the art of winding, it was thought, wanted careful supervision at the outset, and the Collector of Poona was directed to continue the office of superintendent for five years longer, to erect four buildings for rearing worms in the Junnar or Pábál sub-division at a cost not exceeding £500 (Rs. 5000) as public property, and to conduct the breeding of worms and the making of silk on account of Signor Mutti himself or some private individual. Houses for rearing worms were accordingly built at Poona and Kásimbág Vadgaon. The Collector was also authorised to advance £200 (Rs. 2000) as a loan without interest to Signor Mutti to be repaid by instalments of £10 (Rs. 100) a month and to place £300 (Rs. 3000) at the disposal of the superintendent to be advanced by him to villagers who were anxious to grow silk. Signor Mutti established permanent winding places or filatures at Junnar, Dingora, and Náráyangaon. He had 400,000 worms in these places, and had been able to wind 160 to 200 pounds of silk a year. Shortly after this date Signor Mutti fell ill, and Mr. Ramos was appointed to act for him.

In 1845 doubts of the success of the silk-growing experiment began to be raised. In 1847 a committee was appointed to report on the subject. The two members Dr. Gibson and Mr. Davidson joined in the opinion that any further attempt by Government to grow the mulberry with a view to the making of silk in the Deccan was not likely to succeed. Dr. Gibson expressed the decided opinion that neither bush nor standard could be profitably grown in the Deccan, and that the results shown by Signor Mutti had been due to an artificial stimulation, which deceived both Government and himself. Mr. Davidson agreed with Dr. Gibson, and Government ordered that all silk operations should cease.

No further attempt was made to grow silk till in September 1875, a sum of £250 (Rs. 2500) was placed at the disposal of Major G. Coussmaker, the superintendent of the photozincographic office at Poona, to carry out tasar silk experiments. Major Coussmaker began the experiments on the 1st of August 1875. Pictures showing the moths, cocoons, and caterpillars were sent to the Collectors and forest officers and to their native subordinates. Descriptive circulars were also sent in English, Maráthí, Gujaráthí, and Kánáresé, offering to buy seed cocoons at Is. (8 as.) and burst cocoons at 6d. (4 as.) the hundred. He asked the native officials to submit fortnightly reports on facts which came to their notice. He also from time to

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time wrote and distributed fresh circulars as he found out new facts or drew fresh conclusions. By these means a general interest in the collection of tasar cocoons was aroused and at a cost of £16 8s. (Rs. 164), Major Coussmaker received 62,216 cocoons by rail, post, cart, and headloads. Most of these cocoons came from the Konkan forests. The trees on which they were chiefly found were, in the Konkan, bor and guti Zizyphus jujuba and xylopyra, ain Terminalia tomentosa, kānchān Bauhinia parviflora, harvand Carissa carandas, and māl kāngavī Celastrus montana; and in Poona, Sátāra, Gugarāt, and Khāndesh, on these trees and also on nāndruk Ficus benjamina, pimpri Ficus tjiela, dhāvda Conocarpus latifolia, and lendeya Lagersträmia parviflora. In the Panch Mahāls they were also found on hālāda Chloroxylon swietenia. In the Konkan the men who collected them were to some extent Musalmāns, Mhārs, and Marāthās, but chiefly Kātkaris, Kolis, Kunbis, Vārlis, and Thākurs, men who from February to May were in the habit of cutting branches to burn on their land. Major Coussmaker attempted to rear the worms in his office building, in some of the rooms of his house, and in the veranda. Some of the cases and feeding trays were hung from the rafters of the rooms, from hooks and trees; others were fastened to uprights driven into the ground. In this way with wire and string netting and with bamboo chicks, Major Coussmaker succeeded in restraining the wanderings of the caterpillars and in guarding them from their enemies. But the food failed and batch after batch died from starvation. Between the middle of August 1875 and the end of October 1876 Major Coussmaker was hardly ever without moths. The gathering of the cocoons from the trees and moving them, shutting them in the baskets and bags, and generally disturbing them had the effect of repeatedly bringing out the moths during the months of February and March. Upwards of 100 moths were out every night and whenever a fresh batch of seed cocoons arrived, whatever the temperature or the time of year, moths came out in large quantities. The first supplies from the district officials arrived in February and included both full and empty cocoons packed in baskets and bags. On arrival it was not easy to find how many of the cocoons were full and how many were burst. The shaking had so disturbed them that the consignments were found to contain many moths more or less damaged. Major Coussmaker had all the cocoons moved to open trays and put into a spare room. The details for the eight months ending September show that on an average 529 females paired and 21,329 worms were hatched every month:

<table>
<thead>
<tr>
<th>Month</th>
<th>Males</th>
<th>Females</th>
<th>Paired</th>
<th>Worms Hatched</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 10th - 29th</td>
<td>355</td>
<td>419</td>
<td>48</td>
<td>No record</td>
</tr>
<tr>
<td>March</td>
<td>1,126</td>
<td>1,217</td>
<td>369</td>
<td>26,770</td>
</tr>
<tr>
<td>April</td>
<td>578</td>
<td>656</td>
<td>259</td>
<td>14,761</td>
</tr>
<tr>
<td>May</td>
<td>539</td>
<td>553</td>
<td>115</td>
<td>38,570</td>
</tr>
<tr>
<td>June</td>
<td>584</td>
<td>523</td>
<td>424</td>
<td>45,097</td>
</tr>
<tr>
<td>July</td>
<td>436</td>
<td>445</td>
<td>372</td>
<td>45,854</td>
</tr>
<tr>
<td>August</td>
<td>425</td>
<td>349</td>
<td>389</td>
<td>46,524</td>
</tr>
<tr>
<td>September 1st-10th</td>
<td>142</td>
<td>130</td>
<td>89</td>
<td>75,539</td>
</tr>
<tr>
<td>Total</td>
<td>4097</td>
<td>4251</td>
<td>2945</td>
<td>170,634</td>
</tr>
</tbody>
</table>
Before the supplies from the districts came in, Major Coussmaker’s men had gathered some 300 cocoons near Poona. These cocoons and the moths that came out of them, as well as the caterpillars which were hatched, were mostly sacrificed in experiments. The result confirmed Major Coussmaker’s former experience that the males require more liberty than the females, that the females rarely moved from their empty cocoons or from the twigs on to which they crawled when their wings were stiffening, while the males flew away as soon as their wings were stiff enough. As during the rainy season several male moths were generally flying about, females, when tied out, were soon paired, their talc-like disks shining like little moons and drawing the male like the light of the glow-worm. In this way Major Coussmaker succeeded in getting nearly all the females which came out during the monsoon of 1875 paired. His arrangements for rearing failed. His space was limited and his cages were badly aired, and though he hatched several hundreds he gathered only fifty cocoons. He afterwards moved into a larger house and gave the worms more room. He joined chairs and tables together with bamboos so as to make them form a succession of benches. On these benches he set bamboo mat trays and above the trays he hung twigs on strings, entirely giving up the indoor cage system. In some places he put rows of small pots with twigs in them, filling them with moist earth. This did not answer, as the caterpillars were more ready to crawl down the pots than up them and the free movement of the air was hindered. He therefore determined to trust to the strings alone. For a short time everything went well. Major Coussmaker had plenty of good fresh leaves; the worms were not crowded, and they grew considerably. But long before their fifty days of life were over, the leaves became hard or diseased, and though Major Coussmaker had abundance of leaves all were of inferior quality. During the whole season caterpillar after caterpillar pined and withered. Though from time to time the trees flushed and sent out fresh shoots, their efforts were spasmodic, and owing to the great scarcity of rain Major Coussmaker found it impossible to ensure a steady supply of suitable food. He found that many young worms crawled down the legs of the chairs and tables and disappeared. He accordingly changed his trays. He fastened ropes to the rafters and to hooks in the ceiling, and passing them through broken bottle fairleaders, so as to prevent the enemies of the worms climbing down or the worms climbing up, he made a succession of swinging trays, over which as before he set strings of twigs. This method greatly lessened the labour of tending; the worms were much more secure and the ventilation was good. But again as in the year before food failed. Major Coussmaker changed the place of the swinging trays. Some he tied to the boughs of trees, some in one veranda, some in another; but the food was no better. He let some loose on trees in the station, but there were no fresh leaves and they died or were taken by the birds, squirrels, and lizards. On a range of hills a few miles out of Poona he found a grassy tract with many bushes and saplings of Terminalia, Lagerstræmia, and Carissa. Here he turned out some thousand worms and set men to watch them during the day. For
some five weeks they did well. Then a very hot fortnight set in, the saplings and small bushes lost their leaves, and almost all the worms died. Major Coussmaker thought the failure was entirely due to the unprecedented drought. Although Major Coussmaker failed in rearing, he succeeded in breeding and in procuring fertile eggs. During the hot weather, when no wild males were flying, Major Coussmaker found it was little use tying out the females, but during the rains he was successful. From February to May he turned all the moths as they came into a bedstead shaded with mosquito curtains, and a fair proportion paired. After May he rigged the swinging trays as before, and in the mat trays resting on them he set the cocoons, covering the whole with bamboo chicks fastened like a pent-house about three feet high. After they came out of the cocoons the moths crawled up the chicks and there hung while their wings were expanding. Major Coussmaker found that several of the moths paired in these cages. Each morning he looked at them, and leaving the pairs inside the cages undisturbed, he put the rest of the moths into a large basket and covered them. About four in the afternoon he looked at them and found that several of them had paired. These were left undisturbed, and all the unpaired females were tethered to a small trellis-work. At dark, this frame was hung to a tree, and all the unpaired males were set free near it. In the morning most of the tethered females were paired. The frame was brought indoors and hung out of the way. Care was taken to use no force in separating the pairs. They were always allowed to free themselves. After they were free the females were put under inverted baskets to lay their eggs, and the males were put into a basket to be set free at sunset. By following this system, most of the females paired and their eggs proved fertile, but the average outturn of eggs was less than Major Coussmaker had formerly noticed, only 106 to each moth. Major Coussmaker did not have the eggs counted, only the number of worms hatched. Major Coussmaker’s head silk-worm tender was a Maratha widow, who had been taught in the female normal school at Poona. It was chiefly from her that he received the figures quoted above. She made every effort to keep the worms alive, closing windows and doors, hanging up wet cloths, putting khaskhas-tatties to the doors, sprinkling the twigs and dipping them in water; but all was of no avail. Death returns kept by Major Coussmaker showed that of the worms that died two-thirds were under a week old. Of 170,634 worms hatched between the 1st of April and the 10th of September only 2623 grew up and spun cocoons. This mortality in Major Coussmaker’s opinion was due to the want of suitable food. Under the head tender, Major Coussmaker had five lads, some looking after the worms in his garden and some tending them in the bush-lands on the hills near, and at odd times cleaning the burst cocoons and preparing them for the manufacturer. Most of the cocoons sent to Major Coussmaker were those of Antheraea paphia and belonged to the common variety of that moth. In September 1875, Major Bowie, Deputy Commissioner at Sambalpur, sent him some cocoons belonging to another variety called by the natives of the Central Provinces the Chhattisgad cocoon. These were larger, but much
Deccan.]  

POONA.  

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thinner and softer. The moths, though slightly darker, paired readily with the small hard cocoon moth. As far as Major Coussmaker could judge the difference between the two was one of climate and feeding. The Chhattisgarh moths were more delicate and limper. The remaining cocoons received from the Bombay forests were of Attacus edwardsii and of Cricula trifenestrata. Several moths of both these species came out but none paired. Attacus edwardsii seemed to be distributed over the whole Presidency and was found also in Maisur; Cricula trifenestrata came from North Kānara only. The tree which Major Coussmaker used for indoor rearing was the nándruk Ficus benjamina. The leaves travel well and long keep fresh. The tree has constant flushes of young leaves and being planted for shelter in many places along the roadside was in every way the best suited for a large experiment. At the same time, as they were neither pruned nor watered, the nándruks failed to yield a trustworthy supply of suitable leaves. Major Coussmaker tried the bor Zizyphus jujuba, but it quickly withered. Still on it, on the ain Terminalia tomentosa, the lendeya Lagerstræmia parviflora, and the karwãnd Carissa carandas, a few caterpillars grew to maturity out of doors. Mr. Woodrow, the superintendent of the Ganeshkhind Botanical Gardens, had also in the same year (1876-77) a small sum placed at his disposal by the Collector of Poona to make experiments in the growth of tasar silk. He laid down a great many cuttings of Ficus benjamina, and built a light roomy shed, with the sides and top of coir matting, a cheap and effective structure. Mr. Woodrow got a few seed cocoons and Major Coussmaker from time to time gave him fertile eggs. The result of his experiments was the same as of Major Coussmaker's. The moths bred freely in confinement and produced fertile eggs in abundance and in due course the caterpillars appeared. But of the number that entered on the worm stage only about five per cent lived to spin cocoons and these cocoons were decidedly inferior to what might be gathered all over the country. Every now and again the caterpillars threw well, but when the quality of the leaves fell off, the caterpillars starved and died. At the close of his experiments he had 923 good cocoons. Mr. Lyle, an American employed on the Peninsula railway, tried a series of experiments in rearing silk-worms at his house near Dāpurī. As he had no room or shed, he with great ingenuity made a set of large pens or cages fixed on uprights driven into the ground under some good shade-trees. The sides and tops of his cages were of bamboo chicks closely fastened together so that while sufficient air was admitted no caterpillar could escape, and none of the silk-worms' enemies could come at them; a coating of mixed tar and castor-oil prevented any enemy climbing the uprights. Inside his cages, Mr. Lyle stretched wires lengthways and hung the twigs on the wires. A good deal of light rain fell at Dāpurī in the month of August when Mr. Lyle's cages were full, and the wind driving the moisture through the openings of the chicks kept the leaves fresh and the worms thrive as well as on the trees. He got some cocoons from trees along the line, and Major Coussmaker provided him with some fertile eggs. From these, which he began to rear on the 7th of August and which spun
by the 20th of September, he gathered 1509 cocoons, the majority of which were as fine as any forest reared specimens in the neighbourhood. He had a greater choice of food than Major Coussmaker, and managed to secure a superior quality of leaf throughout the forty-five days. He fed the worms on Ficus benjamina and Ficus tjiela twigs eighteen inches long laid very close together. In his opinion the worms seemed equally fond of both kinds. One objection to Ficus tjiela was that when it dried or faded the leaf rolled up and, especially at moulting time, hurt the caterpillar resting on it. He also noticed that, if they had begun to eat one kind of leaf the caterpillars would not pass from nándruk to bor or from bor to nándruk. Mr. Lyle by accident found that the worms throve well on Lagerstræmia indica, a leafy, ornamental, flowering shrub found in most gardens. Both he and Major Coussmaker put some caterpillars on these trees and found that they grew enormously and spun very large cocoons. The chief experience gained by the year's experiments was that seed cocoons should be moved as little as possible; that feeding worms on twigs gathered from unpruned roadside trees was a mistake, as eighteen inch twigs have only three or four suitable leaves; that plantations should be made of trees and shrubs and that the trees should be pollarded; that when worms are fed out of doors the trees should be guarded by cages or nets and when under shelter the worms should be kept either in coir-matting sheds or in portable pens or cages; that only the third, fourth, and fifth leaves from the end of the twig should be used, and that these twigs should be renewed three or four times a day; that the system of cages, baskets, and tethering ensures a supply of fertile eggs; that the eggs of the healthier moths should alone be kept for distribution or for home-rearing; that since the silk-mill in Bombay can work burst cocoons there is no need to kill a single chrysalis, all the moths should be allowed to come out of the cocoons; that after the moths come out the cocoon should be carefully cleaned, all pieces of leaf or twig brushed off, and all cast skins and chrysalis picked from the inside; that the habits of the trees or shrubs used for feeding the worms should be carefully watched to find how best to ensure a steady supply of suitable food.

As regards the working of the tasar cocoons into fabrics Major Coussmaker carried on a correspondence with Messrs. Tápidás Varajdás and Co., secretaries and treasurers of the Alliance Spinning and Weaving Company Limited, of Bombay, and placed the whole matter in their hands. He sent them 112 pounds of cocoons cleaned as well as his labourers could clean them without boiling them. Messrs. Tápidás and Company found that the cocoons yielded about forty per cent of pure silk and about thirty per cent of noils and refuse. The remaining thirty per cent, which was lost in the boiling, in Major Coussmaker's opinion was the natural cement, the dirt, and foreign matter left by the cleaners. Some of the forty-five pounds of silk that remained was woven into tasar cloth, some into tasar poplin, and a considerable quantity was used in experiments made with the view of bleaching it. Messrs. Tápidás and Company were not able to put any value on the material either
in the form of cocoons, of yarn, or of piece-goods, as there was no demand for tasar. They could not use it unless it could be supplied as white or nearly as white and as capable of taking every dye as the B. mori silk.¹

In 1877, the Bombay Government sanctioned the payment to Major Coussmaker of £50 (Rs. 500) as an honorarium.² At Ganeshkhind the first cocoons seemed fertile, but only about five per cent of the caterpillars lived to spin. The second generation did not come to maturity.

In the course of his inquiries Major Coussmaker got a sample of fibre much superior to any Indian specimen he had seen, though inferior to Italian silk. He found that this fibre was produced by a hybrid of the tasar moth with the yama-mai or oak-feeding moth of Japan. The Bombay Government, in communication with the British officials in Japan, procured some eggs of the oak-feeding variety. Boxes of this seed were sent to various official and private experimenters. Those kept by Major Coussmaker seem to have been all killed by the dry heat of Poona, nor did those kept in Bombay by experienced and generally successful silk-growers fare better. It has been suggested that the yama-mai breed should be introduced in the cocoon state, but it is extremely doubtful whether the true cause of their failure is not the absence of any leaf of the oak family which is their natural food. The only tree to which they seemed to show the slightest partiality was the ndruck Ficus benjamina, and even on that they fed for not more than four days. That the journey is not the cause of failure seems clear from the success with which this breed of silk moth has been carried from Yokohama across the United States to England, a journey of more than forty days.

In 1879, Major Coussmaker resumed his experiments. He set aside fifty cocoons of the 1878 crop for breeding. He also got from others a good supply of moths, many of which he allowed to escape as he had not food for many caterpillars. He kept some 10,000 eggs hoping to find food for them in Poona. But he failed to get more than 500 good cocoons from them of which he kept only a hundred. As before the great difficulty was to secure an unfailing supply of suitable food. To improve his supply, with the first promise of rain in June, Major Coussmaker set aside about one-sixth of an acre in his garden with a southerly aspect. This he cleared of trees and bushes and laid it out in ridges four feet wide with side gutters. On these ridges he planted 340 feet of dhati Lagerstroemia indica, 270 feet of bor Zizyphus jujuba, ninety feet of kar wand Carissa carandas, 107 feet of air Terminalia tomentosa, fifteen feet of arjun or sadada Terminalia arjuna, and forty-six feet of ndruck Ficus benjamina. He found dhati the most suitable plant. With liberal water it constantly threw out shoots covered with leaves which the worms ate greedily. The plant could be easily grown from the root. The bor was liked by the worms but the

¹ Major Coussmaker's Report to Government, 20th November 1876.
² Bom. Gov. Res. 597, 22nd February 1877 (General Department).
leaves were small and thinly scattered and were soon eaten. The karvand was leasier but a slow grower. The ain and arjun had larger leaves but were slow growers. The nándruk was a failure: it did not thrive and was not eaten. A dháyti plantation with bor and karvand hedges would yield plenty of food after the beginning of its third rains. Major Coussmaker kept all his seed cocoons hung on a wall out of reach of rats. So long as they were left undisturbed the moths came out only during the regular season. Large numbers died when cold October east winds set in. But the chief causes of death were preventible, shortness of food and attacks of insects, birds, mice, and other enemies.

In 1880-81, Major Coussmaker’s crop of cocoons failed. He thought this failure was the fault of the cagers. These were tarred screens of split bamboo. They kept out rats, mice, birds, squirrels, and lizards, but they were too dark; the plants did not thrive and the worms were always trying to escape. He made the cages longer and put netting at the top and everything throve till some wasps and other insects punctured and killed most of the silk-worms. He had about 30,000 clean perforated cocoons weighing about sixty pounds. He thought it best to go on collecting until he got about a hundredweight. In 1881, though the results were better, Major Coussmaker did not succeed in gathering a full season’s crop of cocoons of his own rearing. His food supply was perfect and the cages kept out all the larger enemies of the worm; still there was much sickness and many deaths. Only 1000 cocoons were gathered. His first batch of worms hatched on the 2nd of May and the first cocoon was spun on the 6th of June. The last batch of worms hatched in the middle of November, but they gradually dwindled and came to nothing; the last worm died on the 8th of December. The whole season’s collection amounted to 60,000 cocoons double of the 1880 collection. It was chiefly received from the Forest Department who sent 58,000 cocoons. Major Coussmaker had all these cocoons cleaned of extraneous matter. The outturn for the two years, 200 pounds of clean cocoons, was sent to Mr. Thomas Wardle of Leck in England. This was sold to Messrs. Clayton Marsdens and Company of Halifax at 1s. 3d. the pound. The spinners reported that the fibre was somewhat coarser than most tasar waste and the cocoons had been opened, but this was not a serious drawback to its spinning qualities. At this time, in Major Coussmaker’s opinion, the prospects of the tasar silk industry were promising, every year showing an improvement. Major Coussmaker laid out a sixth of an acre as a dháyti or gulmendhí plantation. The land was laid out in ridges seven feet wide with a gutter of one foot between. The dháyts were put into a trench of good soil mixed with manure in the middle of each ridge one foot apart. Where the ground was not filled with the cagers, on each side of the dháytis on the ridges vegetables were grown. Care was taken to lay out the ground in the way best suited for watering. The cagers were tarred rectangular pieces of split bamboo screen-work, a cheap light material neither liable to be hurt by the weather nor to be gnawed by rats. In making the cages he tied the screens together, making the sides three feet high and the ends six feet wide. The cage could be put up over the whole length of the
hedge and was divided into twelve-feet sections. From side to
side, arched over the top of the hedge, pieces of rattan had their ends
fastened to the screens and the middle to a light ridge pole which
rested on triangular screens. Over these hoops coarse open cotton
was spread. By this arrangement nothing touched the shrubs which
were uniformly cut to a height of four feet and nothing tempted the
worms to leave their food. There were three screens under the
triangles. The middle screen was fixed and the two smaller screens
on either side were fitted with string hinges, allowing boys to go in
and clean on both sides of the hedges without injuring the shrubs.
When hatching, the worms were put on the plants near the door, and
they ate away steadily crawling to the next when the first twig was
stripped. As fast as they were eaten the bare twigs were cut off
and fresh ones grew. After a few weeks the hedge was as thickly
covered with leaves as when the caterpillars were put in, and this
process went on as long as the rearing of the worms was continued.
When the twigs in any section of the screen were stripped the
screen was taken down and shifted along the hedge or to some new
place. As a rule little water was required. In July 1882, a
Government held that the experiments conducted by Major Coussmaker proved that tasar silk could be grown with success in
the Deccan. They proposed to continue the experiments, and hoped
they would lead to the considerable growing of tasar silk. In 1882
Major Coussmaker increased his Lagerstræmia plantation to 1500 feet
and his Zizyphus hedge to 300 feet. In February 1883, before retiring
from the service, Major Coussmaker in a final report expressed his
opinion that tasar silk-growing would not pay. Large imports from
China had lowered the price of tasar waste in England, the Bombay
cocoons were small and yielded little silk, and the gathering of wild
cocoons or the rearing of worms were both costly. 6d. (4 as.) a
hundred was the cheapest rate at which forest cocoons could be
gathered and this was too high to admit of profit. The people
did not find it pay them to leave their regular work and gather
cocoons. It was only by the personal exertions of the forest officers
that so much had been gathered. Major Coussmaker had nearly
every year tried to increase the size of the cocoons by bringing
large cocoons from Sambalpur, Yamtara, Manbhumi, and other places,
but with no success. The moths had paired readily with the small
Deccan variety, the worms had hatched, but there was no difference
in the cocoons. Major Coussmaker believed that the smallness of
the Deccan cocoon was due to the climate and perhaps in a less
degree to the food. As far as outward went the result of rearing
the tasar silk-worm was satisfactory. Within six weeks Major
Coussmaker had been able to gather three cocoons from each foot
of hedge. In 1882 the first worm hatched on the 9th of May and
the first cocoon was gathered thirty-two days later. The worms of
this batch numbered 380 and 347 of them spun cocoons, beginning
on the 7th and ending on the 24th of June. They consumed 110
feet of Lagerstræmia. Of 1800 feet of Lagerstræmia, one-half was
sufficiently grown to yield a steady supply of food. From these
900 feet between May and October Major Coussmaker gathered
5678 cocoons. Of these only about half, which were almost all
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gathered before the end of July, were sound and perfectly formed. Later in the season without any apparent cause he lost many hundreds of worms in all stages, some being the progeny of moths of the preceding year. Still many cocoons were spun, some of which were very fine, but the majority were weak and thin. These facts, his own former experience, and the information received in letters and printed reports showed that no reliance could be placed on any but the first crop of the season, the progeny of the moths which rest in their cocoons during the cold and hot seasons, and which emerge early in the monsoon when the first showers of rain fall. Throughout the whole monsoon and often at other times, when disturbed, moths continue to appear but with an unsatisfactory result and much loss of life. Enough cocoons were spun to ensure a supply of seed cocoons, but not enough to call a crop. Major Coussmaker's arrangements had succeeded in guarding the worms and ensuring a steady supply of food. The labour bill was reduced to a minimum; one woman and one boy could easily look after at least an acre of hedge and keep the enclosures in repair. At the same time if the south-west rains did not break early and heavily the hedges would have to be watered and the expense of enclosing would be very great. So long as tasar continued cheap this system could not pay. Crows, sparrows, squirrels, and rats gather near dwellings and must be kept out. Major Coussmaker succeeded in keeping the worms safe from their enemies, but the process was costly. Major Coussmaker having wound up his series of experiments, handed his plantation of Lagerstræmia and Zizyphus bushes, together with the bamboo screens and iron rods which he used for his enclosures, to the superintendent of the Central Jail at Yaravda. There is land attached to the jail and the head jailor took an interest in silk experiments.

Shortly before 1841 an experimental garden was started at Hivra, about ten miles east of Junnar. In 1841 potatoes and sugarcane were the chief products. The market for the potatoes extended to Dhulia, Aurangabad, and Bombay, and the growth of sugarcane had greatly increased. Numerous other products were also tried. The chief were, American maize, anotto dye for which there was a large demand in Poona, hemp, and oil-plants. A valuable variety of rice the kumod was introduced into the district, and thirty-eight kinds of choice wheat were received from Edinburgh. Dr. Gibson, the superintendent of the garden, considered the cultivation of cotton, cassado or tapioca root, and coffee unsuited to Poona. ¹ There was a similar garden at Government House at Dapuri, about eight miles north-west of Poona, for which Government did not incur any additional expenditure, and where several trees, including among others the India Rubber tree, were raised. In the nursery on the top of Shivner fort by the help of four Chinese convicts upwards of 200 exotic trees were grown and seemed likely to be useful. The olive and cedar flourished in some places in the plains, but at Dapuri the soil was not good enough for the olive.

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About the same time (1841) Messrs. Sundt and Webbe, two enterprising and respectable Anglo-Indians, had a well cultivated garden at Mundyve, about four miles east of Poona. Besides growing oranges, grapes, and other fruit they turned their attention to the cultivation of the coffee plant. In 1847 they had about a hundred healthy trees from which they realized a good crop, besides a thousand young plants ready for putting out. They also grew a little Mauritius sugarcane and made raw-sugar or gul from its juice.

The botanical garden at Ganeshkhind was started in 1873, and along with the Hivra garden, has since been under the superintendence of Mr. G. M. Woodrow. The principal object of these gardens is to supply the Medical Department with drugs. In 1872-73 the outturn of the gardens included 700 pounds of senna, 1300 pounds of henbane, and 1036 pounds of dandylion. During the same year the chief produce of the laboratory was 107 pounds of extract of colycinth compound, fifty-six pounds of extract of hyoscyamus, 1621 pounds of groundnut-oil, 7190 pounds of castor-oil, and eleven pounds of croton oil. In that year experiments were made with various artificial manures, nitro-phosphate, citrate, dissolved bones, nitrate of soda, hop manure, and superphosphate. The income of the gardens amounted to £164 (Rs.1640) and the expenditure to £154 (Rs.1540). The laboratory receipts were £431 (Rs. 4310) and the expenditure £319 (Rs. 3190). In 1873-74 experiments were made with European artificial manures; the result was not satisfactory. It was proved that silt from the drains of Poona city is a valuable manure at least equal for one year's crop to dung from oil-cake fed cattle. Of the cork trees that were planted three years before, many had died and a few were struggling for life. One, which had grown six and a half feet high and four inches in circumference, appeared to be in perfect health. As this showed that the climate was not unsuited to the cork-tree, the Secretary of State was asked to arrange for the despatch of periodical supplies of cork-tree acorns. Many new ornamental plants were introduced, the most valuable of which was the Exogonium purga, the plant which yields the drug jalap. Experiments were also made for the growth of fibre for paper. The income was £352 (Rs. 3520) and the expenditure £1222 (Rs. 12,220) besides £558 (Rs. 5580) spent on the laboratory building from a fund set apart for the purpose. In 1874-75, the income was £842 (Rs. 8420) and the expenditure £1257 (Rs.12,570). The area under tillage was fifty-seven acres, seven of which were watered. One fact was ascertained that prickly-pear made a valuable manure if it was left to rot in a cistern through which the water of an irrigation channel was led. Some new descriptions of tree were added. A fairly successful attempt was made to grow vanilla. Flax was also grown of fair quality but of excessive dearness. Unsuccessful attempts were made to get paper from san stalks and plantain fibre. Most of the cork acorns brought from England arrived dead. In 1875-76, the income of the garden amounted to £660 (Rs.6600) and the expenditure to £1268 (Rs. 12,680). The most important new introductions were Balsamocarpon brevifolium a plant yielding pods useful in tanning and the Liberian coffee. Cereal crops were raised with a view to selecting the seed. 3000 half-standard roses
were ready for distribution. A list of the medicinal plants was printed and indents became more frequent.

In 1876-77, the income of the garden amounted to £951 (Rs. 9510) and the expenditure to £1285 (Rs. 12,850). Experiments with the Wagatea spicata, a climbing shrub, a native of the Konkan, showed that its seed-pods contained a high proportion, fifteen per cent, of tannic acid. A satisfactory feature in the working of the garden was the extent to which its drugs, chiefly taraxacum and colocynth, were in demand. Experiments in the production of tasar silk were continued. In 1877-78, experiments were carried on with mahogany trees, the seed of which had been sent from Kew Gardens and planted in 1874. The results seemed to show that the tree could be acclimatised and established if well watered during the first two years. The blue gum tree, Eucalyptus globulus, was found to thrive well for four or five years and then to die off. The superintendent was of opinion that an exotic which like the gum tree did not go to rest at any time of the year was sure not to succeed. Cinchona, though it grew well in the conservatory, died in the hot season if planted out. Taraxicum was grown with success. The tasar silk experiments were not satisfactory. The income of the garden was £516 (Rs. 5160) and the expenditure £1290 (Rs. 12,900). The Ganeshkhind gardens, which were originally intended merely as a nursery for the growth of local medicinal plants, under the supervision of a scientific gardener had assumed a botanical character. In 1878-79, a committee was appointed to consider how the locality could best be developed for the purpose of botanical experiments and instruction. The suggestions of the committee were considered by Government and it was decided that the gardens should be constituted the recognized chief botanic gardens of the Presidency and that arrangements should be made for forming in them as complete a collection as possible of the local plants of Western India, a herbarium of which was to be kept permanently on the spot, along with a select library of diagrams and botanical works of reference. The manufacture of oil was discontinued and the superintendent was instructed to manage the gardens with the view of making them of purely botanical and scientific utility. Botanical teaching was begun at the end of February 1879 by means of lectures at the gardens and at the College of Science and at the Deccan College in Poona, with illustrations of specimens collected by the superintendent. The average attendance was fifty-one students.

Experiments with Nankin cotton showed that it could not be profitably grown in the Deccan. The sample sent to the Bombay Chamber of Commerce was estimated to be worth £5 (Rs. 50) less than the common samples of Dholera. The forage plant, Reana luxurians, was found to be no better than sugarcane when grown in rich soil and irrigated, and worse than jvári when treated as a dry crop. The income of the garden was £740 (Rs. 7400) besides £134 (Rs. 1340) the value of the oil on hand, and the expenditure £1282 (Rs. 12,820), that is a net cost of £408 (Rs. 4080). In 1879-80, the room formerly occupied by the oil-pressing machinery was
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partially fitted as an herbarium and specimens of about 1700 species were arranged according to their natural orders. Some of these were identified and the rest were sent to the Royal Herbarium at Kew for comparison. Considerable additions were made to the library which was used by a large number of botanical and agricultural students. Botanical teaching was continued during the year at the gardens and at the adjacent Poona colleges. The average attendance at the gardens fell from fifty-nine to nineteen as the students were allowed to pass the examinations without attending at the gardens. Six trained native gardeners or mālis were sent out during the year and the demand for trained men continued much greater than the supply.

Experiment with the thornless opuntia or prickly-pear, which can be easily skinned and is then a favourite food for cattle, showed that it grows freely as a fence and is not likely to prove troublesome as it does not grow from seed. The yield of the forage grass Euchleina luxuriens seemed nearly the same as that of guinea-grass. A crop sown in November and cut in April gave sixteen tons the acre of green forage at one cutting. Fifty mango trees of the finest varieties were planted for stock from which grafts could be taken for distribution. The demand for imported seeds had risen from £69 (Rs. 690) in 1875 to £124 (Rs. 1240). Experiments with lucern grass seemed to prove the French variety superior to the acclimatised variety. The plant was quite as vigorous, the stalk was more delicate, and the seed was only half the weight. The receipts of the garden amounted to £946 (Rs. 9460) and the charges to £1554 (Rs. 15,540). In 1880-81, additions to the herbarium brought up the collection to about 2080 species of which about 1080 were identified. Botanical teaching was continued at the gardens. A number of full grown specimens of Albizzia procera, one of the local trees which during the cold season of 1878-79 had been transplanted without soil on the roots, showed satisfactory results. Euchleina luxuriens was again grown for forage. It proved a vigorous grass when highly manured and watered, but not superior to sugarcane. Twenty mango trees of the finest varieties were planted out for stock, raising to 102 the number of trees whose grafts were suitable for distribution. The demand for imported seeds was about the same as in the previous year. The garden receipts amounted to £340 (Rs. 3400) and the charges to £768 (Rs. 7680). In 1881-82 the general condition of the garden was improving and the number of visitors was increasing. The receipts, derived chiefly from the sale of fruit trees, vegetable, and flower seeds, taraxicum, and some timber, amounted to £637 (Rs. 6370) and the charges to £1046 (Rs. 10,460). A mangosteen plant from Singapore died from cold in November. The local kokam or wild mangosteen plants were in good condition. Potatoes received from the Secretary of State grew surprisingly well. In May 1882 the carob tree yielded a crop of fully thirty pounds weight of pods, the greater part of which were equal in size to the imported pods. An attempt to propagate this tree by layering failed, but by grafting was very successful. 447 mangoes were grafted with choice sorts at a cost of 10½d. (7½ as.) each. The herbarium building was altered and repaired.

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and numerous specimens were added. The superintendent Mr. Woodrow lectured on vegetable physiology and systematic botany and gave eleven garden demonstrations in systematic and economic botany. The average attendance was twelve students. Experiments were made in collecting the India rubber-yielding milky sap of the Cryptostegia grandiflora, a beautiful climber. The average yield was found to be twenty grains and the acre yield twelve pounds. As the plants would not bear tapping more than twice a year, the yearly acre outturn would be twenty-four pounds of caoutchouc. The cost of collecting was 2s. (Re. 1) the pound, which might perhaps be reduced to 1s. (8 as.). The value of the India rubber may be estimated at 2s. (Re. 1) the pound. The result was therefore not encouraging. In 1883, 2001 mango trees were grafted with choice sorts at a cost of 10d. (6½ as.) each, and in 1884, 4000 more were prepared at a cost of 9d. (6 as.) each.

In the Bund Gardens, the Soldiers’ Gardens, and the Railway Gardens in Poona plants and flowers are grown purely for pleasure and ornament. Details are given in the account of Poona City in the chapter on Places of Interest.

The district is not subject to blights. As has been noticed wheat is occasionally affected by a disease called tāmbera or rust when the ear turns copper-coloured and withers. It is also subject to another disease called gareva or khaira. These causes of failure do not often occur on such a scale as to affect the general harvest.

The animal plagues from which the Poona crops are most liable to suffer are worms, locusts, and rats. The damage caused by worms is confined to gram and other pulses and is seldom serious. According to Sanskrit books locusts and rats are two of the six deadly plagues or itis. Of loss from locusts before the beginning of British rule no instance has been traced. Since 1818, four years, 1835, 1878-79, 1882, and 1883, have been marked by swarms of locusts. Of the 1835 locusts except a general reference to the damage done no particulars have been traced. In 1878-79, considerable damage was done by locusts to the early or khārif crops in parts of Bihimthadi and Purandhar. In 1882, as in other parts of the Deccan, locusts, probably the Acrydium perigrinum, appeared in Poona, but did comparatively little harm. During May, the locusts moved north and north-east from Dhārwār and North Khándesh where they first appeared. They did not stay long in Poona and by the beginning of June most of them had passed north and were breeding chiefly in Nāṣik and Khándesh. In the beginning of October 1882, young swarms came from Nāṣik and Ahmadnagar. From Poona they crossed the Sahyādris and passed into the Konkan. The injury caused

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1 The six plagues are Excessive rain, Want of rain, Locusts, Rats, Parrots, and an Invading force.
3 Mr. J. G. Moore, C.S.
4 In 1882, locusts appeared in Dhārwār, North Khándesh, Belgaum, Sātāra, Poona, Ahmadnagar, Nāṣik, Khándesh, Kolāba, Thāna, and Ratnāgiri.
5 It is said to have been identified in Bombay with Pachyflora indica, a locust peculiar to India. Dr. Kirby of the British Museum thought it a variety of the Acrydium perigrinum. Mr. J. Davidson, C.S.
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by the locusts was confined to the west of the district. There were no locusts in Bhimthadi and Indāpur, and few in Sirur or Haveli. In Māval about 160 square miles or about three-sevenths of the subdivision suffered. Of 582 villages in Khed, Purandhar, Junnar, and the Mulshi petty division, 208 villages suffered more or less severely and in these 208 villages in about one-fifth of the area attacked the kharif or early crops were entirely destroyed. Elsewhere the injury was slight, and no special measures of relief were found necessary. They did little harm to the nāchā, vāri, and sāva crops, and here and there they touched a little rice, but the mischief caused was trifling. They seemed to be unable to eat the mature grain of rice and bājri, and they fortunately did not arrive until close on the early harvest. When the crops were reaped, the locusts disappeared drifting west. Nothing more was seen of them until May 1883, when, especially in the west of the district, they returned in swarms and through the whole of May and June, wherever they alighted, they turned fields, groves, and hill-sides pink. After resting three or four days they flew east leaving the trees as green as when they came. Heavy rain seemed to do them no harm. Towards the middle of June they were seen in pairs. After pairing the males died, and after laying their eggs during the end of June and the beginning of July the females also died. They laid their eggs in all kinds of places, from the dry slopes of bare hills to swampy marshes. The female works her tail about two inches into the ground and lays one hundred to 150 eggs. She gives out a glutinous fluid which in dry soil forms a crust round the eggs like an earthnut or bhūvimug. In damp places the earth does not stick to the fluid and the eggs, like yellow pins' heads, are left open to the air but apparently do not suffer. As soon as the locusts were known to be laying, orders were issued to destroy the eggs and the young locusts wherever they were found. The villagers were told that they must take an active part in destroying the eggs and that if they failed to exert themselves and their crops suffered, they would get no remissions. Each subdivision was divided into circles of three to six villages. Over each circle an inspector was placed belonging to the Revenue, Police, Educational, Forest, Vaccination, or Public Works departments, all branches of the administration zealously lending their aid. The inspector's duty was to urge the villagers to destroy the eggs and young locusts and to report daily whether the villagers were doing their duty. The efforts to destroy the eggs to a great extent failed. Where the ground was dry the holes were sometimes visible and eggs were found, but in most places the rain had washed away all trace of the hole and the search was fruitless. About the beginning of August numbers of newly hatched locusts began to appear like small grasshoppers. To spread a knowledge of what the newly hatched locust was like the precaution had been taken to have eggs dug out of holes just after the female locust had laid, and kept in a frame enclosed by mosquito netting. When the frame locusts were hatched specimens were sent to each māmilatdār and shown to the people. Various means were adopted to destroy the young swarms. The Cyprus screen, introduced by Lieutenant Bor, R.N., was tried, but, as Lieutenant Bor admitted, it did not
suit the conditions of the country and was next to useless. Millions of young locusts were caught by hand as they swarmed on the ground. Many were beaten to death by bush branches. Waist and shoulder-cloths or *dhotars* also proved very effective. A man at each end held the upper and lower corners of the cloth and ran along drawing the cloth through the grass and collecting numbers. A frame of wood with a long handle was next tried. Sheets of paper were placed on the frame and the outmost sheet was smeared with tar. A man set the frame on the ground before him, holding it at arm's length and walking up to it. The locusts, driven before him hopped against the tar and stuck to it. When the surface of the frame was covered the outmost layer of paper was pulled off, and the next layer tarred. This tar frame was not very effective. The last appliance used was a linen bag, like a large pillow case. It was dragged through the grass in the same way as the waistcloth and proved one of the most successful locust-collectors. The people worked zealously and millions of locusts were destroyed. According to rough calculations, which are far below the actual figures, for seven or eight weeks about 14,000,000 of locusts were destroyed weekly. The young locusts almost always stayed in the grass; they were scarcely ever found in the crops, and they did little or no harm. Unusually heavy rain in September and October washed away a large quantity of them, and this, in addition to the work of the villagers, enormously reduced their numbers. So complete was the destruction that in November 1883 scarcely a locust was to be seen. In November flights of full-grown locusts entered the district from the Konkan and Ahmadnagar, but after November no flights of locusts were seen leaving the district.

The people did not call the 1882 locust by the usual name of *tol* or the host-fly, but either *náktoda* that is nose-cutter or simply *kida* that is insect.¹ When born the 1882 locust was green and looked and acted like a cricket. As it grew, it shed its skin, became less green, and a brown streak appeared on its back and sides. It could almost always be known by its hammer head. When full grown it had a black streak from the bottom of the eye downwards. The wings were developed one above the other, the under wing was at first reddish and the upper wing gray, but the red tinge soon disappeared. About three months old, when they began to fly, the locusts were yellow. When full grown the body was about two and a half inches long and the folded wings, which had again turned pink, stretched nearly an inch further. In October and November on the backs of some of the full grown locusts between the wings small reddish tick-like parasites were found. It is not known whether these parasites caused suffering or mortality among the locusts. Another parasite found among locusts just coming to maturity was a stomach-worm like a guineaworm. This worm is said to have done the locusts no harm. No rewards were given for the destruction of locusts; the only expenditure was on screens and traps.

In 1878 rats appeared in several places and severely injured the *rabi* or late crops in the east of the district. Crops which would

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¹ Mr. W. Ramssy, C.S.
have yielded a full or a three-quarters harvest were reduced to one-fourth or even less. In many places the people gathered the green ears as the only means of defence. Even then, when the ears were placed in a heap, it was difficult to keep the rats off by constant watching day and night. In 1879 the rats again caused much damage in Indapur and Bhinathadi. A reward of 2s. (Re. 1) for every hundred dead rats was offered and about 350,000 rats were destroyed. The rats were of three kinds, the Jerboa rat, the Mole rat, and the Large-eared field mouse. The Jerboa Rat, Gerbillus indicus, comes between the Kangaroo-like jerboa and the true rat. From January to March 1879 the Jerboa rats proved most widely destructive, and destroyed more grain than all the other rats together. It is called the haran or antelope rat. Its colouring is like that of the female antelope, its ears are prominent, and its eyes are large and gazelle-like. It is fawn-coloured above and white below. It has long black whiskers and a tuft of black or blackish hairs at the end of its tail. Its head and body are about seven inches long and its tail is more than eight inches long. Its forefoot is half an inch and its hindfoot two inches long. It weighs six to seven ounces. It burrows among the roots of bushes or in the open ground and forms long galleries. These galleries have branches that end in chambers which are several inches wide and are carpeted with dried grass. They do not usually hear their food, which consists of grain and roots, especially of the sweet roots of the harydli grass Cynodon dactylon. The female brings forth eight to twelve and sometimes sixteen to twenty young. In the dusk of the evening these rats, which may be recognized by their fine large eyes, may be seen leaping about in places where there are many fresh rat-holes. In 1879 they climbed the Indian millet stalks and cut off the ears. The Mole Rat, Nesokia indica, kāla unāir, also called koku or kok by the Vadars, may be known from the common Brown Rat, Mus decumanus, by its shorter body and shorter tail and also by being stouter and heavier. When chased it grunts like the bandicoot. In colour it is like the common brown rat, but there are fawn-tinted hairs mixed with the fur and it is lighter below. Its ears are small and round; its tail naked and short; its incisor teeth very large, flat in front, and orange yellow. Its entire length is about thirteen inches of which the tail is six inches. The palm of its forefoot is nearly half an inch long and that of its hindfoot an inch and a half. It lives alone and forms extensive burrows, sometimes fifteen or twenty yards in diameter. It stores large quantities of grain. The Vadars dig the ground and eat both the rat and its stores. The female brings forth eight or ten at a birth and drives her young from her burrow as soon as they can care for themselves. This rat is usually found near sugarcane fields. The people say that great numbers of these rats are yearly killed by the first heavy fall of the south-west rain. The black soil swells with heavy rain and the rats are caught in the holes and fissures and smothered. The great increase of these and of the mettād rats in 1879 is partly accounted for by the absence of any sudden burst of rain in 1878. Under the influence of gentle showers, the black soil swells gradually.
and the rats escape suffocation. The large-eared Field Mouse, Golunda mettada, mettād or mettangandu, was one of the chief pests. It is a soft-furred mouse with a few flattened and spiny hairs among its fine close fur. Its colour is reddish brown with a mixture of fawn becoming lighter below. Its whole length is about ten inches of which the tail is \( 4\frac{3}{4} \) inches. It is distinguished by its large ears which are two-fifths of an inch in diameter. The female produces six or eight young at a birth. This rat has long been known as a plague. It lives entirely in cultivated fields in pairs or small societies of five or six, making a very slight and rude hole in the root of a bush or merely harbouring among the heaps of stones thrown together in the fields, in the deserted burrow of the \( \text{kôk} \), or in deep cracks and fissures formed in the black soil during the hot months. Every year great numbers perish when these fissures fill at the beginning of the rains. In 1879 these rats ruined some fields with their sharp incisors cutting cartloads of stalks every night and either eating the grain or dragging the heads into their burrows. Into other fields an army of rats suddenly entered and in a few hours ate up the grain like a flight of locusts.

During the last five hundred years, there is either traditional or historic mention of about twenty-five famines. The first is the awful calamity known as the Durga Devi famine which wasted Southern India at the close of the fourteenth century. The twelve years ending 1408 are said to have passed without rain. Districts were emptied of their people and for forty years the country between the Godāvari and the Krishna yielded little revenue. The hill-forts and strong places, previously conquered by the Muhammadans, fell into the hands of local chiefs and robbers, and the country was so unsafe that the people who returned were driven from their villages. Dādu Narse and a Turkish eunuch of the Bedar court were appointed to resettle the land and call back the people. As the former village boundaries were forgotten, Dādu Narse greatly extended the new limits and threw two or three villages into one. Lands were given to all who would till them. For the first year no rent was required and for the second a \( \text{tohra} \) or horse-bag full of grain for each \( \text{bigha} \) was all that was asked.¹

In 1422, no rain fell and famine raged throughout the Deccan; multitudes of cattle died on the parched plains for want of water. King Ahmad Sháh Vali Bahmání (1422-1435) increased the pay of his troops and opened public stores of grain for the poor. The next year also there was no rain.² In 1460 a failure of rain was followed by famine over the whole of Southern India. This famine is known as Dámají-pant's famine. Dámají was the keeper of a large store of grain at Mangalvedha, twelve miles south of Pandharapur in

¹ Grant Duff's Marathás, 26, 27. See also Briggs' Ferishta, II. 349-50. King Māhmud Sháh Bahmání (1573-1597) employed 10,000 bullocks at his private expense going to and from Málwa and Gujrát and bringing grain which was distributed to the people at a cheap rate. He also established seven orphan schools.

² Briggs' Ferishta, II. 405-6.

³ Except where special references are given the details of famines from 1400 to 1868 are taken from Lieut.-Col. Etheridge's Report on Famines in the Bombay Presidency (1868), 87-90.
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Sholapur. He used much of the store in feeding Bráhmans and was saved from punishment by the god Vithoba whom he worshipped. To save his worshipper Vithoba in the form of a Mhár went to the court at Bedar and paid the value of the missing grain. In 1472 and 1473 so severe a drought prevailed throughout the Deccan that the wells dried. No grain was sown for two years and in the third when there was rain scarcely any farmers remained to till the lands.1

In 1520, the Deccan was so unsettled that no crops were grown and there was a famine. In 1629-30, no rain fell in the Deccan and famine and pestilence followed.2 The year 1787 is mentioned as marked by a failure of rain and by famine. The year 1791-92, though locally a year of plenty, was so terrible a year of famine in other parts of India that the rupee price of grain rose to twelve pounds (6 shers). In the next year, 1792-93, no rain fell till October, some people left the country and others died from want. The distress is said to have been very great. The Peshwa’s government brought grain from the Nizám’s country and distributed it at Poona. The rupee price of grain stood at eight pounds (4 shers) in Poona for four months and in the west of the district for twelve months.

In 1802 the prospect of a good harvest was destroyed by the ravages of Holkar’s troops. From July to September his followers the Pendháris so utterly ruined the country that the rupee price of grain rose to two pounds (1 sher). The Peshwa’s government encouraged the import of grain and distributed it free of charge. Large quantities of grain were brought by Lamáns and Chárans. Still the distress was so severe that numbers fled to the Konkan and Gujarát, and thousands died of hunger and cholera. The sufferings were so great that mothers are said to have eaten their children. Even as late as 1838 the people of Bhimthadi remembered Holkar’s famine with horror.3 In the following year, 1803, the raids of Sindia’s and Holkar’s troops again caused a great scarcity. The rupee price of grain rose to half a pound (½ sher) and numbers died of starvation. Many left the country and the land lay waste. This famine affected the Poona district particularly. The river at Poona was covered with dead and rotting bodies. The Peshwa encouraged traders to import grain duty-free, granted remissions of revenue, and abolished land customs. The private charity of the rich did much to relieve the distress. A subscription of £4000 (Rs. 40,000), collected in Bombay under the patronage of Lady Mackintosh, was sent to Poona. Colonel Close, the Resident, who had already fed 15,000 people, arranged that each applicant for relief should receive 3d. (2 as.) to enable him to get a meal. About 5000 of the destitute were relieved in this way until the new crops were gathered.4 At Poona the horses in General Wellesley’s army were for some time fed on Bombay rice.

In 1819-20, 1823, 1824, and 1825 Poona suffered greatly from cholera and from want of rain. So great was the panic that large

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1 Briggs Ferishta, II. 493-4.
2 Grant Duff’s Marathás, 46; and Elphinstone’s History of India, 507.
4 Valentine’s Travels, II. 123, 124.
numbers left their homes. For many months parts of the district were almost deserted.¹ In 1823 the rupee price of grain in Poona was sixteen pounds (8 shers) and people died in the streets for want. In 1824, a year remembered as the year of kharpad or distress, rain again failed, especially in the country within 100 miles of Poona. The returns seem to show a slight fall of prices, the rupee price being twenty to twenty-four pounds (10-12 shers). Much bad grain was sold and sickness was so general that large numbers of people left the country. The loss of cattle was very severe. The distress continued till Dasara in October when a timely fall of rain brought much relief. Government offered employment by opening works to improve the Karkamb and Bápdev passes.

In 1832 failure of rain was followed by much distress. The rupee price of jvári rose from 120 to forty-six pounds and grain robberies were numerous. Orders forbidding grain-dealers unduly raising their prices are said to have done much to reduce the distress. 1833 was a year of scarcity in Indápur, 1835 was a bad season all over the district, and in 1838 Indápur again suffered from want of rain.²

The next bad years were 1844-45 and 1845-46 when rain failed and there was much distress especially in the east.³

Between 1862 and 1867 there was a succession of years of very short rainfall. In the east of the district during the five years ending 1866 the average fall was only seven inches. In 1864 the rupee price of bájri and jvári rose to about seventeen pounds (8½ shers). The landholders were well off and were not reduced to distress, and the demand for labour and the high wages paid on public works in the Deccan prevented the spread of distress among the labouring classes. Still from want of grazing cattle had to be sent away or sold. There was sufficient distress to make it advisable to open relief-works in Sirur, Bhimthadi, and Indápur. About £1876 (Rs. 18,760) were spent on repairing about seventy-five miles of road and digging the Pátas reservoir and two wells in Supa. Grain compensation was granted to Government servants and in 1867 £8000 (Rs. 80,000) were remitted in Bhimthadi and Indápur and upwards of £6000 (Rs. 60,000) were held over till the next year.

The scanty and ill-timed rainfall of 1876, 20'76 compared with an average of about thirty inches led to failure of crops, which, joined to the bad crops in a small area in the previous year, spread distress amounting to famine over about half of the district.⁴ The east and

¹ Captain Clunes' Itinerary, VI. ² Bom. Gov. Rev. Rec. 772 of 1837, 50-31. ³ Bom. Gov. Sel. CVII. 32-37, 70-71, and 118. ⁴ The estimate was in area 2500 square miles of a total of 6647, and in population 318,000 out of 907,000. Within the affected area came the whole of the Indápur and Bhimthadi sub-divisions, twenty-three villages of Purandhar, six villages of Havell, and thirty-three villages of Sirur, where the crops had entirely failed. In addition to these, twenty villages in Purandhar, twenty in Havell, and thirty-three in Sirur were seriously affected. In the Khed, Junnar, and Mável sub-divisions outside of the famine area there was distress among labourers and travellers.
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south-east suffered most. In three sub-divisions, Haveli, Khed, and Junnar, the early crops seemed good; in Mával and parts of Sirur and Purandhar they were fair; in the rest of Sirur and Purandhar and in Bhimthadi and Indáipur there was no outturn. Besides this failure of the early harvest, in September and October, only a few slight showers fell, and, except in a small area of watered land, no cold-weather crops were sown. Millet rose from fifty-one to nineteen pounds and Indian millet from sixty-five to 20½ pounds the rupee. These high prices and the want of field-work threw into distress large numbers of Mhárs, Mángs, Rámoshis, and the poorer labouring Knbis. The need for Government help began about the close of September. Government offered to transport people to waste lands in the Central Provinces, but no one took advantage of the offer. At the same time large numbers moved to the Gangthadí or Godávari valley. They found much distress in Gangthadí and as the usual markets for field labour were overstocked, some wandered across Berá to Síndia and Hòlkar’s territories, others crowded into Bombay, and a few straggled to Gujarát. By the close of 1876 about 100,000 persons or 32-00 per cent of the affected population had left their homes. Most of the people who went belonged to the better class of Knbis. To a great extent the movement was caused by the need of pasture. As a rule whole families went, but in many cases some member or members of a family were sent with the cattle. The villages whence fewest went were those near the Mutha canal works in the north-west of Bhimthadi, where whole villages flocked to the works. There was much distress, but grain prices were kept down by large importations, chiefly from the Central Provinces and to a less extent from Gujarát. The grain was brought to Poona by rail and thence distributed throughout the district.¹ In the hot months of 1877 prices ruled high and distress increased. A good fall of rain in early June caused temporary relief. Many emigrants returned and sowing was actively pushed on.² But, except in Indáipur, in July and August no rain fell, prices rose, distress grew heavier, and many were again forced to leave their homes. A good rainfall in September and October removed much anxiety and suffering, and cold-weather crops were sown over the greater part of Bhimthadi. At the close of November the demand for special Government help ceased. At the same time some of the early crops never recovered the long stretch of fair weather in July and August, and in Bhimthadi the cold-weather crops, which at first promised well, were afterwards much injured by disease. The result was renewed distress in the hot season of 1878. In the east of the district, at least one-fourth of the people

¹ The municipality of Indáipur purchased grain and sold it at something over cost price so as not to interfere with local enterprise; so did the Jejuri municipality but only in the end to re-sell at a loss. It is probable that the early action of Government in finding paid labour for a large portion of the distressed population on the Mutha canal saved grain from rising to panic prices.

² More sickness, suffering, and mortality was found among the returned emigrants than among those who had stayed at home and lived either on their own resources or on the relief offered by Government.
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lived on wild grains or grass seeds, and Government had again to provide labour for the poorer classes. Even then the famine was not over. In the rainy months of 1878, and again in those of 1879, direct relief was once more found necessary at Indapur, Baramati, and Dhankavdi near Poona.1

The following details show month by month the phases through which the distress passed and the measures which were taken to relieve it. In the first two or three days of September 1876 good rain fell in the west, in Junnar Khed and Maval, and greatly revived the withering crops. Rain again held off and the crops began to perish. About the close of September slight showers fell in a few places. The early crops seemed well in Maval; they were withering in Junnar, Khed, and Haveli, and had completely failed in Bhimthadi and Indapur where for want of fodder large numbers of cattle were dying. The price of grain was rapidly rising. As rain held off the ground could not be prepared for the cold-weather crop. Especially in Indapur and Bhimthadi the want of drinking water was beginning to be felt. Fears were entertained that the poorer classes would become disorderly, and, about the close of the month, relief works were opened in Bhimthadi and Indapur. Except that about the middle of the month a slight shower fell in Haveli, October passed without rain. Even in the west the early crops were withering and were being cut for forage, and in the wells water was failing. Except in a small area of watered land no cold-weather crops were sown. Over the whole district, especially in the east, the want of water caused distress, and cattle were offered for sale at nominal prices. In several places the people had begun to leave their homes. Extensive relief works were started, and, by the 22nd of October, including those on the Mutha canal, some 6000 people were employed. For charitable relief a sum of £2500 (Rs. 25,000) was set at the Collector’s disposal. As distress spread, besides additional assistants, the Collector was authorized to place on relief duty the mālātārs of the most severely affected sub-divisions. November passed with only a few slight showers. The early crops continued to wither and the small area of late crops was dying for want of moisture. The distress was great, but large importations of grain kept down prices. In Poona the stock of grain was large and the market was falling; in outlying towns prices were slightly rising. In the first half of the month bājri rose from 19\frac{1}{2} to nineteen pounds and žvāri from twenty-two to 21\frac{1}{2} pounds the rupee; about the close of the month they again fell to 20\frac{1}{4} and 20\frac{1}{4} pounds. In the east the wells were drying and water was scarce. The average daily number of people on the relief works rose from 6160 in the beginning to 28,455 at the close of the month. Of 20,654, the average daily number for the month, 14,253 were able-bodied, expected to do a full day’s work and superintended by public works

1 In 1878, 77,088 people were relieved at a cost of £510 4s. (Rs. 5102); in 1879, 21,803 were relieved at a cost of £153 8s. (Rs. 1534).
December passed without rain. Crop prospects remained unchanged, people and cattle continued to move west. During the month the importation of grain was large and bājri fell from twenty pounds in the beginning to twenty-three pounds about the close of the month, and jvārī from 18½ pounds to twenty-two pounds. The numbers on public works rose from 14,253 to 23,498 and on civil works from 6401 to 16,752. The total sum spent on charitable relief up to the close of the year was about £200 2s. (Rs. 2011).

January passed without rain. Grain kept pouring into the district, and bājri fell from twenty-three pounds to 23½ and jvārī from twenty-two to 25½ pounds. The numbers on public works rose from 23,498 to 23,764, and on civil works from 16,752 to 29,569. As the civil works seemed too popular, on the 19th of January Government reduced the rates of pay, and issued orders to enforce task and distance tests. This caused a fresh emigration and a considerable fall in the numbers on the works. At the same time charitable relief was started and by the end of the month distributed to 1694 persons.

About the middle of February sixteen cents of rain fell at Poona. Grain continued to come in large quantities, bājri rose slightly to twenty-three pounds and jvārī to twenty-four pounds. The numbers on public works fell from 23,764 to 23,034, and on civil works from 29,569 to 18,752. This decrease was chiefly due to the lowering of pay on the civil works, the transfer of the able-bodied from civil to public works, and the enforcement of task and distance tests. The number on charitable relief rose to 1766. During the month there was slight cholera in Bhimthadi and Purandhar. In the beginning of March about twenty-six cents of rain fell. Grain continued to pour in and the supply was plentiful. Except in the beginning of the month, when there was a small rise, prices remained at twenty-three pounds the rupee for bājri and twenty-four pounds for jvārī. There was slight cholera in Bhimthadi and three other sub-divisions. The numbers on civil works continued to fall, from about 12,213 in the beginning of the month to 4876 about the close; public works showed a small rise from 23,034 to 26,603, and charitable relief from 1766 to 2290. About the middle of April eighty cents of rain fell at Indápur. Grain was largely imported and the supply continued plentiful, with bājri slightly dearer at 21½ pounds and jvārī at 20½ pounds. There were a few cases of cholera, and cattle-disease was prevalent in Sirur and Haveli. The numbers relieved rose on public works from 26,603

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1 The original wages were, for a man 3d. (2 as.) a day, for a woman 2½d. (1½ as.), and for a boy or girl capable of work 1½d. (1 a.). About the middle of November, when prices rose over sixteen pounds the rupee, a sliding scale was introduced which provided that the money rate should vary with the price of grain and that a man should always receive the price of one pound of grain in addition to 1¼d. (1 a.).

The new rates were: for a man the price of one pound of grain and 3d. (½ a.) instead of 1¼d. (1 a.); for a woman the price of one pound of grain and 3d. (½ a.) instead of 2d. (½ a.); and for a boy or girl the price of half a pound of grain and 3d. (½ a.).
to 31,678, and on charitable relief from 2290 to 4301; on civil works the numbers fell from 4876 to 4650. The first days of May brought slight showers in Purandhar, and about the close of the month good rain fell all over the district except in Junnar, Khed, and Maval. Small numbers were coming back. The grain supply continued ample, but बाज्री rose to 19\frac{3}{4} pounds the rupee and जवारी to 19\frac{1}{4} pounds. The high prices caused much distress. During the month there was slight cholera over most of the district. The numbers relieved rose on public works from 31,678 to 40,177, and on charitable relief from 4301 to 7501; on civil works they fell from 4650 to 4612. In June an average of 67\frac{8}{10} inches of rain fell. Many landholders came back bringing their cattle. The sowing of the early crops was begun in the west; in the east sowing was much kept back from want of bullocks. Cattle-disease was prevalent in three sub-divisions and a few cases of cholera occurred. The supply of grain was sufficient and both बाज्री and जवारी continued steady at 19\frac{3}{4} pounds the rupee. The numbers on public works fell from 40,177 to 35,344; they rose on civil works from 4612 to 4625, and on charitable relief from 7501 to 12,729. July passed with little rain, an average fall of only 3\frac{5}{8} inches, and this almost solely in the west. Except in Mával rain was everywhere wanted, the crops especially in Bhimthadi and the east were withering, and in many places field work was at a stand. The supply of grain was sufficient, but बाज्री rose to 14\frac{3}{4} pounds and जवारी to 14\frac{1}{4} pounds. This caused much distress and in the south and east many were again preparing to start for the Berárs. The numbers on public works fell from 35,344 to 26,786, on civil works from 4625 to 3352, and on charitable relief from 12,729 to 12,420. In August an average of four inches of rain fell, but it was chiefly confined to the west. Rain was wanted everywhere, particularly in Indápur, Bhimthadi, Sirur, and Purandhar. The rice crops in Mával were good, but in the east the crops were withering and in some places they had perished. In Bhimthadi and Purandhar, with some exceptions, the pulse was lost. The high prices, बाज्री at 12\frac{3}{4} and जवारी at thirteen pounds, caused much distress. Many Bhimthadi landholders were preparing to leave their homes. Throughout the month cholera was prevalent. The numbers on relief works fell, on public works from 26,786 to 24,514, and on civil works from 3357 to 2003; on charitable relief they rose from 12,420 to 21,650. In September an average of 5\frac{5}{8} inches of rain fell. At first in the central sub-divisions, Junnar Khed and Haveli, there were only slight showers, but, about the close of the month, there was good rain, and the early crops, which except in Indápur had suffered severely, were much benefited. About the middle of the month the late or rabi sowing was begun, the poorer landholders in Bhimthadi finding great difficulty in obtaining seed and cattle. बाज्री fell from 12\frac{3}{4} to 14\frac{3}{4} pounds and जवारी from thirteen to 15\frac{3}{4} pounds. The people were improving, and cholera and small-pox were on the decline. The numbers on public works rose from 24,514 to 24,687 and on charitable relief from 21,650 to 24,474; on civil works the numbers fell from 2003 to 719. In October an average of 3\frac{1}{2} inches of rain fell. The
prospects of the early crops continued favourable and the late sowing was in progress. The Bhimthadi cultivators’ seed and cattle difficulty disappeared. The moneylenders came forward; the better class of Kunbis had generally stocks of their own; and a large proportion of Bhimthadi, chiefly along the Bha, was tilled by the people of the west of the district and of Sátára, who advanced seed and lent bullocks on the crop-share or batái system. About the end of the month the sowing in Bhimthadi was greatly kept back by heavy showers. Bájri fell from $14\frac{1}{2}$ to $18\frac{1}{2}$ pounds, and jvári from $15\frac{1}{2}$ to nineteen pounds. The numbers on public works fell from 24,687 to 15,461, on civil works from 719 to 122, and on charitable relief from 24,474 to 8209. The large decrease in the number on the relief works was mainly caused by people having left the works tempted by the better wages they could earn in the fields. Slight rain fell about the close of November. The bájri harvest was in progress and the late sowings were finished. In four sub-divisions the jvári crops were slightly damaged by blight. In some parts, owing to the want of bullocks, the tillage had been slovenly, and in many places the jvári crops were choked with weeds. On the whole the outlook was promising. Bájri fell to twenty-two pounds and jvári to $23\frac{1}{2}$ pounds. The numbers on public works fell from 9621 in the first days of the month to 1788 about the close, on civil works from 122 to fifty-three, and on charitable relief from 8209 to 1550. At the end of November all relief works were closed, December passed with a few slight showers. Bájri fell to 23\frac{3}{4} pounds and jvári to twenty-five pounds. Government continued to offer charitable relief, but on the 22nd of the month the number seeking relief had dwindled to 180.

The following statement of average monthly millet prices and numbers receiving relief, shows that, during the first quarter of 1877, grain kept pretty steady at twenty-three pounds the rupee or more than twice the ordinary rate, that its price rose rapidly till it reached 12\frac{1}{2} pounds in August, and that it then quickly fell to 23\frac{1}{2} pounds. As early as December 1876 the numbers on relief works reached 40,250, and in January 1877 rose to 53,333. In February, by lowering wages and enforcing task and distance tests, the total was reduced to 41,786, and in March it fell to 33,223. From that it rose to 44,789 in May, and then began gradually to fall. From June to September the decrease was slow, it was rapid in October, and in November the works were closed. The numbers on charitable relief rose steadily from 1694 in January to 12,729 in June; then with a slight fall to 12,420 in July they rose to 24,474 in September. In October they rapidly declined to 8209, in November to 1550 and in December to 180 when almost all the relief-houses were closed.

1 In 1876-77 the tilled area in Bhimthadi was 101,730 acres; in 1877-78, 372,688; and in 1878-79, 333,319 acres. In Indépur for the same years the areas were 9400 136,768, and 192,360 acres.
### Poona Famine, 1876-77.

**AVERAGE DAILY NUMBERS.**

<table>
<thead>
<tr>
<th>Month</th>
<th>Civil</th>
<th>Public</th>
<th>Total</th>
<th>Charity</th>
</tr>
</thead>
<tbody>
<tr>
<td>November</td>
<td>6401</td>
<td>14,253</td>
<td>20,654</td>
<td>...</td>
</tr>
<tr>
<td>December</td>
<td>16,792</td>
<td>23,498</td>
<td>40,250</td>
<td>...</td>
</tr>
<tr>
<td>January</td>
<td>29,569</td>
<td>23,764</td>
<td>53,333</td>
<td>1694</td>
</tr>
<tr>
<td>February</td>
<td>19,752</td>
<td>22,084</td>
<td>41,836</td>
<td>1796</td>
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<td>6,003</td>
<td>23,665</td>
<td>32,233</td>
<td>2290</td>
</tr>
<tr>
<td>April</td>
<td>4,050</td>
<td>21,678</td>
<td>26,728</td>
<td>4301</td>
</tr>
<tr>
<td>May</td>
<td>4,012</td>
<td>40,177</td>
<td>44,188</td>
<td>7501</td>
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<tr>
<td>June</td>
<td>4,226</td>
<td>35,344</td>
<td>39,570</td>
<td>12,730</td>
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<tr>
<td>July</td>
<td>3,567</td>
<td>26,766</td>
<td>30,333</td>
<td>15,620</td>
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<tr>
<td>August</td>
<td>2,003</td>
<td>24,514</td>
<td>26,517</td>
<td>21,660</td>
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<tr>
<td>September</td>
<td>7,19</td>
<td>24,687</td>
<td>31,496</td>
<td>24,474</td>
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<td>October</td>
<td>123</td>
<td>15,441</td>
<td>15,564</td>
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<td>November</td>
<td>53</td>
<td>4738</td>
<td>4791</td>
<td>1560</td>
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<tr>
<td>December</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>180</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>98,435</td>
<td>314,837</td>
<td>413,273</td>
<td>95,764</td>
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<tr>
<td><strong>Average</strong></td>
<td>7572</td>
<td>24,195</td>
<td>31,767</td>
<td>8230</td>
</tr>
<tr>
<td><strong>Total Rs.</strong></td>
<td>...</td>
<td>...</td>
<td>1,375,956</td>
<td>290,149</td>
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**AVERAGE PRICES.**

<table>
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<tr>
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<th>Jostrí</th>
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</thead>
<tbody>
<tr>
<td>November</td>
<td>19</td>
<td>203</td>
</tr>
<tr>
<td>December</td>
<td>...</td>
<td>19 1/2</td>
</tr>
<tr>
<td>January</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>February</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>March</td>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td>April</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>May</td>
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<td>29</td>
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<tr>
<td>June</td>
<td>19</td>
<td>29</td>
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<tr>
<td>July</td>
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<td>14</td>
</tr>
<tr>
<td>August</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>September</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>October</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>November</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>December</td>
<td>25</td>
<td>...</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

Within the famine area carts could hardly be hired. When they took fodder and grain to the relief works from other parts of the district, the charges were seldom higher than the ordinary rates. Except in December 1876, when a cart cost 2s. 6d. (Rs.1 1/2) and in January 1877, when it cost 3s. (Rs.1 1/2) a day, the daily rate for a cart was 2s. 9d. (Rs.1 3/4).

A special census, taken on the 19th of May 1877, when famine pressure was general and severe, showed that of 48,051 workers, 42,304 on public and 5747 on civil works, 30,030 belonged to the sub-divisions where the works were carried on, 11,641 belonged to other sub-divisions of the district, 4701 were from other districts, and 1649 were from neighbouring states. As regards their occupation, 2096 were manufacturers or craftsmen, 24,285 were holders or under-holders of land, and 21,670 were labourers.

In 1877 relief-houses were opened for the infirm poor. Thirty-three houses were opened and maintained at a cost of £22,838 (Rs.2,28,380). Of twelve houses with a cost of £6949 (Rs.69,490) in Bhimthadi, two at Bárámati and Pandare were opened in April; three at Supa, Pátas, and Jalgaon-Kharepáthar, in May; one at Pimpalgaon, in June; four, at Párgaon, Khadki, Boribáyal, and Shirsuphal, in July; and one at Yevat, in August. Of eleven in Indápur at a cost of £9551 (Rs.95,510), eight, at Indápur, Kalás, Nimbra-Gen-Ketki, Varkute-Budruk, Madanvádi, Lasurance, Shetphal- Haveli, and Palásdev, were opened in July; two, at Báváda and Hingangão, in August; and one at Akola, in September. Of seven, with a cost of £2865 (Rs.28,650) in Sirur, there was one each at Ghodnádi, Ránjangaon- Ganpatí, Talegaon, Nirvi, Mándavgaon, Karde, and Alegaon. Of two, with a cost of £2212 (Rs.22,120), in
Haveli, one was at Dhankavdi and the other at Loni-Kalbhar. One with a cost of £1260 (Rs.12,600) was opened at Jejuri in Purandhar. Except at Patás in Bhimthadi, which had to be kept open till the 28th of February 1878, all the relief-houses were closed on the 30th of November 1877. As a rule the death rate in the Poona relief camps was low. It was highest in the relief camp at Dhankavdi close to Poona. Except at Dhankavdi no camps were built, the villages were almost deserted and the people were able to house themselves and to live in rest-houses. At Supa and Jejuri large empty houses were rented and a few cheap sheds were built. The relief-house at Dhankavdi was reopened for a few weeks in July 1878 when the rains held off.

The most marked features of the famine in Poona were the efforts of the landholders to help themselves, and the steady flow of grain into the markets, so that, from about the end of October 1876 to the close of the famine in October 1877, no great difficulty was found in keeping the labourers supplied with grain at rates very slightly in excess of Poona rates. As soon as signs of scarcity began the Kunbis left their houses in large numbers to find fodder for their cattle and food for themselves. In contrast to the Kunbis, the Mhárs Mángs and Rámoshís, from indolence and perhaps from the fear that if they left their villages they might forfeit their hereditary rights, would not leave their villages to go to the relief works. At first they were disinclined to take direct relief, and clamoured for employment in their own villages. Later they became demoralized, and many capable of work swelled the numbers on charitable relief. It was customary to send large drafts to the public works, feeding them at certain villages on the way. The low-caste labourers sent distances of forty to fifty miles started willingly, but after getting refreshed at the staging villages dispersed and made their way back to their homes.

Early in the famine, Bhimthadi, Purandhar, and Haveli were placed under the famine charge of Mr. A. Keyser, first assistant collector; Indápur was placed under Mr. W. M. Fletcher, of the revenue survey, who had sole charge of all relief operations in that sub-division, and subsequently of twenty-nine villages in the east of Bhimthadi; and Sirur, Khed, Junnar, and Mával were under Mr. E. C. Ozanne, assistant collector, of the first of which he had also the revenue charge. Mr. Keyser was assisted by Mr. H. L. Holland of the revenue survey, who was however sick and on privilege leave from November 1876 to March 1877 and again permanently invalided in July when he went home on sick leave, and also from February 1877 by Mr. W. P. Symonds, assistant collector, who, from its establishment in August 1877, was placed in charge of the Dhankavdi relief camp, until October when he relieved Mr. Ozanne. Besides these officers, Mr. A. L. P. Jarken, assistant collector, was entrusted with the organization of the Mutha canal and Nira canal labour gangs and with settling land compensation cases. In October 1876 the mámlatdárs of Indápur and Bhimthadi, and, in November and December, those of Sirur and Purandhar were put on famine relief duty; and in August 1877, the mámlatdar of
Mával was placed under Mr. Symonds on the Dhankavdi relief camp.\(^1\)

In 1877 the famine area was divided into thirty-seven relief circles, each under an inspector. Twelve of these, Pimpalgaon, Yevat, Párgaon, Pátas, Supa, Murtí, Pandare, Jalgaon-Kharepáthárr, Bárámatí, Rávangaon, Shirsuphal, and Malad,\(^2\) of seven to fifteen villages, were in Bhimthádi; ten, Bává, Vádápurí, Nimbgaon-Ketki, Lasurna, Kalas, Bhigvan, Palasdev, Kálthan, Agoti, and Hingangaon,\(^3\) of seven to ten villages, were in Indápur; eight, Mándávgaon, Nirvi, Karda, Kondhpuri, Malthan, Sirur, Pábal, and Shikrápur, of five to eleven villages, were in Sirur; four, Ráguri, Jéjurí, Valha, and Geroli, of nine to thirteen villages were in Purandhar; two, Loní-Kalbhrá of eleven and Ashtápur, of ten villages, were in Havelí; and one, Lákhangaon of seven villages, was in Khéd.

The difficulties in the way of effective relief were lightened by the tractable, and, in the case of the cultivators, the self-helpful character of the people. At first the village officers were directed to feed travellers in obvious need of food. In consequence of this order men wandered from village to village living as destitute travellers, so that it became necessary to modify the orders and limit the number of villages where travellers might be relieved to a few on the main thoroughfares. These adult malingerers kept in fair condition, but their children were often painfully reduced. The wanderers were not confined to the low castes. Numbers flocked into Poona, where a private association dealt somewhat indiscriminate charity, and streamed towards Bombay from Poona, Sátára, and Sholápúr. In August all beggars were turned out of Poona, a relief camp was established at the village of Dhankavdi about three miles to the south of the city, organized private charity was stopped, and those in need of relief were taken to the camp, whence when fit for work they were drafted to relief works or sent to their own homes. People were also collected in Bombay and Thána and sent by rail to the camp near Poona at Government expense. Another difficulty was, that, before the task or any other test was established, people rushed to the relief works in such numbers that it was difficult to deal with them, except at a great waste of public money. Works under civil agency had often no supervising establishment beyond one or more inexperienced and temporarily employed clerks. In some cases there were as many as 1500 to 2000 workers, and in one case for a short time more than 4000 workers on one civil agency work. The result was a pretence of work, insufficient return for large expenditure, and, very probably, some amount of fraudulent gains on the part of the clerks. With the establishment of the distance and task tests and

\(^1\) The málatádár of Indápur was Ráv Sáheb Vishnu Vasandev, of Bhimthádi Ráv Sáheb Ganesh Bhirvárv, of Sirur Khan Sáheb Shamandín Alíkhán, of Purandhar Ráv Sáheb Sítárám Dádáji, and of Mával Ráv Sáheb Mahádev Pundlik.

\(^2\) The last three, each of nine villages, were under Mr. Fletcher.

\(^3\) Indápur is omitted as it was managed by the municipality.
the opening of the Nira canal, the Dhond-Manmád railway embankment, and other large and well organized works under the Public Works Department, these difficulties disappeared and the civil agency works were entirely set apart for such persons as were incapable of hard work. The difficulty then was to find work which the weakly could do and to provide for the enormous preponderance of women. It was necessary to employ a few able-bodied men on civil agency works, while almost the only suitable employment that could be found was clearing silt from old ponds, and throwing gravel on roads and clearing stones from them. Next it was found difficult to enforce the tests without causing serious suffering and loss of life. The unwillingness of the low-caste people to leave their homes has been noticed. There was a natural unwillingness, on the part of all classes, to tramp long distances with their women and children, and work without much shelter at night or provision for the first few days, while in the case of those unaccustomed to continuous work there was sheer inability to perform even the moderate task required. Poona was singularly favoured in having many large and well-organized works in progress, and in almost all cases the difficulties were successfully overcome by a judicious system of advances, watchfulness on the part of the officers in charge of the works, the system of credit with the grain-dealer which soon sprang up, and the wearing off of the feeling of strangeness in the lives of a population, who, if not well-to-do, had no former experience of the actual pinch of hunger. The total cost of the famine was estimated at £160,611 (Rs. 16,06,110), of which £137,596 (Rs. 13,75,960) were spent on public and civil works, and £23,015 (Rs. 2,30,150) on charitable relief.

Except that the rice crops suffered from petty thefts in the harvest of 1877, and that small stores of grain were taken out of deserted houses, there was a striking freedom from crime. Compared with the former year the criminal returns showed a total increase of 1527 offences, which in the Commissioner's opinion, were due to the famine, being chiefly thefts and other offences against property and person. There are no statistics of the numbers either of the men or of the cattle who left the district and did not come back. It is believed that fully a fourth of the emigrant population never returned, and about four-fifths of the cattle taken away were never brought back. Among the people the estimated special mortality was about 8300 souls, but compared with 1872 the 1881 census shows a fall of 20,732. The addition of the normal yearly increase of one per cent during the remaining seven years gives 85,223 as the loss of population caused by death and migration in 1876 and 1877. Of cattle, besides those that died, many thousands were sold at very low prices. Though very great, the loss of stock did

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1 The chief details are, an increase under murders of 3; under attempt or abetment of suicide, 6; under robbery, 16; under lurking house-trespass or house-breaking, 154; under mischief, 31; under theft of cattle, 133; under ordinary theft, 1251; and under receiving stolen property, 96.

2 The decrease of cattle through deaths and other causes arising from famine has been estimated at near 110,000.
not interfere with field work. The tilled area in 1877-78 fell short of the 1875-76 area by 7476 acres. Of a land revenue of £116,004 (Rs. 11,60,040) for collection in 1876-77, £70,821 6s. (Rs. 7,08,213) were recovered by the close of the year. In 1877-78, of a land revenue of £117,013 (Rs. 11,70,130) £110,147 14s. (Rs. 11,01,477) were recovered. Of £114,894 18s. (Rs. 11,48,949), the realizable land revenue for 1878-79, £104,030 10s. (Rs. 10,40,305), and of the balances, £12,091 2s. (Rs. 1,20,911) were recovered. By the 1st of January 1880 the outstanding balance rose to £46,488 of which in June 1880 about £42,981 (Rs. 4,29,810) were remitted. In the east of the district some villages were deserted and others were half empty. The cultivation was far below the average and the number of cattle enormously decreased. With ordinary harvests it seemed probable that at least ten years would be required to restore the country to its former prosperity.

In 1878-79, in Sirur, Purandhar, Bhimthadi and Indapur the kharif or early crops were almost entirely destroyed by too much wet. In Indapur they were also choked by an extraordinary growth of weeds. Half crops were obtained in Sirur and in parts of Purandhar and Bhimthadi, but in places considerable damage was done by locusts and other insects. The rabi or late crops promised well till as they began to ripen the rats committed fearful havoc.

The price of grain continued exceedingly high and at the beginning of the hot weather the poorer classes of Indapur showed signs of suffering. To relieve the distress at various places in Indapur work was opened on the Nira Canal. Piece-work was exacted from the able-bodied, and the weak and sickly received subsistence wages. During May, June, and July, nearly 10,000 people were daily employed. Between 200 or 300 who were unfit for work, were cared for in a relief-house in Indapur. The total cost was £663 12s. (Rs. 6636).
CHAPTER V.

CAPITAL.

In 1872, according to the census, besides well-to-do husbandmen and professional men, 12,028 persons held positions implying the possession of capital. Of these 1464 were bankers, money-changers, and shopkeepers; 7608 were merchants and traders; and 2956 drew their incomes from rents of houses and shops, from funded property, shares, annuities, and the like. Under the head of capitalists and traders, the 1880-81 license tax assessment papers show 2460 persons assessed on yearly incomes of more than £50 (Rs. 500). Of these 1229 had £50 to £75 (Rs. 500-750); 429 £75 to £100 (Rs. 750-1000); 304 £100 to £125 (Rs. 1000-1250); 119 £125 to £150 (Rs. 1250-1500); 136 £150 to £200 (Rs. 1500-2000); 105 £200 to £300 (Rs. 2000-3000); sixty £300 to £400 (Rs. 3000-4000); twenty-seven £400 to £500 (Rs. 4000-5000); twenty-four £500 to £750 (Rs. 5000-7500); thirteen £750 to £1000 (Rs. 7500-10,000); and fourteen over £1000 (Rs. 10,000). Besides these the 1879 papers showed 12,976 persons assessed on yearly incomes of £10 to £50 (Rs. 100-500). Of these 6402 had £10 to £15 (Rs. 100-150); 3673 £15 to £25 (Rs. 150-250); 1923 £25 to £35 (Rs. 250-350); and 978 £35 to £50 (Rs. 350-500).

From 1750 to 1817 Poona was the capital of the Peshwás and the resort of the great officers and feudatories of the state with their numerous followers. During this time Poona was probably the richest city in Western India. In 1798 the exactions of the last Peshwa Bajirav II. and, in 1802, of Yashvantrav Holkar stripped the people of Poona of much of their wealth. Still in 1817, when it passed under British rule, Poona was a rich city where skilled craftsmen centered and large sums were spent. The capitalists of Poona suffered considerably by the change from Maratha to British rule. About one-third of the capital was driven from the market. Poona ceased to be the seat of government and the residence of its numerous ministers and officers. The great purchases of jewels, shawls, embroidered cloths, and other valuable articles came to an end and trade declined. Under the Peshwás much of the revenue from their widespread possessions centered in Poona. The money came either by bills drawn from the districts upon the Poona banks, or if it was paid in cash it passed through the

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1 The 1879 figures are given because incomes under £50 (Rs. 500) have since been freed from the license tax.

2 1827—13
hands of bankers, who profited by the exchange of coins before the collection reached the public treasury. Poona bankers had their agents in the districts and the ramifications of the money trade in loans to the people and to the renters of villages created a wide circulation of specie, which returned to the coffers of the Poona bankers with an abundant accumulation of interest. Loans of this nature were usually repaid in grain which was received at a price much below the market rate, and thus brought great returns to the lenders. Under the British revenue system all these advantages to the capitalists disappeared. The trade in moneylending was still further hindered by the substitution of suits in courts instead of the former private methods of dunning debtors. The merchants were forced to be more cautious in their speculations and to look more to individual character and collateral security. A few bankers failed from bad debts contracted by broken-down nobles and officials. About 1821 business was very dull in Poona. Many rich bankers had fallen into poverty. Before 1850 the period of Poona's greatest depression had passed. It remained the residence of many of the pensioned Marātha nobles and the head-quarters of the district of Poona and a very large military station. About 1835 it became the resort of the Governor and Council of Bombay between June and October and the head-quarters of the Bombay army for part of the year. Since the opening of the southern branch of the Peninsula railway in 1858, Poona has continued to increase in size, trade, and wealth. At present (1883) in the city and cantonment of Poona, besides the branch of the Bombay Bank, forty to fifty firms have a capital of £10,000 (Rs. 1,00,000) and upwards, about eighty firms have £5000 to £10,000 (Rs. 50,000 - 1,00,000), and about 250 have £1000 to £5000 (Rs. 10,000 - 50,000). In Junnar, the place of next importance, the seat of Musalmān governors in the times of the Bahmans (1347-1489) and of the Moghals (1637-1760), one firm has a capital of about £10,000 (Rs. 1,00,000), about five have £5000 to £10,000 (Rs. 50,000-1,00,000), and about forty have £1000 to £5000 (Rs. 10,000-50,000). In the rest of the district, in Bārāmātī Indāpūr Sāsvad and Sirur, about seven firms have a capital of about £10,000 (Rs. 1,00,000), about seven have £5000 to £10,000 (Rs. 50,000-1,00,000), and 200 to 300 have £1000 to £5000 (Rs. 10,000-50,000). A large proportion of these firms lend money on mortgage and do not trade. The men of capital are chiefly Gujārāt, Mārwār, and Lingāyat Vānis, and local Brāhmans. A few Chāmbhārs, Kunbis, Mālis, Marāthās, Mhārs, Sonārs, and Tolis with small capital are scattered over the district, and in the city and cantonment of Poona are several rich European, Jew, Musalmān, and Pārsi firms.

2 Captain H. D. Robertson, Collector (1821), East India Papers, IV. 588, 589, 593.
3 Rāv Śāheb Narso Rāmchandra, Secretary Poona Municipality.
spices and groceries, visiting the Deccan in the fair season. After a
time they settled as grocers in different parts of the district, and
taking to moneylending soon grew rich. They are still considered
foreigners, and except in dress keep all Gujarát customs and
manners, and visit their native country every three or four years to
perform marriage and other ceremonies. They have increased under
the British, though of late years their number has been stationary.
Except a few rich traders and bankers in the city of Poona, most
Gujarat Vânis are petty shopkeepers, traders, and moneylenders.
The Mârwâr Vânis came later than the Gujarátis, but were settled
in the district in large numbers before the beginning of British
rule. They were looked on with disfavour by the Maráthás as aliens
who took hoards of money to their native country, and as Jain
heretics their temples were often turned to the use of Brâhmanic
or local gods. 1 Many have settled in the district within the last
forty years. 2 In Poona as in Nâsik and other parts of the Presi-
dency the great reductions in rent that were made between 1837
and 1850 left the landholder with a margin, of which before long
the Mârwâri gained the chief share. They usually begin business
as clerks and servants of established shopkeepers and lenders.
While working as clerks, generally by buying old gold lace and
embroidered clothing or broken glass bangles and by saving,
they put together a little capital. When the clerk has gathered
enough capital, he severs his connection with his master and starts
as a shopkeeper and moneylender. In this way new shops are
being continually opened. Rich and long-established Mârwâri firms
are careful to do nothing to injure their good name. On the other
hand, as a class, the small Mârwâris are unscrupulous as to the
means they use for making money. Still though harsh and unscru-
plous to his debtors, even the petty and pushing lender and
shopkeeper as a rule deals straightforwardly with his own people and with
other traders. The Mârwâri lender’s chief characteristics are love
of gain and carelessness of local opinion. He has much self-reliance
and great industry. He has usually education enough to understand
the law and procedure of the courts to which he often resorts. He
is an excellent accountant and is generally quickwitted in all that
concerns his business. Knowing that the people look on him as a
stranger and a hardhearted usurer he holds aloof from them and
has no sympathies with them. He burdens himself with as few
permanent investments as possible, and like the Gujarát Vâni goes
to his native country for marriage and other ceremonies. Besides
as a moneylender and general broker he is employed as a retail
and wholesale dealer in groceries, grain, and cloth. Lingáyat or
Karnâtak Vânis are chiefly ironmongers and grocers and are seldom
moneylenders. Brâhman capitalists who belong to the district are

1 Deccan Riots Commission Report, 23.
2 The head-quarters of Bombay Deccan Mârwâris is the town of Vâmbori in the
Râhuri sub-division of Ahmadnagar, about fifteen miles north of Ahmadnagar city.
It is the seat of a large Mârwâri community and is the centre of their exchange and
banking business. The proportion of Mârwâris in Poona is not so large as in Ahmad-
nagar, where in some places they have almost a monopoly of moneylending. Deccan
Riots Commission Report, 23.
most Konkanasth Brâhmas in towns and Deshaasth Brâhmas in villages. Except a few in the city of Poona, who are printers, booksellers, and publishers of newspapers, the town Brâhmas who engage in trade are bankers and moneylenders, and the village Brâhmas who engage in moneylending belong to the village accountants’ or kul-kârnis’ families. Kunbis and other smaller capitalists work in the fields and at their crafts besides engaging in moneylending. Pârsi and Músulman capitalists are contractors, landholders, and traders, and the few Europeans are agents of Bombay firms trading in Poona, or are independent traders.

Of townspeople, merchants, traders, shopkeepers, brokers, pleaders, doctors, contractors, and highly paid Government servants; and of country people, landlords, petty shopkeepers, and moneylenders, and a few rich cultivators save money.

Traders spend much of their savings in adding to their business. With all classes of natives, except Mârwâr and Gujarât Vânis, the favourite investment is ornaments and jewelry. Next to ornaments come land and house property and lending money on mortgage. Government savings banks and Government securities are resorted to by the higher classes of townspeople who cannot make a better use of their money and by others as a safeguard against loss and because they can take out the money whenever they want it. Formerly considerable sums were invested in private native banks, chiefly by friendless widows and others, who got six per cent interest. But savings banks and Government securities, though they pay only 3½, 4, and 4½ per cent, have greatly reduced this form of investment. Joint stock companies are not popular except with those who have business connection with Bombay. European Government officers have generally accounts with the Poona branch of the Bombay Bank or with Bombay firms. The twelve years ending 1882 show a considerable though not a constant increase in the advantage taken of the two forms of investment provided by Government savings banks and Government securities. In 1870-71 the deposits in the savings banks at Poona and other sub-divisional towns amounted to £12,273 (Rs. 1,22,780). They rose to £38,544 (Rs. 3,85,440) in 1873-74, fell to £22,352 (Rs. 2,23,520) in 1874-75 and remained with little change till they rose to £37,268 (Rs. 3,72,680) in 1879-80 and to £65,055 (Rs. 6,50,550) in 1880-81. This great increase was owing to the rise in the highest amount of a single deposit from £150 to £500 (Rs. 1,500-5000). In 1881-82 as the amount of greatest deposit was again lowered to £150 (Rs. 1,500), the deposits fell to £38,321 (Rs. 3,83,210); they rose to £41,468 (Rs. 4,14,680) in 1882-83. New savings banks have also been recently opened in connection with post offices. The depositors are Hindu traders, Government servants, and landholders. During the thirteen years ending 1882-83 the interest paid on Government securities has risen from £5755 (Rs. 57,550) in 1870-71 to £7512 (Rs. 75,120) in 1882-83. The increase, though considerable, has been far from steady. The amount dropped from £5755 (Rs. 57,550) in 1870-71 to £4181 (Rs. 41,310) in 1872-73, and from that rose steadily to £9116 (Rs. 91,160) in 1878-79. It fell to £6898 (Rs. 68,980) in 1879-80,
Seccan.]

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rose to £8805 (Rs. 88050) in 1880-81, and again fell to £7156 (Rs. 71,560) in 1881-82 and £7512 (Rs. 75,120) in 1882-83. The details are:

| Chapter V. |
| Capital |
| Saving Classes |

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1870-71</td>
<td>12,728</td>
<td>575</td>
<td>1877-78</td>
<td>22,905</td>
<td>7179</td>
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<td></td>
<td></td>
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<tr>
<td>1871-72</td>
<td>20,253</td>
<td>6889</td>
<td>1879-79</td>
<td>22,607</td>
<td>9116</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1872-73</td>
<td>24,230</td>
<td>4131</td>
<td>1879-80</td>
<td>37,268</td>
<td>6898</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1873-74</td>
<td>35,241</td>
<td>5889</td>
<td>1880-81</td>
<td>65,555</td>
<td>8203</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1874-75</td>
<td>22,352</td>
<td>6099</td>
<td>1881-82</td>
<td>35,521</td>
<td>7136</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1875-76</td>
<td>24,247</td>
<td>6427</td>
<td>1882-83</td>
<td>41,468</td>
<td>7512</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A branch of the old Bank of Bombay was opened in Poona early in 1862. During the speculations which accompanied the American War it carried on a large business in local advances and in the purchase of bills on Bombay. With the close of the war business collapsed and in 1868 the old Bank of Bombay was placed in liquidation. The Poona Branch was taken over by the new Bank of Bombay and shortly after the Government local treasury was made over to its care. Deposits are held by the Bank to a moderate extent; but there is little or no profitable employment for its funds in Poona, as the requirements of local traders are for the most part supplied by local native moneylenders, who afford facilities against which the Bank cannot compete. The branch has been of much use to Government in financing for the heavy requirements of the local Treasury, as well as to the European residents who use the branch freely for all purposes of ordinary banking.

1 No native firms confine themselves to banking; all are also moneylenders and traders. The chief bankers are found in Poona and are generally Gujarát and Márwár Vánis and local Bráhmans. Some Poona bankers have dealings with Bombay; with Ahmadabad, Baroda, Broach, and Surat in Gujarát; with Ajmir, Jaypur, and Udepur in Rajasthan; with Karáchi and Haidarabad in Sind; with Dhár, Gwálíor, and Indur in Central India; with Akola, Nágpur, and Umrávati in Berár; with Agra, Allahabad, Benares, Calcutta, Delhi, Kánpur, and Lucknow in Northern and Eastern India; with Aurángabad and Haidarabad in the Nizám’s country; with Belgaum, Dhárwár, and Kárwár in South Bombay, and with Bellári in Madras; and the main towns along the highway leading to the shrine of Rámeshvar in South India. Where there is no agency a bill or hundi is given on a banker in the nearest large town and is cashed by the bankers of the smaller places in the neighbourhood. Local payments are made in silver and beyond district limits in bills of exchange or hundís. The rates of commission for a hundi range from a quarter to four per cent, being high during the busy season October to May. When the firm issuing the bill has a large balance at the agency, as they tend to adjust accounts without the cost of

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1 Ráv Sáheb Naróo Rámchandra, Secretary Poona Municipality.
sending bullion, bills are issued at par. Under ordinary circumstances the highest sum for which a bill can be cashed in Poona without notice may be taken at £400 (Rs. 4,000) and after notice at £2,500 (Rs. 25,000), and in the other banking towns at about £100 (Rs. 1,000).

The two most usual forms of exchange bills or hundis are bills payable at sight called darshani and bills payable after an interval generally of less than nine days called mudati. Bills are of three kinds, personal or dhanijog when the grantee is the person to whom or to whose order the payment is to be made; on trust or shahajog when payment is made to a nominee of the grantee known to the payee; and descriptive or nishajog where a description of the payee is embodied in the bill. It is not usual to draw bills in sets. A letter of advice to the agent or banker, stating the amount drawn, the number of the bill, and the name of the person to whom or in whose favour the bill has been granted, is considered enough. Bills before they reach the correspondent of the drawer are in some cases several times sold, and the purchasers endorse them each time with their signatures or bechans. When the amount of the bill is remitted in cash, by another bill, or in any other form, the bill is signed by the payee, returned to the grantor, and filed as a voucher or khoika. Unless the bill is binajabi, that is unless it requires no letter of advice, it is usual for the correspondent of the grantor to send a letter of advice, intimating the payment of the money to the payee. No days of grace are allowed. The bill, if demanded, must be cashed on the specified day. If the payer delays, monthly interest is charged varying from one-half per cent if the drawer is a banker to three-quarters per cent if the drawer is a merchant. If payment is asked before the bill falls due, discount at a similar rate is charged. If the bill is dishonoured and sent back uncashed, the grantor must pay interest at double the rate of current interest from the date when the bill was bought. He must also pay a non-acceptance penalty or nakrvii, which varies in different places. Carriage was also formerly charged according to the distance the bill had travelled.

If the bill is lost or stolen a duplicate or peth letter stating the amount of the bill and asking for payment is usually granted. If the duplicate letter is lost, a triplicate or parpeth mentioning both the bill and the duplicate is issued; and, if the triplicate is not forthcoming, an advice or jdb mentioning the bill, the duplicate, and the triplicate, is sent to the same effect. The payee must satisfy himself as to the identity of the bearer of the bill and in doubtful cases should demand security before payment is made. If he pays the wrong man he has to bear the loss, and pay a second time to the holder of the duplicate and the triplicate. The payee in the case of an advice letter or jdb passes a separate receipt, while the bill, the duplicate, and the triplicate are simply endorsed. After payment the banker debits the drawer with the amount paid. If a drawer overdraws his account, and the bill is lost or dishonoured, he alone is

1 Steele's Hindu Laws and Customs in the Deccan.
POONA.

responsible. It is usual after endorsing them to sell bills to bill-
brokers or daláli, who are paid brokerage at the rate of 3d. (½ a.)
on every £10 (Rs. 100) bill. As treasure is seldom sent, bills are
generally adjusted by debits and credits and exchange bills or
badli hundis, whose rates vary according to the conditions of the
transaction. The drawer pays commission or hokshádi to the
respondent who disburses cash to the payee, and both drawer and
purchaser pay a brokerage or daláli for the sale of badli hundis. The interchange of bills has been greatly simplified by the
introduction of a uniform coinage. Formerly the different rupees and the different rates of exchange made the system most complicated,
and was the source of no small profit to local bankers.

Where there is an agent or munim, the clerk or gumástà acts
under the agent. As a rule there is no agent, and the clerk, who is
generally a Bráhman, is subordinate to his master alone and is
treated by outsiders with much respect. He keeps the accounts,
which makes and recovers advances to husbandmen, superintends his
master’s establishment, looks after his lands and servants, and goes
abroad to buy and sell goods according to his master’s orders.
Exclusive of food and other charges and travelling allowance the clerk’s yearly pay varies from £5 to £30 (Rs. 50 - 300). At Diválí in
October-November he is given a turban or some other article of
clothing and small presents on weddings.

Bankers as well as traders and well-to-do moneylenders keep
three books, a rough and a fair journal or rojmel and a ledger or
khátévahí. Some traders keep only one journal. Where two
journals are kept the transactions of the day are entered in the
rough journal as they take place. At the end of the day they
are corrected, balanced, and entered at leisure in the fair journal.

A general summary of each man’s dealings is posted in the ledger
under its proper head and the pages of the journal which refer to the
details are noted. Many village lenders trust to the evidence
of bonds and keep no books.

In Shiváji’s time (1674-1680) the following gold coins were
known in the district: Gádars; Ibhrámis; Mohars; Pútalis; Satlámis;
Huns of fourteen kinds Pádshahi, Sangari, Achyutrái, Devrái,
Rámhondvaráí, Guti, Dhárvádi, Shivrái, Káveripák, Pralakháti,
Pálá-Náiki, Ádavani, Jadmúli, and Tádpatri; and Phalams of twelve
kinds Afraji, Trimalári, Trishuli, Chandávari, Bildhári, Ulañkári,
Muhammadsháí, Veluri, Katerái, Devjasli, Rámnáthpuri, and Kungoti.

The chief rupees that were current during the Peshwa’s rule were
the Maháshádi or Rástic’s rupee, which was equal to fifteen annas of
the present Imperial rupee; the Ankushi of three kinds, Kora nirmal
e, chhápí or fresh from the mint and bearing a clear stamp, Madhyam
chhápí or with a half-worn stamp, and Náráyan chhápí; Belápuri and
Bháturi equal to fourteen annas; Bodke surti equal to 14½ annas;
Jarijaléi, Kolúbi, Mirajá, Phora Chándávari, and Phulshahári, Shikká
of three kinds, hallí, shri, and vái; and Tembhúrni. The Peshwa’s
government used to add two per cent to all its collections to bring them to the Mahārāshṭrā standard. To raise the coins to the Ankushi standard the last Peshwa Bājirāv took an additional percentage which varied according to the pleasure of the mālmatdār. In the beginning of British rule the percentage was fixed according to the intrinsic value of the coins.¹ Of the coins in circulation in 1821 about forty-nine per cent were Nārāyan chhāpī, twenty-nine per cent Kora nirmal, and 7½ per cent Madhya m chhāpī ankushis, five per cent Beldpuris and Bhāturis, and 1½ per cent Halli shikkās. The proportion of the other rupees varied from one-ninth to two-ninths per cent.

The shikka rupees were the most popular with bankers, who generally preferred them to other coins. The other rupees continued legal tender till about 1827, when they were superseded by the Company’s coin, but the shikka rupee remained current till about 1857. Till about 1834-35 when it was finally closed, the shikka rupees were made in the Poona mint by the old Tānksale or Mint-master family of Deshasth Brāhmans under the supervision of British officers, who allowed ten per cent copper alloy for remuneration. Experts were appointed to examine the coins as they issued from the mint, and were paid 2½ d. (½ a.) as commission on every hundred rupees examined.² These rupees were generally exchanged at a discount of not more than ½d. (½ a.).

At present, besides notes which are used only in the town and cantonment of Poona, the currency is partly silver partly copper. The silver coins are the Imperial rupee, half-rupee adhel, quarter-rupee pānī, and one-eighth rupee chavli. The ordinary copper coins are a half-anna piece dhābu, a quarter-anna piece paisa, and a onetwelfth-anna piece pāt. Old copper coins called chhattrapatis, also called shivrāis or the coins of Rāja Shivaji, worth about a quarter of an anna, are also current. The chhattrapati contains 136 grains troy (½ tola) of pure copper, or 45 grains troy (¼ tola) more than the current quarter-anna piece. Still it sells for less as one or two pieces have to be added in every rupee. The coinage of the chhattrapati or shivrāi was stopped immediately after the beginning of British rule. But about thirty years ago large quantities of a counterfeit coin with an alloy of zinc were secretly coined and circulated in the markets near Junnar and Ahmadnagar. Though gradually disappearing these false shivrāis are still in use, and are so close a copy of the real shivrāi that only an expert can tell them from each other. Kavdis or cowrie-shells from the Malabar coast are in use in making small purchases of groceries, vegetables, betel leaves, and oil. Four kavdis, equal to one-twenty-fifth of a shivrāi that is about one-seventieth of a penny, is the smallest unit.

¹ Captain H. D. Robertson, Collector, in East India Papers, IV. 181, 590. For every 100 Kora nirmal chhāpī Ankushis were demanded 104½ Madhya m chhāpī Ankushis, 10½ Nārāyan chhāpī Ankushis and Phutshakaris, 10½ Bhāturis, 10½ Vāi shikkās, Beldpuris, Koldāīs, and Tembhuris, and 10½ Mirajis. Ditto.

² Shortly before August 1822 the Poona mint was closed for some time owing to the discovery of frauds. As the want of currency caused inconvenience the mint was reopened. Mr. Chaplin’s Report, 20th August 1823 (1877 Edition), 93. The mint seems to have been finally closed about the year 1834-35.
Insurance or vima was known before the time of the British. Valuable articles, jewels, bullion, coin, precious stones, cloth, cotton, silks, and shawls, and sometimes cattle grain and metal vessels, while being carried to and from Poona, were insured at Poona against loss by robbery, plunder by troops, fire or water, the carrier’s negligence, his being carried off by a tiger, drowned in fording a river, or dying from epidemic disease. The work of insurance formed part of the business of one or more bankers acting as partners. As insurance agents they undertook to send goods from one place to another on receipt of transit cost and insurance fees, varying from one to ten per cent on the value of the goods, according to the distance, the danger of robbers, and the time allowed for the journey. Insurance was not undertaken for a longer distance than 200 miles (100 kos) unless on property of a greater value than £100 (Rs. 1000). Within that distance the value of goods whose safe carriage was insured varied from £10 to £10,000 (Rs. 100 - 1,00,000). The agents employed armed escorts and camels to convey the articles, and every year had to pay blackmail to the heads of the robber gangs who infested the country. The insurance agents’ escorts were Arabs, Rohillas, Pathans, or Rajputs. The camel-men who were Muhammadans were called sardins. Their wages were from fifteen to twenty per cent above those of ordinary messengers, and, in addition to their wages, they were paid rewards for each successful trip. They were noted for bravery and for their staunch regard for their employer’s interests. They carried matchlocks, swords, daggers, and shields. They made very rapid journeys on trained camels, and if attacked by robbers made good use of their arms. Exclusive of the escort’s wages the principal sums defrayed by the insurer were on account of loss and damage to the property injured. Interest from $1 to $2 per cent was also paid to the owner if the goods insured did not reach their destination within the appointed time.

Under British rule order and peace have made insurance against the risks of the road unnecessary. Insurance against fire has not

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1 Steele’s Hindu Laws and Customs in the Deccan, 314-321. The chief details are:

<table>
<thead>
<tr>
<th>Place</th>
<th>Gold and Jewels</th>
<th>Cash, Silver, Cloth, and other Articles</th>
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<tbody>
<tr>
<td>Haidarabad</td>
<td>1 to 2</td>
<td>2 to 5</td>
</tr>
<tr>
<td>Benares and Oudh</td>
<td>5 to 7</td>
<td>No insurance</td>
</tr>
<tr>
<td>Jaipur and Ajmir</td>
<td>3 to 4</td>
<td>4 to 5</td>
</tr>
<tr>
<td>Surat</td>
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</tr>
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<td>3 to 5</td>
</tr>
<tr>
<td>Burhanpur</td>
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<td>2 to 4</td>
</tr>
<tr>
<td>Indur and Ujjain</td>
<td>2 to 4</td>
<td>3 to 4</td>
</tr>
<tr>
<td>Nagpur</td>
<td>2 to 4</td>
<td>3 to 4</td>
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<tr>
<td>Umardin</td>
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<td>2 to 3</td>
</tr>
<tr>
<td>Miraj, Sholapur, and Nasik</td>
<td>1 to 2</td>
<td>2 to 3</td>
</tr>
</tbody>
</table>
been introduced. In Poona a branch of the Bombay Oriental Government Security Life Assurance Company Limited, has been open since 1874. A few policies have been effected on the lives of Europeans, Eurasians, Hindus, and Parsis, but the business done has been small.

Much of the moneylending is in the hands of Marwār and Gujarāt Vānis. A considerable number of local Brāhmans and a few Chāmbhārs, Dhangars, Gosāvis, Kunbis, Mālis, Māngs, Marāthās, Mhārs, Musalāns, Shimpis, Sonās, Telis, Lingāyat and Vaish Vānis, and others having capital also engage in moneylending. The business done by local lenders, most of whom have other sources of income and are not hereditary moneylenders, is less than that done by outsiders from Marwār and Gujarāt. Except of a few town firms moneylending is not the lender’s sole pursuit. About sixty per cent are traders including grocers and cloth-sellers, thirty per cent are husbandmen, and ten per cent are pleaders and others.1 Besides lending money Marwāris deal in grain, groceries, cloth, and oil, some having shops in villages and others in country towns and market places. Except in some Junnar villages, where they have dealings with husbandmen, Gujarāt Vānis are chiefly cloth-dealers who are settled in the larger towns and who lend money to weavers and other craftsmen and seldom to husbandmen. Lingāyat moneylenders are chiefly ironmongers and grocers. The Brāhman moneylender is generally a land proprietor, a corn-dealer, and in the city of Poona a pensioned Government servant, pleader, or contractor, and a cultivator in Khed and Junnar. He is generally found in towns and seldom lends except to the better class of landholders. The Marātha or Kunbi moneylender is a husbandman. He is found in villages and towns. As a rule he does not lend except to people who belong to his village or with whom he is connected. The others are chiefly found in Poona and in large towns. Of all lenders the Marwāri has the worst name. He is a byword for greed and for the shameless and pitiless treatment of his debtor. Some say Brāhmans are as hard as Marwāris, others say they are less hard. Almost all agree that compared with Marwār and Brāhman creditors, Marāthās, Kunbis, and Gujarāt Vānis are mild and kindly. A Marwāri will press a debtor when pressure means ruin. The saying runs that he will attach and sell his debtor’s cooking and drinking vessels even when the family are in the midst of a meal. Brāhmans, whose position in society tends to make them popular, are shrewd and cautious in their dealings, and as a class avoid extreme measures for the recovery of their debts. A Gujarāt Vāni, a Marātha, or a Kunbi creditor will seldom ruin his debtor. It is not easy to make moneylending pay. Want of experience often leads to loss of capital. Except when their immediate interests clash moneylenders as a class are friendly to each other, avoid competition, and deal honestly among themselves.

1 Mr. J. G. Moore, C.S.
POONA.

The accounts of the rates of interest at the beginning of British rule vary. In 1821, according to the Collector Captain Robertson, the usual rate of interest was twelve per cent except in the Mâvâls where it was from twenty to twenty-four per cent. A ½ anna per rupee a month or about eighteen per cent was an usual rate. When the interest was paid in grain the usual monthly rate was a sher the rupee or seventy-five per cent. If grain was borrowed for seed, the debt was cancelled by repaying double the quantity borrowed any time within a year; if the grain was borrowed for food one quarter to three-quarters more were paid in return. About the same time Dr. Coats (29th February 1820) described the village shopkeeper as lending a few rupees to the villagers without security and charging ½ anna interest a month or thirty-seven per cent. A good deal of their traffic with the villagers was by bartering grain and other field produce for groceries. The usual yearly rate of interest was twenty-four per cent. Loans of grain and straw were repaid at fifty per cent, and often at seventy-five per cent.

At present (1883) the rate of interest varies with the credit and the need of the borrower, the habits of the class to which he belongs, the risk of the industry in which he is engaged, and the dearness of money. The interest charged is always higher in the country than in the city and presses more on poor than on well-to-do landholders. In small transactions where an article is given in pawn the yearly rate of interest varies from nineteen to thirty-seven per cent. In petty field advances on personal security the usual yearly rate is 37½ per cent. (½ a. the rupee a month). When there is a lien on the crops the payment is generally in grain and the interest varies from twenty-five to fifty per cent. In large transactions with a mortgage on movable property, nine to twelve per cent are charged, and in mortgages of immovable property the rate varies from six to twelve per cent. Where loans are secured by mortgages on land, the average rate in the Havelli sub-division, where the conditions of landed property are specially favourable, varies from thirteen to nineteen per cent. In less favoured sub-divisions the rate not uncommonly rises to twenty-four per cent. Money invested in buying land is expected to yield a clear profit of nine to twelve per cent. Interest is now calculated according to the English calendar year in all transactions which do not take the shape of book-accounts. Book-accounts and merchants’ accounts are generally regulated by the samvat year which begins at Divâlî in October-November; Brâhmins and other non-professional lenders generally keep their accounts by the shak year which begins on the first of Chaitra in March-April. If payment is made within three years the extra or intercalary month is charged; if the account runs for more than three years the extra month is excluded. The Imperial rupee is the standard in all transactions. Shopkeepers not uncommonly have dealings

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1 East India Papers, IV. 580.  
DistRICTS.

Chapter V.

Capital.

Moneylenders.

Interest.

In shikka rupees. In such cases, if the settlement is private, it is made according to the market value of the coin. In disputed cases, when the parties come to court, the shikka rupee is turned into the Imperial rupee at a reduction of nearly two per cent. At seed time moneylenders usually advance grain for seed and for the maintenance of the landholder. Advances of seed and of food grain are repaid six months after in kind or in their money value at the rate of 125 per cent or savdi, of 150 per cent or didhi, or of 200 per cent or dám dupat of the grain advanced. Contractors, who of late years are a growing class, pay twelve to twenty-four per cent interest and at the time of borrowing allow a discount or manuti of three to five per cent. Their dealings are all in cash. They have fair credit and are well-to-do. They borrow money to help them to carry out their contracts and repay the loan as soon as the contract is finished. Moneylenders have good credit and borrow at six to twelve per cent a year. Traders and merchants whose credit varies with their personal position borrow at nine to eighteen per cent. Khists or small loans payable by daily or weekly instalments of a few annas are occasionally made in some parts of the district.

The chief borrowers of the district are land-owning Kunbis. Contractors of various kinds, who are a growing class, also borrow. Enterprising moneylenders borrow at low interest and lend at rates high enough to cover losses and leave a considerable margin of profit. Traders and merchants rarely borrow except when they make large purchases of the articles in which they deal. The few craftsmen who are free from debt act as moneylenders. Though most craftsmen are in debt they are not so deeply involved as landholders, partly because they have no security to offer, partly because they have no money rents to pay. In ordinary years, as a class, craftsmen are better off than husbandmen. Still, of late years, competition has closed many of the old callings, and craftsmen, who have not suffered from competition, are generally afflicted by a craving for some form of vicious indulgence. Except for their intermepate habits craftsmen are generally intelligent, able to care for their interests, and guard themselves from being over-reached by false claims. Craftsmen borrow at twelve to twenty-four per cent. Besides the interest, they have to accept a five per cent deduction from the amount of the nominal loan. They are honest debtors and do their best to pay their debts repaying in small instalments. They dislike borrowing and do not borrow except under considerable pressure. They reckon indebtedness a burden and try to shake it off as soon as they can. Of the lower orders, domestic servants and labourers are the only classes who are comparatively free from debt. House servants if forced to borrow repay the loan by monthly instalments. They are generally regular in their payments and careful to pay what they owe. Except during the few years before and after the close of the American war, when

1 Gov. Res. 25th January 1883, allows a deduction of one rupee and fifteen annas for every 100 rupees.
the Peninsula railway and other local public works were in progress and when the wages of unskilled workmen in Bombay were exceptionally high, labourers were never better off than they now are. Fifty years ago a labourer could hardly earn wages enough to keep himself and his family and could save nothing. A labourer then was badly fed and clad; the cheapness of the articles of daily use alone kept him from starving. The first marked improvement in the labourer’s condition was caused by the demand for labour to complete the great public works which were in hand both locally and in Bombay between 1862 and 1871. The Deccan Riots Commission estimated that £250,000 to £300,000 (Rs. 25-30 lakhs) of the whole amount spent in making the Peninsula railway within Poona limits remained in the district in payment of local labour. Just beyond the west limits of the district were the great Sahyadri works where on a distance of fourteen miles 40,000 labourers were at one time employed by one contractor. At the same time the foreshore reclamation and other works in hand in Bombay caused so great a demand for labour that in 1863 the monthly wages of unskilled workmen rose from 15s. 6d. (Rs. 7½) to £1 7s. (Rs. 13½). Great public works in the Poona district continued to give the labourers highly paid employment till the year 1871. At present (1888) a labourer can command not only the necessaries of life for himself and his family, but ordinary comforts and even a few luxuries. He spends his gains on clothes, food, and liquor more than on ornaments. Labourers work in the fields from August to March; at other times they are employed on house-building and other public or private works. On his personal security a moneylender generally advances a labourer up to £10 (Rs. 100). Sometimes the security of a fellow-labourer is taken.

Since before the beginning of British rule the greatest borrowers in the district have been the landholders. The ordinary Kunbi is a simple well-disposed peasant content with the scantiest clothing and the hardest fare. Though unschooled and with a narrow range of intelligence he is not without many qualities and meets with a stubborn endurance the unkindly caprices of his climate and the hereditary burden of his debts, troubles which would drive a more imaginative race to despair or stimulate one more intelligent to new resources. The apparent recklessness with which he will incur obligations that carry the seeds of ruin has gained for the Poona landholder a character for extravagance and improvidence. The apparent recklessness is often necessity. His extravagance is limited to an occasional marriage festival, and his improvidence is no greater than that of all races low in the scale of intelligence who live in the present.1 The want of forethought, which prevents the landholder overcoming the temptation to which the uncertainty of the seasons and the varying value of his produce give rise, is caused by a want of power to realize future troubles rather than by a spirit of extravagance or waste. In 1875, in the opinion of the members of the Deccan Riots Commission, the expenditure on marriage and

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1 Deccan Riots Commission Report, 22.
other festivals was less the cause of the husbandman's indebtedness than was commonly supposed. Compared with his means the expenditure was extravagant, but the occasions seldom occurred. In a course of years the total sum spent was probably not larger than a landholder was justified in spending on special and family pleasures. The expenditure on family pleasures formed an important item on the debit side of many accounts but it was rarely the nucleus of a debt. Even at twenty-four per cent interest the £5 to £7 10s. (Rs. 50-75) spent by an average landholder on a marriage, with fairness on the lender’s part and without the addition of other debts, could be rapidly paid. In the opinion of the Commission the bulk of the landholder’s debt was due less to the large sums spent on ceremonies than to constant petty borrowings for food and other necessaries, to buy seed, to buy bullocks, and to pay the Government assessment. The Commissioners held that in a district with so uncertain a climate as Poona and with people whose forethought was so dull, the payment of a regular money rental, even when the rental was far below the standard of a fair season, must lead to borrowing.

When the country came under British rule, the bulk of the husbandmen were in debt. In 1819 in the township of Loni on the Ahmadnagar road, about ten miles east of Poona, Dr. Coats found that of eighty-four families of husbandmen all except fifteen or sixteen were indebted to moneyed men generally Brâhmans or shopkeepers. The total private debt was £1,453 (Rs. 14,530) and there was a further village debt of £307 (Rs. 3070). The sums owed generally varied from £4 to £20 (Rs. 40-200), but some men owed as much as £200 (Rs. 2000). The interest was usually twenty-four per cent, but when small sums were borrowed interest was as high as forty per cent. The cause of debt was generally marriage expenses or the purchase of cattle and food. Each debtor had a running account with his creditor and paid sums of money from time to time. According to the accepted rule the interest of a debt could never be more than the principal. In settling disputes the juries followed the rule dón dusar kan tisar, that is double for money treble for grain. Few debtors knew how their accounts stood. Most of them believed that they had paid all just demands over and over again. About a fourth of the people were indebted to their neighbours for grain and straw and borrowed to support themselves and their cattle till next harvest. They repaid these advances in kind at fifty to seventy-five per cent interest. In ordinary times the whole of a husbandman’s produce was mortgaged before it was reaped. In bad seasons the evil was much increased. If any of their cattle died they had no means of replacing them. If they failed to raise an advance they left their fields and tried to save some money as Brâhmans’ servants or perhaps as soldiers.¹

² From the Deccan Riots Commission Report (1876).
revenue contractors, the landholders in many villages, though frugal and provident, were much in debt to bankers and merchants. Many of these debts were of long standing. They were often made of compound interest and fresh occasional aids so mixed and massed that the accounts were exceedingly complicated. A husbandman who fell in debt could seldom free himself. The husbandman’s debts were of two kinds, village debts and private debts. The village debt usually arose from advances or loans made by bankers to the Maratha Government on the security of the revenues of certain villages. The private debts were the result of the revenue farming system under which the state dues were collected through bankers or sáukárs who usually received in kind from the villagers what the bankers had paid to the Government in cash and drafts. The mass of the husbandmen had not interest or title enough in their land to be security for a large debt. Mirás or hereditary holdings were sometimes mortgaged, but their selling value was estimated at not more than two or three years’ purchase, and land yielding £20 (Rs. 200) of gross produce could seldom be mortgaged for more than £10 (Rs. 100). The ordinary dealings between the moneylender and the landholder were based on the teaching of experience rather than on any power of compulsion in the hands of the creditor. The recognized mode of recovering debt was for the lender to send a dun or mohasal whose maintenance had to be paid daily by the debtor. Another mode was to place a servant in restraint or dharna at the debtor’s door, or to confine the debtor to his house or otherwise subject him to restraint. Against the humbler debtors severer measures were used. The landholder’s constantly recurring necessity could not be relieved unless he maintained his credit by good faith. On the other hand the Government in no way helped the lender to exact more than a fair profit which considering his risks would also be a large profit. Honesty was the borrower’s best policy and caution was a necessity to the lender. There was a considerable burden of debt and many landholders were living in dependence on the lender, delivering him their produce and drawing upon him for necessaries. The landholder’s property did not offer security for large amounts. The debtor’s cattle and the yearly produce of his land were the lender’s only security. As immoveable property was not liable to sale for debt, and as the hereditary or mirás title was of no value to a non-agricultural landlord, the mortgage even of hereditary or mirás land gave the lender a hold on the produce rather than on the land. Rates of interest were very high and much of the debt consisted of accumulations of interest. The causes of indebtedness were chiefly the revenue system and sometimes expenditure on marriages or similar occasions. The amount of individual debt was usually moderate. Most moneylenders were men of substance who had a staff of duns and clerks. In recovering debts the lender had little or no help from the state. At the same time he had great license in private methods of compulsion. Under British management the lender’s power of private compulsion was curtailed and courts presided over by the Collectors were opened to suitors. At first the lenders did not go to the courts. This and
other causes caused a contraction in the moneylender's dealings. Still the landholder's necessities compelled him to keep on terms with his creditor.

There are no records bearing on the relations between the husbandmen and their creditors in the years immediately following Mr. Chaplin's report. Later information shows that the burden of debt grew heavier rather than lighter before the introduction of the Civil Court Procedure in 1827. The first regular Civil Procedure was introduced into the Bombay Presidency by Regulations II. III. IV. and V. of 1827. Regulation IV. provided the procedure and Regulation V. the limitations for civil suits. In Regulation IV. the cattle and tools necessary for the support of the agricultural debtor were declared exempt from seizure on account of debt. Regulation V. limited the yearly rate of interest recoverable in a civil court to twelve per cent. When the new laws came into operation, except in hereditary or mirās land, the husbandman had no title to his holding, and on account of the fall in the value of produce the revenue demand left little margin to the landholder. Under these circumstances the lender had little security for debt.

As the courts gave the lenders the means of speedily realizing their claims they were soon resorted to. In 1832, when the extreme cheapness of grain was pressing with terrible weight on the agricultural classes, the French traveller Jacquemont, a somewhat unfriendly critic, described the cultivators all over India as owing instead of owning. They had almost always to borrow seed from the banker and money to hire plough cattle. Every husbandman had a running account with a lender to whom, during all his life, he paid the interest of his debt, which swelled in bad years and when family ceremonies came round. In no part of India did indebtedness cause more misery than in the Deccan. Formerly the law or custom prevented a lender from more than tripling the original loan by compound interest; neither personal arrest nor seizure of immovable property was allowed. The English law removing all such restraints caused much horror. To carry out the law judges had to strip old families of their ancestral homes.1

The first detailed record of the relations between husbandmen and their creditors is the result of an inquiry made in 1843, by Mr. Inverarity, the Revenue Commissioner of the Northern Division. Mr. Stewart, the Collector of Poona, after premising that it was well known that all enactments to fix a lower than the market rate of interest had the effect of enhancing it, stated that money was frequently borrowed on mere personal security at thirty to sixty per cent. Considering that the borrowers seldom owned any property it seemed to him a matter of surprise that they had credit at all rather than that the rate of interest was so high. The views of Messrs. Frere and Rose his assistants were somewhat at variance

1 Jacquemont's Voyages, III. 559.
with the Collector's views. Mr. Frere stated that there were few villages under his charge in which there was one landholder unburdened with debt and scarcely a single village in which three persons could be found not involved for sums of over £10 (Rs. 100). These debts were contracted on marriage and other social occasions. The interest varied from twenty-five to sixty per cent according to the circumstances of the borrower and the description of security given. Mr. Frere recommended some measure restricting interest. Mr. Rose observed that the usurious character of the village moneylender was notorious. He thought the poverty of the Deccan landholder was in great measure due to the lender's greed. He feared it would be difficult to cure the evil as the people looked on the moneylender as a necessity. Their thoughtlessness and ignorance would frustrate any attempt to check or put a stop to the lender's exorbitant gains. In cases where landholders were concerned, the interest was generally enormous and agreements were fraudulently procured. He also recommended that something should be done to limit the rate of interest. In summing this evidence the Revenue Commissioner seems to have shared the Collector's views against trying to lower interest by legal enactment. He noticed that the moneylender was frequently part of the village community. The families had lived for generations in the same village helping the people from father to son and enabling them to meet urgent caste expenses.

In this correspondence the attention of the reporting officers was usually fixed on the question of usury. It appears that as yet the operation of the law had not aggravated the burden of debt to any degree of severity. This was natural. The husbandmen had generally no title in his land except the title conveyed by the hereditary or mirás tenure and his stock and field tools were safe from seizure. Another notable point in this correspondence is that the moneylenders are spoken of as the village Bania, the village banker, and under similar terms which show that the old banker was the only lender with whom the landholders had dealings. It is also noteworthy that expenditure on marriages, caste rites, and similar occasions is generally assigned as the cause of indebtedness. One reason why social charges are noticed as the chief cause of debt may be found in the rapid spread of tillage which in different parts of the district followed the lowering of the rates of assessment in 1836 and the following years. The lowering of assessment gave the landholder a strong inducement to add to his holding and the lender was encouraged to make advances by the enhanced security and the ready machinery which was available for recovering debts. It was hoped that the permanent title and the light assessment guaranteed by the survey settlement would so increase the landholder's profits and stimulate his industry that by degrees he would free himself from debt. The increased production and the stimulus to agricultural enterprise did indeed follow, but debt instead of diminishing increased. The records belonging to the period between 1850 and 1858 bring to notice two marked features in the
relations between the lender and the husbandman which followed
the changes in the revenue and judicial systems. These two features
are the growth of small moneylenders and the operation of the laws
to the disadvantage of the landholders. In 1852, Captain, the late
Sir G. Wingate, then Survey Commissioner, wrote that the facilities
for the recovery of debt offered by the civil courts had called into
existence an inferior class of moneylenders who dealt at exorbitant
rates of interest with the lower agricultural poor. As the value of
the landholder’s title under the survey settlements came to be
recognized, his eagerness to extend his holding grew. A fresh
start was given to the moneylender in his competition with the
landholder for the fruits of the soil. The bulk of the people were
very poor and the capital required for wider tillage could be obtained
only on the credit of the land and its produce. Even under the
reduced rates of assessment existing debt left the landholder little
margin of profit. This margin of profit would not go far towards
covering his increased needs to provide stock and seed and to meet the
assessment on the additions to his holding. At the same time for
the first year or two his return in produce would be nominal. Even
the most cautious could not wait till their profits enabled them to
take up fresh land because they feared that the more wealthy or the
more reckless would be before them. In 1855 it had become well
known that the Regulation restricting the rate of interest to twelve
per cent was evaded by the moneylenders by deducting discount,
or more properly interest taken in advance from the amount given
to the debtor. The usury law had the effect of placing the debtor
in a worse position by compelling him to co-operate in a fiction to
evade the law. The bond acknowledged the receipt of an amount
which had not been received. In 1855 an Act was passed repealing
the restriction on interest. Another result of the enhanced value
of agricultural investments caused by the survey settlement was
the spread of the practice of raising money on mortgage of land and
of private sales of land to moneylenders. Private sales of land were
doubtless made in liquidation of debt and not for the purpose of
raising money as no landholder would part with his land to raise
money. It must therefore be presumed that in such cases the
moneylender compelled the transfer by threats of imprisonment
or by other terrors. Although moneylenders were adding to their
land by private purchases the sale of occupancies under decree
was rare. This was probably due to several causes. The
people had not acquired full confidence in the title given by the
survey settlement; they probably had hardly confidence in the
stability of the British rule. The only land sold was hereditary
or mirâs which as it was held by a recognized title was
reputed to be safe. It was seldom a creditor’s interest to sell his
debtor out of his holding. The landholder’s stock and field tools
were protected from sale and the creditor was likely to make more
by leaving him in possession of his land than by lowering him to a
tenant. The sale of immovable property for debt was opposed to
custom and public opinion, and unless the land was directly made
security the courts would be reluctant to have it sold if the claim
could be satisfied by other means more consonant with native usage.
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The judicial returns show how much more favourable the mode of disposing of business in the courts before 1859 was to defendants than the more strict procedure which was introduced in 1859. Under the earlier system about one quarter of the cases decided were adjusted without judicial action; in 1859 the proportion settled without judicial action fell to about one-seventh.1 At this time (1850-1859) the returns show that the imprisonment of the debtor was a favourite method of procuring the settlement of a debt. The sale of land was rare and the sale of the debtor's house was an innovation. Imprisonment would therefore be more often used. During the three years ending 1853 there was an average of 530 civil prisoners in the Poona Jail, compared with an average of 204 in the three years ending 1863.

In 1858, when Lord Elphinstone was Governor of Bombay, he recorded his conviction that the labouring classes suffered enormous injustice from the want of protection against the extortionate practices of moneylenders. He believed that the civil courts had become hateful to the mass of the people because they were made the instruments of the almost incredible rapacity of usurious capitalists. In Lord Elphinstone's opinion nothing could be more calculated to give rise to widespread discontent and dissatisfaction with British rule than the practical working of the existing law.

Shortly after this the rise in produce prices improved the landholder's condition. Notwithstanding the pressure of debt and of injurious laws about 1860 the landholders were better off than they had been for years. The conditions of agriculture had been favourable. For nearly twenty years landholders had enjoyed a fixed and moderate assessment and large tracts of arable waste had been brought under tillage. Communications and means of transport were improved, the railway whose construction had enriched the district by about £200,000 (Rs. 20 lakhs) was within easy reach, and in spite of a series of good seasons produce prices had risen. Although the lender might take him to court, the landholder had a chance of being able to borrow from a rival lender and the court would give time. If a decree was passed against the borrower, his stock and field-tools were safe and his land was not in danger. He might be imprisoned until he signed a new bond; he was not likely to be made a pauper.

In 1859 two enactments aggravated existing evils. These were the Civil Procedure Code and the Statute of Limitations. Whatever facilities the law afforded the creditor in 1852 were greatly enhanced by the introduction of the 1859 procedure, and by the punctual conduct of judicial duties which was now exacted from the subordinate courts. At the same time the landholder's credit was enhanced by adding his land and his stock and field tools to the security which was liable for his debts. In 1865 the introduction of compulsory registration of deeds dealing with immovable property protected

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1 The details were; in 1850 of 8893 cases 2355 were settled without judicial action; in 1859 of 10,060 cases 1889 were settled without judicial action.
The creditor from attempts to repudiate or dispute a registered bond. In the meantime the landholder’s estate had risen in value and new cultivation offered securities for new loans. His personal solvency was assured by the large demand for labour on the railway and other public works, and in 1865 his title in his land was recognized and secured by an Act which confirmed the rights vested in him by the survey settlement. Between 1862 and 1865 the American war, while on the one hand it poured money into the country to seek investment, on the other hand raised to an extravagant pitch the value of agricultural securities. To these causes tending to attract capital to the business of agricultural moneylending it may be added that in the dearth of other industries, with a population whose wants embraced little but the merest necessaries, capital, which under other conditions would find employment in trade or manufactures, naturally turned to agricultural investment. Almost the only course open to the clerk or servant who had saved a little money in a village moneylender’s employment, was to set up as a moneylender.

The most unscrupulous class of petty moneylenders increased considerably during the ten years ending 1875. It became the landholder’s common practice to borrow from one lender to pay another or to borrow from two or three at a time. One result of this competition of low-class lenders was that even respectable lenders were obliged to resort to the methods of swelling the debt and coercing the debtor which the petty lenders had introduced. In the process of swelling the account the lender was greatly helped by the Limitation Act of 1859. This Act was passed with the object of helping the borrower by making it impossible for the lender to bring forward old claims which the borrower could not disprove. The lender wrested the provisions of the Act to his own advantage by forcing the debtor, under threat of proceedings, to pass a fresh bond for a sum equal to the amount of the original bond.

1 Sir G. Wingate thus described the change in the relations between the lender and the landholder: The prosperity of the landholder is no longer necessary to the prosperity of the lender. The village lender needs no longer to trust to the landholder’s good faith or honesty. Mutual confidence and goodwill have given way to mutual distrust and dislike. The ever-ready expedient of a suit gives the lender complete command over the person and property of the debtor. It becomes the lender’s interest to reduce the borrower to hopeless indebtedness that he may appropriate the whole fruits of his industry beyond what is indispensable to his existence. This the lender is able without difficulty to do. So long as a landholder is not deeply involved the lender readily affords him the means of indulging in any extravagance. The simple and thoughtless landholder is easily lured into the snare. He becomes aware of his folly only when the toils are fairly round him and there is no escape. From that day he is his creditor’s bondman. The creditor takes care that the debtor shall seldom do more than reduce the interest of his debt. Do what he will the landholder can never get rid of the principal. He toils that another may rest; he sews that another may reap. Hope leaves him and despair seizes him. The vices of a slave take the place of a freeman’s virtues. He feels himself the victim of injustice and tries to revenge himself by cheating his oppressors. As his position cannot be made worse, he grows reckless. His great endeavour is to spoil his enemies the moneylenders by continual borrowing. When he has borrowed all that one lender will advance, it is a triumph to him, if lies and false promises can win something more from another. The two creditors may fight, and during the fray the debtor may snatch a portion of the spoil from both; Decou

Riots Commission Report, 45-46,
Deccan.]  

POONA.  

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together with interest and often a premium.1 His inability to pay on account of the uncertainty of the seasons made this practice of passing new bonds at the end of every two or three years press specially hard on the Poona husbandman.

Though the landholders’ gains from the high prices of produce during the four years of the American war (1862-1865) were to a great extent cancelled by the badness of those seasons, still the husbandmen drew large profits from the high wages of unskilled labour, which in Bombay rose from 15s. 6d. (Rs. 7 3/4) to £1 7s. (Rs. 13 1/2) a month. Besides in Bombay high wages were paid to the workers in the railway especially on the ascent of the Bor pass which was not completed till 1863. Following on this after a short interval came an increased expenditure on local public works, which in the Poona district alone in 1868-69 rose to about £310,000 (Rs. 31 lakhs). During the five years ending 1867, the cantonment of Poona was the scene of extraordinary activity in private house-building. The sums spent on ordinary labour in these works could not have been much, if at all, less than those spent by Government in the same area. Besides the advantage of high wages the agricultural population drew a more questionable advantage from their position as landholders. Through the immense stimulus given to the production of cotton and because of the cheapness of money, field produce and land had risen so high that the landholder’s power as a borrower was that of a capitalist rather than of a labourer.

The increase in the value of land is illustrated by the rise in the number of suits connected with land from seventy-five in 1851 to 282 in 1861 and to 632 in 1865.2 At the same time the increase in the landholder’s credit is shown by the fall in the compulsory processes for the recovery of debt. Thus, though during this period of extremely high prices, the husbandman’s land may have, on account of the badness of the seasons, brought him little actual income, it brought him the fatal gift of unlimited credit.

In 1865 with the close of the American war the inflow of capital ceased. Prices did not at once fall as 1866-67 was a season of severe drought, 1867-68 of partial failure, and 1870-71 of serious

1 On the 17th of May 1875, Mr. W. M. P. Coghill, the Sessions Judge of Thána, wrote, ‘In bonds founded on old bonds which have nearly run the period of limitation, it is impossible to estimate what proportion of the consideration was actual cash payment. The Limitation law, a statute of peace made for the protection of borrowers, became an engine of extortion in the hands of the lenders. When a bond is nearly three years old the creditor by threatening proceedings press the debtor to pass a new bond for a sum equal to the principal and interest of the old bond and sometimes with an additional premium.’ According to the Judge of the Small Cause Court of Ahmadabad, 1st September 1875, the short term which the Limitation Act introduced caused great hardship and furnished lenders with opportunities for cheating their debtors. The debtors are harassed every two years to pay the money or to pass a new bond. Creditors always leave a margin of one year as a measure of precaution. If the law makes three years they always make it two, because they may have to go to another place or the debtor may go elsewhere. Two years is not a long enough time to give a husbandman to pay money. Perhaps it was borrowed for his son’s marriage, or for planting sugarcane, or making a garden, and will take him six or seven years to clear.

2 The details are: 1861, 282 suits; 1862, 591; 1863, 520; 1864, 580; and 1865, 632.
failure, and the very large sums which were spent on local works till 1871 further helped to keep up produce prices. After 1871 the expenditure on public works declined, the harvests were good, and the price of millet fell from forty-four pounds in 1871-72 to sixty-five pounds in 1873-74. From 1867 the settlements of land revenue made thirty years before began to fall in, and the revision resulted in a considerable increase in the Government demand.\footnote{The following table shows the results of the revisions:}

<table>
<thead>
<tr>
<th>SUB-DIVISION</th>
<th>Former Demand</th>
<th>Revised Demand</th>
<th>Increase</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indapur</td>
<td>Rs. 81,184</td>
<td>Rs. 1,35,845</td>
<td>Rs. 44,661</td>
<td>55.91</td>
</tr>
<tr>
<td>Bhimthadi</td>
<td>Rs. 83,475</td>
<td>Rs. 1,35,131</td>
<td>Rs. 51,656</td>
<td>60.40</td>
</tr>
<tr>
<td>Havali</td>
<td>Rs. 80,475</td>
<td>Rs. 1,33,174</td>
<td>Rs. 53,699</td>
<td>65.48</td>
</tr>
<tr>
<td>Pabal</td>
<td>Rs. 92,359</td>
<td>Rs. 1,39,315</td>
<td>Rs. 46,956</td>
<td>50.54</td>
</tr>
<tr>
<td>Stupa</td>
<td>Rs. 59,935</td>
<td>Rs. 75,738</td>
<td>Rs. 15,803</td>
<td>26.47</td>
</tr>
</tbody>
</table>

*Poona Revision Survey Results, 1869-1878.*

\footnote{The lender's distrust in the borrower was shown by the rise in the number of registered deeds in Bhimthadi and Indapur from 752 in 1866 to 874 in 1869, 1195 in 1870, 1217 in 1871, 1747 in 1872, and 1414 in 1873.}

\footnote{Resolution 726, 5th February 1876.}
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issue first against the movable property of the occupant, and that
the land should not be sold until after the sale of the movable
property. This order the moneylenders turned to their own
advantage at the expense of the landholders. In February and
March 1875 the lenders refused to pay the second instalment of
revenue on land whose produce they had received from their debtors.
Landholders who found their movable property attached, after they
had handed their creditors the produce of the land on the
understanding that they would pay the rents, naturally felt that
they were the victims of deliberate fraud. The feeling of ill will
was strong and widespread.

In 1874 a band of Koli outlaws, on the western hills of Poona
and Ahmadnagar, directed their robberies almost entirely against
the lending class. So great was the terror that for many months a
large tract of country enjoyed complete freedom from the exactions
of Márwári creditors and their agents. This fact and the story that
an Englishman, who had been ruined by a Márwári, had petitioned
the Empress and that she had sent orders that the Márwáris were to
give up their bonds brought matters to a crisis. Even the more
educated villagers believed that on a report from India orders had
come from England that the Márwáris were to have their bonds taken
from them. In some form or other this report was circulated and
a belief established that acting under orders from England, the
Government officers would connive at the extortion of the
Márwáris’ bonds. During 1874 the district officers had been called
upon to furnish information regarding the people of the district
for the compilation of the Bombay Gazetteer. Among other
subjects the business of the moneylender, the leading characteristics
of his professional dealings, and his relations to the landholding
classes had been inquired into. This gave room for supposing that
the Government, hearing of the ill-treatment of the landholders by
the lenders, had caused inquiry to be made and had now given an
order which would redress their wrongs. This resulted in the Deccan
Riots of 1875. ₪

The first sign of open hostility to the Márwári moneylender
among the orderly villagers of the Poona plain, was shown by the
people of Karde in Sirur. A deshmukh, or district hereditary
officer, named Bábásáheb, a man of good family and some influence,
who had made a fortune in the service of His Highness Sindia,
had settled in the village. He spent his fortune and fell into
debt. Two of his creditors, Kálurám and Bhagvándás, both of them
Márwáris, got from the Talegaon court decrees against Bábásáheb. Kálurám took out a warrant of arrest. Bábásáheb

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1 Between 1870 and 1874 moneylenders suffered in one case of murder, seven of
robbery, eight of mischief, twenty-four of theft, twenty-nine of hurt, and eight of
criminal force, or a total of seventy-seven offences in five years. Deccan Riots Com-
mmission Report, 9.

2 The feeling of hostility between the landholders and their creditors which found
expression in the riots had been increasing for some time, and had it not been for a
transient period of prosperity, the crisis would have happened long before. Bom.
gave Kálurám personal ornaments and the warrant was not executed. About four months later some ornaments and property belonging to the temple of Vithoba at Bábsáheb’s house were attached, but, at the instance of the villagers, Kálurám allowed the attached property to remain in deposit with a third party for two months. At the end of the two months, as Bábsáheb had not paid the value, Kálurám carried off Vithoba’s ornaments. A third execution was issued on Kálurám’s decree, and Bábsáheb’s houses and lands were attached and sold to Kálurám for the trifling sum of £15 (Rs. 150). In December 1874 Kálurám began to pull down Bábsáheb’s house, and refused to listen to his entreaties not to ruin the house. Enraged at Kálurám’s conduct Bábsáheb gathered the villagers and persuaded them that as the Márwáris had begun to ruin them they must cease to borrow from them and refuse to work for them or to buy from them. The villagers agreed and one of them opened a grocer’s shop at which all the village purchases were made. The Márwáris were put to the greatest inconvenience for want of servants. Besides refusing to serve them as water-carriers, barbers, or house-servants, the villagers annoyed the Márwáris by throwing dead dogs and other filth into their houses. These signs of hate so scared the Márwáris that they retreated to Sirur for police protection and represented to the Magistrate that they were in bodily fear of the villagers. At the same time the villagers submitted a petition to Government praying that as they had given their grain to the Márwáris, the Márwáris should not be allowed to leave the village until the Government assessment had been paid. The Magistrate reported to the Commissioner the dangerous spirit shown by the people. The example of the people of Karde was followed by other villages. Before any outbreak occurred the Márwár moneylenders had in several places been subjected to similar social outlawry and petty annoyance.

The first outbreak occurred at Supa, a large Bhimthadi village, on the 12th of May 1875. The victims were a large number of Gujarát Váni moneylenders. Their houses and shops were attacked by a

1 The following is the substance of a samápatra or agreement executed by the people of Kala in Indánpur. Fields belonging to Gujars which may have been leased to villagers shall not be killed. No man nor woman shall take service with a Gujar. Any one tilling a Gujar’s field or working for him will be denied the service of the village barber, washerman, carpenter, ironsmith, shoemaker, and other village servants. Fields belonging to lenders other than Gujars shall not be taken on lease by any one. Fields already leased shall be given up. If the village Mhára undertake to dun the villagers on behalf of the Gujars they shall be refused their usual alms and bundles of grain stalls. The villagers shall abide by these conditions. If the headman joins the Gujars and other lenders, his hereditary right shall cease and his authority be disregarded. If the village priest or accountant joins the moneylenders his dues shall not be paid. The villagers shall engage any priest they choose, and the claims of the hereditary priest will not be recognized. If the headman or the priest is put to any expense on behalf of the villagers the villagers shall subscribe the sum. All landholders shall behave in accordance with these rules; any one acting to the contrary will neither be allowed to come to caste-dinners, nor to marry with the people of his caste. He shall be considered an outcaste. He will not be allowed to join the community without their unanimous consent, and will have to pay the fine which the community may inflict on him and further will have to give a dinner to the community.

Dated Váishákha Shuddh 2nd Shaka 1875, that is 7th May 1875. Afterwards under the influence and advice of the Superintendent of Police the villagers agreed to return to their old relations with the moneylenders.
mob recruited from the hamlets round Supa who had met nominally to attend the weekly market. One Gujar's house was burnt down, and about a dozen other houses and shops were broken into and gutted. Account papers, bonds, grain, and country cloth were burnt in the street. No personal violence was used. The chief constable of the sub-division with six or seven constables secured about fifty persons and recovered stolen property worth £200 (Rs. 2000). The loss was represented by the Gujars at £15,000 (Rs. 15,000); it was not really more than £2500 (Rs. 25,000). Within twenty-four hours of the riot at Supa, the leading Marwari lender of Kedgaon about fourteen miles to the north of Supahad his stacks burnt down and his house set on fire. During the following days riots occurred in four other villages of Bhimthadi, and were threatened in seventeen more. The contagion spread to the neighbouring sub-divisions of Indapur and Purandhar. In Indapur a disturbance, which from the numbers present would have been serious, was averted, as were the riots threatened in the seventeen Supa villages, by the promptitude of the police. A detachment of Native Infantry arrived at Supa, the police were relieved and available for other duty, and order was quickly restored.

About the same time riots occurred in Sirur. The first act of violence was committed at Navra, where a Marwari, who had left the village for safety, was mobbed and prevented from moving his property. An uncle of this Marwari some two years before had been murdered by his debtors. Other Sirur villages followed the example of Navra. In fifteen Sirur and three Haveli villages

1 In the village of Morgaon a crowd assembled, Vánis were threatened and bonds demanded, violence was prevented by the timely arrival of the police. At Dhond a Vání was severely treated because he would not give up his bonds, and a large crowd assembled. Five ringleaders were punished. At Ambekhurd two Váns' houses were forcibly entered, their account-books destroyed, and bonds taken away. Six of the ringleaders were punished. In Aligao about two hundred men from the surrounding villages of Nargao, Mandgaon, Andhala, Kolgaon, Dolas, and Vadgaon, assembled, headed in some instances by their headmen and village police, and demanded their bonds from the Váns threatening if they refused to treat them as the Supa Vánis had been treated. The police patel of the village, with the assistance of the Rámoshi Mhárs and other well disposed people, dispersed the assembly who threatened the Váns with another visit. The inhabitants of Vadgaon again collected in numbers and compelled one of the Váns of their village to give up his bonds, went through his house, broke open the back entrance of the next house, illtreat the female Vání owner, compelled her to point out where the bonds were kept, broke open the box, and took the bonds, burning or otherwise destroying papers worth £100 to £1200 (Rs. 1000-12,000). A similar assembly at Mandgaon took possession of bonds of the value of £500 (Rs. 5000) and about half of them were destroyed. At Rabua a Marwari who had been incessantly threatened fled to Phulgán, and was not allowed to remove his property and family. A large stack of fodder belonging to him was destroyed. At Pimpalgaon, the villagers took away bonds from small money-lenders among whom was a Chámbhar who had only one bond for £3 10s. (Rs. 35). The police patel on his way to report the matter to the Police Superintendent was stoned.

2 At Dhárure the houses of two Márwarís were simultaneously attacked, bonds worth £1200 (Rs. 12,000) were forcibly taken, and the owners were stoned. One old Márwari had his leg broken, he was confined in his house and the house set on fire. He was saved but his and the other Márwarís' houses were burnt. The chief constable was also threatened and was not allowed to carry on the work of investigation. This shows that everywhere the same influences had brought the villagers to the same readiness to resort to force. Subsequent inquiries leave no doubt that the rioters at Supa had the sympathy and countenance of some influential
riots either broke out or were threatened. The regiment of Poona Horse whose head-quarters are at Sirur supplied parties to help the Magistrate and police in restoring and maintaining order. More or less serious disturbances took place in five villages of Bhimthadi and six villages of Sirur. They were threatened but averted by the arrival of the police in seventeen villages of Bhimthadi, in ten of Sirur, in one of Indapur, and in three of Haveli. Of 559 persons arrested, 301 were convicted and 258 discharged. Punitive police posts were established in the disturbed villages at the people's expense. The riot at Supa was singular in the wholesale plunder of property and the Damare riot in the murderous assault on the money-lenders. In a few other cases personal violence was used, and in several places stacks of produce belonging to money-lenders were burnt. As a rule the disturbances were marked by the absence of serious crime. In every case the object of the rioters was to obtain and destroy the bonds and decrees in the possession of their creditors. When bonds were peaceably given the mob did no further mischief. When the money-lender refused or shut his house violence was used to frighten him into surrender or to get possession of the papers. In most places the police interfered during the first stage of assembling and prevented violence. From many villages the Marwari money-lenders fled on the first news of the outbreak. In other villages they opened negotiations with their debtors for a general reduction of their claims, and in some cases propitiated their debtors by easy settlements. In almost every case inquired into, the riot began on hearing that in some neighbouring villages bonds had been extorted and that Government approved of the proceeding. Almost the only victims were Marwaris and Gujarists. In most villages where Brahman and other castes shared the lending business with Marwaris the Marwaris were alone molested. In some villages where there were no Marwaris, Brahmans were attacked. The last of the connected series of outbreaks occurred at Mundhali in Bhimthadi on the 15th of June. Afterwards two isolated cases in Poona showed that the long catalogue of convictions and punishments and the imposition of punitive police posts had repressed not quenched the people's rage. On the 22nd of July seven men of the village of Nimbhat in Bhimthadi, besides robbing papers, cut off the nose of a man who was enforcing a civil decree which had put him in

persons of their village, and the presence of these persons may perhaps account for the first occurrence of open violence at Supa. But the condition of the villages through the whole affected area was such that even had Supa not taken the initiative, some other places would doubtless have done so. The combustible elements were everywhere ready; design, mistake, or accident would have surely supplied the spark to ignite them. The ringleaders generally belonged to the cultivating classes, their only object being to escape from the hands of the money-lenders. When a riot began all the bad characters in the village took part in hopes of plunder.

1 While these disturbances were going on in Poona similar outbreaks occurred in the neighbouring district of Ahmadnagar. During the fortnight following the Supa riot on the 12th of May riots took place in eleven villages of Shrigonda, six of Pater, four of Nagar, and one of Karjat and besides actual rioting there were numerous gatherings which were prevented from coming to violence by the timely arrival of the police or military. A detachment of Native Infantry was moved to Shrigonda and parties of the Poona Horse were active in patrolling the villages in the west within reach of their head-quarters at Sirur.
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possession of land belonging to one of the men who attacked him. On the 28th of July the villagers of Karháti in Bhimthadi broke into the house of a Márwári moneylender and took a store of grain. The Márwári had refused to advance grain except on terms to which they could not agree.¹

The most remarkable feature of these disturbances was the small amount of serious crime. A direct appeal to physical force, over a large area, was usually restrained within the limits of a demonstration. The few cases which bear the vindictive spirit usually shown in agrarian disturbances were probably due to the presence of other rioters besides the ordinary Kunbi peasantry. This moderation is in some measure to be attributed to the nature of the movement. It was not so much a revolt against the oppressor, as an attempt to accomplish a definite and practical object, the disarming of the enemy by taking his weapons, his bonds and accounts. For this purpose a mere demonstration of force was usually enough. Another circumstance which contributed to the moderation of the peasantry was that in many cases the movement was led or shared by the heads of the village. It was doubtless an aggravation of the breach of law that those who should have maintained order contributed to disturb it. Still an assembly of villagers acting under their natural leaders for a definite object was a less dangerous body than a mob of rioters with no responsible head. The chief cause of the moderation was the natural law-abiding spirit of the Kunbi peasantry. In so orderly and peaceful a people such a widespread resort to force proved the reality of their grievances.²

That the riots ceased was due not merely to the prompt action of the police and the military, but to the assurance of the civil authorities that complaints should be inquired into and proved grievances redressed. Accordingly in 1875 the Bombay Government appointed a commission to inquire into the causes underlying the outbreak. The members of the commission were Messrs. Richey and Lyon of the Revenue and Judicial branches of the Bombay Civil Service, Mr. Colvin of the Bengal Civil Service, and Ráv Bahádur Shamhuprasad Laxmílal a distinguished Gujaráti administrator. Subsequently Mr. Carpenter of the Bengal Civil Service took the place of Mr. Colvin whose services were elsewhere required. The Commissioners held inquiries in disturbed parts, recorded the statements of landholders and of lenders, and compiled other evidence obtained on the spot and in the records of Government. Their report, which was submitted to Government in 1876, contained a detailed history of the relations of the Deccan landholders and moneylenders since the beginning of British rule.

¹ Beside these two cases in Poona, on the 8th of September in the village of Kukkur in the Válva sub-division of Sátára more than 100 miles from the nearest disturbed part of Poona, a riotous outrage was committed in all respects similar to the Poona and Ahmadnagar riots. About 100 or more villagers attacked, plundered, and burnt the house of a leading Gujar moneylender, gathered all the papers and accounts which they found in the house, destroyed them, and dispersed. The cause was declared to be the harsh proceedings of the moneylender against his debtors.² Deccan Riots Commission Report, 7.
The result of the commissioners’ inquirys into the relations between moneylenders and husbandmen in the Deccan was that the normal condition of the bulk of the landholders was one of debt. About one-third of the landholders were pressed by debt, averaging about eighteen times their yearly rental and about two-thirds of it secured by mortgage of land. Of the two-thirds who were not embarrassed some were well-to-do. But immediately above the embarrassed was a class with little property to fall back on whom a succession of bad years or a fall in produce prices would plunge in debt.¹ The estate of an average Kunbi landholder, exclusive of his land and its produce, was estimated to have a sale value of little more than £20 (Rs. 200).²

The district lenders belonged to three classes. The first class included small traders and village moneylenders, mostly Márwár and Gujarát Vánis and a few Lingáyat and Vaish Vánis and Bráhman chiefly village accountants. These advanced grain for seed and food and money upon pledge, mortgage, and good security. They were specially hateful to the people and on them fell the burden of the 1875 troubles. The second class were the rich bankers or traders of large towns. Among these, besides Gujarát, Lingáyat, Márwár, and Vaish Vánis, were many Yajurvedi Deshash Bráhmanes. The village accountants or kulkarnis who were small moneylenders were generally closely connected with these Bráhman bankers. They had also relations with pleaders and to some extent with local officials. They dealt much less in grain advances than the lower class of traders. In the same way as kulkarnis acted as agents to rich pleaders and other moneylending Bráhmanes so small village Vánis were often the agents of their rich castefellows. The Bráhman and Váni lenders who worked through Bráhman and Váni village agents were less unpopular than the Márwár lenders. Those who were Bráhmanes derived some advantage from their caste and community of country and religion. Still as a body they were bad

¹ In twelve villages, of 1876 holders of land, 523 who paid a total yearly rental of Rs. 10,603, were embarrassed with debt. The debt amounted to Rs. 1,94,242 of which Rs. 1,18,009 were on personal security and Rs. 76,233 on mortgage of land. In another 24 villages the number of occupancies held by lenders in the years 1854, 1864, and 1874, with their area and the assessment payable at each period, were:

<table>
<thead>
<tr>
<th>Item</th>
<th>1854</th>
<th>1864</th>
<th>1874</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holdings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres</td>
<td>164</td>
<td>603</td>
<td>772</td>
</tr>
<tr>
<td>Assessment</td>
<td>992</td>
<td>973</td>
<td>10,075</td>
</tr>
</tbody>
</table>

² The details are: live stock Rs. 125, tools and vessels Rs. 20, house Rs. 50, and miscellaneous Rs. 20; total Rs. 215. These items are subject to depreciation and imply yearly charges for maintenance and renewal.
landlords and most intriguing and scheming. The third class consisted of husbandmen who had kept out of debt and were able to make their neighbours small advances in money and grain. They were often grasping and dishonest, but their debtors dealt with them much more on an equality, and community of race and residence not only tended to kindly treatment but brought any unusual villainy under the ban of the public opinion of the caste and village. Most of them were husbandmen and valuable landlords. Husbandmen lenders were sometimes threatened during the 1875 riots but in no case was a lender of this class injured. A notable feature of the moneylenders' dealings was the system of retail business which reduced even the most trivial transactions to written contracts. The invariable use of bonds was probably partly due to the precarious character of the landholder's assets and partly to the uncertainty of the climate. The terms on which the moneylenders dealt were that every debit was to be protected by a bond giving them unlimited powers of recovery and that the credit side was to be left to their own honesty. Account current was hardly known. There was usually a debt of long standing, probably inherited, the interest of which made a yearly debit. Besides this debit there were the give-and-take or devghau dealings, in which the debtor delivered his produce, or as much produce as he was forced to deliver, to his creditor and the creditor supplied the debtor's needs, clothing, assessment, seed, food, and cash for miscellaneous expenses. Every now and then a larger item appeared on either side, a standing crop was perhaps sold after a valuation either to the creditor himself or another, the creditor in the latter case getting the price paid, or a pair of bullocks or a cow and calf were given to the creditor on account. Against this the debtor drew occasionally a considerable sum for a marriage, for the purchase of land or bullocks or a standing crop, or for digging a well. Bonds were continually passed as the account went on. Sometimes a bond was taken as a deposit and the debtor drew against it, or a small transaction was included in a larger bond and the debtor was to draw against the balance. Márwári moneylenders kept accounts, but often only in the form of a memorandum book. Moneylenders who did not belong to the trading classes often kept no accounts. With all the bond was the recognized record of the transactions. Bonds were never or very rarely made for large amounts. When a large debt was to be reduced to paper, several bonds were drawn. Thus a debt of £17 10s. (Rs. 175) would be represented by one bond of £10 (Rs. 100), another of £5 (Rs. 50), and a third of £2 10s. (Rs. 25). The chief object of this arrangement was that the moneylender might get a decree without much cost. A decree on the £2 10s. (Rs. 25) bond usually gave him power enough to force his debtor to meet demands on account of the entire debt of £17 10s. (Rs. 175). Again, interest usually ceased when a bond was turned into a decree, so that it was not to the bond-holder's

1 Mr. W. F. Sinclair, Assistant Collector, Deccan Riots Commission Report, 25
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advantage to take a decree to meet the whole debt. When the debt had reached an amount to meet which the borrower's personal security was not sufficient, it was commonly converted into a land mortgage. Where the debtor owned a well or a share in a well the well or share together with the watered land were preferred as security. Sometimes the joint security of another landholder was added to the personal bond. In such cases the joint surety usually had a direct interest in the loan, or as a near relation helped the debtor, or his security was obtained by private arrangement. Often before the mortgage of his land the debtor's house, bullocks, crops, and carts, or other movable property were mortgaged. When bullocks were mortgaged, the debtor had to pay for their hire which became the interest of the loan. When the mortgage of land was completed, the lender almost always began by leaving the debtor in occupation as tenant, and a form of mortgage existed in which the profits of the land were all that was mortgaged as the tenant was left in possession without any transfer or acknowledgment of the mortgagee's right, so long as the mortgager delivered the produce yearly. If the debtor failed to deliver the produce the mortgagee usually took possession. Sometimes the produce of the land was made to represent the interest of the loan; more usually a specific rate of interest was cited in the bond. The debtor held as tenant on every variety of terms and conditions. Another form of mortgage, which was usually entered into only when the parties had come to a final settlement, was the transfer of the land to be enjoyed for a certain number of years in satisfaction of the debt. When an agreement of this kind was made it usually happened that before the period ended, the mortgagee had established claims giving him a further lien on the land. A similar method of settlement by an instalment bond was gladly accepted by a debtor, but here again the failure to pay one instalment in a bad year usually

1 The right of occupancy was not transferred to the creditor in the Government books as was generally the case in the neighbouring district of Ahmadnagar.
2 These were often reduced to writing. They were either leases, deeds of partnership, or simple contracts in which a rent in money was stipulated. It would often be found that the rate was adjusted to cover the interest agreed on in the mortgage bond. As the amount of capital in the mortgage bond was usually more than the value of the land at twelve per cent interest, and as the rate of interest in the bond was usually at least eighteen per cent, it followed that the land would not yield the required sum and thus the mortgagee constantly received the full actual rent of the land and in addition exacted bonds for the yearly deficit. The rent was often settled in kind and the rates were mainly determined by the power of the mortgagee to grind his tenant. One mortgagee's tenant in his statement to the Deccan Riots Commissioners used the following words, 'I till the land, but I have no right to take for my use any of the produce.' Doubtless under the hardest conditions the tenant who was bound to hand over the entire produce of a field to his creditor did take something. On the other hand much land was held by mortgagee's tenants at the usual rental terms, that is, half of the grass produce of dry and one-third of watered land, the mortgagee paying the assessment, and the seed and expenses being shared in the proportion of their respective interests in the crop. When the tenant paid in kind, his payments might exceed the amount of interest stipulated in the mortgage bond; but he kept no account of such payments and was generally found to have no conception of his responsibility for accounts. As the responsibility could not be enforced by the landholder it practically did not exist. Doubtless most mortgagee landlords had an account, but the landholder could not get it without going to court which to him was out of the question. Deccan Riots Commission Report, 62.
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gave the debt a fresh departure. The mortgagee landlord usually allowed the landholder to till the mortgaged land, and so long as the holder was left in this relation to his fields he accepted his fate without much bitterness. It often happened that owing to default in payment by the tenant, or to better terms being offered by another, or to the tenant’s cattle and field-tools being sold in execution of decree, it ceased to be the interest of the mortgagee to leave the cultivation in the tenant’s hands and the land was taken from him. Besides the security of the landholder’s personal credit, stock, movables, house, lands, and the joint security of a surety, the labour of the borrower was also mortgaged to the lender. The terms of this form of bond were that the debtor was to serve the creditor and that his wages were to be credited at the end of the year, or that a certain sum was to be worked out by service to the lender for a certain period. Sometimes the wife’s labour was also included in the bond. The labour was given either in house or field service. The labourer got his food and clothing, and a monthly deduction of 2s. to 4s. (Rs. 1-2) was made from the debt. The labourer’s whole time was at the lender’s disposal.¹

The chief complaints made against moneylenders were that bonds usually ran at excessive interest;² that at every stage the borrower was defrauded by the lender and especially by the petty usurer; that the lender often declined to give accounts, refused receipts, omitted to credit payments or give interest on payments, and declined to carry out such stipulations in the bond as were in the borrower’s favour. Forgery was sometimes practised and the landholder from his ignorance was unable to prevent his creditor from taking advantage of these nefarious practices. Another way in which the landholder suffered was by the reduction, under the Act of 1859, of the time during which money bonds were current to the small period of three years. A new bond must be entered into every three years and the interest being added up and a new account struck the amount of compound interest was swelled eventually to a very large sum. In addition to the compound interest the creditor usually took the opportunity of renewing a bond to extort fresh and burdensome stipulations under threats of suing his debtor in court, all of which added to the total of the debt.³

Besides these usual complaints of the cultivator against the moneylender he had the following grievances. When the cultivator was sued in court, at the outset he was met with fraud. From the creditor’s influence over the subordinates of the court no summons

¹ Dr. Coats (Trans. Bon. Lit. Soc. III. 239) has the following notice of labour mortgage at Loni in 1820. In return for an advance of money for a marriage, servants sometimes bind themselves to serve their masters for a term of years for clothes, board, and lodging. About six years would be wanted to clear an advance of £10 (Rs. 100).

² In many cases in which the less intelligent husbandmen were the borrowers, the interest charged was so excessive as to amount to fraud and oppression.

³ In the minute of Mr. Shambhuprasad who sat on the Commission of 1875, a case is cited in which an advance of £1 (Rs. 10) was made in 1863. Sums amounting to £11 (Rs. 110) were paid from time to time, and, at the end of ten years, 222 (Rs. 222) were still due. Bombay Government Selection CLVII. 19.
was served and the court being told that the summons had been served gave a decree against the debtor in his absence. The distance he had to travel to a court prevented a defendant attending. The defence of a suit took longer than the defendant could spare, and the judge had not time to go into the right of the defendant's case and make up to him for the want of counsel. The high costs of suits was another reason why the defendants declined to contest their cases. It was after the lender had gained his decree that the borrower suffered most. He might be arrested and imprisoned. Civil imprisonment was peculiarly open to abuse and was often made use of to impose on prisoners more severe terms than could otherwise be obtained. The next hardship to the landholding debtor was that movable property of all kinds and land could be sold without reserve. In spite of the harshness and the dishonesty of many of its members, the class of moneylenders was of the greatest service to the landholders. They helped them to meet their special family expenses and to enlarge their holdings and increase their stock, they tided them over seasons of scarcity and enabled them to pay their rents.

The Commissioners' chief recommendations were, with regard to the husbandmen's poverty, to improve agriculture by irrigation and to modify the Land Improvement Act so as to make the help which Government was ready to give more available to the husbandman; with regard to the revenue system, they advised the adjusting of the Government demand to the husbandman's capacity and when the assessment was enhanced that the increase should be gradual; with regard to the defects of the law they advised that a Bill should be passed to prevent frauds, and to protect husbandmen in the first stages of debt before the creditor had gone to the civil court. The chief provisions of the proposed Bill were the appointment of public notaries and the enforcing of the delivery of receipts and accounts by creditors. To meet hardships incurred by the debtor through the excessive powers given to the decree-holder, the absence of all protection to the insolvent debtor, and the use of decrees as a threat, the Commissioners advised the passing of another Bill, the chief provisions of which were the abolition of imprisonment for debt, the exemption of necessaries from sale in execution, the protection of the judgment-debtor from the wrong use of a decree, making the decree the end of the suit, and the limitation of decrees. The Commissioners also recommended certain changes in the conduct of judicial business, the establishment of village courts, and the passing of an Insolvency Act.

Meanwhile the relation of the debtor and the creditor somewhat improved. The 1874-75 disturbances had opened the eyes of the creditors to the danger of treating their debtors too harshly, and the famine of 1876-77 turned the thoughts both of creditors and debtors into other channels. A new Civil Procedure Code (Act X. of 1877) came into force in October 1877. Section 266 of the Code made the

1 In the majority of cases it was alleged that the reason why the defendant did not appear was that he had no defence to make, that he had no money to pay for a pleader, that he was unwilling to lose the time involved in defending a suit, or that he was afraid of the subsequent vengeance of the creditor whom he had opposed
important change of exempting from attachment or sale in execution of decrees, tools, implements of husbandry, cattle enough to enable a judgment-debtor to earn his livelihood as a husbandman, and the materials of houses and other buildings belonging to and occupied by agriculturists. Under section 326 the Collector of the district is empowered to represent to the court that the public sale of land which has been attached in execution of a decree is objectionable and that satisfaction of the decree may be made by the temporary alienation or management of the land; that, therefore, the court may authorize the Collector to provide for the satisfaction of the decree in the manner which he recommends. Section 320 enables the local Government, with the sanction of the Governor General in Council, to declare that in any local area the execution of decrees of any particular kind in which the sale of land is involved, shall be transferred to the Collector, and sections 331 to 325 invest the Collector with powers to manage or to deal with the land as if it were his own and to adopt one or more of several modes of satisfying the decree without selling the land except in the last resort. By section 336, the local Government may direct that every judgment-debtor brought before a court in arrest in execution of a decree for money shall be informed by the court that he may apply to be declared insolvent. Section 358 shows special consideration to the debtor if the debt is less than £20 (Rs. 200). Thus in several respects the new code improved the debtor’s position. To place the relations of the debtor and the creditor on a better footing it was deemed necessary, To provide some safeguard against the moneylenders committing frauds in their accounts and obtaining from ignorant peasants bonds for larger amounts than were actually paid to or due from them; As far as possible to arrange disputes by conciliation, to increase the number of courts, and so to simplify and cheapen justice that husbandmen might defend suits; To insist that in suits against landholders the court shall in certain cases of its own motion investigate the entire history of the transactions between the parties and do substantial justice between them; and To restrict the sale of the debtors’ land in execution of a decree and to provide an insolvency procedure more liberal to the debtor than that of the Code of Civil Procedure. To secure these objects the Deccan Agriculturists’ Relief Act (Act XVII. of 1879) was passed by the Governor-General’s Council. The principal object of legislation was to restore the dealings between lender and borrower to an equitable basis. The aid of the Government is withheld in the case of demands manifestly unfair and extortionate, and is rendered more speedy and effective in the recovery of just dues. As far as possible, credit is restricted within the limits set by the prospects of the certain recovery of the value of the amount lent. The first considerable change introduced by the Act was the appointment of village registrars before whom every instrument to which a landholder is a party must be registered before it can be used against him as evidence of his indebtedness. At first

1 Poona was one of four districts to which this section was immediately applied. The other districts were Ahmadnagar, Sholapur, and Sátara.
most of the persons appointed as village registrars were the hereditary village accountants of the larger villages, but, as their work was not satisfactory, special registrars have been substituted each being in charge of a circle of about twenty villages. The second notable point in the Act is the appointment of sixty-two conciliators, men of influence before whom the creditor must bring his claim before he can file a suit in the regular courts, and whose duty it is to assist in or bring about the compromise of money disputes. To compel litigants to have recourse to these conciliators it is enacted that a claim for money against a landholder is not to be entertained by the Civil Courts unless accompanied by a conciliator's certificate that he has attempted to effect a compromise. Such compromises are filed in the records of the Civil Courts and have the force of decrees. The next measure by increasing their number brought the courts more within reach of the people and made them less technical, and less costly. The result is that only a few villages are more than ten miles distant from a civil court. Village munsiffs were also appointed and invested with summary powers extending to suits for the recovery of amounts not exceeding £1 (Rs. 10). Twenty-three village munsiffs' appointments were made, and the individuals are pronounced fairly competent. The office was purely honorary. They disposed of a large number of suits, but as few of these were brought by or against landholders their institution afforded little or no relief to the cultivating classes. A special Judge and assistant judge and special subordinate judges have been appointed for the Poona, Sátára, Sholápur, and Ahmadnagar districts to inspect and revise the work of the subordinate establishments instead of the ordinary right of appeal which has been withdrawn. Professional legal advisers have been excluded from the courts of the conciliators and village munsiffs and also from the courts of the subordinate judges when the subject-matter of a suit is less than £10 (Rs. 100) in value, unless for special reasons professional assistance seems to the subordinate judge to be necessary. This provision does not seem to have proved popular. In the absence of the agent or vakil frequent personal attendance is required of the parties, and the waste of time and money is said to be greater than the cost of retaining counsel. A very important section makes it binding on the court to inquire into the history and merits of every claim brought before it with a view to testing its good faith. This provision is unpopular with the lender and is believed to have greatly influenced the number of suits instituted since the Act came into operation. Interest, too, is not to be awarded to an amount exceeding that of the capital debt as ascertained on taking the account. The person of the agriculturist is exempted from arrest and imprisonment, nor can his land be attached or sold unless it has been specially mortgaged for the repayment of the debt in question. If the court so directs, the land may be made over for a period to the management of the chief authority of the district with a view to the liquidation of the debt. Again the limitation in respect of money suits has been extended, payment of amounts decreed may be ordered by instalments, and a landholder can now be declared insolvent and be discharged summarily when his debts do not exceed £5 (Rs. 50), and
in other cases after a procedure specified in the Act. The insolvency chapter continues wholly inoperative. The indifference of the debtor cannot be altogether explained on the ground of religious scruples or the fear of the loss of credit and social status. The Relief Act has conferred so many other privileges and immunities on the indebted landholders that the necessity of having resort to the extreme measure of seeking relief by insolvency has not made itself so much felt as might have been expected. The debtor's freedom from arrest and imprisonment, the exemption of his immoveable unmortgaged property from attachment and sale, the large reductions in the amount of his debt effected by conciliation and the procedure under the Act, the privilege of paying the balance by easy instalments, and the consequent cessation from the perpetual worrying of his creditors, have given such real and substantial relief that the husbandmen sometimes declare that they want no more. They regard the resort to insolvency as a step into the unknown. No provision of the Act is more valued by the people than the rule which admits of a decree being paid by instalments. Whether a claim is admitted or contested the landholder rarely fails to put in a plea praying that the amount found due may be made payable by instalments. At the same time the circumstances of the debtor are inquired into, and instalments are not allowed indiscriminately.

The Special Judge believes (1882-83) that the Relief Act has done, and is doing, a vast amount of good. It has succeeded in effecting many of its principal objects. It has checked the downward progress of the landholders, and given them, what they so sorely needed, an interval of repose after a trying period of distress and famine. The landholding classes have never been so contented as they are at present (1882-83). They can reap the fruit of their labour; they are protected from the constant harassing to which they were formerly subject; they no longer live in ceaseless terror of rack-renting eviction and imprisonment. When the worst comes they are sure of obtaining a fair and patient hearing in the courts, and, if they have a good defence, they are in a better position to prove it. They are allowed to pay what is justly due by them in instalments, and this privilege they seem to value more highly than any other granted by the Act. The courts are now more accessible, more absolute, less technical, less slow, and less costly. The provisions of the Act have tended to soften the extreme severity with which the law pressed on debtors, and the judges are able to modify the contracts in an equitable spirit. The moneylenders complain of the Act, and middlemen lenders have suffered and are likely to suffer; nor can it be denied that to some extent the Act has checked the old system of agricultural loans. The husbandman's credit has been greatly curtailed. Still this is a gain as the system under which the husbandman used to obtain advances had no elements of soundness. The husbandman was not an independent borrower; borrowing was a necessity to him arising from the very faults of the system. The change has been wrought, not by the power given to the courts of going behind the bond, or of granting instalments, but by the provisions which exempt the landholder's person from arrest.
Chapter V.

Capital.

Borrowers.

Husbandmen.

and his necessaries and his immovable property from attachment. The powers which the creditor enjoyed under the old law were used, not to realize his loan, but to prolong indefinitely a state of indebtedness which enabled him to turn his debtor and his debtors' descendants into his family serfs. A debt was a lasting and in the long run a safe and paying investment. The security on which the greedy middleman used to lend was the knowledge, that, with the aid of the rigid mechanism of the civil courts, he could gain and keep an hereditary hold upon the labour of his debtor and his debtor's family and grind them at his will. Hence it was that the creditors used to pay their debtors' assessment and help to keep them alive by doles of food during times of distress. They were actuated by self-interest not by benevolence. They could not suffer their investments to perish. The Relief Act has caused a great change. By withdrawing the special facilities which creditors enjoyed for putting all kinds of pressure on the debtor it has made the debtors more independent and self-reliant and the creditor less ready to make advances. As the husbandman can no longer depend on the moneylender he has for the necessaries of life adopted a new rule of conduct, the consequence of which is that not only are moneylenders more disinclined to lend, but that the same necessity for borrowing no longer exists. Formerly the husbandman when his crops were reaped thrashed and garnered, carted them in lump to his creditor's house or shop. The creditor took them over and entered in his books very much what value he pleased, generally in satisfaction of arrears of interest. As he had parted with all his crop, the husbandman had to borrow fresh sums in cash or grain to meet the instalments of land revenue, for his own support, and for seed. For each fresh advance he had to execute a fresh bond. Now the husbandman carries the produce of his field to his own house, and, keeping what he thinks sufficient for his household purposes, sells the rest in the best market he can find. He has learnt in a measure to be thrifty and provident. He is no longer beset by the necessity of borrowing at every turn. For months beforehand the husbandman now begins to make preparations for the payment of the assessment by selling grass, butter, goats and cows, and last of all their grain. This seems to be the chief reason why loans to the poorer classes of landholders have so greatly diminished. This is the class who were formerly wholly dependent on the moneylenders. Now they are obliged, and somehow manage, to shift for themselves. The solvent and independent landholders form a class by themselves; the Act has improved their condition without in the least impairing their credit. Men of this class, if they have a character for honesty, can borrow money for necessary purposes at reasonable interest, and their borrowing powers have not been injuriously affected. To this class, unfortunately, but a small proportion of the people belong. The bulk of the landholders consists of men who have not, and who long have ceased to have, any credit in the true sense of the word. Though nominally perhaps owners of their land, they have actually been the rack-rented tenants of the village moneylender to whom belonged the fruits of their toil. If the moneylender can no longer squeeze
them, he will no longer help them. Hence the dislocation of the old relations, and the fall in loans to husbandmen. The change is a change for the better. The question arises whether the general body of landholders can get on without borrowing. Experience seems to show that they can and do get on. Since 1879, there have been no unusual difficulties in realizing the Government land revenue; there has been no large or sudden throwing up of land; there have been no extensive transfers, either by revenue, judicial, or private sales. The landholders seem to be better off than they were before the Relief Act was passed. The decrease in fresh loans has led to a diminution of indebtedness; old debts are being gradually worked off, compromised, or barred by time; a good beginning has been made towards clearing off the load of debt; the people as a rule, are sensible of the change, and in consequence show a growing desire to practise thrift and to combine for purposes of mutual help. Many experienced revenue and judicial officers hold that, if the present conditions remain unchanged, a few more years will see the landholders to a great extent free from debt and able to stand on their own legs. At the same time it is to be remembered that the last three seasons have been seasons of average prosperity and that the Act has not yet stood the test of a failure of crops. Matters are still in a transition state, and during a transition period it would be unreasonable to expect the Act to endure a severe strain. Once freed from debt the landholder will be able to get on without borrowing in ordinary years. In periods of scarcity or distress he will have to look to Government for help, unless in the meantime the relations of the lending and the borrowing classes are placed on a more rational footing than that on which they rested in times past. The Relief Act has done much to restore solvency to the most important class in the district with the least possible disturbance of the relations between capital and labour.

Under the Peshwás slavery was an acknowledged institution. In 1819 in the township of Loni in a population of 557 Dr. Coats found eighteen slaves, eight men seven women and three girls. One of the families though not formally free had practically been set free by its master in reward for good conduct. This family lived in a separate house and tilled on their own account. The other slaves lived in their masters’ houses. All were well treated. They were clad and fed in the same way as the members of their masters’ families; almost the only difference was that they ate by themselves. If they behaved well, they had pocket-money given them on holidays, and their masters paid £5 to £6 (Rs.50-60) to meet their wedding expenses. The men worked in the fields and the women helped their mistresses. Some of the girls were their master’s concubines. All of the eighteen slaves were home-born; the mothers of some had been brought from Hindustán and the Karnátak. Slaves were sometimes set free as a religious act, sometimes in reward for good conduct, sometimes because they were burdensome. A freed slave was called a Shinda; they were looked down on, and people did not marry with

1 Trans. Bombay Lit. Soc. III. 194, 239. See also Steele’s Hindus Laws and Customs.
them. Traffic in slaves was thought disreputable and was uncommon. Boys were rarely brought to market. Sales of girls were less uncommon. If beautiful they were bought as mistresses or by courtesans, the price varying from £10 to £50 (Rs.100 - 500). Plain girls were bought as servants in Bráhman houses.

In 1821, the Collector Captain Robertson, reported that the only form of slavery in Poona was domestic slavery. A person became a slave who was sold in infancy by his parents, or who was kidnapped by Lamáns and thieves. Few slaves knew their kinspeople or were related to the people of the surrounding country. Children kidnapped in distant provinces were brought to Poona for sale and Poona children stolen or sold by their parents in times of famine were carried to other parts of India. A man also became a slave to his creditor when he could not pay his debt, but this happened only when the debtor was a Kunbi or a Dhangar and the creditor a Bráhman. Only three instances came to Captain Robertson's knowledge in which creditors had chosen to enslave their debtors. Slaves were treated with great kindness. The general feeling was that no one should ill use a slave. Cases sometimes happened in which slaves were severely beaten by their masters or had their powers of work overtaxed. In such cases the Hindu law officers generally recommended that the slaves should be set free. When male slaves grew to manhood their masters often set them free, but female slaves were seldom freed, and their children were also slaves. The slaves, especially the females, when they lost their freedom in infancy, became attached to their mode of life and had no wish to be free. They were generally fond of their master's family, or of some members of the family, and would have felt more pain in being separated from them than pleasure in gaining their liberty. Instances occurred in which female slaves complained of the cruelty of one member of the family, but when offered their liberty refused to leave the family either because of their love for other members of it or because they feared to be set adrift in the world.

Wages.

Fifty years ago the daily wages of adult male city labourers ranged from 2½d. to 3d. (1½-2 as.), of field labourers from 1½d. to 2½d. (1-1½ as.), and of the artisan classes from 4½d. to 9d. (3-6 as.). The wages of women were two-thirds and of children one-half of men's wages. Between 1862 and 1869, owing to the American war and the construction of the railway and large Government and private buildings in Poona, wages considerably rose, being half as much again as at present. At present (1883) the daily wages of town and city labourers range from 4½d. to 6d. (3-4 as.); of field labourers from 3d. to 4½d. (2-3 as.); and of skilled artisans from 9d. to 1s. 3d. (6-10 as.) for bricklayers, 1s. to 1s. 6d. (8-12 as.) for carpenters and masons, and 6d. to 1s. (4-8 as.) for tailors. Cart-hire is 1s. 9d.

1 East India Papers, IV, 589-90. In a country like India subject to severe famines the relief which was afforded by the inhabitants of a neighbouring province purchasing the children of famished parents, greatly counterbalanced the loss of freedom, especially as the state of slavery was soothed by kind treatment and regard.

2 In 1821 many debtors could not discharge their obligations but the creditors almost never wanted to make their debtors slaves. East India Papers, IV, 589-90.
Deccan.]

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(14 as.) and camel hire 1s. (8 as.) a day. Field labour is partly paid
in kind and partly in coin; town labourers are paid wholly in coin.
In villages, wages are paid daily, and in towns by the week, fortnight,
or month. Except field labour which is chiefly required from August
to March, labour, both skilled and unskilled, is in greatest demand
during the fair season, that is from January to June. The demand
for unskilled or cooly labour in Poona city is greater than it used
to be.

The oldest available produce prices are for twenty-nine years of
scarcity which happened during the forty-eight years ending 1810.¹
During these twenty-nine years of high prices the rupee price of rice
varied from forty pounds in 1788 to five pounds in 1804, of bájri
from fifty-six in 1788 to nine in 1804, and of jvári from fifty-six in
1788 to seven in 1804. The details are:

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During the twenty-nine years ending 1837 the prices of jvári and
bájri are available only for Indápur. During this period, except a
slight rise in 1811 and 1816, prices gradually fell from 48 pounds
of jvári and 59 pounds of bájri in 1809 to 97 pounds of jvári and 80
pounds of bájri in 1817. In 1818 there was a considerable and
in 1819 there was a still greater rise in produce prices to thirty-
four pounds for jvári and thirty-one pounds for bájri, from an
average of fifty-six pounds for jvári and fifty-five pounds for bájri
during the ten years ending 1817. In 1820 the spread of tillage
which followed the establishment of order, again brought down
prices till in 1824 jvári was sold at 73½ pounds the rupee and bájri
at forty-six pounds. In the famine year of 1824-25 jvári rose to
twenty-five pounds. In 1826 and 1827 prices fell to eighty-eight
and 128 pounds for jvári and sixty-eight and sixty-four pounds for
bájri. They rose slightly in 1828, and in 1829 again fell to 130
pounds for jvári and 136 for bájri. In 1830 and 1831 prices rose
slightly and in 1832 once more fell to 120 pounds for jvári and
to seventy for bájri. This terrible cheapness of grain reduced the

husbandmen to poverty and caused Government very great loss of
revenue. Though the year 1833 is remembered as a year of scarcity
juári did not rise above forty-six pounds. The details are:

**Indápur Prices in Pounds the Rupee. 1809-1837.**

<table>
<thead>
<tr>
<th>Article</th>
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<td>72</td>
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<td>1825</td>
<td>1826</td>
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<td>25</td>
<td>32</td>
<td>48</td>
<td>36</td>
<td>72</td>
<td>123</td>
<td>88</td>
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<td>80</td>
<td>120</td>
<td>46</td>
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<td>76</td>
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<td>90</td>
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<tr>
<td>Bajrí</td>
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<td>136</td>
<td>77</td>
<td>70</td>
<td>72</td>
<td>68</td>
<td>76</td>
<td>88</td>
<td>90</td>
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From 1838-39 to 1882 prices are available for several places in the district.

The forty-six years ending 1882 may be divided into four periods. The first period includes the twelve years ending 1840-50. This was a time of low and stationary prices without any more marked changes than were due to the succession of comparatively good and bad harvests. The average rupee price of juári was 108 pounds, almost the same as in 1837-38, a price too low to allow of any increase of wealth in the landholding classes. The second period, the eleven years ending 1860-61, especially the latter part of the period, is one of advancing prices probably due to the opening of roads and in the last years to the beginning of expenditure on railways. During the eleven years ending 1860-61 the average rupee price of juári was seventy-eight pounds and during the last five years seventy pounds. The third period is the ten years ending 1870-71. The first five years of this period was a time of extremely high prices, juári averaging thirty-six pounds the rupee. These high prices were due partly to the abundance of money caused by the inflow of capital during the American war, partly to a succession of bad years. With the close of the American war in 1865 part of the inflow of capital ceased. After 1865, though the inflow of capital connected with the American war ceased, until 1871 the district continued to be enriched by the construction of great public works. To this increase of wealth was added a scarcity of grain caused by the severe drought of 1866-67, and the partial failures of 1867-68 and of 1870-71. During the five years ending 1870-71 juári varied in rupee price from twenty-seven to sixty-eight and averaged thirty-five pounds. The thirteen years since 1871 may be described as a time of falling prices checked by the famine of 1876-77. The five seasons ending 1876 were years of good harvests and this together with the great reduction in the local expenditure on public works combined to cheapen grain. During the famine of 1876-77, that is from about November 1876 to the close of 1877, juári varied from thirteen to
twenty-five and averaged twenty pounds. Since 1877 large sums have again been spent in or near the district in public works, and the great increase in the trade and prosperity of Bombay have drawn large numbers of workers to Bombay and done much to replace the loss of capital caused by the famine. The seasons have been fair. The price of *jundri* has varied from eighteen to seventy-six and averaged forty-two pounds. The details are:

Poona Produce Prices in Pounds the Rupee, 1833-39 to 1882-83.

<table>
<thead>
<tr>
<th>Article</th>
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<td>12</td>
</tr>
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<td>Bajri</td>
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Chapter V

Capital.

**Prices.**

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<th>Telengon</th>
<th>Manchar</th>
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<th>1840-41</th>
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<td>Bajri</td>
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<th>Telengon</th>
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<th>Article</th>
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<tr>
<td>Bajri</td>
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Poona Produce Prices in Pounds the Rupee, 1833-39 to 1882-83.
### Poona Produce Prices in Pounds the Rupee, 1838-39 to 1882-83—continued.

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</tbody>
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### Weights and Measures.

Articles are sold by weight, by measure, and by number. Pearls, precious stones, cotton, tobacco, raw and clarified butter, oil, spices, groceries, firewood in Poona city, opium, sweetmeats, and some vegetables and fruits are sold by weight. In the case of pearls and precious stones the weights used are grains of barley jav, rice tándul, wheat gahu, and rati. Rati, originally the seed of the Abrus precatorius, is now generally a small piece of copper or flint weighing 2½ to 3½ grains. The price of pearls is not fixed at so much the rati but at so much the chav a measure or standard obtained from a calculation based on the number and weight of the pearls, and divided into 100 dokdás or parts.

The table observed in the case of gold is eight gunjs one másá; 2½ gunjs one vál; six másás one sahámdás; two sahámdás or twelve másás or forty váls, one tola. The gunj is red and about the size of a small pea is the seed of a wild creeper and the vál which is also red and a little larger is the seed of the chihári tree. The másá, sahámdás, and tola are square, eight-cornered, or oblong pieces of brass and sometimes of China or of delf. The tola weighs a little more than the average Imperial rupee in use which is equal to 11½ másás. In weighing silver and fragrant oils and essences the Imperial rupee is always used. But as owing to wear it is not always of uniform weight

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1 To reduce ratis to chaws the square of the number of ratis is multiplied by 55 and the product divided by 96 times the number of pearls. Thus if 11 pearls weighing 24 ratis are to be bought at Rs. 8 the chaw, the price would be $24 \times 24 \times 55 \times \frac{1}{96 \times 11} \times 8 = 240$ rupees.
discount at the rate of eight per cent is allowed in wholesale purchases of silver. For cheaper metals and other articles sold by weight the unit of weight is a sher weighing seventy-six rupees, with its fractions the nautâk or one-eighth, pávsher or one-fourth, and achher or one-half. For quantities of over a sher the table for metals and other articles sold by weight is four shers one dhadi and sixteen shers one man. In the case of oils, raw and clarified butter, spices, raw sugar gulf, groceries, and tobacco the table is forty shers one man, and three mans one palla. For firewood where sold by weight the table used is eighty pounds one man and twenty mans one khandi. Except in the case of firewood and similar heavy substances, where stone weights are used, all the weights are made of iron, generally English-made avoirdupois weights with the pound unit scooped out at the back to bring them to the exact weight. Grain is measured by wooden cylinders with narrow necks in the middle to admit of their being held in the hand with ease. The unit of measurement is also a sher having the same fractions as the weight unit. The contents of a sher measure, which is equal to 2½ pints, weigh seventy-six to ninety-eight rupees. The table observed is four shers one pâyli, twelve pâyâis one man, 2½ mans one palla, and eight pallâs one khandi. Standard weights and measures are kept in every mámlatdar’s office, and, once a year, all weights and measures are tested and stamped by the police. Brass and copper pots serving as a quarter, a half, and a whole 76-rupee sher are used for measuring milk and small quantities of oil. Clarified butter when bought for sale in small quantities by the people of the western hills is also sold by these capacity measures. Leaf vegetables are sold by the bundle, grass and jwâri stalks are sold by the pûchwa and or five bundles, firewood is sold by the headload or the cartload, and cowdung-cakes by number. Mangoes are sold wholesale by a hundred or shekda equal to 312. Betel leaves are sold by the hundred or the thousand. In measuring cloth either the gaj or the yard is used. In the case of the gaj the table used is eight yaus one anguli or thumb breadth; two anguli one tasu of 1½ inches; twelve tasus one hát or cubit of eighteen inches, and two háts one gaj of three feet. Ready-made clothes, waistcloths or dhotars, and scarfs or uparnás are sold in pairs; other articles of clothing are sold singly except shoes and stockings which are sold by the pair. Bricks and tiles are sold by the thousand, rafters and bamboos by the hundred, squared timber by its cubic contents, and unsquared timber by the piece. Heaps of gravel or murum, of road-metal or khadi, and of sand earth and stone are measured by their cubic contents, the usual unit of mea-

1 In 1821 there were three tables of grain measures. The sher was the same in all three and, taking the average of the whole, the weight of one measured sher of bâjri, math, mug, sâva, jwâri, udâd, vitâna, wheat, and mans, was one-fourteenth of a pound more than 2½ pounds avoirdupois. The first table was four shers one pâyli, twelve pâyâis one man, and twenty mans one khandi. This bâroli or twelve-pâyli man was the common man and the one in use in the town of Poona. The second table was four shers one pâyli, sixteen pâyâis one man, and twenty mans one khandi. This sololi or sixteen-pâyli man was used in the village group of Sandus in Pâtas and to the southward. The third table was 3½ shers one pâyli, forty-two shers or twelve pâyâis one man, and twenty mans one khandi. This was used in the Mâvals or hilly west. Captain H. D. Robertson, East India Papers, IV. 572.
surement being a barás of 100 cubic feet. Cut stone is sold by the square gaj equal to eight square feet. Before the revenue survey the land measure was three mushtis or fists one vit, two vits one hál, 5½ háts one káthì, twenty káthis one pánd, twenty pánds one bigha, and five bighás one rukka, six rukkás one khandi, twenty-four rukkás one chàhúr¹ or takkā; and two chàhurs or takkás one pakka. The survey measurements are a chain of thirty feet one anna, sixteen annás one guntha, and forty gunthás one acre of 4840 square yards. Thirty gunthás are equal to one bigha or 1½ bighás are equal to one acre.² Partán meaning two or four bighás is a word often used by Kunbis speaking among themselves. Twenty partáns make one aut.

The old table for measuring time is sixty vipals or winks one pal, sixty pals one ghādi of twenty-four minutes, 2½ ghādis one hora, 3½ ghādis one chāughadi, 7½ ghādis one prahar, eight prahars one divas or day, seven divas one áthavda or week, two áthavdás one paksha or fortnight, two pakshás one más or month, twelve más one varsh or year. In former times the Hindus had neither watches nor sun-dials. Their time measure was the water-clock a copper pot filled with water in which floated a brass cup with a small hole in the bottom which took an hour to fill and sink. The water-clock, though never referred to in ordinary life, is still used at marriage and thread ceremonies. Besides by the water-clock time was calculated by the length of shadows. To tell the time of day from a shadow one plan is, in an open sunlit spot, to measure in feet the length of one’s shadow, to add six to the number of feet, and divide 121 by the sum. The quotient gives the time in ghādis of twenty-four minutes after sunrise if the sun has not crossed the meridian, and before sunset if the sun has crossed the meridian. Another plan is to hold upright a thin rod eighteen ánglis or finger-breathths long, bend it so that its shadow will touch the other end of the rod on the ground and measure in ánglis the perpendicular height of the rod. This like the other plan shows the number of ghādis either after sunrise or before sunset.

¹ The area of the chàhúr depended in many cases on the quality of the land.
² The káthì five cubits long by one cubit broad is said to have been carved in stone in the late Shanvār Vāda at Poona. It was based on the length of the hand of Peshwa Mādhravráy II. (1774-1796). After a time the length of the Peshwa’s hand became exaggerated and the hand was taken to mean the length of a man’s arm from the elbow to the tip of the middle finger with an additional span. Hence arose some variations in the size of a bigha. Mr. J. Pollen, C. S.
CHAPTER VI.

TRADE.

COMMUNICATIONS.

The history of Cheul, Kalyán, Supára, and Thána in the Konkan, and of Junnar, Násik, and Paíthan in the Deccan shows that from early times several important trade routes passed through the Poona district. From at least as far back as the first century before Christ, Junnar, about a hundred miles west of Paíthan sixty south of Násik and fifty north of Poona, had two main routes to the coast through the Málsej and through the Nána passes. In the Nána pass, inscriptions, steps, rock-cut rest-houses, and cisterns show that as far back as the first century before Christ much was done to make the route easy and safe. The fine Buddhist caves at Bedsa, Bhája, and Kárla, the large but plain caves of doubtful date on Lohogad hill, the rock-hewn Shiv temple at Bhámburda, and the small Ganeshshkind caves of uncertain date near Poona, and the groups of Buddhist caves at Ambivli, Jámbur, and Kondáne in Thána make it probable that the Bor pass was a highway of trade between B.C. 100 and A.D. 600. Of Poona trade routes and trade centres under the Hindu dynasties which flourished between A.D. 700 and A.D. 1300 few traces remain. Two great rock-hewn reservoirs on the top of Shivner show that the hill was held as a fort by the Devgiri Yádavs and make it probable that Junnar was a place of trade. Under the Bahmanis in the fourteenth and fifteenth centuries Junnar and Chákán were strong military posts and probably local trade centres. In 1499, after a brief stay at Junnar, Malik Ahmad, the founder of the Nizám Sháhi dynasty, moved his capital from Junnar to Ahmádnagar. During the sixteenth century, when the wealth of the Bombay Deccan was divided between the rulers of Ahmádnagar and Bijaípur, probably no main line of traffic passed through the Poona district. About 1636, when it was made part of Bijaípur, Poona probably rose in importance as a centre of trade, and at the same time Junnar gained in consequence as the southmost post of Moghal power. Shiváji’s disturbances soon followed, and little trade can have centred in Poona till 1750, when it became the capital of the Marátha empire. After the country passed to the British, traces of pavement, steps, and water-cisterns showed that the Peshwás had attempted to improve the Nána, Málsej, Bhimáshankar, and Kusur passes.1

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1 Bom. Rev. Rec. 144 of 1819, 3317.
The first road made by the British was the Poona-Panvel road, from Panvel in Thána through the Bor pass to Poona. In the close of 1779 the leaders of the unfortunate expedition that ended in the Vadgaon Convention spent four weeks (23rd November-25th December) in making a path fit for Artillery up the Bor pass. In 1804, General Wellesley constructed a good military road from the head of the Bor pass to Poona. The massive stone ramps or pavings, which in 1864 were visible in places for the entire distance a little to the south of the line which is now the old post road, and traces of which may still be seen at the eastern foot of the Isápur hills, belong to General Wellesley’s road. After the fall of the Peshwás in 1817, owing to its importance in joining Bombay and Poona, one of the first cares of the Bombay Government was to improve the road from Poona to Panvel in Thána. In 1819 it was proposed that the Nána and Kusur passes should be repaired. In 1825, though still steep, Bishop Heber considered that the Bor pass’ road was probably sufficient for the intercourse that either was or was likely to be between the Konkan and the Deccan. In 1826, according to Captain Clunes, the chief lines of communication in Poona lay through Poona and Junnar. The Bombay-Ahmadnagar road of 148 miles from Panvel through Chauk, Khálápur, and Khopivli in Thána ascended the Bor pass and entered Poona near Khándála, and stretching through Lonávála, Kárla, Khądákála, Vadgaon, Kuvla, Tathavade Aund, Poona, Vágholi, Loni, Koregaon, Gangpatí’s Ránjangaon, and Kardalvádi, left it near Sirur and continued its course to Ahmadnagar through Hingni, Kadus, Ránjangaon, Sárole, Akulner, and Kedgaon. Besides the stone bridge over the Indráyani between Kárla and Khákála, which had seventeen arches and a total length of about 400 feet, there were on this road two flying bridges one across the Mula near Poona, the other across the Bhíma near Koregaon. From this road a new excellent military road branched to the right near Vadgaon and passed by the villages of Shelárvádi, Kinai, Chinchúli, Ngíri, Akurdí, Chinchvád, Bhosrí, and Dápuri. This was the shortest road to Poona if the traveller had no wheel carriages. It continued from near Bhosrí, passing Kalas, and crossing the Kirkee bridge, making a difference of about two miles between Bhosrí and the Sangam. The Kályán-Aurángabad road of 185 miles, passing through Ráháta, Murbád, Umarpáda, the Taloli pass, and Kumbalpáda in Thána, and ascending the Málsej pass, entered the district near Karanjále, and stretching through Pimpalgaon and Junnar left it near Otur and continued its course through Bráhmánváde, the Sávarchur pass, Sangamner, Ráháta, Bámangaon, Bhorgaon, and Tisgaon. This road had two branches from Junnar.

1 Account of Bombay, 176-7.  
2 Deccan Scenes (1864), 330.  
3 Mr. Marriott, 29th September 1819, Gov. Rev. Rec. 144 of 1819, 3317.  
4 Heber’s Narrative, II. 200.  
5 Itinerary, 18-46.  
6 From the travellers’ bungalow near the entrance of the cantonment to the church was 1½ miles and the continuation of the road to the ruins of Síndia’s palace near which the cantonments ended was 1½ miles further. Clunes’ Itinerary, 10.
one of sixty-four miles through Ojhar, Pimpalvandi, and Belhe, leaving the district near Alkuti, and continuing its course through Pärner, Supa, and Kedgaon to Ahmadnagar; the other branch forty-five miles through Náráyangao, Hivra, the Utti pass, Pârgaon, and Annâpur to Surur. The POONA-SURAT road of 254 miles through Chákân, Náráyangao, and Hivra, leaving the district near Otur continued its course through the Váshera pass, Devthán, the Sinnar pass, Násik, Dindori, the Rahûd pass, Umbarthâna, the Nirpan pass, the Vâgh pass, Gandevi, and Navsári. In the fair season this was a good cart road throughout except at the Váshera and Sinnar passes in Ahmâdnagar and Násik. The Rahûd pass in Násik offered no obstacles to carts. Another road of 290 miles, the usual line of march for troops from Poona to Surat, was through Rávet, Vadgaon, Kária, and Khandála on the district border, and Khopívli, Chauk, Panvel, Ambagaund, Kalyán, Titivâla, Láp, Vajiyrâái, Arna, Butna, Daisar, Mahagaon, Tárápur, Saunta, Jahye-Burdi, Umbargaon, Darutí, Bagváda, Párnera, Rola, Gandevi, Navsári, Lanchpur, and Sachin. From Panvel in Thána there was another road to Surat by sea and land of about 256 miles. The POONA-KALYÁN road of seventy-five miles through Rávet and Vadgaon, by the Kusur pass, continued its course through Neral, Badlápur, Beluli, and Kansa. The POONA-KHANDÁLA road of forty miles passed through Banera, Kásarsai, Dhaman Khînd, and Lonâvî. The POONA-JUNNAR road of fifty miles passed through Chákân, Peth, Náráyangao, and Khânâpur. This road, though in places difficult for carts, was a fair road for pack-cattle. The POONA-DHULIA road of 201 miles through Chákân, Peth, Náráyangao, Pimpalvandi, and Ále left the district near Bota and continued its course through the Ábora pass, Kikangaon, Korbâla, Kopargaon, Yeola, Sávargaon, Manmád, Málegaon, the Darâgaon pass, Árvi, and Lâiling. The POONA-AURANGABAD road of 144 miles, through Loni, Koregaon, and Ganpati’s Ránjangaon, left the district near Sirur and continued its course through Náráyangao, Supa, Ahmâdnagar, Imámpur, Kevra, Toke, Dahigaon, and Jalgaon. From Ahmâdnagar another road went through the Nimba-Dhira pass, Vâmbori, and Kevra. From Aurangabad a branch led forty miles to Jâlna, and a line of 105 miles went direct from Ahmâdnagar through Paithan. The Poona-Sholâpur road of 157 miles, through Hadapsar, Loni, Uralî, Yevat, Pátas, Chicholi, and Indâpur, left the district near Tembhûra, and continued its course through Savâleshvar and Kundi. Another road of 157 miles to Sholâpur, through Uralî, the Diva pass, Belâr, and Jejuri, and leaving the district near Nimbat, continued its course through Bâneya, Nátâpûta, Yallâpur, Pandharpur, Dehgaon, Bâbhulgaon, and Singola. From Pátas a road of 136 miles branched towards Mominabad or Ámbejogáí, passing through Pedgaon, Pimpalvádi, Khurda, Beh, and Sávargaon. Near the Diva pass the road branched five or six miles to Sâsvad, and, from Chicholi, a branch led to Sholâpur through Taljâpur, making the whole distance from Poona 343 miles. From Sholâpur the road was continued to Sikandarabad by
Naldurg, a distance of 192 miles. The Poona-Belgaum road of 241 miles, through Jejuri, left the district near Nimbat and continued its course through Rahimatpur, Pusesavli, Tásgaon, and Edur where was a flying bridge and boat across the Krishna, Ghotgiri, Márehál, Ashti, and Kánbargi. From Edur a road led to Dáůı³wr through Pádshápur, Nesárgi, Shídápur, and Gádag. Another road of 213 miles through the Kátraí pass continued its course through Kíkvi, Shírvál, Kándálá, Surul, Bhuínj, Sátára, Míráj, Káráí, Islámpúr, Ichalkaránjí, Sandálgi, Chíkódí, Húkerí, and Yámkánmárdí. From Káráí a branch went to Málván through Málkápur, the Anáskura pass, and Khárepátaí, and another through Battís-shírála, Kolhápur, the Phónda pass, and Jánávtí. The Poona-Dáromí road of ninety-seven miles went through Vádgaon, Khádákévášá, Khánápur, the Pánba pass, and Tórna-peth, left the district by the Dóñí pass and the Shévtí pass, and continued its course through Maháíd, Páli, and Málhungá. A branch from Bírvádí, seventeen miles from the Shévtí pass, went to Rátunágírí through the Ghógra pass, Chíplún, and Mákñíjan. The Poona-Górbáaon road, sixty-six miles through Khádákévášá, Góra, and the Kúrní pass, continued its course through the Kumbhá pass. Another road fifty-seven miles branched from Kúrní and went by the Deví pass. The Poona-Nípaní road of 211 miles, through Lóní, the Khor pass, Móngaón (Chínchvád), and Gúłúnché, left the district near the Nírá and continued its course through Tángaón, Rahimátpur, Híngángaón, and Édúr-Máñjírí. The Poona-Nágothána road of sixty-four miles through Chándé-Nándé and Akóla, left the district by the Sáí pass and continued its course through Vásúná, Jám búlpááá, Rahúbpáón, and Chíkñí.

Since 1826 all of these leading routes have been taken up and made into fair or good roads. In 1830 the Poona-Pánvél road was greatly improved and was opened in state by Sir John Malcolm, the Governor of Bombay. At that time the mail cart to Poona on this road was the only mail cart in India. Some years passed before the road was generally used for carriages. In 1830 hardly a single cart was met between Kándálá and Poona, and long droves of pack-bullocks had possession of the road.\(^1\) In spite of the improvements the Bor pass, though it did credit to the time in which it was built, was far from easy of ascent. The gradients were steep and the curves sharp and numerous. In 1832 M. Jacobmout described the road as makadamised and kept by Pioneers in such order as would have been considered good in France.\(^2\) In 1836 the opening of roads and the improving of transit were among the points which received most attention from the early survey officers.\(^3\) A marked change in the number of

\(^{1}\) Deccan Scenes, 33.

\(^{2}\) Voyages, III. 583.

\(^{3}\) Among the improvements planned by the revenue survey officers the making of a new light cart was one of the greatest importance. In 1865, in a speech in one of the debates on the Survey Bill, Sir Bartle Frere, then Governor of Bombay, said that carts in 1836 were rarely seen beyond Poona. In five months he remembered seeing only three carts in the country between Poona and Shelápur, and these were brought from some Madras station. At that time the only local cart wheels were
roads took place in some parts of the district during the thirty years of the first survey (1835-1866). In 1836 when the survey was introduced there was not a mile of road in Indāpur. The construction of the Imperial line of road from Poona to Sholāpur passing by the town of Indāpur was the first great improvement. By 1850, five lines of made road passed through the district. The chief roads were the old Poona-Panvel road through the Bor pass about seventy miles, the Poona-Ahmadnagar road also about seventy miles, the Poona-Junnar road about fifty miles, the Poona-Indāpur road ninety miles, and the Poona-Sátāra road seventy-six miles. The Poona-Panvel road, the chief road-work of the Bombay Government, was well metalled throughout. It had many long and some fairly steep slopes down which the superfluous surface water would have rushed with destructive violence but for a simple contrivance which broke its force and made it comparatively harmless. At about one hundred feet apart ridges of earth, three to four inches high and about a foot wide, were drawn slanting across the road. The ridges were formed by loosening the stones and earth with a pickaxe. Their object was, before it gained force or volume, to turn the surface water into one of the side ditches. This the ridges did very effectually when they were properly watched, so as to repair the breaches made in them by cart wheels. When they were kept in order no more water could rush down any portion of the slope than fell between two of the little ridges. When little rain fell, the spaces between the ridges were kept comparatively dry and firm, for the small quantity of water which was then to be disposed of soaked quietly into the ditch, along the loose stones and earth of which the ridges were made. Towards the close of the rainy season the ridges were allowed to be worn by the traffic to the level of the road. In this way the road escaped the perils of the rainy season with comparatively little damage. Within Poona limits the road was well bridged. The great obstacle to traffic was the Bor
discs of stone, and carts were large lumbering contrivances which remained as heirlooms in families for generations. Lieutenant Gaisford applied himself to improve the country cart and the ordinary Deccan cart was the result of his labours. The new cart was to be as light and cheap as possible, and yet strong enough to be used in a stony country where roads were almost unknown, and where workmen able to repair the most simple wheeled vehicle were often not to be found within fifty miles. He set up a factory for these carts at Tembūrni in Sholāpur, and not only made carts but trained workmen from the villages round to repair them. At first it was difficult to find any one who would buy the carts even at cost price, but in time their number considerably increased. In Indāpur alone they rose from 291 in 1836 to 1165 in 1838. The carts which replaced the old stonewheel carts and the Vanjārī bullocks have in their turn helped to improve old roads and open new lines of communication.

1 Lieutenants Wingate and Gaisford applied themselves to increase the facilities of transit in the Deccan. At first they had very small means at their disposal. Government gave small sums often as low as Rs. 5 a mile for the improvement of roads. Little could be done for such an amount beyond removing the most serious impediments to wheeled traffic along existing tracks. Sir Bartle Frere, Gov. Sel. ClL 33.

2 Mackay's Western India, 379. Mr. Mackay adds: For about half its course the road runs through one of the wettest districts of Western India. The quantity of rain which falls during the south-west monsoon between Panvel and the Sahyadris, and, for about twelve miles to the east of Khandāla at the top of the Bor pass, is about 50 per cent more than the average fall at Bombay.
pass, where the ascent from the low land to the high land, was a rise of 2000 feet by a zigzag and frequently precipitous course of about four miles. This was one of two points at which the Sahyâdris could be ascended or descended by wheeled vehicles with anything like safety along a course of about 500 miles. Still so difficult of ascent or descent was the Bor pass that no one thought of driving up or down it in a carriage. Passengers travelling by the public conveyances were carried up and down in palanquins, there being different sets of coaches for the high and low portions of the road.

Private carriages were pulled up or let down by numerous bodies of workmen, or they were carried up and down swung from a number of poles which rested on men's shoulders. Empty carriages had been pulled up by horses, but this was generally considered a good day's work for the animals. A man who had any regard for his horse would not even ride him up or down the pass, preferring to have him led, and betaking himself either to a pony or a palanquin. In the Konkan the road crossed a rich rice country; but its chief traffic came from above the Sahyâdris. It was principally owing to the traffic of districts beyond Poona turning to this route, because there was no other means of easy communication with the coast. The country from the Sahyâdris to Poona was generally of a poor, thin, light soil, which of itself could sustain no great traffic.

The Poona-Ahmadnagar road started almost at right angles to the Poona-Panvel road from which it differed simply in not being metalled. It was bridged and fairly ditched, the surface being covered not with broken stone but in some places with loose round stones or coarse gravel, and in others with small fragments of hardened clay. Occasionally the gravel and clay were combined and there the road was generally in the best condition. During the dry season it was practicable enough and could be driven over without difficulty; during the rains it was indifferent throughout and at many points bad. It was designed as a military road as Ahmadnagar was the head-quarters of the Bombay artillery. Like the Poona-Panvel road it had proved of advantage to the general traffic. Although it crossed a comparatively poor country it was the chief feeder of the Poona road. With its continuation through the Nizâm's territory to Aurangabad, it drew to Poona much of the traffic of Berar out of what would have been its natural course had communications been open between that important valley and the coast. To gain this circuitous line of made road, much of that traffic turned south to Ajanta from which it could reach Bombay only by the made road, which it sought by traversing nearly three-quarters of the circumference of an enormous circle.

The next of the made roads was the Poona-Junnar road. It was designed either to proceed by the Ale pass across several streams and several spurts of the Sahyâdris, to Sinnar and Nasik, with the view of uniting Poona with Mağalaon the great military station in the north Deccan; or to take the more direct route from the Ale pass to Mağalaon, avoiding Nasik and flanking the spurs of the hills. The Poona-Indâpur road led south-east from Poona to Indâpur about half-way to Sholâpur. Of all the roads that converged on Poona this Indâpur road was most in the •
line of the Poona-Panvel metalled road, so that traffic directed by it upon the Poona-Panvel road with a view to reaching Bombay could scarcely be said, so far at least as the district between Poona and Indâpur was concerned, to have been taken out of its course, as it must have been from other districts by any of the roads leading through Poona. The road was by no means as perfect a road as that leading to Ahmadnagar. Even the Poona end of it, after a little rain, was little more than passable for a carriage. It crossed a very practicable line of country, as nearly its whole course to Indâpur lay along the right bank of the Bhima. If the traffic was not at first great it was because the country was poor. At Indâpur the road crossed the Bhima and proceeded through a richer country almost in a straight line to Sholâpur. The Poona-Sâtârâ road was the best specimen of a made road in the Deccan. It was not bridged throughout, the only completed bridges had been built by native chiefs. The road surmounted two passes, one of them, the Bâbdev pass about eight miles south of Poona, being one of the worst specimens of a pass in Western India. Its angles and gradients were frightful, its sharp turns being in some places flanked by low walls which afforded but a slight bulwark against the precipices which they crowned. The road in the steepest parts was constantly rough, being covered to some depth with loose round stones. This to some extent served to check the impetus of a descending load, but greatly increased the toil of dragging a load up. Beyond the crest of the pass the road entered a broad plain bounded on the south by the Sâlpa range and watered by many streams. The first stream was at the village of Hivra past which it brawled over a somewhat wide and rocky channel; it was unbridged. The next was beyond Sâsvad, a narrower but deeper stream with a fierce current during the rains; it was also unbridged. There was no other stream of consequence until the Nira was reached, one of the largest tributaries of the Bhima. The Nira bridge was a well-known point on the road. The bridge which was a long wooden one, resting on stone piers springing to some height from the rocky channel of the river, had been built by the Peshwâs. There were several bridges within Sâtârâ limits. Besides these main routes, as in the rest of the country, were several fair-weather roads practicable for carts, frequented tracks, and postal tracks. The fair-weather roads were natural tracks, merely showing the course taken by an irregular traffic over the open surface of the country. The best of them were practicable during the fair weather for carts, simply because at that time carts could pass over much of the surface of the country. The frequented tracks were numerous in every thickly peopled part of the country and were a grade lower than the fair-weather cart-tracks. The lines laid down as post tracks were no better, the mail being generally carried by foot-runners. All these roads were useful as showing the natural lines of traffic. Of the roads the Poona-Panvel and the Poona-Ahmadnagar roads were alone thoroughly bridged and available for traffic throughout the year. On the other roads, during the greater part of the rainy season, traffic was stopped by the streams which crossed them. The suddenness with which the streams stopped traffic was sometimes startling. A stream which at a place less than a quarter of a mile distant, was known to be
practicable, by the time required to reach its banks, became a foaming and impassable torrent and remained impassable for days. To such interruptions even most of the made roads were liable.

Since 1863 when local funds were created the work of opening roads has been steadily pressed on and the district is now well provided with lines of communication. At present (1884) in the Poona and Kirkee cantonments and in the civil limits of the two stations, forty-two miles of Imperial roads and twenty-eight miles of provincial roads, all metalled and bridged, are kept in repair at a yearly cost of £1700 (Rs. 17,000) to Imperial and £1700 (Rs. 17,000) to provincial funds. Of district roads there are seventy miles bridged and metalled, 104 miles partly bridged and metalled, and 493 miles partly bridged and murumed. The old Poona-Panvel road, entering the district at Khandala and passing south-east by Lonavla, Talegaon, Kirkee, Poona, Pátas, and Indápur, is a well made road metalled as far as Pátas and then murumed. The crossing of the Bhima at Hingangaon, where a ferry-boat is worked during the south-west rains, and the crossing of the Dalaj are serious obstacles to traffic during the rains. This road was of immense advantage to the district till the opening of the railway in 1862. It brought Poona, which is the great grain market of this part of the Deccan, within easy reach of grain and brought most villages in the neighbourhood of Poona in direct communication with Indápur which is midway between Poona and Sholápur. Dealers exporting produce to Poona and Sholápur naturally tried the half-way market of Indápur. Many cartloads of merchandise intended for Poona or Sholápur were often disposed of in transit at Indápur and the return carts were laden with produce which would command a better price in the respective markets. The opening of the railway in 1862 drove the cartmen from this road and considerably affected the importance of the Indápur market. Though the number of carts making use of the road has diminished those that have been driven off the line are probably such as came from long distances and the local traffic by the road is still considerable. The road is still of local importance in supplying the Indápur market with the produce of the sub-division. The Poona-Aurangabad road is metalled forty-one miles as far as Sirur and, except at Koregaon on the Bhima and two or three unimportant streams, is bridged and drained throughout. The old Poona-Sátára road, thirty-nine miles as far as the Níra, through the Diva pass, Sásvad, and Jejuri, is a fair road partly bridged and drained. It is at present kept as a local fund road. The new Poona-Sátára road of thirty miles, passing through the Kátraj pass and Shirval, is a first class metalled and bridged road kept in good order. The Poona-Násik road, sixty-two miles through Khed, Manchar, Náráyangaon, and Ambeghargaon, is a murumed unbridged road. As the principal rivers are unbridged flying bridges are worked in the monsoon at Moshi on the Indráyani, at Khed on the Bhima, at Kalamb on the Ghod, and at Pimpalvandi on the Kukdi, and at Ambeghargaon on the Mula; an ordinary ferry-boat plies at Váki on the Bháma. A branch from this road goes from Náráyangaon to Junnar. The local fund roads besides the already mentioned old Sátára road are, the Sirur-Sátára road fifty-four miles as far as the Níra bridge,
passing through the railway station of Kedgaon and crossing the Bhima at Párgaon by a flying bridge. The twenty-eight miles of this road from Sirur to Kedgaon are kept as a mail pony cart road. The POONA-SINHGAD road extends over twelve miles; the POONA-ALANDI road of thirteen miles runs parallel and close to the Násik road; the SÁSVAD-INDÁPUR road of fifty-four miles east and west passes through Bárámahi, Lásurna, and Nimbgaon; the VADGAON-SHIKRÁPUR road of thirty-three miles through Chákàn joins the Bombay-Ahmadnagar road at Shikrápur; the KHED-BHIMÁSHANKAR road thirty-one miles joins the Násik road at Khed; the KHED-SIRUR road through Pábal extends over thirty-two miles; the POONA-PAUD road extends over twenty-one miles; and the DÍRSÁL-BÁRAMATI road over seventeen miles. All these local fund roads are muruméd and are more or less bridged, crossing some of the rivers by flying bridges. During the rains when the ground is wet many of the roads are difficult for wheels. Yearly repairs are made and improvements are being gradually introduced.

1As in the rest of the Deccan the local hill passes or gháts belong to two leading systems, those that cross the Sahyádris and those that cross the spurs that stretch east and south-east from the Sahyádris. Down the Málsej pass about sixty-six miles north of Poona, a line for a cart road has been surveyed, and it is expected that in a few years the road will be begun. At present the only road down the Poona Sahyádris fit for wheels is the Bor pass. Except this and the Málsej and Náná passes the rest of the openings in the Poona Sahyádris are foot-paths and have no considerable traffic.2 The Málsej and Náná passes have considerable Vanjári traffic carried on pack-bullocks. Of the Sahyádri passes, beginning from the north, the first is NISNI or the Ladder, a steep and difficult route from Tálemachi in Junnar to Divápánda in the Murbád subdivision of Thána; it is impassable for cattle and is little used by foot travellers. MAŁSEJ at the head of the Madner valley, 2062 feet above the level of the sea, is the straight route between Ahmadnagar and Kalyán. It descends about five miles from Khobi in Junnar to Thidbi in Murbád. In 1826 it was passable by camels and elephants, but was steep and in some places narrow with a precipice on one side.3 The descent, in which there is an excavation containing carved images of the Hindu gods Gánesh and Hanumáni and a cistern of fine water, is paved with large stones. In 1850, when the engineers of the Peninsula Railway came to India, the Málsej pass first engaged their attention. On examination the route presented such formidable difficulties that it had to be abandoned, and with it the general system of line of which it was a feature. In 1882 in connection with the proposal to open a cart road down the pass, toll-bars were established for six months to ascertain the traffic. The

1 Mr. John McLeod Campbell, C.S.
2 These foot-paths are very intricate. It is with the greatest difficulty that people travel along them when loaded with the produce of their fields for the local markets. Where the rock is very steep they use a simple bamboo ladder with the help of which they can travel by the most direct routes. The ladder consists of a substantial bamboo shorn of its branches with a small stump at each joint or division to be used as a step. Captain A. Mackintosh (1839) in Trans, Bom, Geog. Soc. I, 290-291.
3 Clunes' Itinerary, 16.
returns showed a considerable Vanjári bullock traffic outwards in wheat, Indian millet, *tur*, gram, myrobalans, butter, oil, raw sugar, chillies, betel leaves, coriander seed, pulse, turmeric, plantains, cattle including sheep, and country blankets; and inwards in rice, salt, *náglí*, *vart*, coconuts, dates, sesamum, metal, cloth, bangles, betel, fish, rags, paper, and timber. The export and import trade is with Junnar and other large villages in the Junnar sub-division. Besides the goods traffic there is a large passenger traffic chiefly husbandmen from Junnar and the neighbouring parts of the district on their way to and from the great labour market of Bombay. Six miles south-west of the Málséj pass at the head of the Kukdi valley are two passes NáNGAR-DARA and Bhorándica-Dara or Rithyácha-Dara from Anjanvel in Junnar to Bhorandé in Murbád. These are steep and difficult, and are used only by Kolis. About a mile further south at the head of the same valley, is the Nána pass six miles in descent from Ghátgar to Vaiságre and Dhasai in Murbád. Next to the Bor pass this is the most used route between the Deccan and the Konkan within Poona limits. 1 At the top the road runs through a narrow gorge between two steep rocks, the rock on the north being known as Nána’s Angtha or thumb. The entrance to the pass is by a staircase cut deep through the rock and descending fifty to a hundred feet from the level of the plateau to a narrow terrace. Flanking the artificial staircase, in the precipitous rock which falls from the Deccan level to the terrace, are rock-cut caves which apparently were originally made, and which still serve, as travellers’ rest-houses. The walls of the chief cave are covered with a famous inscription of the third Andhrábhírtitya king Vedishri Shákarkarni, whose probable date is B.C. 90. From the terrace a stair, partly built partly rock-hewn, descends through heavily wooded slopes into the Konkan. The lower portion is easy and runs along rounded hills. At several places in the pass are rock-hewn cisterns with excellent water whose Páli inscriptions show that they were cut about a hundred years before Christ. In 1675 the English physician Fryer, who had been asked to Junnar by the Moghal governor, returned by the Nána pass and found it shorter and easier than the Ávápa track up which he had been taken by mistake. At the top he was kept waiting by 300 oxen laden with salt, then so precious that the saying was whose salt we eat, not whose bread we eat. After standing for an hour he persuaded the bullockmen to stop and let him pass. Once past the salt bullocks, the road was feasible, supplied at distances with charitable cisterns of good water, and towards the bottom adorned with beautiful woods. 2

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1 Near the Nána pass the Poona boundary runs far into the Konkan. The story is that in a dispute between the neighbouring Thána and Poona villages the Mhá of the Poona village pointed out from the top of the Sahyádri a line a long way west of the base of the cliff. The Thána villagers jeered at him telling him to go over the precipice and show the line. The Poona Mhá tied winnowing fans under his arms and to his legs, and throwing himself over the cliff floated down unharmed. On reaching the ground he began to run west to what he called the Poona boundary. The Konkan villagers seeing their lands passing away mobbed him to death, and fixed the boundary where his body lay. Mr. W. B. Mulock, C.S., Collector of Thána (1882).

2 Fryer’s *East India and Persia*, 128-129.
1826 the pass was frequented by Vanjáris in the dry season, but in the rains the steps into which the rock had been cut were in places dangerous for cattle. Though this route saved a considerable distance in going from Ahmadnagar to Kalyán, people with baggage and followers preferred to go round by the Bor pass. At present (1884) the pass is much used in the fair weather by market gardeners and oilmen from Junnar. These men loading their bullocks with packs of chillies, onions, and garlic, march from Junnar to Ghátgar at the top of the pass. Here they stop a night and next day their own pack-bullocks go down the pass unloaded and the packs are carried down the pass by special pass buffaloes belonging to the Ghátgar villagers. The buffaloes are paid 4½d. (3 as.) a trip. Besides this there is a considerable Vanjári traffic in grain from Junnar to Murbád and Kalyán. Still the pass can never be more than a foot and cattle path. About ten miles south-west at the head of the Mina valley is Ambuli a small rugged pass leading from Ambuli to Palu, not a trade route. This though only a footpath is much used as it is the most direct route from Junnar to Kalyán. Kute-dara and Tirmun-dara, footpaths leading from Hatvij in Junnar to Sonávle in Murbád are used only by Kolis, and are so steep that in places steps are cut in the rock. Goveli, also a footpath, leads from Khéd to Ubrole in Murbád. It is steep and little used. Ávápe, a descent of four miles from Ávápe in Khéd to Khopivli in Murbád, is passable only for men, but is used to carry headloads of clarified butter into the Deccan and myrobalans from the Deccan coastwards. In 1675 the English physician Fryer on his way to Junnar being misguided had to climb the Sahyádris apparently by this path. The ascent was very difficult. There was no path and the breathless bearers threaded their way amid hanging trees, the roots of which were laid bare by the falling earth. To look down made the brain turn, and overhead pendulous rocks threatened to entomb the traveller. Intense labour drew tears of anguish from the servants’ eyes and with much difficulty they carried their load to the top by a narrow cavern cut through rock. Fryer returned by the Nána pass. Shidgad descending from Kondanvalin Khéd to Narivli, is impassable for cattle, but is much used by foot-passengers. Three paths, Ghar, Umbra, and Gunar lead from the Shidgad fort. About one mile west of the temple of Bhimáshankar are two passes one to the village of Balhíner called Ranshil and the other to the village of Khándas called Bhimáshankar. In 1826 the Bhimáshankar paths had much traffic in spices, oil, and raw-sugar from the Deccan to Panvel and a return of salt from Panvel to the Deccan. Along much of their length old curbing and in many places old paving remain. The paths are now out of repair and are used only by a few laden bullocks, horses, and travellers who are carried in litters from Khándas. Two other footpaths close to the Bhimáshankar pass are called Hátkarvat and Sákharatáki. Ambanáli two miles south of Bhimáshankar is not passable for cattle. Vájantra a mile further is passable for unloaded

1 Chunes’ Itinerary, 145. 2 Fryer’s East India and Persia, 128-129.
cattle; Nisni, which is difficult even for men, is the continuation of Vájantra. At the head of the Bhima valley is Kolamb also called Bhatti, two miles south of Kotelgad, now out of repair and fit only for foot passengers and unladen cattle. It had formerly much traffic in rice and salt from Kalyán. Close to Kolamb is a steep footpath by which a detachment of the 4th Regiment climbed to Englad in February 1818 and surprised a party of Kolis.¹ About five miles south-west, at the head of the Andhra valley, three passes Phenádevi, Adki, and Sádle lead from Sádle the first to Málegao and the last two to Pimpalpáda. Sádle pass, which is paved but is in bad repair, was formerly used for dragging wood. In 1826 the yearly value of the timber dragged up this pass was estimated at £5000 (Rs. 50,000).² Four miles further south, and also at the head of the Andhra valley, is Kusur 2149 feet above the sea, a winding path leading 2½ miles from the village of Kusurgaon to Bhivpuri, and in good repair. The descent is at first easy passing under fine shady trees. After some distance it is a steep zigzag down the hill-side. Most of it is roughly paved with large stones which are said to have been laid by one of the Peshwás. At Bhivpuri there is a fine stone reservoir built at a cost of £7500 (Rs. 75,000) by Párvatíbáí widow of Sadáshív Chinnájí of the Peshwa’s family. The road is passable for mounted horsemen or laden bullocks, but not for carts. It is a great line of traffic from Talegaon to Karjat, Neral, Kalyán, and Panvel. The yearly toll revenue of about £20 (Rs. 200) is spent on repairing the pass. Gáldévicha Rasta leading from Jambavli to Dák in Karjat and Valvandi Dárcha Mál leading from Valvandi to Khadváí are used by foot-passengers and unloaded animals. Nine miles south-west of Kusur, winding close under the slopes of Rájmáchi, is the footpath of Rájmáchi known in Thána as the Konkan Dárvája or Konkan Gate, leading about five miles to the village of Kharvandi on the Ulhás river in Karjat. It was formerly passable by laden cattle, but is now out of repair and is used only by foot travellers. Hindol and Mirra, both of them footpaths, lead from Nándgaon and Kune in Mával to Kondane in Karjat. Eight miles south of Konkan Darvája, at the top of the Indrâyani valley about 2000 feet above the level of the sea is the Bor pass, a winding made road from Lonáyla eight miles to Khopivli. At the close of 1779 the leaders of the unfortunate expedition which ended in the Vágaoon Convention spent four weeks (23rd November-23rd December) in making a path fit for artillery up the Bor pass. The track was improved in 1804 by General Wellesley. From its importance in joining Bombay and Poona the improvement of the Bor pass road was one of the first cares of the Bombay Government after the fall of the Peshwa. In 1825, according to Bishop Heber who passed through it, the road through the Bor pass though broad and good was so steep that a loaded carriage or palanquin could with difficulty be taken up. Every one either walked or rode and all merchandise was conveyed on bullocks or horses. To have carried a road over these hills at all was, Bishop Heber thought, highly creditable to

¹ Clunes’ Itinerary, 146.
² Clunes’ Itinerary, 146.
the Bombay Government, and the road as it stood was probably sufficient for the intercourse that either was or was likely to be between the Deccan and Konkan. A few years later the pass road was greatly improved, and in 1830 it was opened in state by Sir John Malcolm, the Governor of Bombay. In 1840 the pass road was metalled throughout and completed with bridges and drains so as to be passable for carts during the rains. In this year the traffic yielded a toll revenue of £2774 (Rs. 27,740). In spite of the improvement, in 1850 it was so difficult of ascent and descent that no one ever thought of driving up or down in a carriage. Passengers travelling by the public conveyances were carried up and down in palanquins, there being different sets of coaches for the high and low portions of the road. Private carriages were pulled up or let down by numerous bodies of workmen or else they were carried up and down swung from a number of poles resting on men's shoulders. At present (1884) it is a first class metalled and curbed road twenty-two feet wide with masonry bridges, culverts, drains, dry stone retaining walls, and an easy gradient. It has considerable cart traffic from Poona to Panvel and Pen. Wheat, raw sugar, oil, clarified butter, millet, and cotton pass westwards, and salt passes inland. In 1881 the Bor pass toll yielded £790 (Rs. 7900). In 1860 the Peninsula Railway line to Poona was taken across the Sahyadris at the Bor pass. South of Khandala Nāghpani or Cobra's Hood leading from Kurvanda in Māval to Chavri in Karjat is used by foot passengers and unloaded animals. Two miles south, at the head of the Indrāyani river, Korondi passable for laden cattle, also leads west to Chavri in Pen. Further south are KeVni five miles between Yekoli and Pāchāpur, Derya four miles between Ghulka and Nenavli, Avli five miles between Pimpri and Alvane used by foot passengers carrying no loads, and Pimpri six miles between Pimpri and Patnus used by pack-bullocks carrying myrobalans salt and coals. Further south in the Mulshi petty division are Nisni Ambone four miles from Maluste to Māngaon; Ambavne or Kalambya five miles from Ambavne to Kalamb; Vārasdār four miles from Saltar to Kondgaon; Telbeja Savāsni four miles from Telbela to Dhondse; Nive or Savatya four miles from Nive to Patnus; Tamni or Sāthpāvri three miles from Tamni to Vile, all used by foot passengers who often carry head-loads of myrobalans, butter, coals, salt, and rice; Gadlot on the direct road from Poona to Nāgothana leading into the Pant Sachiv's state of Bhor; Lendh or Ling, Nisni, and Tamhana, in the extreme south and fit only for men, lead into Kolāba. South of these connecting the Bhor state and Kolāba are several passes Dev, Kumbhe, Thibthabe, Kavlya, Shevtya, Madhya, Amboval, Gopya, Varandha, and Shevta, all of which are useful for Poona traffic.

Of the passes over the spurs that run east from the Sahyadris the chief are in the Sinhgad-Bholeshwar range. Four cart roads

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1 Heber's Travels, 200. 2 Mackay's Western India, 379. 3 Trade Reports, 1840-41, 380-81. 4 Details of the Bor pass railway are given below pp. 159-161.

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cross the Sinhgad-Bholeshvar range at the Kátraj, Bábdev, Diva, and Bor passes. The Kátraj pass is on the new Sátára road, a fine piece of modern engineering, crossing the crest of the range in a tunnel. The Bábdev, about ten miles from Sásvd and between Bhivari and Kondhve Budrukh, is on the old Sátára road through Haveli and Purandhar. In 1803 Holkar brought his plundering bands up this pass. It was put in order about the year 1824, and for years afterwards was in a prosperous condition. Until 1853 it was used for wheeled carriages, but since the opening of the Diva and Bor passes in the same range of hills, it has been abandoned. In 1853, it was one of the worst specimens of a pass in Western India. Its angles and gradients were frightful to contemplate, its sharp turns being in some places flanked by low walls which afforded but a slight bulwark against the precipices which they crowned. The road in the steepest parts was constantly rough, being covered with loose round stones. This to some extent served to check the impetus of a descending load but greatly increased the toil of drawing a load up. At present it is impracticable for laden carts and is used by pack-bullocks and foot passengers carrying headloads of mangoes, figs, and vegetables to Poona from Supa and the neighbouring villages. The outward traffic is estimated to be worth about £200 (Rs. 2000) a year. The Diva pass, between Diva and Vadki, seven miles further east and six miles north of Sásvd was made in 1853 at a cost of £8500 (Rs. 85,000) from Imperial funds to supersede the Bábdev pass. The pass is kept in good order by yearly repairs, and wheeled carriages can easily go over it. Considerable traffic, consisting of grain of every sort, fruit, especially mangoes and figs, vegetables, raw sugar, firewood, butter, oil, cloth and other articles of foreign manufacture, metal work, timber, sugar, and spices, passes by this route. The inward traffic is worth about £20,000 (Rs. 2,00,000) and the outward about £10,000 (Rs. 1,00,000). The Bor or Sindavne pass, nine miles further east, near the end of the spur, between Vághapur and Sindavne, is the oldest route across the Sinhgad-Bholeshvar range. It was crossed by the Duke of Wellington in his famous forced march in 1803,¹ and by Peshwa Bái-ráv when he fled from Poona in 1817. Though superseded by the Bábdev pass for traffic with Poona, the road is still kept in repair as it is a line of communication between the Urali railway station and Sásvd, Jejuri, and other places on the old Sátára road. It was made in 1862 at a cost of about £100 (Rs. 1000) from local funds. At present the road is in good order and fit for wheeled carriages. The pass is chiefly used by pilgrims from the Urali railway station to Jejuri. The traffic chiefly in corn and other articles of daily use is worth about £2500 (Rs. 25,000) a year.

Besides four large bridges and one dam or dhara and several minor bridges in the town and cantonment of Poona and Kirkee, the district has forty-two bridges of not less than fifty feet long. Of the Poona and Kirkee bridges, the Wellesley Bridge

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¹ The Duke’s famous march of sixty miles in thirty-two hours was from Bárámátí to Poona on the 19th and 20th of April 1803, Grant Duff’s Marathás, 568.
called after the Marquis of Wellesley over the Mutha river at the Sangam, 498 feet long, of stone and lime masonry throughout, with eight 52½ feet span segmental arches and cut-stone parapet walls, including a roadway 28½ feet wide and forty-five feet above the foundation or river-bed, was built in 1874 at a cost of £11,093 6s. (Rs. 1,10,933). The original bridge which was entirely of wood was built in 1828 and was removed in 1839. A stone bridge was then built which continued in use till it was removed in 1874. The new bridge keeps the name of the former bridge, the people changing the word Wellesley into Vasli. Not far from this bridge to the west is the railway bridge over the Mutha. The LAKDIPUL on the Mutha river at the north-west end of the city was built in 1847, at a cost of £2697 10s. (Rs. 26,975). Though of stone it is called the Lokdi Pul or Wooden Bridge, because it is on the site of a wooden bridge which was built by one of the Peshwá's and gave way in the floods of 1840. The present bridge is 523 feet long, with nine forty-eight feet span segmental arches of stone and lime and parapets of coursed stone and lime masonry including a roadway 18½ feet wide and 34½ feet above the foundation or river-bed. The FITZGERALD Bridge over the Mula-Mutha river below the Bund Gardens, 1002 feet long, of stone and lime masonry throughout, with thirteen sixty feet span semi-elliptical arches and stone parapet walls, including a roadway 28½ feet wide and 47½ feet above the foundation or river-bed, was built in 1869, at a cost of £24,153 2s. (Rs. 2,41,531). HOLLÁN's Bridge over the Mula river at Kirkee, 548 feet long, is built of stone and lime masonry throughout, with nineteen seventeen-feet segmental arches, and a parapet of cut teak wood railing, including a roadway fifteen feet wide and twenty-eight feet above the foundation or river-bed. The KUMBHÁR VES or Potters' Gate dharan or causeway is the oldest crossing over the Mutha river near Kasba Peth to the north of Poona. The old causeway gave way in the beginning of British rule, and the present causeway was built between 1835 and 1840 at a cost of about £3000 (Rs. 30,000), paid partly by Government and partly by the people. It is built of solid stone masonry, and is 235 yards long and seven yards broad. It has twelve nine-feet wide sluices. During the monsoon floods it is under water and impassable. The other bridges in the town of Poona are: the HALÁLKHO, or Sweepers' bridge over the Mánik Nála, sixty-eight yards long, a massive structure of cut-stone masonry with three, five-feet broad vents or waterways leading to the Halálkhor quarters in Mangalvár Peth; it was built between 1835 and 1840. The JAKÁT or Toll Bridge, connecting the Mangalvár and Shanvá Peths, with three twelve-feet vents, was built between 1836 and 1840. Here the tolls were levied in the Peshwá's time, GOSÁVIPURA Bridge on the Mánik stream was built in 1870 at a cost of £300 (Rs. 3000). It is a double bridge at a point where the main road branches. The arches are single of twenty-two feet span. The DÁRUVÁLA or Fireworkers' Bridge on the Nágzari stream, joining the Ravivár with the Nyaháil, Rástia, and Somvá Peths, was built in 1870 at a cost of £1500 (Rs. 15,000). It is fifty-eight yards long and has four twelve-feet side vents. The BHATTI or Brick-
Kiln Gate Bridge on the Mánik stream joining Rástia's Peth with the Civil Lines was built in 1845. It is a small culvert of two seven-feet vents. The Pársi bridge or causeway on the Nágjhari stream joining Ganesh Peth with Rástia's Peth was built in 1830 by a Poona Pársi. It has three five-feet wide vents, and is occasionally under water during the rains when it becomes impassable. The GANESH Peth Bridge, joining the Ganesh and NÁNA's Peths, was built in 1835. It is a cut-stone bridge with three sixteen-feet arches. The BURUD or Basket-makers' Bridge near the Buruds' quarters, joining the Raviárv and Bhaváni Peths, was built between 1840 and 1845 of solid cut-stone masonry. It has four nine-feet arches. The GHÁSHETI Bridge, joining Ganj and Vétál Peth with Bhaváni Peth, was built in 1845 at a cost of £180 (Rs. 1800). It is of solid cut-stone masonry and has three eighteen-feet arches.

Of the forty-two other bridges in the district, twenty-three are on the Poona-Sholápur road, six on the Poona-Ahmadnagar road, three on the Poona-Násik road, six on the Poona-Panvel road, and four on the Poona-Sátára road. The bridges on the Poona-Sholápur road were built about the year 1836-37. Most are of coursed, one is of uncoursed, and four are of partly coursed rubble masonry. They are fifty to 175 feet long, with one to five ten to fifty feet segmental arches and eighteen to twenty five feet wide roadway from nine to twenty-one feet above the foundation or river-bed. The bridges on the new Sátára road which were built in 1856 are ninety to 162 feet long, of coursed rubble with three or four twenty to forty feet span segmental arches and twenty-four feet wide roadway from twelve to twenty-one feet above the foundation or river-bed. Of the three bridges on the Poona-Násik road, which were built between 1854 and 1856, two are sixty-five feet, and one over the Mina at Náráyangaon is 320 feet long of stone and mortar masonry. They have from one to nine, fifteen to fifty feet span segmental arches, and a roadway twenty to twenty-five feet broad and 10½ to twenty-five feet above the foundation or river-bed. The six bridges on the Poona-Ahmadnagar road, with the exception of the Ghod bridge, were built in 1842-43. Four are fifty-five to sixty-three feet long, one on the Vel river is fifty-two feet long, and one on the Ghod, which was built in 1868, is 800 feet long. They are built of stone and mortar masonry with two to sixteen eight to fifty five feet span segmental or semicircular arches and a roadway sixteen to twenty feet wide and 7½ to 37½ feet above the foundation or river-bed. The Vel bridge cost £2205 (Rs. 22,050) and the Ghod bridge £10,359 16s. (Rs. 1,03,598). Of the six bridges on the Poona-Panvel road, the Indráyani bridge which is built of stone and lime masonry, has seventeen twenty-feet span two-centre arches and a roadway fourteen feet wide and fourteen feet above the foundation or river-bed. The Dápuri bridge, which was built in 1842 at a cost of £6858 (Rs. 68,580), is 99½ feet long, partly wooden and partly of stone and lime masonry, with thirteen thirty-five feet span arches and a roadway twenty feet wide and twenty-six feet above the foundation or river-bed. The other bridges are fifty-seven to eighty-four feet long, of stone, or stone and brick and lime masonry, with two to
five ten to twenty-two feet span segmental arches and a roadway $17\frac{1}{2}$ feet wide and nine to $13\frac{1}{2}$ feet above the foundation or river-bed.

Of thirteen public ferries, one is a second class, one is a third class, and eleven fourth class ferries.¹ Two, one across the Ghod at Kalamb and the other across the Kukdi at Pimpalvandi on the Poona-ánásik road, are in Junnar; two, one across the Bhima at Khédi and the other across the Bháma at Váki on the Poona-ánásik road, are in Khédi; one, across the Indráyani at Induri on the Talegaon Station road, is in Mával; one, across the Bhima at Koregaon on the Poona-Ahmadnagar road, is in Sirur; two, one across the Indráyani at Moshi on the Poona-ánásik road, and the other across the Mutá lake at Sangrun in Haveli; one across the Níra at Pimpri Khurd on the Poona-Sátára road is in Purandhar; two across the Bhíma, one a third class ferry at Khánote and the other at Pargaon on the Sirur-Sátára road are in Bhumthádi; and the remaining two, also across the Bhíma, one a second class ferry at Himgangaon on the Poona-Sholápur road and the other at Chandgaon on the road to the Pomalvádi railway station, are in Indápur. Except the Sangrun and Induri ferries, which were established in 1877-78, at a cost of £116 (Rs. 1160) and £356 (Rs. 3560), all these ferries were established before 1875. The two ferries at Sangrun in Haveli and Chandgaon in Indápur work throughout the year, as the water there is always unfordable; the rest work during the rainy season only. In 1881-82, the thirteen public ferries yielded a revenue of about £388 (Rs. 3880) against £437 (Rs. 4370) in 1874-75. During the current year (1884-85) they have been farmed for £555 (Rs. 5550). Rules framed under the Ferry Act (II. of 1878) fix the fares for passengers, animals, carriages, and cradles.² Besides these there is one ferry at Netva in Junnar across the Pushpávati. It is maintained by local funds and passengers are carried free of charge. There are several private ferries, which, except the ferry across the Mula-Mutha below the Sangam bridge near Poona, work during the rains only. The ferry boats are generally built in Bombay or in Thána, but some have been made by men brought from Bombay in the public works workshops in Poona. They are built on the lines of ordinary boats, of wood brought from Kalikat, and at a cost varying from £100 (Rs. 1000) for a small boat to carry about fifty passengers to £330 (Rs. 3300) for a large ferry boat to carry horses and cattle as well as passengers. The most successful form of ferry

¹ There are four classes of public ferries: I. those that do not make more than six trips in a day of fourteen hours; II. those that do not make more than ten trips; III. those that do not make more than fifteen trips; IV. those that make more than fifteen trips.

² The sanctioned charges are: Passengers exclusive of children in arms 3d. (\(\frac{1}{2}\) a.) in second and 8d. (4 a.) in third and fourth class ferries; four-wheeled carriages, 1s. (8 a.) in second, and 9d. (6 a.) in third and fourth class ferries; two-wheeled carriages, 9d. (6 a.) in second, 6d. (4 a.) in third, and 4d. (3 a.) in fourth class ferries; laden ponies, horned cattle, and mules, 3d. (2 a.) in second, and 1s. (1 a.) in third and fourth class ferries; unladen ponies, horned cattle, and mules, and asses, 1d. (1 a.) in second, and 3d. (4 a.) in third and fourth class ferries; camels, 4d. (3 a.) in second and 3d. (2 a.) in third and fourth class ferries; sheep and goats, 4d. (3 a.) in second and 1s. (1 a.) in third and fourth class ferries; palanquin with bearers 1s. (8 a.) in second and third and 6d. (4 a.) in fourth class ferries; and litters or pelhás with bearers, 6d. (4 a.) in second and second and third and 3d. (2 a.) in fourth class ferries.
boat is two boats, each twenty-two feet to thirty-seven feet long by 5½ to ten feet broad joined together by a top frame. The boat-men are Kolis by caste. Ferry boats are in many cases worked by flying bridges. A wire rope is hung from bank to bank above water level with a pulley working on it to which the boat is attached, and, being kept at an angle to the run of the stream, goes across by the pressure of the stream water against the boat, the pulley sliding along the iron rope and so bringing the boat straight across the river.

Besides five European travellers' bungalows, ten district revenue officers' bungalows, and nine public works bungalows, there are 156 rest-houses or dharmshálás, for the use of native travellers, and five for the use of troops. Of the five European travellers' bungalows, four, at Lonikand, Kondhápuri, Sirur or Ghodnádi, and Dhond, are on the Poona-Ahmadnagar road, and one at Khandálá is on the Poona-Panvel road. Of the ten district revenue officers' bungalows, one is at Otur in Junnar, one at Chákán in Khéd, one at Sásvad in Purandhar, one at Loni Kálbhár in Havelí, three at Rávangaon Supa and Yevat in Bhimthádi, and three at Indápur Kumbhárgaon and Loni in Indápur. Of the nine public works bungalows, two at Kárla and Vadgaon are on the Poona-Bombay road; one near the Níra bridge is on the old Poona-Sántára road; one at Párgaon on the Sirur-Níra bridge road; one at Bárámáti on the Indápur-Nímbat road; one at Vir on the Níra canal head-works road; one at Náráyangaon on the Poona-Násik road; and two at Pátas and Bhhígvan on the Poona-Sholápur road. Of the 156 rest-houses or dharmshálás for the use of native passengers, all of which are not situated on high roads, nine are in Junnar, four at Khúbi, Díngora, Rájuri, and Belhe on the Málsej-Áná pass road, and three at Kálbám, Náráyangaon, and Junnar on the Poona-Násik road; thirty are in Khéd, none on any highroad; eleven are in Mával, five at Talegaon, Vadgaon, Khádkála, Valvahán, and Khandálá on the Poona-Bombay road; eighteen are in Sirur, four at Kórëgaon, Shíkrápur, Kondhápuri, and Gánpatí's Ránjangaon on the Poona-Ahmadnagar road; twenty-six are in Havelí, two at Vaghóli and Lonikhand on the Poona-Ahmadnagar road, one at Shívápur on the new Poona-Sántára road, one at Bhosri on the Poona-Násik road, one at Dápuri on the Poona-Panvel road, and one at Uralí Kanchán on the Poona-Sholápur road; seventeen are in Purandhar, two at Sásvad and Jejúri on the old and one at Kikvi on the new Poona-Sántára road; thirty-two are in Bhimthádi, five of them at Yevat, Kédgaon, Páta, Dhond, and Rávangaon on the Poona-Sholápur road; and thirteen are in Indápur, five of them at Bhhígvan, Dájí, Lóni, and Indápur, on the Poona-Sholápur road, and three at Nímbgaon-Ketki, Lasúrna, and Sansar, on the Indápur-Bárámáti road. There are also 354 village offices or chávídis which are used by native travellers as rest-houses in villages which have no other resting places. Of the five rest-houses for the use of troops, two, at Vadgaon and Khandálá, are on the Poona-Bombay road, one at Lonikand is on the Poona-Násik road, and two at Kondhápuri and Sirur (Ghodnádi) are on the Poona-Ahmadnagar road.
The district roads have nineteen toll-bars, thirteen of them on provincial toll-bars and six on local fund roads. Of the thirteen provincial toll-bars, six at Khadkāla with a sub-toll at Tākvi, Dāpurī, Hadapsar, Yevat, Khadkāla (two), and Indapur, are on the Poona-Sholāpur road; two, at Kātrajj and Kikvi, are on the new Sātārā road; two, at Lonikand with a sub-toll at Vāgholi and Kālāra, are on the Poona-Sītur road; and three, at Kurālī, Peth, and Nālāya, are on the Poona-Nāsik road. Of the six local toll-bars one is at the Nira Bridge on the old Sātārā road, one at Hingne-Khurd on the Poona-Sīnghad road, one at Bhugaon on the Poona-Paud road, one at Shetphal-gadhe on the Bārāmati-Khānotī road, one at Khalumba on the Vadgaon-Shikrāpur road, and one at Aund with a sub-toll at Bānner on the Aund-Sīlāvādi road. All the toll-bars, both on provincial and local fund roads, are sold every year by auction to contractors. In 1854-55 the auction bids amounted to £7430 (Rs. 7,430) for tolls on provincial roads and £2344 (Rs. 23,440) for tolls on local fund roads, or £9774 (Rs. 97,740) in all.

During the last quarter of a century communications have been greatly improved not only by making roads, but also by opening the Great Indian Peninsula Railway which for 106 miles passes through the district from west to east. It enters the district at Khandāla near the crest of the Sahyādris which is about 2000 feet above the level of the sea. For about twenty miles the line runs through a rough and hilly country. It next passes through the fertile plain lying between the Indrāyani and Pauna rivers twenty-one miles south-east to Poona. From Poona its course is cast along the valleys of the Mula-Mutha and Bhima, forty-eight miles to Dhond, and then south-east, seventeen miles to Diksāl, where it enters Sholāpur. It has eighteen stations: Khandāla seventy-seven miles from Bombay, Lonāvāla 79½ miles, Kārāl 84½ miles, Khadkāla 89½ miles, Vadgaon ninety-six miles, Talegaon-Dabhdāde ninety-eight miles, Shelārvādi 104 miles, Chinchrād 109 miles, Kikvi 115½ miles, Poona 119 miles, Loni 129½ miles, Urali 137 miles, Yevat 145 miles, Kedgaon 152½ miles, Pātas 159 miles, Dhond 165½ miles, Boribyał 172½ miles, and Diksāl 183½ miles. The line was begun in 1856 and the section from Khandāla to Poona was opened for traffic on the 14th of June 1858 and from Poona to Diksāl on the 16th December of the same year. From Dhond, which is on the Poona frontier, runs the Dhond and Manmād State Railway, the chord line which joins the north-east and south-east sections of the Great Indian Peninsula Railway. This line from Dhond to Ahmādnapur was opened on the 16th March 1878. Dhond is the only station on the line within Poona limits. Throughout the district the Peninsula railway line was easily made. Khandāla, which is provided with a safety siding, is the fourth and Lonāvāla is the fifth station on the Bor pass incline. 1 Besides ordinary buildings costing £250 to £1500

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1 The Bor incline begins at Kairat station near the village of Palasdhari, sixty-two miles from Bombay and 206 feet above mean sea level. As the crest of the ascent is
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2027 feet, the height of the incline is 1831 feet and the distance fifteen miles, or an average gradient of one in forty-six. At Thākūrvāda the first station, about six miles from the bottom, safety sidings are provided, into which any train can be turned and stopped. The next station is at the Battery hill and the third is at the reverse direction to which it entered. This change is very advantageous at this particular point. It allows the line to be laid in the best direction as regards gradients and works, and raises its level at the steepest part of the precipice. The fourth station is at Khandāla at the thirteenth mile, where also a safety siding is provided, and the fifth is at Lonāvā on the crest. Khandāla and Lonāvā are within Poona limits. On leaving Palasdhari or Karja the line keeps to the western flank of the great Songi spur. In the first four miles are very heavy works, which a second survey showed to be unnecessary to reduce the gradients that were first laid out. Some heavy embankments bring the line through the first mile. It then keeps round the Songi spur, passing on its course through six tunnels of 66, 132, 129, 138, and 143 yards. Then bending north with very heavy works the line climbs round the Māhukimalli and Khami hills to the station at Thākūrvāda, 61 miles. In the last two miles there are eight tunnels of 286, 291, 282, 49, 50, 437, and 105 yards, and five viaducts which though not very long are very lofty. All except the last are of masonry, with fifty-foot arches, one viaduct having eight, one six, and two four openings. The fifth viaduct, originally of eighty-five arches, was replaced by two Warren girders of 202 feet span. The least height of pier is seventy-seven feet, two are ninety-eight, one 129, and one 143. Leaving this section of tunnels, for two miles beyond the Khami hill, the line runs along a natural terrace or case in the rock, without any obstacle, as far as Gambhirnāth where the terrace is cut by two sheer rocky ravines. Cross these ravines by two small viaducts, one with sixty-four arches, one viaduct having eight, one six, and two four feet high, the line keeps along the same case for two miles to the bold outcassing rock called Nāthāchā Dongar. In the last two miles are heavy works, nine tunnels of 81, 198, 55, 63, 126, 79, 71, 280, and 121 yards. Beyond this the railway enters on the long and fairly level neck that forms the link between the Songi spur and the main range of the Sahyādri. At the end of this neck, 114 miles from the foot, is the reversing station, which was considered the best arrangement for surmounting the last great difficulty on the incline, the ascent of the scar of the Sahyādri face. Now the line of the reverse or the yard station the line has gradients of one in thirty-seven, one in forty, and one in fifty, with two tunnels of 346 and of sixty-two yards, and with a viaduct of one sixty-foot and twelve forty-foot arches. The line leaves the reversing station by a curve of fifteen chains on a gradient of one in seventy-five, pierces Elphinstone Point by a long tunnel of 346 yards, keeps along the edge of the great Khandala ravine, reaches the shallow where is Khandala station, and then, following the course of the Khandala ravine, crests the Sahyādri at the village of Lonāvā. Besides the leading viaducts the line has twenty-two bridges of seven to thirty-foot span; and eighty-one culverts two to six feet wide. The total cutting, chiefly through rock, is two millions of cubic yards; and the greatest depth is, on the central line, seventy-six feet, and on the face of the tunnel through Elphinstone Point, 150 feet. The cubic contents of the embankments are 21/2 millions of yards, the greatest height of bank on the central line being seventy-five feet, though many of the outer slopes are 150 and some of them are as much as 300 feet. There are in all twenty-six tunnels, of a total length of 553 yards, or more than 21 miles, six of them being more or less lined with masonry for a total length of 312 yards. There are eight viaducts. The length of the incline is fifteen miles and sixty-eight chains, of which five miles and thirty-four chains are straight and ten miles and thirty-four chains curved. The sharpest curves are one of fifteen chains radius for a length of twenty-two chains, and another of twenty chains for twenty-eight chains. Between a radius of twenty and of thirty chains there are curves of a total length of one mile and forty-eight chains, and the rest have a radius of between thirty-three and eighty chains. The steepest gradients are one in thirty-seven for one mile and thirty-eight chains, and one in forty for eight miles and four chains, the remainder being between one in forty-two and one in seventy-five. The only exceptions are one in 336 for twenty-three chains and one of a level of one mile and fifteen chains. The line is double throughout. It cost 265,750 (Rs. 6,87,500) a mile or about
at Poona and Dhond, a large station has been built at Lonávla at a cost of £30,000 (Rs. 3,00,000) with large waiting and refreshment rooms. Workshops have also been constructed at Lonávla, as well as a church, a school, a library, and quarters for the engine-drivers and other servants of the company. As the water of the Indráyani, which runs outside the Lonávla station-yard, was insufficient during the hot weather, a reservoir was built at a considerable cost at Bhusi about two miles to the south of Lonávla from which an abundant supply of fresh water is now available. The water is carried by cast-iron pipes to Lonávla, Khandála, and to the reversing station. The company has lately agreed to supply the village of Lonávla with water, the cost of the connection being borne by Municipal and Local Funds.

Since it was opened large quantities of goods have been drawn to the railway. Much traffic which used to go down the rough tracks of the Sahyádris from Junnar and Khed now finds its way by the Náśik highroad to the Talegaon railway station. Much of the export trade which used to go to Bombay along the old Sátára, Sholápúr, and Ahmadnagar roads through Poona is now attracted to the nearest railway station. At the same time the ordinary roads are by no means abandoned. Bárámati and Indápur, the large markets in the east of the district, though only seventeen and twelve miles from the railway, have a direct road trade with Bombay and keep up the relatively high position they enjoyed before the railway. The railway has increased competition by throwing open the local trade as it were to the whole of India and has almost defeated combinations to keep up the price of grain or other articles of general

£1,100,000 (Rs. 1,10,00,000) in all. The tunnels were the most difficult part of the work. Nearly all were of very hard trap. The steep forms of the hills prevented shafts being sunk, and, as the drifts had to be made solely from the ends, much skill and care were required in setting out the work on the sharply-curved inclines, so as to ensure perfectly true junctions. The viaducts are partly of block in coarse masonry, as abundance of admirable building stone was everywhere at hand. But the masonry work was not good, and there have been some failures, chiefly the Máhukimalli viaduct which had to be rebuilt. Another cause of danger and trouble is the slipping of rain-loosened boulders. To ensure its safety all boulders had to be moved from the hill sides above the line. The landslips were particularly troublesome in the lower part of the incline. Shortly after the first engine passed, on the 30th March 1862, the whole of one of the open cuttings, near the foot of the incline, was filled and had to be pierced by a tunnel of arched masonry.

The incline took seven years and a quarter to complete. It was carried out entirely by contract. The contract was first let to Mr. Faviell in the autumn of 1855, and the works were begun on the 24th January 1856. In June 1858, two miles of the upper part of the incline, from Khandála to Lonávla were opened for traffic. In March 1859, Mr. Faviell gave up his contract; and, for a short time, the Company's engineers carried on the works. In the same year the contract was relet to Mr. Tredwell. But he died within fifteen days of landing in India, and the work was completed by Messrs. Adamson and Clowser, managers for the contractor Mrs. Tredwell. These gentlemen carried on the work with the greatest zeal and ability. Their good and liberal management collected and kept on the work a force of 25,000 men during two seasons, and in 1861 of more than 42,000 men.

The rails used on the incline weigh eighty-five pounds to the yard, and were made with special care so as to secure hardness and flexibility. Under the fish-joints a cast-iron chair, spiked to longitudinal timber bearers, is fixed so as to support the bottom of the rail and to give additional strength and security to the joint. The incline is worked by pairs of double-tank engines of great strength and power. Thana Statistical Account, Bombay Gazetteer, XIII. 326-3.
local use. The merchants complain that though trade has greatly increased, profits have greatly fallen.

The making of the Western Deccan section of the Southern Maratha railway was sanctioned in December 1883, and the work was begun in March 1884. Of the whole length of 242 miles, 45 1/2 miles lie within Poona limits. Theline starts from Poona, 119 1/2 miles from Bombay, and for about ten miles runs almost parallel to the Peninsula railway at a distance of about three miles to the south. Near Loní, ten miles east of Poona, the line turns more to the south, and skirts the Sinhgad-Bhaloskhar range, rising with a ruling gradient of one in a hundred till it crests the Bhór incline about twenty-one miles south-east of and about 675 feet above the Poona railway station. From the top of the pass the line turns south, and, leaving Sásvad about eight miles to the west, passes almost straight south to Jejuri thirty-two miles south-east of Poona. At Jejuri it crosses the Purandhar hills, and runs generally southwards till near Nimbat, 46 1/2 miles from Poona, it crosses the Níra river about three miles west of the Poona-Tásgaon road and enters Sátára. The country over which the line passes is a series of parallel hills, running east and west, and divided by more or less wide valleys which slope from west to east. This section of the line will be difficult and costly. The great length of hill line involves heavy gradients, many curves and tunnels, and much bridging and walling. Not counting the terminus at Poona there will be four third class stations, Phursangí ten miles from Poona, Vághpur twenty-four miles, Jejuri 32 miles, and Vála forty-one miles. The ruling gradient will be one in a hundred throughout and the sharpest curve will be above 500 feet radius. As good stone is plentiful, all the bridges are intended to be arched. The important bridges will be the Karha bridge, twenty-nine miles from Poona, with five fifty-foot arches and an estimated cost of £7300 (Rs. 73,000), and the Níra bridge, 46 1/2 miles from Poona, with eight fifty-foot arches, at an estimated cost of £8700 (Rs. 87,000). There will be two tunnels in the Bhór incline, one 500 feet long estimated to cost £11,400 (Rs. 114,000) and the other 600 feet long estimated to cost £13,700 (Rs. 137,000). There will be about 68,332 cubic feet of retaining wall on the Bhór pass, costing about £2820 (Rs. 28,200). The permanent way will cost about £1890 (Rs. 18,900) a mile. The estimated cost of the whole Western Deccan section is £8300 (Rs. 83,000) a mile.

The district of Poona forms a part of the Poona postal division. Besides the chief receiving and disbursing office at Poona, the district contains thirty sub-offices, two of them in Poona, and twenty-four village post offices. The chief disbursing office at Poona is in charge of a post-master, who draws a yearly salary of £300 (Rs. 3000) rising to £360 (Rs. 3600). The two Poona sub-offices, one in the city and another in the New Bázár, and the twenty-eight sub-offices, at Dhond, Bárámatis, Chákán, Chinchvad, Diksál, Ghóda, Indápur, Jejuri, Junnar, Kedgaon, Khálskálá, Khándála, Khéd, Kirkee, Lonávala, Mahálinga, Manchar, Nánánya-gaon, Pátas, Purandhar, Sásvad, Sirur, Supa, Talegaon-Dábháde,
Talegaon-Damdhera, Otur, Vadgaon, and Kirkee Bazar, are in charge of sub-postmasters drawing yearly salaries varying from £18 (Rs. 180) to £72 (Rs. 720). The twenty-four village post offices, at Ale, Alandi, Talegaon, Avsari, Avsari Budruk, Belhe, Chas, Davdi, Kadus, Kedgaon, Kikvi, Malthan, Morgaon, Narsingpur, Nimbegaon, Pabal, Parincha, Paud, Peth, Pimpalvandi, Rujuri, Vada, Valha, and Vaphgaon are in charge of village schoolmasters who receive yearly allowances varying from £3 (Rs. 30) to £6 (Rs. 60). There are fifty-six postmen for delivery of correspondence. Of these, one receives £18 (Rs. 180) a year, eleven receive £14 8s. (Rs. 144) a year, and the remainder £9 12s. (Rs. 96) a year. Gratuities to runners for delivering letters at some of the villages vary from £1 4s. to £2 8s. (Rs. 12-24) a year. Seventy-one village postmen deliver letters at small villages. Of these twenty-four, receiving yearly salaries of £10 16s. (Rs. 108) each and thirteen of £12 (Rs. 120), are paid from Imperial, and eighteen receiving yearly salaries of £12 (Rs. 120) and sixteen of £10 16s. (Rs. 108) are paid from provincial funds. At the village post offices only money-orders are issued and at the other post offices both money order and savings' bank business is carried on. Mails for the district of Poona to and from Bombay are carried by the Peninsula railway. A pony cart post runs between Sirur and Kedgaon and another from Poona to Satara, Kolhapur, and Belgaum. The disbursing post office and the town sub-offices are directly subordinate to the disbursing postmaster of Poona. The sub-office at Dhond and the village post office at Narsingpur are under the supervision of the superintendent of post offices Ahmadnagar division, and the village post office at Kikvi is under the superintendent of the Deccan division. The remaining offices are supervised by the superintendent of post offices Poona division whose head-quarters are at Poona, and who is paid a yearly salary of £480 (Rs. 4800) rising to £600 (Rs. 6000) in five years. He is helped in the Poona district by an inspector whose head-quarters are at Poona and whose yearly salary is £120 (Rs. 1200) paid from provincial funds.

Besides the Peninsula railway telegraph offices there is one Government telegraph office at Poona.

SECTION II.—TRADE.

Of late years, except the development caused by cheap and rapid carriage, there has been no marked change in trade. Among the people there is a growing fondness for foreign articles of dress and comfort. Husbandmen also show more intelligence in meeting the demand for particular produce. Of late years the great increase in the demand for oilseeds and raw sugar has led to a large increase in their production and export. This increase has been made possible by the opening of canals and other water-works. The oilseeds go chiefly to Bombay and the raw sugar to Bombay and Gujarát.

Traffic passes from and to the Sirur sub-division by the Poona-Ahmadnagar road to Poona or to Kedgaon and so by rail to Bombay; it passes from and to the Indapur sub-division by the Poona-Sholapur road to Poona or by rail from Chandigaon or Diksül to Bombay; it passes from and to the Bhimthadi sub-
division by the Bárámati-Níra bridge on the Jejuri road to Poona, by the Sholápur road to Poona, or by rail to Bombay from Dhond or Pátás; it passes from and to the Purandhar sub-division by the old Sátára road to Poona and thence by rail to Bombay; or by the new Sátára road to Poona and thence by rail to Bombay; it passes from and to the Haveli sub-division by the Poona-Shólápur road, by the Poona-Ahmådnagar road, by the new Sátára road to Poona, by the Poona-Pánvel road and by the Paud road to Poona, and thence by rail to Bombay; it passes from and to the Mával sub-division by rail at Talegaon, Lonávala, or Khandála to Bombay; it passes from and to the Khed and Junnar sub-divisions by the Poona-Násik road to Poona or by the branch from the Násik road to Talegaon and thence by rail to Bombay.

The chief agencies for spreading imports and gathering exports are trade centres, markets, fairs, village shops, and peddler’s packs. The chief trade centres are: Junnar, Náráyangaon, and Ale in Junnar; Khed, Manchar, Ghoda, Ambegaon, Ávsari, Váphgaon, Pimpalgaon, and Mahálunga in Khed; Sirur and Talegaon-Dábháde in Sirur; Khandála and Talegaon-Dábháde in Mával; Poona, Chárholi-Budruk, Phulgaon, Paud, Vágholi, and Lóni Kálbhar in Haveli; Sásvad and Jejuri in Purandhar; Supa, Bárámati, and Pátás in Bhimthadi; and Índápur. Of these Khandála, Talegaon-Dábháde, Poona, Lóni Kálbhar, and Pátás are on the Peninsula railway.

The leading merchants are Máwrár Vánis, Gujárat Vánis, Bohorás, Pársis, and Bráhmans, with capitals of £100 to £15,000 (Rs. 1000-15,000). Except Junnar, Ambegaon, Talegaon-Dábháde, Poona, Chárholi-Budruk, Sásvad, Bárámati, and Índápur, which trade direct with Bombay and other large markets, the trade of the other centres is mostly local, not passing to places outside of the district. The merchants that deal direct with Bombay and other large markets are generally Máwrár Vánis and Bohorás. They export grain and other produce, principally garden crops, and import hardware, country and European piece-goods, haberdashery, stationery, dried fish, salt, rice, and coconuts. The same merchants deal both in imports and exports. Though every branch of trade is open to all classes, Bohorás have practically a monopoly of the hardware trade, and most of the larger grain-dealers are either Máwrár or Gujárat Vánis. In the different local trade centres, though they do business only on a small scale, the traders are independent. Regular trading is not generally carried on through agents, but large traders occasionally make use of the services of agents when they are unable themselves to make purchases either in the villages or in Poona and Bombay. Field produce passes through several hands before it leaves the district. It goes to market generally through the village shopkeeper, who passes it on to a dealer in some large town, who sends it direct to Bombay or to some export merchant in Poona. Some rich landholders, but these are exceptions, themselves bring their produce to the large markets of Poona and Junnar. Tírgul Bráhmans and Mális, who generally grow betel leaves vegetables and fruit, send the produce of their gardens to Poona or to Bombay. The village shopkeeper generally gathers articles of export in exchange for money advanced or lent.
Like exports, imported articles pass through several hands, the wholesale merchant in Bombay, the importer in Poona or other local centre, the dealer who buys from the importer, and the petty retailer who buys from the dealer and sells at his village shop or at some fair or market. In Poona itself imported articles sometimes pass through two hands only, the wholesale merchant in Bombay and the importer if he is also a retail merchant. The consumer, rarely buys from the importer. Occasionally another middleman the wandering peddler, comes between the consumer and the importer.

The brokers are mostly Lingáyats but a few are Gujарат and Márvār Vānis, Maráthás, Káchhis, and Muhammadans. Their number is small, perhaps about a hundred. They are usually paid three per cent. (½ a.) in bill transactions and ½d. to 3d. (1-2 as.) on the palla of 120 shers in corn transactions. In cloth purchases their brokerage is as much as two per cent, and in dealings in gold and silver ornaments it is a quarter per cent. As a rule brokers carry on no other business, but there is no rule or custom to prevent their engaging in other business, nor are their transactions limited to any one branch of trade.

Next to the chief trade centres in the spreading and gathering of goods come the market towns, where a market is held on a fixed day in the week. Of forty-four villages where weekly markets are held, six, Ále, Anne, Junnar, Madh, Náráyangao, and Otur, are in Junnar; nine, Ahire, Ambegaon, Chákán, Ghode, Khed, Mahálunge, Manchár, Váde, and Váphgaon, are in Khed; ten, Ambegaon, Chandkhed, Kárá, Nána, Nilshí, Shivane, Tákvi-Budruk, Talegaon-Dábháde, Umbre, and Vádgao, are in Mával; five, Bhámburda, Bhorkas, Ghotávde, Mulshí, and Paud are in Haveli; six, Ghodnádi, Kavthá, Kendu, Malthan, Pábal, and Talegaon-Dhamdhí are in Sirur; four, Kíkvi, Parinché, Sásvad, and Valhe are in Purandhar; five, Bárámáti and Dhond, and Pátas, Karkamb and Yevat on the Poona-Sholápur road, are in Bhimthádi; and four, Bhígyan, Indápur, Nimbgao-Ketki, and Palasdev are in Indápur. Of these the most important are Bárámáti, Bhámburda, Dhond, Ghodnádi, Ghotávde, Junnar, Manchár, Sásvad, and Talegaon-Dhamdhí, with an attendance of 150 to 700 sellers and 500 to 2500 buyers. In the rest the attendance varies from twenty-five to 150 sellers and from forty to 200 buyers. All these markets are distributing centres, and about one-sixth, Bárámáti, Ghodnádi, Indápur, Junnar, Khed, Sásvad, and Talegaon-Dhamdhí are also gathering centres. The chief articles brought for sale are grain of all sorts, cloth, vegetable and fruit, groceries, spices, and other articles of daily use. Besides these articles, shoes, ropes, brooms, baskets, and blankets are offered for sale at Bárámáti and Sásvad, and cotton at Indápur. The sellers are Vánis, Málís, Momins, Káchhis, Támábs, Tábólís, confectioners, Mángs, Kolís, and others, some of them producers and others either dealers or dealers' agents, belonging to the market town or to some neighbouring village. The buyers are people of all castes in the market town and in the neighbouring villages. There is no barter except that small landholders and others, including Mhárs, Mángs, Chámbrárs, Rámoshís, Kolís, and Musalmáns, who have no
Chapter VI.
Trade.

Fairs.
money, receive oil, tobacco, vegetables, chillies, and fish in exchange for grain. Cattle markets are held at Ghodnadi, Manchar, Indapur, Bārāmati, and Junnar once a week, and at Bhāmberde near Poona a half-weekly cattle market is held on Wednesdays and Sundays. Horses, ponies, cows, buffaloes, sheep, and goats are brought for sale by Kunbis and others. The chief buyers are Kunbi and other landholders, and butchers at the Bhāmberde market.

Of sixty-five yearly fairs, seven, at Ále, Otur, Nimdari, Ojhar, and Náráyangagon, Belhe and Hivre, are held in Junnar; eight, at Nimbgaon-Ketki (twice), Kharpadi, Kelgaon, Chákan, Kadadha, Dhamne, and Bhovargiri (Bhimáshankar) in Khed; two at Vehergaon and Vadgaon in Mával; eighteen at Bhāmberde (twice), Páshán, Parvati (twice), Higne Khurd, Kondhanpur, Vádi, Bolhái, Dehu, Chinchvad, Rávet, Paud, Ghotavde, Shera, Tamanhi-Budruk, Vadgaon, Akseis, and Niva in Havéli; eleven, at Shirasgaon, Vadgaon, Mandavgan, Ránjangaon, Malthan, Mukhái, Pimple, Jambut, Kaythe, Talegaon-Dhamdhere, and Kanhar in Sirur; ten, at Sásvad (twice), Jejuri (four times), Pur, Vir, Máłshiras, and Diva in Purandhar; eight, at Valki, Párgaon, Nángaon, Varvand, Supas, Dhond, and Morgaon (twice) in Bhimthathi; and one at Narsingpur in Indápur. All of these, except those at Belhe and Hivre in Junnar which are chiefly attended by Musalmáns, are Hindu fairs held in honour of some local deity. The attendance varies from 200 to 25,000. Large dealers do not attend and there is not much trade, the estimated value of articles sold generally varying from £1 to £40 (Rs. 10-400). At Dhond, Morgaon, Jejuri, Vir, Máłshiras, Nimbgaon-Ketki, Bhovargiri, Vehargaon, Kondhanpur, Vadgaon, and Akseis, the transactions amount to not less than £100 (Rs. 1000), and sometimes to as much as £2500 (Rs. 25,000). The usual salesmen are sweetmeat-makers, gardeners, and grain-parchers, but coppersmiths, weavers, tailors, grocers, tassel-makers, and betel-leaf growers generally attend some of the larger fairs with stocks of metal vessels, cloth, bangles, blankets, groceries, oil, and clarified butter and spices. The buyers are consumers, villagers from the neighbourhood, and pilgrims. Occasionally Mhárs, Kolís, and some Kunbis exchange grain and fuel for oil, salt, and chillies. Otherwise there is no barter.

Except small groups of huts in the hills every village has its shopkeeper. The village shopkeeper is usually a Gujarát or a Márvári Váni, but sometimes a Lingáyat Váni, a Téli, and occasionally a Kunbi or Musalmán. Except grain which he buys from local owners, the village shopkeeper draws his stock in trade from the large towns with which he has business relations, and where probably the moneylender, on whom he is often dependent, lives. His stock in trade generally includes grain, groceries, raw and refined sugar, salt, oil, and clarified butter tups, spices, coconuts, and all other articles required for daily use by the people. Though every shopkeeper does not keep a store of cloth, it is not necessary to go to the sub-divisional centre to buy cloth. In each sub-division ten or twelve villages have cloth shops. Except in the western hills cloth can be bought in one village out of every ten. Cloth can also be bought at all
weekly markets. Besides robes or *ludpás*, waistcloths or *dhotars*, and strong *dongri* cloth woven in the district at Bārāmati, Junnar, Sāsvad, Kavthe, and Indāpur, the cloth-merchants have stocks of Bombay and European cloth which they generally buy in Bombay. Cloth is bought by people of all castes from the village in which the shop is as well as from villages near which have no shop. Shopkeepers sometimes exchange their wares for grain to Kunbis and other poor people who have no ready money. The village shopkeepers have usually moneylending dealings with people of all castes, except Brāhmans, in the village as well as in the neighbourhood. They have no connection with large trading firms. They themselves or sometimes their agents or relations go to fairs and market towns.

Below the village shopkeepers come the travelling peddlers, who are generally Gujarāt Mārwār or Lingāyat Vānis, Shimpis, Mális, Bāgvāns, Kāsārs, Sonārs, Sangars, Tāmbolis, Telis, Atārs, Bāirāgis, and Komtis. They have their head-quarters at Poona or some other large town where they buy or prepare the contents of their packs. They carry their goods on horse or bullock back and sometimes on their own shoulders. They go from village to village and visit the market towns and fairs within their circuit, and are known to their customers. Vānis take groceries and spices; Shimpis cloth and ready made clothes; Mális fruit and vegetables; Bāgvāns groceries, spices, and vegetables; Kāsārs, Bāirāgis, and Komtis metal vessels and dishes, and the other Kāsārs banglos; Sonārs cheap ornaments; Sangars blankets; Tāmbolis betel leaves and nuts; and Telis oil. Cloth is also hawked about by Musalmán peddlers who of late have been hawking perfumes and pearls. All these except the last sell their goods on credit or for cash to Kunbis, Musalmáns, Mhārs, Marghs, and others. The sale of perfumes and pearls is restricted to the higher classes and to cash payments only. Mális, Bāgvāns, and sometimes Vānis barter their goods with Kunbis and others for grain. Bāirāgis and Komtis sometimes exchange their goods for old clothes, lace borders of turbans, and other clothes. Except Mális and Bāgvāns, who travel throughout the year, the peddlers set out on their tour at the end of September or the beginning of October, and return before the rains.

Decrease in cost both of making and of carrying, and a larger margin of earnings among the bulk of the lower classes, have of late years led to a great increase in the amount of imports. The importers are chiefly Gujarāt and Mārwār Vānis. The chief imports are, grain including rice, *bājri*, *jvāri*, wheat, pulses including gram *tur hulga math udid* and *mug*, oilseeds including earthnuts and *khurānsi*, cotton seeds, *moha* Bassia latifolia flowers, salt, fish, metals, raw and refined sugar, tobacco, timber, hardware, indigo, twist, piece-goods and silk, matches, kerosine oil, haberdashery, porcelain, and European liquor. Rice, which is used in small quantities only by the upper classes of Hindus, is brought from Ahmadnagar and Thāna. *Bājri* is brought from Ahmadnagar and Sholápur, and *jvāri*, *hulga*, *math*, *udid*, *mug*, *tur*, and gram are brought from Sholápur. Wheat, especially the excellent *bakshi* or garden wheat, comes from the Nizám's country, Sholápur, Khándesh, etc.
and Gujarát. Oilseeds are rought into Purandhar and the eastern subdivisions by Telis and the usual import traders, from Ahmadnagar and Sholapur, and by Marathás, Musalmáns, and Lingáyat Vánis from Phaltan and Sátára. Cotton seeds which are used for feeding milch-cows are brought from Ahmadnagar, Khándesh, and Sholápúr. Moha flowers come from Thána, Ratnágiri, Gujarát, and Jabalpur, and are sold to liquor contractors. Salt, which was formerly brought by pack-bullocks, now comes mostly by rail, and a little by the Nána and Málsej passes from Thána. Dry fish are brought from Bombay and Thána by rail, and by the Nána pass by Musalmáns, Bhois, and butchers. Under imported metals come gold, silver, copper, brass, iron, lead, zinc, and tin. During the American war large quantities of gold and silver found their way into the district. Most of the gold and silver were made into ornaments; the rest was hoarded. During the 1876-77 famine a large quantity of gold and silver ornaments left the district chiefly to Bombay. Since the famine year better harvests have again started the import of silver and gold. Copper and brass were formerly imported in blocks and worked first into sheets and then into vessels. Of late years ready made sheets have been largely imported from Bombay and considerably lowered the price of brassware. Copper and brass ready-made cooking and drinking cups, of which there is a growing manufacture in the city of Poona, are also brought from Násik. They are used by all but the poorest classes. The import of iron has of late greatly increased and it is made in considerable quantities into water pails and butter and oil cans. Iron is also much used for cart tires and axles. All of it comes from Bombay, brought chiefly by Bohora Musalmáns. Imported groceries, chiefly dates cocoanuts and spices, are largely used by all classes. They are brought by rail as well as on pack-bullocks by the Nána and Málsej passes, from Bombay, and by rail from Sholápúr. Refined sugar comes from Bombay, and raw sugar, of which since the opening of the Mutha Canals a large quantity is produced in Haveli, is brought into Poona from Phaltan, Sátára, Kolhápúr, and the Bombay Karnátk. In Poona city there is a large trade in raw sugar. During 1875-76 nearly 3750 tons (5260 khandis) valued at £46,236 (Rs. 4,52,360) were imported. A large proportion of the imports are exported chiefly to Ahmadabad. Tea and coffee which are used only by a few classes are brought from Bombay in small quantities. Tobacco is brought by Lingáyat Vánis and Tmbois from Sátára, Sholápúr, Miraj, Sángli, and Kolhápúr. Malabár teak comes from Ratnágiri and Thána. Other timber also comes from Bhor, Násik, and Thána. Indigo and silk are imported from Bombay by rail. English and Bombay cotton twist is brought by Bohoras and Gujarát Vánis and distributed over the district to handloom weavers. Of late the outturn of the Bombay factories has to a great extent taken the place of English yarn. Piece-goods are of two chief kinds, hand-made and steam-made. The hand-made goods, waistcloths, turbans, and women’s robes, which are prepared in considerable quantities in the district at Sásvd, are also brought from Burhánpur, Yéola, Ahmadnagar, Paithan, Ahmadabad, and Nágpur. The machine-made piece-goods are
Bombay coarse strong cloth, chiefly for waistcloths, sheets, and towels from Bombay, and European finer fabrics and prints brought by Bohorás and Gujarát Vánis from Bombay. Of late years, except during the 1876-77 famine, the import of steam-made piece-goods has rapidly increased, the cheapness both of Manchester and of Bombay goods stimulating the trade. Silks, like piece-goods, are of two kinds, machine and hand made. There is little local demand for steam-made European silks, but the produce of the Bombay silk mills is gradually taking the place of hand-made silks. Hand-made silks, chiefly turbans, scarfs, and bodice-cloths, from Burhánpur, Yeola, and Paithan, and brocades from Surat and Ahmadabad, are brought into the district by Márwár and Gujarát Vánis, Bohorás, and tailors. The chief dealers in silks are Márwár and Gujarát Vánis, Bohorás, Momins, and Patvegárs. No class of merchants deals exclusively in silks, but almost all rich merchants keep silks fabrics in stock. Carpets or satranjís are brought from Agra, Ahmadnagar, and Khándesh. Glassware chiefly China bangles are brought by Kásárs and other glass articles by Bohorás and other Musalmáns. European liquor comes from Bombay. Of late the import of matches and of kerosine oil has greatly increased; they are now found even in small villages. Well-to-do Musalmáns and Páris have taken to use English furniture and China ware. The use of tea, coffee, and European liquor by wealthy Hindus has also become common.

Of Exports the chief are, of vegetable products, grain, cotton, raw sugar, vegetables, betel leaves, myrobalans, and roots and barks for dyeing; of animal products, honey, hides, and horns; and of manufactured articles, clarified butter, brassware, shoes, silk cloth, home-spun cotton cloth, ivory and wooden toys, and perfumes. Under grain, besides bájí and jvári, come wheat and gram. Since the opening of the railway the export of perishable produce has greatly increased. Among the chief branches of this trade are the export of betel leaves, vegetables, and fresh fruit from the Haveli and Purandhar sub-divisions, and of potatoes from Junnar and Khed. The trade is rapidly growing on account of the impetus given to market-gardening by irrigation from Lake Fife. Plantains are sent from Æle, Otur, and Junnar to Bombay by Talegaon, also from Valha in Purandhar by the old Sátára road to Poona. Grapes are sent from Vadgaon, Kándáli, Rájuri in Junnar, and from Pábal and Kendur in Sirur. Figs are sent from Díva, Parincha, Sonávri, Gurholi, Mahur in Purandhar, and from Gogalvádi and Álandí-Choráchi in Haveli. Pomegranates are sent from Supa, Devalgaon, Gadag, Vadgaon in Bhirmthadi, and from Álandí-Choráchi and Uralí-Kánchan in Haveli. Mangoes are grown extensively at Khed Shivápur in Haveli, also at Sásavad, Chambí, Supa Khurd, Bhivri, and Bapgaon in Purandhar, and Ausari-Khurd and Kádu in Khed. In ordinary years small quantities find their way to Bombay. Oranges and guavas are grown at Kothrud, Yerandavna, Mundhva, Parbati, Mali, and Munjerí, and sent for sale to Poona. Limes are grown at Kurli, Parbati, Yerandavna, Vánavdi, and Mundhva. Potatoes are largely grown in the Khed sub-division, and from Khed as from Junnar they are sent by Talegaon. They are also sent from Talegaon-Dhamdhere and Pábal.
Chapter VI.  
Trade.  
Exports.  

Onions are sent from the Talegaon-Dabháde station. Chillies are sent by the same route from Kahu, Gulani, Váphgaon, Chátkan, Bhos in Khed, and from Khodad, Náráyangaon, and Arvi in Junnar. Cabbages and other fresh vegetables, as green chillies, 

\[ \text{ghedu} \]  

Dolichos lablab and 

\[ \text{govári Cyamopsis psoralioides} \]  

and the young shoots of coriander or \[ \text{kothimbír} \]  

go in considerable quantities to Bombay. In the village of Cháhróli-Budrukh on the Indráyaní, upwards of £4000 (Rs. 40,000) are said to be invested in growing beétel leaves. Betel leaves are also produced, principally by Maráthás and Mális, in Belhe in Junnar, Parínecha Mahur and Diva in Purandhar, Álandí and Dondí in Khed, Mahamadvádi and Vánávdi in Haveli, Nimbogon-Ketki and Vihalí in Indápür, and Vapanda in Bhimthádi. The trade in beétel leaves is rapidly growing on account of the impetus given to market-gardening by irrigation from Lake Life. From the north of the district there is a considerable export of myrobalans to Bombay.

Colouring roots are prepared by Mhárs, Mángs, Chámbárs, and Musalmáns, and sold to Parsís, Dhors, and Musalmáns who send them by rail to Bombay, Poona, Ahmadnagar, and other places. Bájírí is sent from Havelí, Purandhar, Khed, and Junnar by cart to Poona by Márwár and Gujarát Vánís and cultivators. Júvári is sent from Indápür, Bhimthádi, and Sirur by rail and cart to Poona. Nearly three-fourths of the cotton grown is sent by rail from the eastern sub-divisions to Bombay by Bhátiás and Márwár and Gujarát Vánís. Raw sugar, which is imported in large quantities, is also exported to Ahmadábād. Junnar hand-made paper was formerly largely exported, but of late the trade has much fallen. In Havelí metál-ware is made in large quantities in the city of Poona by coppersmiths and others who send the articles by rail to Bombay and Sholápúr, and by road to Sátára, Kolhápúr, and other places. In Junnar the metál-ware suffices only for local use. Indápür, Sirur, Mával, Bhimthádi, Purandhar, and Havelí export hides, horns, and bones chiefly to Bombay and Poona, and Junnar, and Khed export hides and horns only. The dealers are generally Mángs, Mhárs, Musalmáns, and butchers. About 200 coulds, each containing twenty hides, go every year from Junnar, and 100 coulds from Khed each containing twenty-five to thirty hides. Indápür sends about 500 m áns of these articles, Purandhar about 500 to 1000 hides and 200 to 300 horns, and Havelí five to seven thousand hides. A Parsí has started a bone store at Bhámburde near Poona. In Junnar, the export of hides and horns is on the increase.

A comparison of the Peninsula railway traffic returns, during the eight years ending 1880, shows a rise in the number of passengers from 767,186 in 1873 to 1,140,136 in 1880, and in goods from 69,290 tons in 1873 to 112,682 tons in 1880 against 125,245 in 1873. The chief passenger station is Poona with an increase from 462,145 in 1873 to 583,897 in 1880 against 608,039 in 1878. Other important passenger stations with a comparatively small goods traffic are Dhond, the junction of the Peninsula railway and the Dhond-Manmad State railway, with an increase from 24,673 in 1873 to

1 Detailed traffic returns are not available from 1881 to 1883.
135,699 in 1880; Talegaon with an increase from 68,071 in 1873 to 99,055 in 1880 against 103,751 in 1878; Lonálva with an increase from 44,837 in 1873 to 57,209 in 1880 against 66,441 in 1878; Chinchwad with a decrease from 44,017 in 1873 to 25,355 in 1880; Kirkee with an increase from 30,224 in 1873 to 41,309 in 1880 against 42,739 in 1878; Khandála with an increase from 13,115 in 1873 to 28,925 in 1880; and Khandkálá with an increase from 19,127 in 1873 to 26,921 in 1880 against 26,935 in 1878. In 1880 the passenger traffic at the remaining stations varied from 5115 passengers at Boribyal to 23,138 at Diksál. Poona is also the chief goods station showing an increase from 47,226 tons in 1873 to 84,345 tons in 1880. Other important goods stations but with a comparatively small traffic are Talegaon with an increase from 5944 tons in 1873 to 10,732 tons in 1880; Dhond with an increase from 4599 tons in 1873 to 4798 in 1880 against 25,975 in 1878; Diksál with an increase from 1532 tons in 1873 to 4062 tons in 1880 against 4285 in 1878; Kirkee with a decrease from 4152 tons in 1873 to 3414 tons in 1880; and Lonálva with a decrease from 1530 tons in 1873 to 1252 in 1880. The goods traffic at the remaining stations in 1880 varied from 339 tons at Loni to 783 tons at Úrali. There was no goods traffic at Kárla, Vángao, Shelarvádi, Yevat, and Boribyal.

The following statement shows for each station the changes in traffic during the eight years ending 1880:

<table>
<thead>
<tr>
<th>STATION</th>
<th>MILES FROM BOMBAY</th>
<th>1873</th>
<th>1878</th>
<th>1880</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Passengers</td>
<td>Tons of Goods</td>
<td>Passengers</td>
<td>Tons of Goods</td>
</tr>
<tr>
<td>Khandála</td>
<td>77</td>
<td>15,115</td>
<td>25,370</td>
<td>553</td>
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<tr>
<td>Lonálva</td>
<td>79</td>
<td>44,307</td>
<td>66,441</td>
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<tr>
<td>Kárla</td>
<td>84</td>
<td>19,127</td>
<td>36,935</td>
<td>145</td>
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<tr>
<td>Khadkálá</td>
<td>86</td>
<td>5944</td>
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<td>334</td>
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<tr>
<td>Talegaon</td>
<td>104</td>
<td>43,017</td>
<td>25,975</td>
<td>185</td>
</tr>
<tr>
<td>Chinchwad</td>
<td>115</td>
<td>20,858</td>
<td>41,211</td>
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<tr>
<td>Kirkee</td>
<td>119</td>
<td>51,855</td>
<td>12,704</td>
<td>443</td>
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<tr>
<td>Poona</td>
<td>123</td>
<td>6,902</td>
<td>81,055</td>
<td>1177</td>
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<tr>
<td>Loni</td>
<td>127</td>
<td>13,561</td>
<td>15,164</td>
<td>483</td>
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<tr>
<td>Úrali</td>
<td>131</td>
<td>14,509</td>
<td>22,117</td>
<td>502</td>
</tr>
<tr>
<td>Yevat</td>
<td>135</td>
<td>14,833</td>
<td>17,789</td>
<td>560</td>
</tr>
<tr>
<td>Kondgão</td>
<td>140</td>
<td>14,325</td>
<td>17,447</td>
<td>562</td>
</tr>
<tr>
<td>Pátaś</td>
<td>145</td>
<td>42,673</td>
<td>51,044</td>
<td>26575</td>
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<tr>
<td>Dhond</td>
<td>150</td>
<td>15,016</td>
<td>25,839</td>
<td>4285</td>
</tr>
<tr>
<td>Boribyal</td>
<td>155</td>
<td>15,016</td>
<td>15,016</td>
<td>1332</td>
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<tr>
<td>Diksál</td>
<td>160</td>
<td>35,969</td>
<td>25,839</td>
<td>4285</td>
</tr>
</tbody>
</table>

The following statement shows for each station the changes in traffic during the eight years ending 1880:

<table>
<thead>
<tr>
<th>STATION</th>
<th>MILES FROM BOMBAY</th>
<th>1873</th>
<th>1878</th>
<th>1880</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Passengers</td>
<td>Tons of Goods</td>
<td>Passengers</td>
<td>Tons of Goods</td>
</tr>
<tr>
<td></td>
<td>787,136</td>
<td>69,200</td>
<td>1,101,594</td>
<td>125,345</td>
</tr>
</tbody>
</table>

In the goods returns the chief changes are, under exports, an increase in fruits and vegetables from 8760 tons in 1873 to 13,736 tons in 1880 against 7186 tons in 1878; in sugar both raw and refined from 716 tons in 1873 to 2060 tons in 1878 and to 3595 tons in 1880; in grain from 1019 tons in 1873 to 7514 tons in 1878 and to 1797 tons in 1880; in metal from 678 in 1873 to 1573 in 1878 and to 1419 tons in 1880; in firewood from 101 tons in 1873 to 770 tons in 1878 and to 1172 tons in 1880; in oil from 213 tons in 1873 to 728 tons in 1878 and to 630 tons in 1880; in hides and horns from 259 in 1873 to 506 tons in 1878 and to 587 tons in 1880; in tobacco
from eighteen tons in 1873 to fifty-two tons in 1878 and 227 tons in 1880; in linseed and sesamum oilseeds from eighty-two tons in 1873 to 126 tons in 1878 and to 104 in 1880; in cotton an increase from 1582 tons in 1873 to 2584 tons in 1878 and a decrease to 704 in 1880; a decrease in salt from 522 tons in 1873 to seventy-six tons in 1878 and to twenty-seven tons in 1880; and in timber from 225 tons in 1873 to 100 tons in 1878 and to thirty-three tons in 1880. The other exports besides sundries, which amounted to 8394 tons, varied in 1880 from two tons of Europe twist to seventy-six tons of country piece-goods.

Under imports there was an increase in grain from 18,077 tons in 1873 to 41,856 tons in 1878, and to 47,222 tons in 1880; in metal from 902 tons in 1873 to 3774 tons in 1878, and a decrease to 2276 tons in 1880; in sugar both raw and refined an increase from 1146 in 1873 to 1496 tons in 1878, and a decrease to 1224 tons in 1880 probably due to the large production of raw-sugar in the district consequent on the increased cultivation of sugar-cane along the Khadakwasa canals; an increase in firewood from 128 tons in 1873 to 734 tons in 1878, and a decrease to 644 in 1880; in moha flowers from nothing in 1873 to 214 tons in 1878 and to 560 tons in 1880. There was only a slight increase in the imports of Europe piece-goods from 685 tons in 1873 to 742 in 1878 and to 774 tons in 1880; and in country piece-goods there was an increase from 721 tons in 1873 to 862 tons in 1878 but afterwards a decrease to 676 tons in 1880. In Europe twist there was a decrease from 364 tons in 1873 to 332 tons in 1878 and to 198 tons in 1880. In country twist there was an increase from 234 tons in 1873 to 342 in 1878 but afterwards a decrease to 244 tons in 1880. Other imports besides sundries, which amounted to 19,419 tons, consisted of cotton eleven tons and of wool ten tons. There was a decrease in fruits and vegetables from 1204 tons in 1873 to 1090 in 1878 and to 789 in 1880; in oilseeds from 1094 in 1873 to 680 in 1878, but afterwards an increase to 750 tons in 1880; in oil there was a decrease from 994 tons in 1873 to 806 in 1878, but a slight increase to 910 in 1880. The details are:

**Poona Peninsula Railway Goods Traffic, 1873, 1878, 1880.**

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<tr>
<th>ARTICLE</th>
<th>1873</th>
<th>1878</th>
<th>1880</th>
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<tbody>
<tr>
<td></td>
<td>Outward</td>
<td>Inward</td>
<td>Outward</td>
</tr>
<tr>
<td>Cotton</td>
<td>Tons</td>
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<td>14</td>
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<td>Firewood</td>
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<td>Grain</td>
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<td>1094</td>
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<td>Sugar, Raw and Refined</td>
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<td>70</td>
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<tr>
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<td>Timber</td>
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<td>257</td>
<td>874</td>
</tr>
<tr>
<td>Twist, Europe</td>
<td></td>
<td>364</td>
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POONA.

At Dhond, the only station of the Dhond and Manmád railway within Poona limits, the traffic consisted of 29,864 in and 31,977 out passengers, and 610 tons of exports and 136 tons of imports in 1879 against 64,406 in and 61,440 out passengers and 4780 tons of exports and 112 tons of imports in 1880.

There are no trades-unions or mahájans in the district, nor is there any Nagarshet or recognized head in matters of trade. Dayárám Atmárám, a Vání, who died fifteen years ago and was the recognized head of the banking business, was the last Nagarshet of Poona. Disputes between traders are frequently referred to the whole body of traders in any one branch of trade. The chief members form a committee or panch, and their decisions are always accepted. Formerly a few recognized head traders formed the panch in each trade, but here as elsewhere the levelling tendency of British rule has had its effect, and, except that petty dealers are not consulted and do not expect to be asked to join a trades meeting, all the members of a trade have, and exercise, an equal right to appear at a meeting of a trade’s panch. Regular strikes are unknown, but a falling market or scarcity of labour from time to time causes changes in wages. When any change has to be made the chief members of the trade meet the artisans and after discussion fix a revised rate. In this manner in 1881 a claim by the silk weavers for a rise in wages was settled in their favour after the matter was discussed with the silk merchants. The decisions of these committees have hitherto been accepted as final. At the same time there is no recognized means of enforcing them except that if an artisan refuses to work at the rate settled he receives no employment. So also traders will cease to deal with any member of their trade who refuses to abide by the decision of a trade committee or panch.

SECTION III.—CRAFTS.¹

Except cotton hand-loom weaving which to a small extent is carried on in thirty-seven towns and villages and some small metal work, silk weaving, and paper making at Junnar the industries of the district centre in the city of Poona. For Poona city details of twelve crafts have been collected. These are, in order of importance, the making of copper and brass vessels, the weaving of silk and cotton cloth, the making of gold and silver thread, glass bangles, ivory combs, clay figures, iron pots, felt and paper, tape weaving and wood turning. Of these the making of copper and brass vessels and the weaving of silk and cotton cloth with or without gold and silver thread are the most important and flourishing. Glass bangles, ivory combs, felt and tape are in good local demand. Poona clay figures are admired and are bought chiefly by Europeans. On account of their cheapness iron pots are taking the place of the large brass and copper vessels used for storing water and grain. Paper

¹ From materials supplied by Mr. B. A, Gupte, Head Clerk Sir J. J. School of Art and Industry.
making is declining and none of the woodturners' work has more than a local sale.

The Poona brass industry supports (1883) about seventy dealers and 2320 workers. This number includes 810 Tambahs or makers of large articles, 500 Jingars or makers of small articles, 50 Otaris or casters, and 960 Kasars or brissors. The hereditary copper brass and bellmetal workers of Poona, the Tambahs, Jingars, Otaris, and Kasars are quiet easy-going people. All speak incorrect Marathi and live in one-storeyed houses of which seven belong to the Tambahs, fifty or sixty to the Jingars, and thirty to the Otaris. They generally live on vegetable food, but are allowed to eat mutton and fish as well as to drink liquor which they take on holidays and special feasts. The Kasars and Tambahs dress like Brahmans and the Jingars and Otaris like Marathas. As the demand for brass ware is brisk and growing, no Tambahs, Jingars, Otaris, or Kasars have of late given up their hereditary craft. Within the last fifteen years their numbers have been more than doubled by local Marathas Kunbis whom the high profits of brass working have drawn from the fields and the labour market but who so far confine themselves to the rough parts of the work. The hereditary coppersmith classes work from seven to ten or eleven and again from two to six. In the busy season, that is between November and May, they work extra hours even till midnight. Like other local Hindu craftsmen, Kasars stop work on the no-moon day or amavásya at the end of every lunar month, on kar the day after the Mahásankránti in January, for five days at Holi or Shimga in March-April, for two during Diwáli in October-November, and on the day after an eclipse either of the sun or of the moon. They also rest on Gampati's Fourth in August and on Gauri's Day about the same time, and for ten days at Dasara in October. All rest on any day on which one of the community dies. They have no trade guild, but join in paying a half-yearly tax to the goddess Kálika for whom they have built a temple in Kasba ward which costs 14s. to 16s. (Rs.7-8) a month to keep up. The Kasar's Káli differs from other local Kális in having camel supporters on each side of her instead of elephant supporters. Also instead of offering her a goat or buffalo, on the eighth day of the Navrátára that is two days before Dasara, they offer her the false calabash gourd kohola Cucurbita lagenaria, which perhaps from its dark colour, is believed to be a transformed giant. Four pegs are driven into the fruit to represent legs and arms and it is cut with a sword, and thrown into the sacred fire. A little brass and bellmetal is smelted by the Jingars and Otaris but the bulk of the copper and brass comes in sheets about three feet by four by rail through Bombay chiefly from England and Australia. They are brought from Bombay by Márwar and Gujarát Vánis and given to be worked by Tambahs. The sheets or brissors are of three kinds, thick middle and thin, which differ little in price as they are sold by weight. The copper costs £4 8s. to £4 10s. (Rs. 44-45), and the brass £3 8s. to £3 10s. (Rs. 34-35) the hundredweight, with two shillings extra one for brokerage and one for carriage. A coppersmith has fifteen chief tools and appliances.
A stone or dagad about three feet above and two feet under
ground on which the copper and brass plates made by melting old
broken pots are beaten. As it has to stand very rough usage this
stone is chosen of flawless black basalt very carefully smoothed.
One of these stones is said sometimes to cost as much as £10
(Rs. 100). Since the import of metal sheets has grown so common
the stone has almost fallen into disuse: Five hammers or ghans
worth 8s. (Rs. 4) each: A pair of bellows or bhátás worth 12s. (Rs. 6):
Four iron hooks or orapnis each worth 6d. (4 as.): Four pairs of
tongs or sándśi worth 10s. (Rs. 5): An anvil called sandhán or mekh,
a long upright iron bar polished at one end on which the pot is
placed and beaten, worth about 4s. (Rs. 2): Twenty to twenty-
five special anvils or kharvais, thick iron bars bent and smoothed at
one end, together worth £12 to £15 (Rs. 120-150): Four ordi-
mary anvils or airans together worth £2 (Rs. 20): About fifty
small hammers or hathodás with which the pot is beaten when it
is placed on the bar anvil together worth about £10 (Rs. 100):
Two pairs of scissors for cutting the copper or brass sheets each
worth 4s. (Rs. 2): A wooden stand or stool called khodve for
supporting the bar anvil. This is a block of wood with two legs about
60° apart, and, in the angle between the legs, a solid block of
wood with a pole in the middle. Through the hole in the block the
bar anvil is passed slanting till its one end rests on the ground and
the top end remains standing out about a foot from the hole. The
coppersmith sits on the low end of the bar anvil puts the pot at
which he is working on the top end of the bar anvil, and, holding
the pot in his left hand, beats it into shape with a hammer held in
his right hand: Two files worth 2s. (Re. 1) each which last for only
a year: Two pairs of compasses or kaivars together worth 4s. (Rs. 2):
Two hollow stones or ukhals each worth 8s. (Rs. 4) on the top
of which the sheet is laid and rounded by hammering: Eight
chisels or chhanís for cutting the metal together worth about 3s.
(Rs. 1½).

Jingars or brass-casters have sixteen chief tools and appliances:
An anvil or airán worth 10s. (Rs. 5): Four bar anvils or kharvais
together worth 16s. (Rs. 8): Four hammers or hathodás together
worth 8s. (Rs. 4): A pair of tongs or sándśi worth 1s. (8 as.): Two
pairs of scissors together worth 2s. (Re. 1): Five yearly-renewed files
or kānis each worth 3d. to 9d. (2-6 as.): A vice or shagda worth
8s. (Rs. 4): A pair of bellows or bhátás worth 1s. (8 as.): A saw or
karvat worth 1s. (8 as.): An iron bar or sandhán with one end smoothed
to serve as an anvil worth about 4s. (Rs. 2): A flat iron rasper or
ránūha, six inches by half an inch with one end bent and sharpened
used for scraping and polishing pots, worth 1s. (8 as.): A borer or
sámđa worth 1½d. (1 an.): A twenty-four inch foot rule or gaj
worth 3d. (2 as.): A square iron tray or tás worth 6d. (4 as.): A
palm leaf fan or hadpana used in fanning the fire worth 3d. (⅓ a.):
And two or three crucible catchers or chyāks. The chyāk is an iron
ring about three feet round with two long iron bars fastened at equal
distances apart. Over the ends of these bars a second ring about
twenty inches across is passed and moved up and down the bars
so as to increase or reduce the space above the base ring. In working
the chyák the base ring is lowered into the furnace so as to surround the crucible, and the movable ring is forced down the bars till the crucible is tightly pressed between the bars and can be drawn out of the furnace.

In making brass, bellmetal or káse, and white metal or pancharasi, the alloy is smelted in a pit about three feet round and four or five feet deep. At the bottom of the pit a bells' tube is firmly fixed, and over the bells' tube are laid three or four flat-bottomed dome-topped crucibles or pots, about eighteen inches high and a foot round. The crucible, which is called mus, is made by the brass workers themselves of powdered broken China, flint, and ashes. After putting some borax or sávági into the crucibles to serve as a flux, if brass is to be made, they are filled with broken pieces of copper and zinc and closed by an air-tight plug. Charcoal, dried cow dung-cakes, and wood are heaped over the crucibles. The fire is lighted, and, with the help of the bells, is blown to a white heat. The men know the time, generally four to five hours, which the alloy takes to form. When the metal is ready each crucible is grasped in the chyák and lifted out of the furnace. On taking it out the side of the crucible is bored by the point of a nail, and the molten metal flows into shallow clay troughs where it is left to cool. When cool the solid mass is dragged from the trough by a pair of tongs or sándsi, laid on the stone or dagad, and beaten to the required thinness. To form metal sheets, whether local or imported, into the required shapes, the sheet is laid on the floor and the workman traces on it with a pair of compasses, the pieces required for the upper and the under parts of the vessel to be made and cuts out the two pieces with scissors or with a chisel. The metal is then softened in the fire and hammered, and again softened and again hammered, the alternate hammering and heating being repeated three or four times till it is beaten into shape. The two pieces are then soldered with brass, borax or sávági, and chloride of ammonia called navaságar. The men work in bands of five or six dividing the labour. Some make the rough outline of the shape, others shape the neck, a third set form the lower piece, a fourth solder the shaped pieces, and a fifth polish the whole. All the polishing which the Támbaris give is a rough scrubbing with a mixture of powdered charcoal and tamarind pulp, followed by beating with a small hammer till the whole surface is covered with hammer marks or facets.

Poona copper and brass articles may be arranged under fourteen groups. Those used in the kitchen, those used in eating and drinking, those used in storing and carrying water, articles used in serving betel, musical instruments, measures, lamps, dishes and vessels used in worship, images, peasant jewelry, toilet requisites, appliances used in the dining hall but not for eating or drinking, miscellaneous ware and toys. Twenty pots are used in the kitchen. The pátale (1) a cylindrical copper or brass pot, with slightly rounded bottom, varying in size from two inches round to four or five feet across and two or three feet high. The tapele (2) a somewhat conical pot, with round bottom and narrow neck. Tapeles vary from three inches to four feet across the bowl, the
small ones being used for boiling rice and holding milk and the large ones for storing water. The bahugunc (3) a cylindrical pot like the pâtele (1) only with a more bulging bowl and seldom more than a foot in diameter. The karanda or modak pátra (4) a stew-dish for making modaks, shengás, and one or two other native dainties.¹ The karanda is made of three pieces; underneath a cylinder with flat side handles; in the middle a metal sieve with two hook handles; and at the top fitting the rim of the cylinder a dome with a cup-shaped handle. Water is boiled in the cylinder, the sieve is set in its place, the dainties are placed either on the sieve or on a piece of plantain leaf laid over it, and the lid is fastened down. Heat is applied to the lower part, and the steam gathering in the cover stews the dainties. The paradi (5) is another sieve or perforated dish used to carry off the surplus grease when karanjís or anaúrás are fried in clarified butter.² The rovali (6) is a cylinder six to nine inches across and nine to twelve inches high, with a sieve at the bottom, used for washing rice before it is boiled. It is sometimes shaped like the tapele (2). The jhára (7) is a long-handled sieve used for frying the gram flour paste required for bundhis. In making bundhis gram flour mixed with water is poured into this sieve which is held over a frying pan with boiling clarified butter and shaken. The gram flour paste falls into the pan in drops which become solid as soon as they touch the boiling clarified butter. The drops are then taken out in another sieve called upasni (8) which differs from the jhára (7) chiefly in not having a rim. The chahádání or kitli the English kettle is now in much use particularly among English-speaking natives. The kadhai (10) or frying pan is a hemispherical pan six inches to six feet across and one inch to two feet deep; it has two handles opposite each other and is used for frying. The parát (11) is a large dish two to five feet in diameter with a rim two to four inches high. It is used as a cover for a pâtele (1) or other large pot when anything is being cooked in it. It also serves for carrying cooked rice or vegetables from the kitchen to the dining hall. A small parát about a foot in diameter and made of brass, called pílai is used in the same way as the parát, and in addition among Kunbis and other middle-class Hindus serves as a dining dish. The pali (12) is a spoon with a rounded body and a long handle. It is used as a stirring rod or ladle while vegetables or pulse are being cooked and as a distributing spoon in the dining hall. The dábā (13) is a cylindrical box with a top for storing dainties. The velní (14) is a saucer-shaped dish-like pot, usually one or two feet in diameter and sometimes polished in which enough rice for two or three guests is taken from the parát or tray, and poured into the

¹ Modaks and shengás are made of rice flour and contain cocoa-kernel, sugar, cardamoms, almonds, and saffron. Their only difference is in shape. Modaks are shaped somewhat like a flat-bottomed lotus bud and shengás are semicircular.

² Karanjís like shengás are semicircular and made of flour, cocoa-kernel, sugar, cardamoms, almonds, and saffron. Karanjís differ from shengás in being made of wheat flour instead of rice and in being fried instead of being stewed. Anaúrás are made of rice flour, raw sugar, and poppy seed. They are round cakes about as big as the palm of the hand.
plate. This dish also serves as a cover to a pot in which vegetables or pulse are boiled. The chamocha (15) or spoon made of brass is used for pouring liquid butter on rice. The kátan (16) or phirâki, a tooth-edged circular plate fitted in a cleft handle is used for cutting the notched borders of karanjis. The kisni (17) or cocoa-kernel slicer is a sheet of brass about six inches by four or four two inch high feet. The surface of the sheath is broken by several rows of long narrow hollow ridges with raised sharp-edged openings against which the kernel is rubbed and cut into long slices: The látâne (18), a slightly tapering brass rolling-pin a foot to eighteen inches long used for flattening polis, a variety of karanjis and anársás: The châlan (19) is a brass sieve: The panchámrit pátra (20) is a set of seven brass cups, six cups ranged round a central one with a handle; it is used for carrying koshimbirs that is pickled fruit and vegetables from the kitchen to the dining hall. Fifteen eating and drinking pots are made: The already described parát tray (11) and the velnì (14) come again in this group as they are used in serving rice and vegetables, and so does the ográle or mudâle rice ladle (21); the velnì is used for the second and later courses and the ográle for the first course only: The tett (22), a polished brass dining dish with bulging rim six inches to two feet across: The váti (23) a round-bottomed cylindrical brass cup one to four inches across is used to hold each man’s share of curry and broth: The gadva (24) a polished narrow-necked copper or brass dinner pot, used to hold each man’s supply of drinking water, varies from the size of a pewr when it is called apkara to the size of a full grown pommmelo; a spout-mouthed gadva is called jhári: The vályâcha támbya (25) also made of copper or brass, is flatter than the gadva and like it is used as a water cup. The loti (26) is a pear-shaped pot like 25 and 26 in use size and material: The kadi (27) is a ring with a handle for the gadva, támbya and loti: The manakarnika (28) is a small brass drinking cup: The chambu (29) is a small water jar: The panchpátri (30) is a cylindrical water cup with a rim: The jâmb or gyâla (31) is a drinking cup set on a round stand: The rámpátra (32) is a jâmb (31) without a stand: The phulpátra (33) is a cylindrical cup like the panchpátri with a thicker and broader rim. The seven chief vessels for storing and carrying water are: The pótâle (1) and tapele (2) already described: The hânda (34) a short-necked cylindrical pot used both for carrying and storing water: The ghâgar longer-necked and with a more sharply sloping lower part than the hânda; when small the ghâgar is called kalasi: The ghângâl or gângâlaya (36), a copper jar ten to fourteen inches across, and four to nine deep, is used for holding hot bathing water and for steeping clothes: The panchpâtra (37) is a large copper cylinder two to three feet across and three to four feet deep with a rounded rim and two handles; some panchpâtrâs now have a stop-cork at the bottom and an iron stand: The surâi (38) is a globular pot with a long narrow neck used by travellers for carrying water. The fifteen articles used in serving betel or pân suvári are: The tabak (39) a round dish six inches to two feet across, with a rim half an inch to two inches high, the whole embossed with lotus flowers and other designs; it is used
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for keeping the fourteen smaller articles belonging to the set of betelnut dishes: The chauphula (40) is a box with six or eight compartments and three or four legs; each compartment has a separate top or lid shaped like the petal of a lotus or like a mango and sometimes ornamented with a peacock which serves as a handle; all the lids close inwards where a screw shaped like a lotus bud, when turned into the central hole, keeps the lids tightly fastened; the chauphula is used for holding the cardamums, cloves, nutmegs, mace, saffron, and perfumed catechu pills which are eaten with betel: The dabi (41) is a cylindrical box for the slaked lime, catechu, and other spices which are eaten with betel: The ādika (42) is the nut-slitter for slicing the betelnut; it is of three or four different shapes: The pānpūd (43) is a square box for keeping the betel leaves: The tambākuchi dabi (44) or tobacco box, is a cylindrical box with a small hole at the top and a lid moving round an axis, with a similar hole, through which, when the two holes are brought one over the other, tobacco is poured to be chewed with the betel and spices: The chunāl (45) is a box for keeping the slaked lime which is eaten with betel: The pihādāni (46) and the tāst (47) are spitoons: The atar dāni (48) is a small cup fixed in the centre of a little dish for holding the atar or perfumed oil which is served after betel: The gulābdāni (49) or rose-water bottle, is a bottle with a long narrow neck perforated at the end and fixed to the body with a screw, from which rosewater is sprinkled over the guests after the perfumed oil has been served: The mor (50) is a peacock-shaped box: The daba (51) is a square box, and the pānācha gānj (52) is a long cylindrical box with compartments used for holding the ingredients which are eaten with betel: The khal-batta (53) is a small brass mortar and piston for pounding betel for the aged or toothless. The twelve musical instruments are: The bell ghanta (54), either plain or decorated with figures, has a handle either plain or shaped like Mārunī the monkey god, or gurud Vishnu’s winged charger: The jhānj (55) a flat and the tāl (56) a rounded cymbal, both used as an accompaniment by reciters of psalms or ārtis, by hymn-singing beggars, and by sermon-and-song or kirtan preachers: The chāl (57) a row of little bells worn round the ankles by dancing girls: The ghungurs (58) are bigger bells worn round bullocks’ necks and round the waist of some low class begging devotees of Kāli: The chiplyās (59) are two fish-shaped flat bars three to seven inches long and one and half inches broad each furnished with a ring; the ring of the upper bar is passed over the thumb and the ring of the lower bar is passed over the second and third fingers and the performer clashes the bars together by the motion of the thumb and fingers: The kartāl (60) is another pair of metal castanets which are sounded by shaking the hand instead of by moving the fingers: The tāsha (61) or kettle drum is a hollow hemispherical copper pot with a thick rim and a small central hole; which is covered with goat’s skin and beaten with a pair of rattan canes along with the dhol or wooden drum: The theka (62) is a small flowerpot-shaped drum covered with goat’s skin: The khukkhu (63) is a child’s rattle: The karna (64) is the large brass bass trumpet: And the shing (65) is the brass horn. The three
measures are: The ádhóli (66) and the sher (67) copper cylinders used in measuring grain: The pásker (68) is a small globular brass pot used for measuring milk or a cylinder with a small hook-shaped handle for measuring oil. The eight lamps are: The saul (69) and the kandil or lámandiwa (70) both flat saucer-like brass plates with hollows in the lip for wicks; the saul is laid on a high brass stand and the kandil on a shorter stand and has a brass chain by which it is hung from the ceiling or from a door lintel: The diva láwne (71) is of two varieties, a smaller an inch or two inch broad flat-bottomed saucer with a wick-hollow in the lip and a larger with a long flat hook-like handle: The niránjan (72) is a small cup set on a long or a short stand, for burning clarified butter before the gods: The panchérti (73) is a crescent-shaped pot on a stand with five wick-openings which is sometimes fixed in the hand of a female figure: The divi (74) is a hollow conical brass handle in which a roll of oiled rags is fitted and burnt as a torch, being fed with oil from a spouted oil flask; it is much used by the devotees of Káli or Bhaváni: The mashád (75) is a brass cylinder through which a roll of oiled rags is passed and burnt as a torch; the torch has to a great extent given way to the lantern, but is still used by the gentry in native states and it is burnt before Shankáráshárya, the Smárt Pontiff, when he travels during the day time as well as at night: The chimnichá diva (76) is the English lamp with a glass chimney. Twenty-six worship vessels and appliances are made: The abhíshýekápatra (77), a narrow-necked copper or brass pot is, somewhat like the gadva (24) except that its bottom tapers to a point, stands on a tripod with a ring at the top, and has a hole in the bottom through which water drips on the object of worship: The sampusht (78) a hollow cylinder two to six inches across and one to two high is used for washing images: The chauki (79) a low four-footed stool, round, square, or six or eight-cornered, is used as an image stand or as a support for an image stand: The ádú (80) is a stand on which the couch or shankh is placed; it is generally tortoise-shaped, and is about half an inch in diameter: The ghanda (54) is the already described long handled bell: The ekárti or halkárti (81), is a two to four inches long fish-shaped pot for burning camphor before the gods: The panchérti (73) is the already described five-wicked lamp for burning clarified butter before the gods: The dhúpárti (82), a stand with hemispherical top and bottom, is used for burning incense: The niránjan (72) is the already described lamp for burning clarified butter before the gods: The arghya (83) is a narrow cup half an inch to three inches long and a quarter of an inch to an inch broad, with a flat handle and long flat snout from which sacrificial water is poured. The panchpádi (84) is a box with chambers for the various powders, turmeric gútí, abir, and kunkú, with which during the worship the god and the worshipper are from time to time marked: The kamal (85) is a round lotus-shaped plate, sometimes fixed on the back of a metal bull, on which the gods are placed. The támhan (86) is a shallow bath, except for its slightly bulging rim not unlike the tát or dining dish (22) in which images are washed: The simúsvan, literally lion throne, is a
four-footed low stool with plates on two sides and a decorated arched back in front of which the gods are kept: The tabakdi (88) is a small plate an inch or two broad for holding the brow-marking sandalwood paste and red turmeric: The kachole (89), a plate with three oval divisions for keeping the white and red sandalwood pastes and the moistened rice with which the brows of the gods are marked: The sandhechipali (90) is a small ladle-shaped spoon for pouring out the sacrificial water: The váti (23) is the already described small cylindrical brass cup with rounded bottom from half an inch to an inch across in which sugar or naivedya is offered to the gods: The tulsi-vrindávan (91) is the ornamented square pot in which the holy tulsi Ocymum sanctum, the wife of Vishnu is grown: The devhára (92) or god shrine, is a dome with a stand on which the gods are arranged and worshipped: The pujecha-daba (93) or worship box, is a round box with a tapering lid having a hole in the centre in which the gods are placed at night and the lid fastened; while worship is going on the lid is used as a sieve from which water is allowed to drop over the gods: The gangájali (94) is a small gadva (24) or water pot with a lid ornamented with the bust of a woman to represent the Ganges, whose water is kept in it and is worshipped along with the house gods: The ghangaíl pela (95) is a handleless ghangaíl shaped (36) cup in which sugar or naivedya is offered to the gods at the close of the worship: The tabak (39) the divelváne (71) and the diví (74) are also used in worshipping the gods. Twenty leading brass images are made: Ganpati (96), the god of knowledge and lord of the spirits, a fat four-handed man with the head of an elephant; Shankar or Shiv (97), the destroyer who has a trident in his hand and a necklace made of human skulls round his neck, with his wife Párvari and his son Ganpati on his lap. Máruti (98) the monkey god: Rám the deified king of Oudh supposed to be the seventh incarnation of Vishnu, with his wife Sita, his two brothers Bharat and Shatrughna, and his general Máruti (58): Víthoba (100) with his wife Rakhmái, supposed in some places to be Baudhya or Budha the ninth incarnation of Vishnu: Bálkrisna (101) or baby Krishna, the eighth incarnation of Vishnu crawling like a child with a ball of butter in one hand: Murlidhar (102) or the fluting Krishna: Rádha-Krishna (103) or Krishna and his beloved Rádha: Bhaváni Devi (104) or Káli, an eight-handed female figure slaying the buffalo giant Mahishásur: Dattátraya or Trimurti (105), is the Hindu Trinity with three heads and six hands guarded by four dogs which mean the Veds and a cow which means the earth: Khandóba (106) the guardian of the Deccan is shown on horseback: Párvari (107), a seated female figure the wife of Shiv the destroyer is worshipped by the bride when the bridegroom is brought to the marriage bower and is given to the bridegroom who takes it home and puts it with his house gods: Gaurí, the head of a woman is the goddess Bhaváni which is worshipped during the Ganpati festival in August: Sheshasháhi, or Vishnu (109) the protector sleeping on the coils of the thousand-headed snake with his wife Lakshmi shampooing his legs and Garud standing in front with folded hands. Other brass figures cast in Poona are: A cow and a calf (109): A woman (110) holding ud-battis or incense sticks: A Gosávi or religious
beggar (111) holding a fly-whisk or *chawri*; Riddhi and Sidhhi (112) Gampati’s female fly-whisk bearers: The Nandi (113) or Shiv’s bull: A pair of rampant antelopes (114) each holding an *ud-batti* or incense stick: A pair of *gandās* (115) or attendants of Shiv, one blowing a conch shell and the other a horn, to be placed on each side of Shiv. Thirteen articles of peasant jewelry are made: The *chandvakor* (116), the *kotak* (117), and the *phul* (118) for the head; *thussis* (119), *saris* (120), *vajratiks* (121), and *putlis* (122) for the neck; *velas* (123), *gotes* (124), and *bāngdyās* (125) for the arms; *pāllyās* (126) for the wrists; *chhalles* or *sallies* (127) for the fingers; and *todes* (128), *vāles* (128), and *painjans* (129) for the ankles. Five toilet articles are made: The *karanda* (130), a dome-shaped brass box for keeping red turmeric powder *kunku* or *kunkum*: The *menācha karanda*, slightly different from the *karanda* is used for keeping beeswax which women rub on their brows before they put on the red brow mark: The *ārśi* (131) a burnished-brass mirror with a lid, is either round, square, oval, or heart-shaped: The *kairī* (132) a mango-shaped phial for keeping the *dātvan* or tooth-powder1 which strengthens though it blackens the teeth; and is used by lying-in women: The *phani* (133), a brass comb which has now almost entirely given way to ivory and sandal or blackwood combs: The *chankvās* (134), little round studs or spangles applied to the brow below the red mark: The *gandhāchi ābī* (135), a cylindrical brass box with a looking glass fixed to the lid in which high class Hindu men keep the saffron pill which makes the red brow mark or *gandh*. Three articles used in the dining hall for other purposes than eating and drinking are made: The *rangole* or *kanāle* (136), a hollow cylindrical roll pierced with leaves, flowers, animals and other designs in dotted lines; it is filled with powdered calcite or *rāngolī* and passed over parts of the floor which have been marked with red powder; before a dinner the seat of each guest is marked off with these lines, and on great days the *rāngolī* is sprinkled on in front of the door step. The *ud-battichejhād* (137), a tree-shaped brass stand on which incense sticks are burnt; the *jhād* is generally placed near the plate of the bridegroom or other distinguished guest: The *phulījās* (138), circular pieces of brass, shaped like a flower with a hole in the centre which are nailed along the edges of the low Hindu dining stools.

Fifteen miscellaneous brass and copper articles are made: The *charvī* (139), *kusāndī* (140), and *gundī* (141) globular milk pots: The *tavi* (142) an oval brass milk pot: The *bondle* (143) a spoon with a flat handle and a long knob used in giving milk to children: The *vajrī* (144) is a metal plate with roughened surface and a handle used as a foot scraper: The *daut* (145) an ink bottle either round, square, six-sided, or eight-sided: The square or six-sided box (146) containing two ink bottles, one for red and the other for black ink, a sand box, and a square gum bottle is also called *daut*: Abādāgirāchā *kalas* (147) a bud-shaped ornament fixed at the top of the *ābdāgir*

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1 The ingredients of the tooth powder or *dātvan* are: *Harda* and *behada* myrobalane, galls Quercus infectoria, *bebhul* bark Anacida arabic, and copperas or green vitriol.
or state wedding umbrella: The kulup (148) or padlock, the bijágre (149) or hinge, the taráju (150) or scales, the gaj a bar (151) or window rail, the bolat (152) the English bolt, and the kadi (153) a ring-shaped handle. Except the vessels and appliances used in worship the images of the gods and the miscellaneous ware all of these brass articles are made small as toys for children. In addition to these pots eight special toys are made: The khurchi (154) a small chair; the palang (155) a sofa; the patna (156) a cradle; the English couch (158) which has been adopted into Maráti under that name though pronounced more like coach than couch; the mangála a single fire-place (159) and the chul a double fire-place; the table (160); and the bank or bench (161).

The Jingars mostly do the finer kinds of brass work, making false jewelry, gilding clocks, turning metal, casting and polishing gods, making locks, and sharpening swords and knives. The Kunbis, who have lately taken to brass work, are of two classes Ghadmárs or beaters and Otnárs or casters. Of the beaters about five hundred are employed in twenty-five establishments and of the casters about four hundred are employed in twenty establishments. The first outsiders or non-hereditary workers who started a brass beating establishment in Poona were Khandu a Sátára Málí and Abdulla Billa an Ahmadnagar Musalmán. The present workers are all Poona Kunbis. They speak incorrect Maráthi, live in one-storeyed hired quarters, eat coarse food chiefly vegetable food, dress in a cap or coarse Marátha turban, a kercifief bound round the loins, a jacket and sometimes a scarf round the shoulder. They are labourers being paid by the outturn and earning 4½d. to 7½d. (3-5 as.) a day. They seldom suffer from want of work. They work from sunrise to sunset with only rest enough at noon to take a meal. They stop work on the last or no-moon day of each lunar month, on the day after Sankránt in January, for five days at Shimga in March-April, and on the day after an eclipse. They keep these days as days of rest from religious motives not from a love of idleness.

The materials which these Kunbi coppersmiths work up into rough pots are odd pieces of braziers left over by the Támbats in cutting out vessels; the remains of copper sheets punched at the mint or the cartridge factory; and broken pots. These materials on an average cost 5½d. to 7½d. a pound (Rs.7½ -10 the man of 32 lbs.). The material is supplied by the owner of the establishment who is either a Kasár or a Váníya, and sometimes a Kunbi, and more often by a dealer. The Kunbi coppersmith's tools and appliances differ slightly from those used by the Támbats although they sometimes go by the same names. Instead of a flint and Chinaware crucible the Kunbi brass-smith uses iron cups nine inches across and three to four inches deep. An establishment of ten workmen use 100 to 125 iron cups in the year as the cups burn off and break by constant heating. It is said that about every hundred pounds of brass smelted wear out an iron cup (4 cups in 250 shers). Two or three large tongs or sándasis about three feet long and eight to ten pounds in weight each worth 3s. to 4s. (Rs.1½ -2). Four to six bellows a year each worth 3s. to 5s. (Rs.1½ -2½). Circular
wooden moulds or **súchás** with a handle each worth 3s. to 4½s. (2-3 as.). Four to six iron bars, three to five feet long and an inch round, called **salagás**, together worth 2s. to 4s. (Rs.1-2). A large strong anvil fixed in an equally strong **búbhal** block worth £1 to £3 10s. (Rs.10-35). Six strong hammers with wooden handles each worth 2s. to 3s. Four pairs of strong scissiors each worth 2s. to 3s. (Rs.1-1½). Four or four-inch square anvils each worth 4s. to 6s. (Rs.2-3). A second set of twenty to twenty-five hammers or **hathodás** to match the second anvil each worth 6d. to 1s. (4-8 as.). Half a dozen bent bar anvils or **kharvaïs** five to six feet long, two inches square at one end, and four inches square at the other. Unlike the Tábáts the Kunbis have no **khodáva** or triangular wooden stand for their bar anvil, a small block is placed below the bar anvil and the workmen sits on the bar with his legs on either side of it. Four to five hammers to match the bar anvil or **kharvaï** each worth 1s. to 1s. 3d. (8-10 as.). Four to six small anvils two inches by three to four feet long called **paharáï** each worth 2s. to 3s. (Rs.1-1½) which are fixed in small **búbhal** blocks buried in the ground, eight to twelve small hammers to match the **paharáï** anvil together worth 6s. to 12s. (Rs.3-6). A pair of casks four feet high and three feet in diameter for holding tamarind pulp mixed with water each worth 4s. to 6s. (Rs.2-3). A hollow stone or **ukhal** worth 2s. (Re.1). The small pieces of braziers are gathered together and shaped into cylindrical lumps. A few pieces of copper and zinc are also put in the iron cup or tray and a small quantity of borax is added. The iron cup is set in the furnace which is a pit three feet round and two feet deep with the sides raised two feet above the floor. Dried cowdung cakes charcoal and wood are heaped above and around the cup. Two bellows are placed one on each side of the opening in the banked sides and worked till the alloy is melted and the parts thoroughly amalgamated. The cup is then lifted up with the large tongs and the liquid contents poured into a circular hollow struck with a wooden mould on a bed of clay. When solidified the rounded cakes of brass are taken to the large anvil or **bhadá** when one man holds the cake firmly with pincers while five or six labourers hammer it in orderly succession. When it is beaten to a given thinness the cake is put aside and another cake hammered in the same way. The cakes are afterwards taken in heaps of ten or fifteen and again hammered. When thin enough they are cut by scissors into circular pieces of the required size and taken to the second anvil and the hollow stone or **ukhal** to be shaped, and are passed from hand to hand and from anvil to anvil till they are completed. Each pot is shaped in two separate pieces an upper and a lower. When the two parts are ready they are dovetailed and beaten together at the joining. They are then again taken to the furnace and a composition of brass dust and borax is thrown over the joint, the pot is heated, and the joint is once more hammered. The next process is polishing. To polish them, a number of pots are steeped two to four days in a solution of tamarind pulp, rubbed with powdered charcoal and bricks, and hammered again till the whole surface is covered with hammer marks.
Poona brass making originally came from Ahmadnagar, all of whose coppersmiths have now moved to Poona. Pen and Revdanda in Kolaba, which used to make considerable quantities of brassware, are almost entirely without work; Chándor is declining, and though the practice of pilgrims bringing away Nasik brassware will probably serve to keep up the demand at least for the higher class of articles made at Nasik, unless they change their system, the whole of the Nasik trade in ordinary cooking and drinking vessels will pass to Poona. The Poona coppersmiths are able to undersell their rivals by adopting the union of combination among the workers and separation among the articles made which is the secret of cheap production. The cooking and water vessels made are all of one size and of one shape. And in making it each vessel is passed through a succession of groups of workmen whose whole attention is given to performing one stage of the work quickly and thoroughly.

Silk weaving in Poona city is at present (1883) flourishing, and to a great extent has eclipsed the silk weaving of Yeola in Nasik. Of 700 to 800 looms, nearly two-thirds are owned by Momin and Juláha Musalmáns who have settled at Mominpura in the Juna-Ganj ward. The Hindu silk workers are found in Káchi-áli and near Someshwar. The Musalmán silk workers belong to two sections, Momin’s proper and Julkhás, and the Hindu workers to three sections, Khatris, Koshtis and Sális. According to their own account most of the Musalmáns came about three generations ago from Haidarabad, Dhárwá, Naráyan Peth, and Gulmatkál in the Nizám’s country, and the Hindu workers, according to their own account, came from Paithan and Yeola three or four generations ago. As a class both Musalmáns and Hindus are mild, hardworking, and sober, the Hindus being harderworking and thriftier than the Musalmáns. The home speech of the Musalmáns is Hindustání and of the Hindus Maráthi. Many live in their own houses and the rest in hired quarters. The Hindus, though they eat mutton and fish on holidays, generally live on vegetable food; the Musalmáns use animal food almost daily. Both Hindus and Musalmáns wear a three-cornered turban, but the Musalmán turban differs slightly in shape from the Marátha turban. Both classes wear long white coats reaching the knees. Round their loins the Hindus wear the dhoti or waistcloth, and the Musalmáns wear trousers. The demand for Poona silk is growing and the workers are well-to-do. Their busiest season is the Hindu marriage time between November and May. The Musalmán workers rest from the 5th to the 15th of Muharram, on the Ramsán and Bakar-ids, and on Sábán and Waftán. Hindu silk workers rest on the monthly no-moon day, on the day after the winter Sankránt which is called Kar in January, for two or three days during the Shima holidays in March-April, during two days at Diváti in October-November, and on the day after all eclipses. Poona silk weavers work from seven to ten in the morning and from one to sunset. Their women and their children over ten help the men in sorting, reeling, and sizing. Since the 1876-77 famine, about twenty Kámáthi Koshti families have come from Naráyan-Peth in the Nizám’s country and settled at Poona. They own about 100
silk looms and are hardworking and more successful than either the Musalmán Khatris or the local Koshtis. The only silk used is China silk. It is of four varieties duem or second quality, sim or third quality, lankin a variety of the second quality, and sheval or sial. All of it comes to Poona from Bombay as personal luggage. The duem is bought at 16s. 6d. a pound (Rs. 16½ a sher), the sim at 16s. a pound (Rs. 16 a sher), the lankin at 15s. 6d. a pound (Rs. 15½ a sher), and the sheval or sial at 13s. 6d. to 14s. a pound (Rs. 13½ to Rs. 14 a sher). The Poona silk weavers either borrow money from Shimpi and Márwár Váni silk dealers and buy silk yarn and gold thread, or they work as labourers receiving the materials from Shimpi and Márwár Váni dealers and being paid by the piece. When money is advanced the silk dealers do not charge interest but get ¼ per cent on the sale proceeds of the fabrics.

Five tools and appliances are used in a Poona silk worker's or rahátkari's, literally wheelman's, factory. These are three large cages called phálkás and one small cage called phálki, each worth 3d. to 6d. (2-¼ as.); and fifteen or sixteen reels or asáris each worth 3d. to 6d. (2-¼ as.);¹ a small wheel for winding the silk from the reels to the bobbins worth 6s. (Rs. 3); about 500 bobbins or garolíis together worth about 7½d. (5 as.); and the large throwing machine or rahát worth about £3 6s. (Rs. 33) including £2 10s. (Rs. 25) for the big driving wheels, 8s. (Rs. 4) for the upright wooden frame or tát on whose pegs the bobbins turn, and 8s. (Rs. 4) for the drum or dhol round which the twisted thread from each bobbin is rolled. To start a silk reeling and throwing establishment requires £3 to £4 (Rs. 30 - 40). On getting to Poona, the raw silk is made over to the reeler or rahátkari under whose care it is reeled, sorted, and twisted. It next goes to the dyer or rangári to be coloured, and when received from him is sent to the weaver or mágvála by whom it is warped, siezed, and woven. At the reeler's or rahátkari's the first thing done is sorting the silk. To sort it the silk is thrown round a three feet bamboo cage or phálka, with a central handle about two feet long. In front of this cage the sorter, who is generally a woman, sits, and, fastening the end of the hank to a reel or asári, fixes the central rod of the cage against her left foot, and sets it spinning rapidly by twisting the end of the rod between two of her toes. The quality of the fibres in the skein is uneven, varying through five or six gradations. It is the sorter's chief duty to watch these gradations and to wind all of each variety round a separate reel. With this object, before she begins to wind, she gathers near her five or six reels or asáris. On finding the end of the skein she knots it to one of the reels, and placing the cage against her left foot, spins it round between two of her toes. The

¹ To make a reel or asári, a piece of stick is passed through a hollow reed and fixed in the cleft end of a piece of bamboo.
² The throwing machine or rahát is in three parts. In the centre is the bobbin frame or tát with a central and two side uprights, on one side of the tát is the large wheel or rahát, six to eight feet in diameter, which gives its name to the machine, and in front of the tát, supported by two uprights, is the frame or dhol about two feet in diameter and six to eight feet in length.
fibre passes through her fingers, and as soon as its quality changes, she breaks the silk, picks up a second reel, knots the end to it, and winds till the quality of the silk again changes, when either a third reel or the first reel is taken up. If the new quality is the same as that on the first reel the sorter puts the ends of the silk into her mouth and knots them with her tongue with great neatness and speed. In this way even a young worker, without hitch or mistake, will sort a hank over five or six reels.

The sorted silk is ready for twisting. To twist it, with the help of a small wheel, the silk is wound from the reels on hollow reed bobbins or garolis. These bobbins are then arranged on the throwing machine or tát, and, by means of a wheel and axle, the fibres of each bobbin are twisted together and guided through a glass or metal ring round the drum or dhol, and then reeled on the smaller cage or phālki. This two-thread or dontár yarn is used in making some fabrics, but most of the yarn is again wound on a reel and from the reel to the bobbins, and a second time put through the throwing machine so as to make the regular or chārtár that is four-thread yarn. The rahātkari or wheel man, who takes his name from the large wheel that drives the throwing machine, has now completed his work. Silk yarn is called sheria. In sorting and twisting it the raw silk loses about eleven and a quarter per cent in weight. To make good this loss a corresponding deduction is made in the standard weight, that is, the sher for weighing silk when handed over to the worker is reduced in weight by eleven and a quarter per cent, and is still called a sher for weighing the sheria or twisted silk. The rahātkari receives 15d. to 16d. (10-10\% as.) for each pound of silk that passes through his hands. His monthly income is said to range from 8s. to 10s. (Rs. 4-5). When the rahātkari employs labourers he pays them 8s. to 10s. (Rs. 4-5) a month.

After the silk is twisted it is bleached and dyed. In bleaching it the raw silk is steeped in a boiling solution of country soap, or in an alkaline ley called ukhār prepared by boiling together slaked lime and pāpadkhār or impure carbonate of soda. While steeping in the boiling liquid the silk has to be carefully watched as it spoils if kept in it too long. All the Poona silk dyers are Hindus, whose forefathers are said to have come from Paithan about four generations ago. To compete with foreign silks they have given up their old processes and taken to the use of aniline dyes. The ease and speed with which aniline dyes can be used more than make up for their fleetingness. These cheap dyes, together with the inferior silk used, give the silks of Poona a great advantage in competition with the high class fabrics made in Yeola. A silk dyer is said to make 12s. to 14s. (Rs. 6-7) a month. On leaving the dyer, silk goes to the weaver or māgāla who performs three processes, sizing warping and weaving. For a silk weaver's establishment twelve appliances are wanted. They are; to prepare the warp the tansāla or uprights with rings worth 16s. to 18s. (Rs. 8-9); 200 reed bobbins or tikhadis for winding the weft together worth about 1s. (8 as.); a small wheel or rahāt worth 6s. to 8s. (Rs. 3-4); a large cage or phālka worth 6d. (4 as.), and five.
small reels or asáris each worth 15d. (10 as.). For the loom a
cloth beam or turai worth 3s. (Rs. 1\(\frac{1}{2}\)); the reed frame or shuttle-
beam called hátýa, used as a batten or lay, worth 7s. to 8s. (Rs. 3\(\frac{1}{2}\) - 4); 
the treddles and heddles worth 10s. to 12s. (Rs. 5-6); sándhis or
kaichís, rods laid flat between the threads of the warp to keep them
from entangling, worth 1s. to 18d. (8-12 as.); the warp beam or
átá worth 2s. to 3s. (Rs. 1-1\(\frac{1}{2}\)); three shuttles worth 1s. to 18d.
(8-12 as.); and a piece of polished agate or mogri, used to rub the
gold borders, worth 6s. to £2 (Rs. 3-20).

Silk is sized indoors, the warp silk in a different way from the weft
silk. The warp silk is sized on the tundsila, a pair of upright wooden
bars about eight feet high, with a row of glass or metal rings fixed to
each bar through which the yarn is passed, drawn tight, and stiffened
by brushing it to a dressing of size. In sizing the weft, the silk is
placed on a cage wound on reels, and while on the reel it is moistened
with size. The sizer, who in the case of the weft yarn is always a woman,
sits with the reel on her left side, and, on her right, a small wheel, to
whose axle is firmly fitted a piece of reed bobbin called tikhadí. She
picks the end of the hand from the reel, fixes it to the bobbin, and
by working the wheel with her right hand makes the bobbin spin
quickly round winding the silk round itself. As the wheel turns,
the worker damps the yarn on the reel with size, and passes the
thread through her left fingers so that the size is evenly spread
over the whole line. The warp is next made ready. Warping
includes three processes, heddle-filling, joining, and arranging. The
heddle-filler, according to the pattern of the borders, passes threads
through the loops in the cords of the different heddles and between
the teeth of the reed or phani. When this has been done, the
joiner or sándhnár, connects the ends of the warp threads with the
heddles, by tying the corresponding threads of the warp to those
passed through the heddles and reed by the heddle-filler. The
threads are finally arranged, through the whole length of the warp,
in accordance with the position the joiner has given them. The
silk loom is three to four and a half feet broad and eight to fifteen
feet long. At one end sits the weaver with his feet in a large pit,
and immediately in front of him is the square cloth beam or turai
which supports the warp and round which as it is woven, the fibre
is rolled. In the weaver's pit are two or four treddles or foot boards,
by working which the weaver raises and lowers the warp threads.
The two or four treddles are joined by strings with the heddles,
two or four frames which hang from the roof across the threads
of the warp each with a set of threads, the set of threads of the one
heddle holding in their loops the lower, and the set of threads in
the other heddle holding in their loops the upper threads of the warp.
As the treddles are worked the heddles move the threads of the
warp in turn up and down, while, between each movement, the
shuttle loaded with the weft yarn is passed across the warp. In
front of the heddles and like them hung from the roof, is the reed
or phani, between whose thin slips of bamboo the warp threads
have been passed. The reed is set in a heavy frame, the shuttle
beam, which the weaver works to force home the threads of the weft
after the shuttle has passed. Behind the heddles horizontal rods.
are thrust between the upper and lower threads of the warp to keep them from entangling, and ten or twelve feet further, is the warping beam or ata, on which the warp is wound. This beam, about four feet long and two inches round, is fastened in the middle to a rope, which is kept tight by being passed round a post or pulley and fastened close to the weaver's side to a peg or to one of the uprights which support the cloth-beam. The weaver from time to time loosens the rope as the cloth is wound round the cloth beam. To weave silk with gold borders, besides the usual large heddles, two sets of smaller heddles are used. The first or large set of heddles governs the motion of the whole of the warp. The second set of four heddles controls the gold thread in the border, and the third, which consists of three heddles, controls certain gold threads which form a tooth or saw-shaped edging to the inner side of the border. The border-edging or third set of heddles are not connected with any treddles. They are simply worked by the weaver's hand and kept in their place by small sand bags hung as a balance. After two movements of the first or main heddles, the second or border heddles are put in motion by the weaver pressing the left treddle. The set of the three rods that support the edging heddles, is lifted by the weaver's hand, and, at every movement of the first or main heddles, one of the rods which support the edging heddles is lowered. When all three are lowered, they are again raised by the hand and again pressed down one after the other. In the Kamáthi's loom even the heddles of the second set which control the gold border threads have no treddles. These heddles are supported by small bags the workmen lifting all of them, and pressing them one after the other, in the way the Sáli or Momin weaver moves his third or tooth edging set of heddles. When any silk design is to be worked into the body of the fabric the Kamáthi weaver takes a greater number of the large heddles and interposses them between the first or main set and the second or border set. The number of these extra heddles depends on the design. Like the second or border set of heddles they are supported by sand bags and moved up and down by the weaver’s hand. The loom for weaving brocade, that is a silk fabric with gold flowers or other ornament woven into the body of the web, is very elaborate, the arrangement of heddles being very intricate and the work of weaving very tedious. The brocade loom, in addition to the three sets of heddles used in weaving a bordered silk fabric, namely the main heddles, the border heddles, and the heddles for the border edging, has a fourth set of heddles, for the ornament that is woven in the body of the web. The first or main set of heddles consisting of two heddles and two treddles comes close on the other side of the reed or phani. Then comes the second set of four heddles for the border. These border heddles are supported and balanced by bags of sand and for the heddle frames iron rods are used instead of the wooden rods used in the Sáli's loom. This set of heddles controls the gold thread in the border and is worked by the weaver’s hand. Then follows the third or border-edging-heddles which are also fastened to iron rods supported by sand bags and are worked by the weaver’s hand. Behind, that is further from the weaver than the edging
heddles, are the brocade heddles. These are a fringe of loops of white
thread which are passed round fibres in the web and rise about six
inches above it. The tops of the loops are fastened to a belt of
white cords, which, according to the pattern, vary from twenty to
forty. These cords are closely strung at each end to a wooden bar
about a foot and a half long which are fastened in a position level
with the web to two upright poles at the sides. From the middle
of this belt of cords, or the heddle back, rises above the centre of
the web a bunch of white strings one for each heddle which are held
upright by being fastened to a piece of cane which hangs from a
cross bar. On the weaver's right of the bunch of upright strings
a cord slants from the upright threads or nakshās to a cord that
passes from side to side, a few inches above the belt of cords or
heddle back. On this slanting string are strung a number of loose
knotted loops or pagiās which are fastened to the upright threads.
These loops are most difficult to arrange only one or two of the
cleverest workers being able to prepare them. When a brocaded
figure begins to be woven the weaver draws certain of the loose
loops or pagiās down the slanting string, and, by drawing the loops
down, draws up some of the upright threads or nakshās, which in turn
raise the cords of the cord belt to which they are fastened, and again
the movement of the cords raises the loops which hang from the
cords and with the loops raises certain of the fibres of the web. To
keep the belt cords raised the weaver inserts between them and
the remaining cords of the belt two wooden wedge-shaped hooks
which hang from the roof each about eighteen inches to the side of
the central threads or nakshās. After the required set of fibres has
been raised from the rest of the web, with the help of one or two
boys, the weaver arranges across the breadth of the web a number
of bobbins full of gold thread. The number of bobbins depends on the
number of flowers in the breadth of the web. Then the weaver and
the boys, at each of the brocade flowers, pass the bobbin of gold
threads under the threads of the warps which have been raised above
the rest. The wooden hooks are then drawn out and the brocade
treddles are allowed to fall to the general level. The main and border
heddles are then worked and one fibre of weft is added to the fabric.
Then again certain of the brocade pattern loops are drawn down and
certain cords in the brocade treddle drawn up and kept up by the
wedge-shaped hook. Then under each of the raised fibres in the
brocade pattern gold thread is passed, and then again the main and
border heddles are worked and a second fibre added to the weft.
Brocade weaving is very slow, a man and two boys in a day of nine
hours weave only about nine inches of fabric or about one-third of the
amount of plain silk which one man can weave. While the brocade
heddles are being worked, the first or main heddles are slackened
by unfastening them from an iron hook with which they are
connected while in motion. When labourers are employed as weavers
they are paid 1s. to 2s. 6d. (Rs. ½ - 1¼) a yard of the fabric woven,
which work he performs in a day. The owners of the looms state
that their monthly earning average £1 10s. to £2 10s. (Rs. 15 - 25).
Pitāmbara and paitūnās that is men's and women's robes are the
only articles woven. Khans or bodice pieces are cut out of
the robes. Unlike the Yeola women's silks the Poona silks are sometimes brocaded as well as gold bordered. When ready for sale the silks are taken to the local dealers and sold by the weavers on their own account, or, in rare cases when they are made for a dealer, are taken and paid for by him. The dealers sell them locally or send them to Bombay, Pandharpur, Satara, Sholapur, and other trade centres. The demand, especially for the lighter and cheaper varieties, is steadily on the increase. The value of the yearly outturn of silks in Poona is said to average about £25,000 (Rs. 2,50,000).

Gold and silver thread making is a prosperous industry in Poona city. It is a long established craft, when or by whom started is not known. The forefathers of the present workers are said to have come from the Nizam's country and the fact that their family deity is Bhavani of Tuljapur in the Nizam's country to some extent supports this belief. Most of them are settled in the Shukравār and Adityār wards of Poona city. Gold and silver thread making supports about 250 families or 800 people. Lād-Sonārs, Kokni-Sonārs, Khāndesh-Sonārs, Ader-Sonārs and Vaishya-Sonārs, Lāds proper, Marāthās, and Pardeshis. About twenty-five families are Pāvtekaris or bar-makers, seventy-eight are Tārkasās or thread-drawers, and seventy to eighty families are Chāpadyās or wire-beaters. There are also about 200 Valnārs or thread-twisters mostly women. All the Pāvtekaris or barmakers are Sonārs. Of the thread makers or Tārkasās, the thread-beaters or Chāpadyās and the thread-twisters or Valnārs most are Lāds. The name Lād seems to point to a South Gujarāt origin. But according to their own accounts they came to Poona from Aurangabad, Paithan, and Karanje in the Nizam's country. The Lāds say their forefathers worshipped Pārasnāth and Bālājī and afterwards, they do not know how long ago, they forsook the Jāṁ faith for the worship of the goddess of Tuljapur. The rest are Kunbis and other classes, including a few Deshasth Brāhmans, who took to thread making because it was flourishing. They are a contented and hardworking class. The Pardeshis speak Hindustāni at home and the rest Marāthi. They live generally in one-storied houses, some their own, others hired. The Lāds, Pardeshis, and Brāhmans live solely on vegetables, the rest may eat flesh. All except the Brāhmans are allowed to drink liquor but all are moderate in its use. The different divisions of workers dress like other men of their own caste, the Brāhmans in the broad flat-rimmed Brāhman turban; the Marāthās in a three-cornered turban; and the Pardeshis in a cap. The shape of coat also differs slightly.

As a class they are well-to-do. Their busy time is the Hindu marriage season between November and May. Their rest days are the monthly no-moon days or anāvāsyās, the day after the mid-winter Sukraṁ or tropic in January, five days at Shinga or Holi in March-April, two days at Divālī in October-November, and the day after every eclipse. The day after Nāgpančhmi in August which is called Shirāshet's Day, is kept as a holiday and called Kar. Except in twisting, gold and silver thread makers get no help from their women nor from their children till they are over twelve. Most
of the gold and silver used in making the thread is brought to Poona by Márwár Váni and Shimpi dealers who buy it in Bombay either from European firms or from Márwár Vánis near Khára-
Kuva in Mumbádevi ward. The metal must be perfectly pure Shambharnambri that is 100 per cent. Even the best metal, according to the thread makers, in the beating and purifying through which it has to pass, before it is fit for their work, loses a twelfth. When ready for use the gold is worth £2 4s. to £2 6s. (Rs. 22-23) a tola. Besides imported gold, during the last thirty-five years, a certain quantity has been produced locally by extracting with nitric acid the gold from left off gold-embroidered cloth. This has been practiced successfully with silver as well as with gold tissue. The metal obtained from embroidery is called gotáchi or ball-shaped. The man who started the idea was a Gujarát Váni whose family made a fortune and gave up the industry. At present (1883) three rich Bohorás follow this craft. Four kinds of silver are used pátáchi or bar silver which comes from Europe and pátáchi which comes from China, gávthi or local, and gotáchi or ball-shaped made in Poona from silver embroidery. Local or gávthi silver is already mixed with a small proportion of alloy and is used without any change. Pure English silver has to be mixed either with ten to fifteen-fortieths of ball silver or local silver or with three-fortieths of copper. The silver is brought in ingots or balls and handed to the bar-maker or pátokari who is also the gilder. A bar-maker uses twenty tools: Crucibles or mushis of which each establishment has about ten, together worth about 8s. (Rs. 4); a clay fire-trough or shegdi costing 1½d. to 3d. (1-2 as.), an iron sieve or jhára two to three inches in diameter with an iron handle costing 1½d. (1 a.); three anvils or aírans, one worth £2 14s. (Rs. 27), a second worth £2 8s. (Rs. 24), and a third worth 14s. (Rs. 7); three hammers or hatódás together worth about 4s. (Rs. 2); one iron bars or otani hollowed on one side to serve as a mould worth about 8s. (Rs. 4); tongas or chimás worth 6d. (4 as.); a stone water trough or kundí for cooling the heated bar worth 6d. (4 as.); a pair of bellows or bhútá worth 4s. (Rs. 2); a pair of files or kánas worth 1s. (8 as.); a winch or lod always of bábhul wood worth 14s. (7 as.); about fifteen draw plates or jantars each said to be worth 10s. to £5 (Rs. 5-50); three nippers or vákhas costing 4s. (Rs. 2), 2s. (Rs. 1), and 1s. (8 as.); a chain or sákhalí worth 2s. 6d. (Rs. 1½); two scales with weights káta and vajan worth £1 to £1 10s. (Rs. 10-15); two nails or bhárus for cleaning draw-plate holes worth 3d. (2 as.); a pair of iron pincers or karlis worth 6d. (4 as.); two small cages or phálkis for winding the wire together worth 1s. (8 as.); and a pair of smaller reels or asárí each worth 6d. (4 as.). Under the bar maker’s hands the metal passes through two main processes. The gold is purified by boiling it with lime juice in a pipkin and is then heated several times and beaten into gold foil. The silver is melted in a crucible, poured into a mould, and hammered into a short rough bar fifteen to eighteen inches long and one and a half round. It is then worked into a more perfect shape and the surface roughened with a file. Next gold foil is carefully wound round the silver bar so as to completely
cover it. The bar is wetted and rolled by the workman up and down his thigh till the gold foil clings to the silver. Then a thick soft coir is wound tightly round the bar and it is laid, with the edges of the gold foil underneath, in the clay trough filled with lighted charcoal which is fanned into a white heat. It is next drawn out and hammered on a highly polished four inch steel anvil. Under this heating and hammering which is repeated three times, the bar gradually lengthens but without disturbing the surface of the gold or exposing the silver which never again shows into however fine thread the metal may be drawn. The gilding is completed when the ingot has been beaten eighteen inches long. After the gilding the bar-maker or pántekari turns the bar into wire by dragging it time after time through gradually smaller holes in the drawplate. For this the bar is again heated and pointed. The point is pushed through the largest hole in the drawplate which is set against two wooden uprights fixed in the ground. When it shows through the drawplate the point is caught in a pair of strong pincers whose handles are joined by a chain and ring to one of the spokes of a winch. This winch has a drum, a foot in diameter and three feet long, fixed inside sockets. At right angles to the drum it has three arms, each two and a half feet long, which work in a hole, about six feet by three, and three deep. When the end of the bar is firmly grasped by the pincers, a workman, laying all his weight on one of the arms of the winch, draws it down and drags the point of the bar through the hole in the drawplate. As it passes through the drawplates both the bar and the hole of the plate are smeared with a composition of beeswax and other substances. When the bar has been drawn through the plate, the point is again hammered, and, in the same way, is dragged through a smaller hole. This dragging is repeated about twenty times. The bar, which has now become a wire about six yards long for each tola of metal, is cut into lengths of fifty yards and made over to the thread-maker or tárkas. The pántekaris or bar-makers for their bar-making and wire-drawing are paid 4s. (Rs. 2) for every pasera or one pound (40 tólds) silver bar. Of the 4s. (Rs. 2) 1s. (8 as.) is paid to two labourers at 6d. (4 as.) a pásra or one pound silver bar, 6d. (4 as.) goes in coal, and 2s. 6d. (Rs. 1½) are left as the bar maker's earnings for two days. Allowing for breaks in the work and for holidays the bar maker's average monthly income varies from £1 4s. to £1 14s. (Rs. 12-17).

From the bar maker the wire goes to the thread maker the tanaya or tárkas who uses fourteen tools. These are: The palda, a wooden drum-shaped reel worth 4s. (Rs. 2); the paldi a smaller drum also made of wood worth 1s. (8 as.); the khôdsá a stool on which the drums are fixed worth 2s. 6d. (Rs. 1½); a dozen drawplates or jantars varying in value from 1s. to 10s. (Rs. ½-5); the tésni a small sharp pointed hammer used for stopping old drawplate holes worth 6d. (4 as.); a small anvil or airán worth 3d. (2 as.); a pair of pincers or sándí worth 4½d. (3 as.); a file or kánas worth 9d. (6 as.); a small hammer or hátdáda worth 6d. (4 as.); a nail or chaurasi for enlarging the drawplate holes worth 6d. (4 as.); a sharpening stone or kálipathri worth 3d. (2 as.); a crank or mákoda to turn the drums worth 1½d.
(1 a.); a reel axis or *bhongli* worth 1½d. (1 a.); and a small bobbin or *chakkar*. To draw the wire into a thread the *palda* that is the larger reel or drum seven or eight inches in diameter, and the smaller three inch reel or *palðí* are supported horizontally on two upright pivots about twenty inches apart. Between the big drum and the little drum a small drawplate is fixed to two upright iron rods. This small drawplate is a piece of an old sword blade pierced with holes of different sizes. The wire is wound round the small reel or *palðí* and its point is sharpened by two bits of China, till it is fine enough to pass through the largest of the drawplate holes. When it shows on the other side of the plate, the point of the wire is caught in small pincers and pulled through. The end of the wire is then fixed on the larger reel or *palda* which is turned by a metal handle, and drags the wire through the hole, then the whole is wound off the small reel. The wire is then wound back on the small reel, and drawn through the next largest hole. This drawing and winding is repeated till the wire has been drawn to the required fineness. To draw a *tola* of metal 250 yards, the wire has to pass through at least sixty holes. Elaborate as this is so great is the workman's skill and delicacy, that he is said to be able to make 900 yards of thread from one *tola* of metal. A thread maker *tanaya* or *lärkas* is paid £2 10s. (Rs. 25) for every 100 *tolás* of metal he draws. His average monthly income ranges from £2 to £2 10s. (Rs. 20 - 25). Some of the thread makers employ lads as apprentices, who at first work for nothing and are then paid 2s. to 12s. (Rs. 1 - 6) a month, according to their work. The thread is now handed to the flattener or *chåpadya* who uses seven tools. The *måstipati* a small board about a foot square, with ten upright nails to serve as bobbin axles; the anvil or *airan* about two inches square and the hammer or *håtoda* two inches square kept highly polished by emery, together worth about 10s. (Rs. 5); hones or *opanis* of lac and emery powder worth £2 to £7 (Rs. 10 - 70)¹; the *khodsa*, a buried block of *båbhul* wood, on which the anvil is fixed worth 4s. (Rs. 2); the *chippa* a piece of leather with small slits for the thread to pass through; the *ghodi* or *ranakhåme* a hook fixed in the ground to guide the flattened thread, worth 6d. (4 as.); and the *asåri* a small reel, worth 3d. (2 as.). In flattening the thread, ten full bobbins are set on the *måsepati* or board, and the threads are gathered together and passed through the slits of a piece of leather or *chippa* which is placed in front of the stand and drawn across a highly polished steel anvil, fixed in a block of *båbhul* wood very little raised above the level of the ground. In flattening the thread the workman firmly grasps his hammer handle between the thumb and the forefinger, and, with his left hand, draws the threads over the polished steel, and begins to beat. The threads are passed steadily over the anvil and the hammer strokes fall at the rate of sixty to a hundred in the minute, and with such regularity that no particle of the thread is left unbeaten. As they are flattened the threads are drawn away by the flattener's left hand, and

¹The workers say pearls and coral are mixed with the emery but this is doubtful.
when stretched to arm's length, are caught under some conveniently curved article such as a broken cup handle or a brass hook fixed in the ground, and a fresh grip is taken close to the anvil. When all the threads have been flattened, they are carefully separated, wound round a reel and sent to the twister or valnár. The thread flattener or chápadya is paid £1 10s. to £2 (Rs. 15-20) for beating 100 tołás of thread. If during the busy season he employs a labourer he pays him £1 8s. to £1 16s. (Rs. 14-18) the 100 tołás. The twister or valnár, who is generally a woman, is the last of the work people through whose hands the thread passes. She uses three tools. A hook or bangle called ákada of a nominal value; two spindles or chátis worth 1½d. to 6d. (1-4 as.), sometimes made by fixing a round piece of broken China to a nail; and a wooden cylinder or gañ with nails fixed at given distances worth 6d. (4 as.). Contrary to the practice in the other branches of gold-thread making the twister or valnár has to provide part of the material she works up. What she has to buy is the silk-thread which is twisted with the flattened gold-thread. The silk used in making gold-thread is twisted and dyed by a distinct set of workers called dhureválsa, of whom there are twenty to twenty-five establishments at Poona, including sixty to eighty workers. They are either Maráthás from Paithan and Bürhánpur or they are Pardeshis from Delhi and Agra. They are believed to have come to Poona three to four generations ago. They speak Maráthi or Hindustání and live in one-storeyed houses of which five per cent are their own and the rest are hired. They generally live on vegetable food though they are allowed to eat mutton and fish and to drink liquor. They dress in a three-cornered turban, a long coat reaching to the knees, a scarf round the loins, and a second scarf round the shoulders. As a class they are fairly off. Their busy season, working hours, and holidays are the same as those of the bar makers and others employed in making gold thread. They use silk of three kinds, sim, lankin, and bának. All are brought from Bombay, at and about 1s. to 10d. the ounce (5-6 tołás the rupee). The silk is the property not of the thread-makers but of Márwár and Shimpi dealers who pay them by the outturn. A dhurevála or twister and dyer of the silk which is used in making gold and silver thread wants three tools for the twisting and no tools for the dyeing. The appliances for twisting the silk include half a dozen bamboo cages or phálkás each worth 3d. to 6d. (2-4 as.); about thirty small reels or asáris each worth 3d. to 6d. (2-4 as.); and two or three spindles each worth 1½d. to 3d. (1-2 as.). The silk twister places a skein of silk on each of five different cages or phálkás, and from them winds the silk on fifteen different reels or asáris. These fifteen reels are then arranged in a semicircle all facing the same way. The twister draws a thread from each reel, and sitting facing the point of the reels, fastens the threads to a spindle, and rolling the spindle sharply along his thigh, twists a yard or so, winds the twisted thread round the bar of the spindle, gives the spindle another smart roll along his thigh, and twists another yard of thread. The silk is sometimes twisted out of doors. In out of doors twisting, two couples of uprights are driven into the ground,
Chapter VI.
Crafts.

GOLD AND SILVER THREAD.

the couples twenty-five to thirty feet apart, and the uprights in each couple four to six feet high and ten feet apart. A horizontal bamboo is fastened across between each pair of uprights and on the upper side of each of the bamboos pairs of pegs are fastened close together at the bamboo and gradually separating in a V shape. In out of door silk twisting the fifteen fibres from the fifteen reels pass through the hollow at the foot of the V. When the silk twister is as much as twenty-five to thirty feet from the reels he can twist a much longer piece of thread at a time that he can twist when he stands close to the reels. The twister is paid 1½ d. (1 a.) for each lad of silk twist that is equal to 7½ d. an ounce (8 tola the rupee). When the gold thread twister or valnâr gets a supply of the proper twisted silk he winds it off the reel on to a spindle. One end of the silk thread is then passed through a bangle or steel ring fastened to the ceiling of her house, drawn down, and tied to a second spindle. The flattened gold thread is then unwound from the reel or asârî and dropped in a loose heap on the ground near the twister. The twister sits on a high stool or chair, and, fastening the ends of the gold and the silk thread together, rolls the spindle sharply along her thigh and gives it so rapid a whirl that it twists together two or three feet of the gold thread and the silk always keeping the gold on the surface. When the spindle stops the workman winds the finished gold thread round the rod of the spindle, draws down a fresh yard or two of the silk thread, and gives the spindle another whirl by sharply rolling it again along her thigh. The drawing down the silk, whirling the spindle, and twisting together the gold and the silk are repeated till the whole quantity is completed.

The finished gold thread is then wound into banks and skeins by passing it round two nails fixed to a rod or gaj. The valnâr or twister is paid 1 s. an ounce (5 tola the rupee). Poona gold thread is chiefly used locally in ornamenting turban ends and the borders and fringes of robes and dining clothes.

COTTON GOODS.

Cotton weaving is carried on in thirty-seven towns in the district; Jasvad, Kavtha, Pâbal, Bârâmati, Indâpur, Pimpalvâdi, Junnar, and Utrur, are known for tugdis or woman’s robes; Bârâmati, Kavtha, and Jasvad for silk-bordered dhottis or men’s waistcloths, and uparnis or silk-bordered shouldercloths; and Indâpur, Palasdev, Lasurna, Nimbgavketki, and Kalas are known for khâdi or coarse cloth. Of these the only important centre of cotton cloth hand-loom weaving is Poona city. Poona city has 400 to 500 cotton hand-looms, of which about 450 belong to Hindus, 300 of them Koshtis and 150 Sâlis, and the remaining fifty Musalmâns. Most Hindus weave women’s robes or sâdis and most Musalmâns weave turbans. Cotton hand-loom weavers are chiefly found in the Somvâr, Vêtâl, Bhavâni, Râste, and Shukravâr wards. Besides in these wards one or two cotton looms are found in almost every part of the city. Except two families who have come from Madras, the Hindu weavers are said to have come about three generations ago from Paithan, Yeola, Sholâpur, Indâpur, and Narâyân Peth in the Nizâm’s country. The Musalmân weavers came to Poona only four or five years ago from Málegaon in Nâsik where they
form a large colony.¹ Except the two Madras families, whose home speech is Telugu, the Hindu weavers of cotton goods speak Maráthi, and the Musulmán weavers speak Hindustáni. All live in one or two-storeyed houses, fifteen to twenty of which belong to the occupants, and the rest are hired. The Hindus eat flesh and drink liquor and are a temperate class. The Musulmáns seldom eat flesh except on holidays. Many of them drink liquor but seldom to excess. Those Hindu weavers who belong to the Koshti and Sálí castes wear either the Deccan Bráhman or the three-cornered Maráthi turban, a jacket, a long coat, a scarf round the loins and another over the shoulders. The Musulmáns wear a cap except a few who have taken to the Maráthi turban, a jacket, a long coat, and trousers. The robes woven by the Hindus and the turbans woven by the Musulmáns are generally coarse and cheap. The Hindus work from seven to eleven and again from one to sunset; the Musulmáns work almost the whole day except a short time for their meals which they generally cook in the same shed or room in which they weave. The chief demand for their wares is during the marriage season that is between November and May. The articles they weave are intended for every-day use although they are used as marriage presents by Kunbis and other middle and low class Hindus. Hindu cotton weavers stop work on the last or no-moon day of every lunar month, on Nágpanchmi Day in September, on Dasara Day in October, on the day after the great Sankránt in January, during three days of Shima, during four days at Muharram time, and on the day after every eclipse. The Musulmáns stop work only on three Muharram days in Ramsán and on the Bakar-id. Both Hindu and Musulmán cotton weavers get great help from their women, in reeling, dyeing, warping, and sizing. Some Hindu women even weave. With all this help cotton-weavers barely make a living. The articles they turn out are very inferior and are worn only by the poorer classes. The average daily earnings of a cotton weaver’s family are said to range from 6d. to 7½d. (4–5 as.), and during the rains they are often short of work. All the yarn used in the Poona handlooms is steam-made partly from the Bombay mills and partly from Europe. The yarns generally used are twenties and thirties. To buy the yarn most weavers have to borrow at two per cent a month. The tools and appliances of a Hindu cotton weaver resemble those of the local silk weavers of which an account has already been given. The Musulmán weaver is satisfied with cheaper and simplier appliances. He has a smaller loom and has not more than seven tools. The shuttle-beam hatya, in which the reed or phani is fitted worth 6d. (4 as.), two bars or atkmeds to keep the warp stretched worth 6d. (4 as.), a beam or tur round which the woven fabric is wound worth 1s. (8 as.), a pair of shuttles or dhotis worth 1s. (8 as.), a large bamboo cage or phálka worth 6d. (4 as.), a reed or phálki worth 3d. (2 as.) and a small wheel or rahát for sizing the weft yarn worth 8s. (Rs. 4). The foreign and Bombay yarn undergoes eight processes in being turned into robes or sádis. It is steeped

¹ Compare the Násik Statistical Account, Bombay Gazetteer, XVI. 167.
in water and placed on the bamboo cage or phulka. It is changed from this cage to the reel or asāri by a woman of the weaver’s family who holds the end of the central rod of the cage in her toes, and with her right hand, drawing off the yarn from the skein, winds it on the smaller reel, which she holds in her left hand and whirls round in a small cup of smooth coccoanut-shell. To make the skeins of a convenient size, the yarn is next wound off the reel or asāri, on to a small conical reel called charki. The yarn is then transferred to the rahdt or wheel to be twisted and wound round bobbins or khāndīs. It is next worked by winding it, two threads at a time, in and out among the rows of bamboo rods about four feet apart. It is then opened on two bamboo, stretched tight between two posts and sized by a large brush dipped in rice paste. If it wants colouring it is dyed before it is sized. The weavers themselves dye the yarn either with German aniline dyes, or they have the yarn steeped first in the indigo vats of the local indigo dyers and then in safflower dye to make them green, a colour which quickly fades. The general practice is to buy dyed yarn. After the yarn is dyed and sized or sized without dyeing, it goes to the heddle-filler and joiner who is always the same man as the weaver. He joins the warp threads with the threads of an old used warp which he purposely keeps to save the trouble of passing threads in each case through the loops of the heddle, then through the bamboo slips of the reeds or phani, finally tying them to the turai or warp beam. After joining the warp threads, the weaver has to stretch the whole of the warp and to see if any of the strands of the warp are wrongly joined or are entangled. When all is ready the warp is stretched and the rope tied to its farthest end, passed round an upright, and brought back to the place where the weaver sits. It is there tied either to a peg fixed in the floor to the right of the weaver or to one of the uprights which support the cloth beam or turai. When the weaver has provided himself with a pair of shuttles and a small basket full of loaded bobbins, he sits behind the cloth beam, puts his legs in the pit below the loom and with one foot on each of the treddles begins to weave. He passes the shuttle with the loaded bobbin between the two sets of the warp threads which are by this time separated by heddles worked by the treddles under the weaver’s feet. For the border a separate set of heddles hanging from the roof are balanced by sand bags and are worked by the hand. The Musalmán turban loom, except that it is not more than eighteen inches broad and has no heddles, is the same as the robe loom. The Poona cotton weavers take their robes and turbans to the local Shimpi dealers of whom about fifty have shops in Budhāvar ward. The robes fetch 4s. to £1 (Rs. 2-10) and the turbans 3s. to 10s. (Rs.1½ - 5). The local demand especially during the marriage season will probably keep up hand-loom cotton weaving for some time. Still it seems probable that, in a city where the price of grain and the cost of living is high compared with most parts of the Deccan, the hand-loom weavers of robes will be driven out of a living by steam-made fabrics. Hand-loom turban weaving will probably last longer, as, so far, it has been free from machine competition.

Glass bangles are made in the village of Shivāpur on the Sātāra
road about seven miles south of Poona by a settlement of Lingáyats who are called Kácháris or glass makers. At present (1883) four establishments employ twenty-five to thirty men. They say that they came to this district from villages near Sholapur five or six generations ago, that they used to marry with other Lingáyats, but that since they have taken to bangle-making they form a separate caste marrying among themselves only. They speak Maráthi at home, live in their own one-storeyed houses, and never touch animal food. They say that they dress like Bráhmans, but when at work they wear only a dirty waistcloth and a rag round the head. They work from nine in the morning to nine at night, and stop work on all Mondays, on the great Sankránt in January, on Maháshivrátra in February, for four days during Shínga in March-April, on Nágpanchmi in August, on Dásara in October, and during five days of Diwáli in October-November. Their women and children help in sorting broken pieces of Chinese glass bangles which the men melt and work into new bangles. They buy these broken bangles from the Kánych bángdí phulónéválas that is glass bangle collectors, Márvár Vánis of whom there are fifteen to twenty shops in the Bhaváni and Vetál wards in Poona. They gather the glass bangles by going from house to house selling parched gram in exchange for its weight in broken bangles which the children of the house carefully gather and keep. Kásárs or dealers in bangles, also ask for and gather broken bangles at any houses they may visit to put new ones round women's wrists. They sell the broken pieces to Kácháris. The current price of the raw materials is 1½d. (1 a.) the pound. Though so little money is wanted the Kácháris generally borrow it in Poona at one to two per cent a mouth. The glass is sometimes supplied by Kásárs or bangle dealers who pay the Kácháris 2½d. to 3d. a pound (3-4 as. a sher) to work it up. Round balls of country made glass used to be received at Poona from Gutur in the Nizám's country, but for the last eight or ten years no glass has been brought from Gutur as broken bangles furnish as much material as the trade requires. A Káchári's appliances are simple and cheap. Half a dozen bamboo baskets smeared with cowdung serve to store the sorted pieces of glass; six thin two feet long iron bars pointed at one end at 3d. (½ a.) each; six home-made clay crucibles at a nominal cost. The mould called mátra or súcha an iron bar with a conical clay top worth about 3d. (2 as.). One end of this iron bar is supported by an upright peg near the fire-place or kiln, the peg having a looped piece of iron on the top to let the bar move round its own axis and the other end rest on a slightly grooved stone. Half a dozen six inch long flat iron paper-cutter shaped blades called pattás each worth about 3d. (2 as.). The ákadh, a wooden handled iron rod slightly bent at the point worth about 3d. (2 as.). Six to eight six inch nails or chats with handles each worth about 1½d. (1 a.). Six hammers worth 9d. (6 as.) each. Six flowerpot-shaped earthen pots or kundis each worth 4d. (½ a.). A scale with weights or stones and bamboo basket pans worth 3d. (2 as.). Half a dozen long handled hemispherical iron spoons or palis each worth 2½d. (1¼ a.). A Káchári's kiln or fire-place is also kept in a separate building or in a small wing of the building in which the workmen live. A separate bangle-furnace
consists of a shed, about twenty feet by twenty-five and ten high, with brick walls with two doors on the south and on the west, and six windows, two each on the north, the south, and the west. The east wall has neither door nor window. The roof is tiled, the central beam being about twenty feet from the floor. Nearly in the centre of the building is the furnace, a round pit three to four feet deep, with a dome-shaped clay top and arched windows each about four inches by six and a hole at the top of the dome provided with a clay lid. Inside the dome is a raised platform on which rest the crucibles or clay smelting pots each opposite its own window. In the space between each pair of windows and a little way from the kiln are six uprights which together with the cross stick form a six-cornered bower over which two to three feet of fresh cut branches are heaped to dry. In front of each of the kiln windows a pair of thick rag screens are hung on the cross sticks of the bower to shade the workmen from the fire. In front of these shades sit the half dozen workmen each with his tools and a basket of broken bangles near him. When the crucibles filled with glass are set on the platform inside the dome of the kiln, the fire is kindled by bringing fuel into the pit through an under-ground passage. At the end of about an hour the glass melts and each of the workmen sits opposite one of the windows. He stirs the half fluid glass with the bent pointed iron rod or ḍhādi to see if it is uniformly melted. When it is properly melted the workman passes into the molten glass a second sharp pointed iron rod and with it picks out a drop of fluid glass. On taking the drop of glass out of the kiln with a jerk he makes the rod spin round and the spinning motion turns the glass drop into a globe. A sharp blow to the iron rod from the ṭaṭka or iron blade shivers the globe and turns it into a ring on the point of the bar. Repeated blows with the blade on the bar by shaking it widen the ring into a long loop. As soon as the ring is big enough, it is dropped over the conical clay point of the mould or ṭačha and fitted into it with the help of the blade, the left hand all the time keeping the mould spinning in the grooved stone. All this is done with surprising cleverness and speed, less than half a minute serving to turn the glass drop into a finished bangle. If from any delay the glass cools and hardens out of shape, the mould or ṭačha is held in the kiln flames till the glass is softened and can be worked into the proper shape. The formed bangle is dropped on the floor, the sharp end of the iron bar is heated and hammered straight, and a second glass drop is brought out at the bar point, whirled into a globe, struck into a ring, widened by vibration, and finished off on the turning mould point. The Shivāpur Kāchāris make three kinds of bangles bāngāḍi, gol, and kuḍl or kārla, the bāngāḍi is slightly conical, the gol globular, and the kārla conical with a notched surface. Finger rings are made in the same way as bangles. The bangles are in great demand among the poorer classes of Hindu women, and the rings are bought by girls as toys who sometimes wear them round their own fingers and sometimes put them round their dolls' wrists. The Kāchāris carry their bangles and rings to Poona. If the glass is supplied by a Kāsār dealer the Kāchāri is paid 6s. (Rs. 3) for thirty-two pounds. If the glass is the Kāchāri's own he gets
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about 10s. (Rs. 5) for the man of thirty-two pounds. In a day of about twelve hours’ work a good bangle-maker can turn out four to five pounds of glass bangles. Deducting the cost of the glass and the fuel, this price represents a daily wage of 6d. to 7½d. (4-5 as.). The Kacháris’ industry is declining under the competition of Chinese glass bangles.

Saváí Mádhavráv Peshwa (1790-1795) the tender-hearted sensitive youth, whom Nána Fadnaví’s restrictions drove to suicide, had scruples about Bráhman women using metal hair combs. It was against the sacred books; hair combs should be of ivory not of metal. To supply the new demand for ivory combs one Audutráv Dhandarpálkar came from Násik and opened the first ivory comb factory in Poona city. His example was followed by Abáji Ava of the carpenter caste. The family of Audutráo cannot (1883) be traced and is said to have died out. The original carpenters have also left Poona and again taken to wood-cutting. The present ivory comb makers are the descendants of the Kunbi servants of the original workers. They number about fifteen and keep five workshops opposite the temple of Ganpati in Kasba ward. They are a quiet people, speak Maráthí, live in their own one-storeyed houses, occasionally eat flesh, and dress like ordinary local Kunbi Maráthás. Comb making is easy to learn. Many Kunbis would have taken to the craft if it had offered a fair chance of making a living, but for many years, owing to the competition of cheap foreign bone combs, the industry has been depressed. Within the last ten years four shops have been closed and those who are left though above want are poor. The present small ivory-comb industry will probably long continue. Bráhman and other high caste Hindu women think bone combs impure, and three ivory combs always form part of the váyan or bride’s outfit.

Comb-makers work from seven to eleven and from two to sunset. They stop work on Kar that is the day following Mahásankránt in January, and on Nágpanchmi in August. Their women and children give them no help. During the marriage season, between October and May, the demand is brisk, and sometimes a servant or two are employed to help in doing the rougher parts of the work. The servant is paid 8s. to 14s. (Rs. 4-7) a month according to the nature and quality of his work. The average monthly income of a comb-maker varies from £1 to £1 10s. (Rs. 10-15). As ivory is very costly ranging from about 8s. to about 11s. the pound (Rs. 150-200 the 38 lbs. man) the money required for buying it has to be borrowed. The usual rate of interest paid is one per cent a month. The advances are generally made by a moneylender named Jipa Máwrári in whose hands the whole industry practically is. In addition to interest, he charges 1½ to 1¾ per cent as commission on the ivory he brings from Bombay. The workmen have to sell the articles they make on their own account and to pay the standing balance including interest and commission to the Máwrári moneylender. What they are able to keep back is just sufficient to maintain themselves and their families. All are indebted to the Máwrári. The appliances of a comb-maker are
similar to those of an ordinary carpenter only a little finer. Each shop requires five to six saws of different sizes worth 9d. to 1s. (6-8 as.); half a dozen files worth 6d. to 7½d. (4-5 as.); four or five borers worth 3d. (2 as.) each; half a dozen vices each worth 10s. to £1 10s. (Rs. 5-15); a vikas or adze worth 2s. (Rs. 1); a khatāvne worth 1½d. (1 a.); and a compass worth 6d. (4 as.).

When the ivory is brought from the Mārwārī's shop, after he has weighed it and entered the price in his account book, it is steeped in water for two or three days. It is then cut into pieces of the required size and sawn through, keeping it vertical by holding it in the vice. It is then filed, rubbed and polished. Sometimes the ends and sides are decorated with carvings and the plain surface is broken by tracing on it a few curved and straight lines. Combs for the use of women are rectangular and have a double set of teeth, while men's combs are crescent-shaped and have only one set of teeth. The small pieces of ivory left over in cutting out pieces for combs are used in making dice. The price of a comb ranges from 6d. to 2s. (Rs. ½ - 2) according to the size thickness and workmanship of each. The combs and dice are sold in the workshops by the workers on their own account. Their only customers are high class Hindus. Other classes use either wood combs or foreign horn combs.

Among European residents and travellers a favourite product of Poona are clay figures six to eighteen inches high, with in their appearance colour and dress, all that is characteristic of the different castes and classes of Western India. These figures are known as Poona figures and are made nowhere but in Poona. At present (1884) there are only eight figure-makers in Poona city. The most famous makers of Poona figures have been Bāpu Supekar a Jingar and Kālurām Gavandi a bricklayer. These two men were contemporaries and lived about forty years ago. The present workers belong to the Goldsmith, Jingar, and Marātha castes. They speak Marāthī, and generally live on vegetable food, but they eat flesh on holidays and special feast days. The goldsmiths dress like Brāhmans, in a rounded turban, jacket, long coat, waistcloth, and shoulder-scarf; the rest dress like Kunbis with a three-cornered turban, long coat, and waist and shoulder-cloth. Besides the eight workers who make the highly finished Poona figures, twenty to twenty-five Jingars, and about two hundred Kumbhārs make rough baked clay figures costing about 4½d. (3 as.) the dozen. The Jingars and Kumbhārs mould or shape these rough figures a little before the Ganpati holidays in August and the Divālī holidays in October-November, when, especially at Divālī, they are in great demand. Shālivāhan, the legendary founder of the Shakera, whose initial date is A.D. 75, is said to have led an army of clay figures from the Deccan north across the Narbada and defeated Vikramāditya the chief of Mālwa. In honour of this triumph for the Deccan during Divālī the children of lower class Hindus build small clay castles in front of their houses, and round them arrange an army of clay figures footmen horsemen and gunners. It is the opinion of many well informed people in Poona that this practice was introduced by Shivāji
The Poona figure-makers are perhaps the only workers in Poona who show artistic skill. The materials used by the Poona figure-workers are: White clay or shādu generally bought from Mhārs at 3d. a head-load (8 for Re. 1); Bombay khadu, a chalky clay which is bought from Poona Bohoras at sixteen pounds the shaving; torn country paper called janārikāgad costing about 2½d. a pound (10 lbs. the rupee); finely ginned cotton worth a shaving the pound; orpiment or hārtāl, the yellow sulphide of arsenic worth a shaving the pound; ochre or son geru, kāv, worth 1¼d. (1 a.) the pound; cinnabar or hūngal red iodide of mercury worth two shillings the pound; verdigris or jangāl green arseniate of copper worth its own weight in copper coin; white zinc or sapheda oxide of zinc worth a shaving the pound; indigo or nil worth its own weight in copper coin; English Carmine worth its own weight in silver; lamp black collected at home; gomutra peudi a yellow pigment obtained by steeping the powdered flowers of the Butea frondosa palas in cow's urine, worth its own weight in silver; glue or sitras, worth 6d. the pound; isinglass worth a shaving a packet bought from European shops; lac bought from Bohoras at 9d. to 1s. (6-8 as.) the pound; copal varnish worth 3s. to 4s. the pound; blue vitriol, sulphate of copper, and rice flour. These materials are so cheap, and in most cases are required in such small quantities that, unless one customer wants a large number of figures, when some advance is required, even the poorest workers buy them on their own account. A figure-maker's tools and appliances are few and simple. There are five scoopers or gouges, namely korane which is flat and slanting at the end, nakhrude nail-shaped, kornti spear-head shaped, kesāche korne flat and ridged on one side making hair-like lines in the clay, and dolāyche korne grooved on one side. Besides the gouges, they require a pair of pincers or chimitis worth a shilling; a drill or samta worth 6d. (4 as.); half a dozen files or kānas worth together 2s. (Re. 1); and a pair of scissors worth a shaving. The brushes are made of the tails of the Indian squirrel which cost about 2d. (½a.) the piece and are bought from the wandering druggists called Vaidus or Baidus. The shādu or white clay, the khadu or chalky clay, and the torn paper are separately steeped in cold water for one day, apparently passed through a sieve though this the workmen deny, and pounded together with the ginned cotton. The proportion of each of these articles is not uniform, each workman using his own discretion on each occasion. When the clay is so thoroughly mixed as to lose all grit or grain it is ready for use. The workman shapes the head putting in a small peg to prop the neck. The arms are next shaped and propped on pegs at the shoulder joints. The trunk and legs are last shaped with two pegs passing through the soles if the figure is standing and one peg passing below the end of the backbone if the figure is sitting. These separate pieces are joined and the figure is left to dry two to six days in the sun. When dry the clay is painted a flesh colour and the eyebrows and moustache, and, if the figure is a Hindu, the brow marks are painted. The colours are made by
washed the mineral pigments several times over and mixing them thoroughly with ghee-paste for a dark and with isinglass for a light-tint. When the paint dries the workman dresses the figure by gluing on pieces of different fabrics. Finally the figure is fixed into a stand brought from the local turner either with the help of the peg passing below the feet, or, if sitting, by the peg which passes below the back. Of the Poona figures, which include almost all castes and classes, perhaps the most interesting and characteristic are: A fully equipped elephant with a native prince and his attendants in the car or hadná; groups showing how Hindus cook and dine; a scene at a public well; a dancing party; a Hindu spinner, weaver, and goldsmith at work; a European gentleman carried in a palanquin; a Koli, or other highwayman waylaying and extorting money from a Márwári trader; a tiger-shooting scene; a prince or princess attacked by a tiger; a native fruit-seller's shop; a native woman carrying water; a milkmaid; a Gárodi or juggler with tame monkeys, snakes, goat, and mongooses; a Darweshi with a tame bear; a Gosávi or Hindu ascetic; a Fákir or Musálman beggar; a Bráhman woman worshipping the sacred tulsi plant Ocymum sanctum; an astrologer telling fortunes; a Vaidú or wandering quack; a Pársi man and woman; a waterman with his bullock; a camel driver; a messenger; and the cholera or jarimari worshipper. The prices of these figures range from 1s. (£0.05) a dozen to 10s. (£0.50) each according to size and make. Among the figures required for the tábut or Muharram bier festival the most common are a dancing girl; a Marátha horseman; a chief on an elephant; a pair of Bráhman Marátha officers on horseback; a pair of gymnasts; a prince on an elephant attacked by a tiger; a Marátha officer on horseback helping a damsel to mount his horse; and a prince on foot struggling with a tiger. The figures required for the Muharram biers are the largest made in Poona ranging from two to three feet high and costing £2 to £50 (Rs. 20-500). The figures intended for sale among European and Pársi customers ordinarily range from six inches to eighteen inches in height and from 1s. (£0.05) to £1 (Rs. 10) in price. The average monthly income of the Poona figure-makers is said to vary from £2 to £2 10s. (£2.50) to (Rs. 20-25). The figures are either made to order or are sold at the workmen's house. The larger figures required for Muharram biers are bought by Hindus. The demand for Muharram figures is not great as one figure lasts for years. The chief demand is from Europeans and from the Pársí owners of Bombay curiosity shops.

Paper-making is said to have been brought to Poona from Junner four or five generations ago. The leader of the movement is remembered as Allibhái, a Musálman, as are all the workers in Poona. At present (1883) Kágdipura or the papermen's quarter a part of the Kasba ward has seven work-places or paper factories. According to the paper-workers the site on which they built their houses and factories was given free of charge by the Peshwa to encourage the craft. Of forty factories only eight remain, seven in Poona and one at Bhámburda just across the Mutha from Kágdipura. The paper-makers know Maráthí but speak Hindustání at home. They can afford to eat flesh only on holidays, and drink liquor but not to excess.
They live in one-storeyed houses of their own. The men dress like Kunbis in a three-cornered turban, a long coat, a scarf round the loins, and one round the shoulders. Their women wear a robe and bodice like Kunbi women. Their paper is strong and lasting but has no special peculiarity or excellence. They earn barely enough to live on and are constantly borrowing. They work from seven to twelve and from one to sunset. They stop work on Fridays, Bakar-Iäs, five days of Muharram, one of Shab-e-barât, and three days on the death of a member of the community. Their women and their children over eight help in sorting waste paper. Unlike the practice at Násik and Junnar where rags are used, at Poona paper is made solely from waste paper bought from Government offices at £1 to £2 a "palla" of 240 lbs. As the waste paper is generally bought at auction sales its price varies considerably. The £2 to £5 (Rs. 20-50) required for buying the raw material has to be borrowed from Mârwâri moneylenders at two or three per cent a month. The Poona paper-makers have stopped using ropes and gunny bags as they require more time and labour to pound and bleach. Six chief tools and appliances are used: The "dhegi" or great hammer, a long heavy beam poised on a central fulcrum worked in a long pit two or three feet deep. The head of the hammer is a heavy block of wood fixed at right angles to one end of the main beam, with its face strengthened by four thick polished steel plates. On the upper surface of the other end of the main beam two or three steps are cut, and the hammer is worked by three or four men together forcing down the beam and letting it rise by alternately stepping on the beam and on the edge of the hole. The cost of the "dhegi" including the cost of the paved pit or hole in which it is worked, is calculated at £5 to £6 (Rs. 50-60). Though every one of the Poona paper factories has a "dhegi", they have not been in use for ten or twelve years as waste paper does not require heavy hammering. A rectangular teakwood frame or "sách" two and a half feet by two, with eight cross bars; it costs 6s. (Rs. 3) and is used in fishing out films of paper from the cistern. A screen or "chhapri" made of the stalks of the white conical headed amaranth Amaranthus globulus, on which the film of paper rests, when the frame is brought out of the cistern and the water allowed to pass through it, costs 2s. to 4s. (Rs. 1-2). A soft date palm brush or "kuncha", costing 1s. 6d. to 2s. 6d. (1-2 as.), is used in spreading the sheets against the cemented walls of the room. This brush is not always required as the paper is generally spread in the sun on old scarves or rags. The polishing stones a piece of agate worth 2s. to 4s. (Rs. 1-2). Large shells Cypraea tigris, which are in use instead of polishing stones, cost 1s. to 1s. 6d. (8-12 as.) a dozen; smooth teakwood boards each about two feet by three, costing 2s. to 2s. 6d. (Rs. 1-1½) are required to lay the paper on while it is being rubbed with the polishing stone or shell. The process of making paper from waste paper is not so elaborate as the process of making it from sacking. In Poona the paper is torn to pieces, sorted according to colour, moistened with water, and taken to the river and pounded with stones and washed for three days. It is then taken to the cistern. A paper-maker's cistern is a cement-lined tank about seven feet by four and four deep half
Chapter VI.

Crafts.

Paper.

filled with water. The paper pulp is thrown into this cistern. When it is thoroughly dissolved the workman sitting at the side of the pit, leaning over the water, takes in both hands the square frame which holds the screen which serves as a sieve, passes it under the water and draws it slowly and evenly to the surface, working it so that as the water passes through, a uniform film of pulp is left on the screen. The screen is then lifted up and turned over, and the film of paper is spread on a rag cushion. When layers have been heaped on this cushion nine to fourteen inches high a rag is spread over them, and on the rag is laid a plank weighted with heavy stones. When this pressure has drained the paper of some of its moisture the stones are taken away, and two men one standing at each end of the plank, seesaw over the bundle of paper. When it is well pressed the paper is peeled off, layer after layer, and spread to dry either on the cemented walls of the building or on rags laid in the sun. When dry each sheet is laid on the polished wooden board and rubbed with a shell till it shines. The paper made by this process though rough and of a dingy yellow is strong and lasting. The makers sell it to Marwári Váñi, Bohora, and Gujarat Váñi dealers. The price for each gaddí of 240 sheets ranges from 8s. to 10s. (Rs. 4-5). The cheaper varieties are generally bought by Government officials for envelopes, and the better kinds command a sale among native merchants who use them for account books for which their toughness and durability make them specially suitable. The retail price varies from 8s. to £2 (Rs. 4-20) the ream of ten quires. The paper-makers almost never employ outside labour. The men and women of the family work together, the men doing the heavier and the women the lighter parts of the work. From the much greater cheapness of machine-made imported paper the demand for the local paper is small and declining. The makers are badly off, barely earning a living. They have no trade guild.

Poona city has twenty-seven iron pot factories, four of which belong to Telis or oilmen, three to Bohorás, ten to Kunbis, and ten to Mális. The industry employs 150 to 200 workmen Brahmans, Kunbis and Musalmáns. All the iron pot factories in Poona city are in the Adityvar ward. The whole of the iron used is brought in sheets through Bombay from Europe. When at work iron pot makers wear nothing but a waistcloth tied round the hips. On holidays the Brahmans wear their own dress, and the rest the three-cornered turban, a long coat, and all the Musalmáns a waist and shouldercloth. They speak Marathi, and live in one-storeyed hired quarters. Their every-day food is bájri or millet cakes and dál or pulse with a few ground chillies and some simple vegetables. Except the Brahmans both Hindus and Musalmáns occasionally eat flesh and drink liquor though not to excess. The workers make little more than a living most of the profits going to the dealers. They work even on no-moon days. Their only holidays are Kar that is the day following Mahásarkaránt in January, five days during Shimga in March-April, Ganpati's Day in August, and the day after all eclipses. Their busy season begins in Bhádrapad or July-August and lasts till Chaitra or March-April. The women and children do not help the men in their work. They work from sunrise to sunset with half an hour's
rest at midday. The iron sheets are bought in Bombay near the Carnac Bridge at 11s. (Rs. 5½) the cwt. to which carriage to Poona adds 1s. 6d. the cwt. The dealers buy the iron sheets with their own capital. The iron pot maker uses nine appliances. Twenty to twenty-five chisels or chhāni each worth 1¼d. (1 a.); twelve to fifteen hammers of different sizes each worth 6d. (4 as.); half a dozen pincers or sāndsis each worth 3d. (2 as.); two or three heavy iron cylinders each worth 4s. to 5s. (Rs. 2-2½); half a dozen compasses each worth 6d. (4 as.); six to eight large English anvils each worth £1 to £1 10s. (Rs. 10-15); half a dozen thick rounded anvils about six inches across fixed in bābhul blocks and half buried in the earth each worth 6s. to 8s. (Rs. 3-4); about a dozen thick pointed nails for punching holes together worth 4½d. (3 as.) half a dozen yearly renewed files at 1s. 6d. (12 as.) each. In making the iron vessels the iron sheet is laid on the floor and the shape required for the pot is traced with compasses on the sheet and cut out with a chisel. The piece of iron thus separated is then hammered on a solid iron anvil or bāngāi, and roughly shaped into a hemisphere. It is next hammered on the large and small anvils, till the shaping is completed. The pieces forming parts of a pot are then nailed together and the joint filled up with putty. Its brim is filed, and the handles, made of iron rods flattened at the ends are rivetted on. The articles made are: The tava a griddle for baking native dainties; the pātele a cylindrical pot with a slightly rounded bottom varying from a foot to three feet across and two to three feet deep; a nagāra or large drum pot; tanks or haunds for storing water and grain; a pohora or cylindrical water-drawing pot nine inches to a foot across and seven to fourteen inches high; a sieve or chālan used by grain parchers or bhādbunjās; a kadhai or frying pan, a hemispherical pot one foot to six feet across and two inches to two feet deep with two opposite handles; the kūl or large flat-bottomed sugar-boiling pan. Of these articles the pātele or round pot, the nagāra or drum, the tank or haund, and the frying pan or kadhai used to be made of copper, but among the poor iron is taking the place of copper. The tava or griddle is used by all classes especially by the poor for cooking their millet cakes. The demand for iron ware is steadily on the increase. The yearly import of iron sheets into Poona ranges from 14,440 cwt. to 24,908 cwt.

Tape is woven in Poona city by one hundred to one hundred and fifty Rāvals, who have come from Mohol and Sholāpur. They are not permanently settled in Poona and visit their homes every year generally during the rains. In Poona they live in a part of the Ganj ward which is known as the Rāval quarter. They look like Lingáyat and worship Shiv but do not wear the ling. Their home tongue is Marāthi. At Poona they live in hired one-storied quarters, eat no flesh, but drink liquor. The men dress in a rumāl or headscarf, a short coat reaching to the waist, and a scarf round the middle. Tape weaving requires little skill. Most of the weavers are in debt to the tape dealers, and they keep hardly any holidays. They use machine-made yarn for the woof and hand-spun yarn for the warp. Tape is almost the only article in which hand-spun yarn is still used. The machine-made
yarn which is almost always twenties, is brought from Bombay by the tape dealers. It is sold or rather given to the weavers on credit at 10s. to 12s. (Rs. 5-6) the pound. The coarse hand-spun yarn comes from Sholápur into which it is brought from the Nizám’s country. It is sold at Poona at 7½d. (5 as.) the pound. The tape weaver’s appliances are simple. A bamboo cage or phálka, or large reel, worth 6d. (4 as.); a vasán or small reel worth 3d. (2 as.); a spindle or phiráki of nominal value; a bamboo shuttle or káná; and a flat wedge-shaped piece of wood with which the wool is worked home, worth 3d. (2 as.) The tape loom is of primitive make. Between two uprights, from a foot to one foot and nine inches high, are placed two horizontal bars one joining the tops and the other the centres of the uprights. To the central horizontal bar are tied a row of loops, each loop two inches long. In arranging the warp, one thread is passed through a loop and the other over the upper horizontal bar, at a spot just above the space between two loops. The weaver sits in front of the uprights, and holding in his right hand a bundle of wool yarn, passes it across through the warp into his left hand and forces the wool home by a blow from the flat wedge-shaped hátya. As he weaves, he slackens the warp which he keeps tied to a peg or beam on the other side of the upright frame. The broadest and thickest tape woven, called padam, is six to nine inches broad and twelve feet long. It is sold at 9d. to 10½d. (6-7 as.) the piece. It is white with black and red bands. A smaller variety called kácha, two to six inches broad and seven to fifteen feet long, varies in price from 1½d. to 1s. (1-5 as.). The narrow tape which is less than half an inch broad, is woven by poor Musaláman women. It is believed that at present (1882) in Poona city as many as 150 Musaláman women weave narrow tape in their leisure hours earning a shilling or two a month.

Felt or burnus is made at Poona by Pinjáris who are settled near the Nainsuk police station and near the temple of Someshvar. Eight or ten shops or rather families are (1883) engaged in making felt. They came to Poona three or four generations ago from Chákan, Khed, and Manchar in Junnar. They have been working in felt for generations and say they do not believe their forefathers ever did any other work. They speak Hindustáni at home and Maráthí out of doors. They live in one-storeyed hired houses and eat flesh though they generally live on a vegetable diet. The men wear a three-cornered turban, a short coat reaching the waist, and a scarf for the loins. They are poor. Their working hours are from seven to eleven and from one to sunset. They stop work on Fridays, Bakar-Id, and two days in Ramsán. The wool is brought from the shepherds or Dhangars of the villages near Poona in Áshádh or June-July and Shraván or July-August. Goat’s hair costs 1½d. to 2½d. the pound (10-14 lbs. the rupee) and sheep wool 5d. to 4½d. the pound (6-8 lbs. the rupee). The tamarind seeds required for sizing are bought in Poona at 1½d. to 2½d. (1-1½ a. a shel of two lbs.). They generally borrow what money is wanted at twelve to twenty-four per cent a year. They work the raw material on their own account and pay their creditors out of the proceeds of the felt. The demand for felt is said to be on the decline on account of the
The only instrument they require is the teaser which consists of three parts, the bow or kamán which is hung from the ceiling, the harp-shaped teaser or dasta, and the dumbbell-shaped striker or muth with which the worker strikes the thong or leather string. The whole teaser costs 8s. to 10s. (Rs. 4-5). Besides the dumbbell striker the worker has a stick about two yards long. The wool is first disentangled by the women of the house and teased on the dasta by the men. Men or women then spread it on planks or mats and the tamarind seed paste is spread over it. Another layer of wool is spread on the paste and a layer of paste on the wool till it is half an inch to an inch thick. It is lastly laid in the sun and dried. It is sold in the workmen’s houses at 6d. to 4s. (Rs. 1-2) the piece, the price depending on the size of the article. The whole yearly outturn is not worth more than £200 (Rs. 2000).

Six Kátáris or hereditary Wood-Turners, ten Kunbis, and one Bráhman earn their living at Poona by turning wood. They live in Adítvár ward near Subhansha’s mosque and the Gujri market. They speak Maráthi, live in one-storeyed hired quarters, and except the Bráhman who lives solely on vegetable food, they occasionally eat flesh. The Bráhman wears a rounded turban, a long coat reaching to the knees, a jacket, a waistcloth, and a shoulder-cloth. The Kátáris and Kunbis wear a three-cornered turban, a long coat, and waist and shouldercloths. They work from seven to eleven in the morning and from one to sunset. They rest on all no-moon days, on the day after the chief or winter Sankránti in January; for two days of Shimga in March-April, and for two days after an eclipse. The women and children do not help the men. Their average monthly earnings range from 10s. to £1 (Rs. 5-10). The only kinds of wood they use are the kuda Wrightia tinctoria, and the varas Heterophragma roxburghii, which they buy from Mhár women who bring it from the forest lands near Poona. A head-load of sticks one to two inches in diameter costs them 2s. to 3s. (Rs. 1-1½). A wood-turner has two tools, the lathe and the chisel. The lathe or thadge, consists of two upright blocks of wood about two feet long six inches broad and six inches high, and two feet apart with a short iron peg or spike on the inner face of each. Of the two blocks of wood one is kept in its place by a heavy stone, the other is movable. The piece of wood to be turned is drilled at each end, the movable part of the lathe, always the left block, is taken away, the wood to be turned is slipped over the two iron spikes and the movable part of the lathe is put back in its place. The workman sits on a board opposite the lathe, and, with his left foot, keeps the movable block in its place. He takes his bow or kamdn, a bamboo about three feet long with a loose string, and passing a loop of the string round the right end of the wood to be turned, tightens his bow, and, by moving it sharply at right angles to the lathe, makes the wood spin quickly on the two iron spikes. As it turns, the wood is worked into shape by the double-pointed chisel or vákas held in the left hand. When the wood has been shaped and smoothed, a piece of sealing wax is held close to it, and, by the friction, melted and spread over its surface. The final
polish is given by rubbing it with a leaf of the *kevda* Pandanus odoratissimus. The chief articles turned are: The látne or rolling pin used in kneading wheat bread, a plain wooden bar one to two feet long and two or three inches round; it costs 3d. (½ a.) and is not lacquered. The *gudgudi* or *hukka* the hubble-bubble. This is of three parts, the bowl, the handle, and the pipe. The bowl is made of a cocoanut shell with a hole at the top, polished and smoothed on the lathe. The handle which is eight to twelve inches long and three to four inches round, is hollowed, and the outside carved and covered with lac. The pipe is a hollow round stick, nine to twelve inches long and one inch round, smoothed and lacquered. A hubble-bubble costs 4½d. to 9d. (3-6 as.). Clothes-pegs or *khuntis*, four to six inches long and two to three round, cost 2s. (Re. 1) a score or kodi. Children's rattles or *khulkhulás* a lacquered stick two to four inches long and half an inch round, with, at each end, a hollow lacquered ball three to five inches round with a few pieces of stone inside, cost 1½d. (1 a.); *kathadás* or balusters upright sticks six inches to three feet long, and half an inch to six inches round, lacquered, and varying in price from 1½d. to 6d. (1-4 as.) a stick. Rulers or ákhánis, one to two feet long and one to two inches round, are not coloured and cost 1½d. to 4½d. (1-3 as.). Walking sticks or *káthis* are generally supplied rough by the customer and turned for 3d. to 6d. (2-4 as.). All of these articles are sold in the turner's shops. They have no special merit and are not in much demand. The women do not help the men.
CHAPTER VII.

HISTORY.

In prehistoric times, like the rest of the Deccan, Poona is said to have formed part of the Dandakáryanya or Dandaka forest, which the Rámáyan represents as infested by Rákshasas or wild men who disturbed the religious rites of Bráhman sages. A high and ancient holiness attaches to Bhimáshankar the source of the Bhima, forty-five miles north-west of Poona, the Shivling of whose temple is one of the twelve great lingas of India.1

From very early times trade routes must have crossed the Poona district down the Sahyádri passes to the Konkan seaports of Sopára Kalyán and Cheul. Rock-cut temples, rest-chambers, and inscriptions show that as far back as the first centuries before and after Christ trade went to and from the coast by the Nána and the Bor passes. The richness of the rock-cut temples both above the pass at Bedse, Bhája and Kárí, and below the pass at Kondáne and Ambivli make it probable that in the first centuries after Christ a great traffic moved along the Bor pass route. The early history of the district centres in Junnar, on the Nána pass route, fifty miles north of Poona, a city strongly placed, in a rich country, with a good climate, and facilities for trade. Two considerable groups of caves one near Kálamb about twelve miles south of Junnar, the other round Talegaon about thirty miles south-west of Kálamb, now on the main line of traffic from Junnar to the railway, apparently mark the old trade route from Junnar to the Bor pass. Of the founders of Junnar nothing is known. Even its early name has perished, if, as is generally supposed, the present name Junnar means Old City.2 The town is probably as old as the large inscription on the walls of the rock-cut chamber at the head of the Deccan.

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1 Indian Antiquary, II. 15 and note 1. The eleven other great lingas are: Amreshwar near Ujjain; Gautameshwar unknown; Kedáreshwar in the Himalayas; Mahákalio Ujjain; Mallikarjun on the Shrishail hill in Telangana; Omkár in the Narbada; Rameshwar on Rameshwar island near Cape Comorin; Semeshwar in Somnáth-Pátan in Káthiávar; Trimbakeshwar at Trimbak in Násik; Vaidyanaáth at Deygad in the Sánthal district of Bengal; and Vishveshwar at Bénares.

2 Pandit Bhagvânílal gives Junnar its old name by identifying it with the Tagara of Ptolemy (A.D. 150) and of the Periplus (A.D. 247). The arguments in support of the identification are the antiquity of Junnar as proved by its numerous caves and inscriptions, its position at the head of a highway of commerce, and its comparative nearness to Shélavádi which Professor Bhándárkar finds to be the only name connected with the Konkan Sálahras, who call Tagara their original city (Bombay Gazetteer, XIII. 423; Professor Bhándárkar's Deccan Early History); and still more the position of the city between the three hills or trigiri of Lenádri, Mánmoda, and Shivner, from which it might have been called Trigiri corrupted into Tagara. The chief argument against this identification is that the position of Junnar, 100 miles west of Paithan, does not agree with Ptolemy or with the author of the Periplus both of whom place Tagara ten days east of Paithan. A minor objection is that a seventh century copperplate recording a grant to an inhabitant of Tagara has been found in the Nizám's Haidarabad which agrees with the position of Ptolemy's and the Periplus' Tagara (compare Bombay Gazetteer, XIII. 423).
of the Nâna pass which was engraved by a Deccan king one of whose capitals was probably at Junnar and whose date probably lies between B.C. 90 and A.D. 30. Next to Ashok’s (B.C. 250) edicts at Girnâr in Kâthiâwâr and Sopâra near Bassein in Thâna, the Nâna pass inscription is the oldest writing in Western India. It is believed to be the earliest historical record in the Deccan, and has the special interest of being the oldest known Brahmânical inscription in the whole of India. In the beginning salutations are offered to Vedic and Purânik gods, to Dharma and to Indra, to Chandra the moon, Surya the sun, Agni fire, and Marut wind, to the four region-guardians or lokapâla who preside over the four quarters of the universe, Yama, Varuna, Kubera, and Vâsava, and to Sankarshana Krishna’s brother and Vâsudeva or Krishna. It mentions a pious king of Dakshinâpatha or the Deccan, a staunch supporter of the Vedic religion and strictly Brâhmânism in his beliefs. It gives a long account of Vedic sacrifices from the first ceremony of fire-placing or agnyâdhan to the great horse or ashvamedha and other sacrifices. Mention is made of gifts of villages, elephants, horses, chariots, and of thousands and ten thousands of cows and kârshâpan coins. This inscription has the high value of showing that about B.C. 90 Buddhism had not yet triumphed over Brâhmânism, and that the sacrifices of the Vedic age were still in use. The inscription was engraved by king Vedishri, who, as king of Dakshinâpatha, probably improved the Nâna pass, cut the rest-chamber for the use of travellers, and, in this large inscription, recorded the power and the piety of his family. Vedishri belonged to the great Andhrabhryia or Shâtakarni dynasty. Several inscriptions, over what once were statues in the Nâna pass chamber, are supposed to give Vedishri’s pedigree mentioning Simuka Shâtavâhana his grandfather, Shri Shâtakarni and queen Nâyanika his parents, and his two sons Prince Hakushri and Prince Shâtavâhana. Later in date than the great Nâna pass inscription are the Buddhist caves, about 150 in three groups at Junnar, ten at Kârle, twelve at Bhâja, two at Bedsa, and twenty at and near Sheliârâvâdi probably all of about the first and second centuries after Christ. These rock temples contain seventy-five inscriptions also of the first and second centuries after Christ. The Kârle and Junnar inscriptions give the names of kings Pulumâvi and Nahapâna, an inscription over

1 The Shâtakarnis, who are better known by their Purânik name of Andhrabhryias, were a powerful Deccan dynasty which is supposed to have flourished in the two centuries before and the three centuries after the Christian era. Their original seat was Andhra or Telangan and their capital Dharanikot at the mouth of the Krishna. At the height of their power (A.D. 10-140?) they appear to have held the whole breadth of the Deccan from Sopâra in Thâna to Dharanikot near the mouth of the Krishna. Their inscriptions and coins have been found at Kanheri and Sopâra in the Konkan, at Junnar, Karhâd, Kolhâpur, and Nâsik in the Deccan, at Banavâsâ in North Kânâra, at the Amrâvati tope in the Kistna district, and in other parts of the Madras Presidency. Details are given in Bombay Gazetteer, XIII. 409; XVI. 161-183, 620-623.

2 According to the Purânik lists Simuka, Sindhuva, or Sipraka was the founder of the Andhrabhryia dynasty. Sewell’s Dynasties of Southern India, 5.

3 The Ganesh Khind and Bhâmbhirâda caves near Poona have no inscriptions. The Bhâmbhirâda rock temple appears to be a Brahmânical work of about the eighth century. The Ganesh Khind caves are plain cells whose age cannot be fixed. The Kâlamâvâ rock caves which are mentioned by Mr. Elphinstone in 1815 (Colebrooke’s Elphinstone, I. 283) have not yet (May 1884) been examined.
one of the Nánághát cisterns gives the name of Chatarpana Shátakarni son of Vásishthi, and a Bedsa inscription mentions a Mahábhójá's daughter and a Maháráthi's wife.1 Among places, a Bedsa inscription mentions Nášik, two Junnar inscriptions mention Broach and Kalyán, and the Kárlé inscriptions mention Abulama perhaps Obollah at the head of the Persian gulf,2 Dhenukákat or Dharnikot at the mouth of the Krishna, Sopára in Thána, and Vajjayanti or Banavási in North Káñara. Among donors the Junnar inscriptions mention three Yavans, a Shak, a Bráhman minister, a goldsmith, and guilds of bamboo makers, coppersmiths, and corn dealers; the Kárlé inscriptions mention a goldsmith, carpenters, two Yavans, and two Persians or Pártihans.3 The workmanship of many of the caves, especially of the chapel in the Ganesh Lena group at Junnar the magnificent cathedral at Kárlé and the temple cave at Bedsa,4 have the special interest of showing in the animal capitals of their pillars a strong foreign, probably Pártihian, element. Of the Mahábhójas mentioned in the Bedsa caves nothing is known except that inscriptions in the Kuda caves in Kolába show that about the same time a dynasty of Bhojas was ruling in the Konkan.5 The Pulumávi mentioned in the Junnar and Kárlé inscriptions seems to be the Pulumávi Vásishthiputra of the Nášik inscriptions whose date lies between A.D. 10 and A.D. 150;6 Chatarpana is known to be the father of a later Andhrabhíritya king Yajshushri Shátakarni one of whose silver coins has been found in Sopára;7 and Nahápaná, whose name occurs in an inscription of his minister at Junnar and of his son-in-law Ushávdá at Kárlé,8 is supposed to be a Pártihian or Shak viceroy whose date probably lies between B.C. 40 and A.D. 120.9 In Professor Bhándárkar's opinion Nahápaná's minister's and other inscriptions at Junnar favour the view that Junnar was Nahápaná's capital.10 For the 900 years ending early in the fourteenth

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1 One of the Nána pass statue inscriptions (B.c. 90) also mentions a Maháráthgivenaka, which may mean either a leader of large chariot fighters or, as is more probable, a leader of Maráthás. In the latter sense Maráthás would seem to mean Great Rattás, or Reddis, afterwards (760-975) the Ratta and Rástrakuta kings of the Deccan and Kármaták. See Fleet's Kármaták Dynasties, 31-38, 79-83. The Bedsa inscription seems to show that the Mahábhójas married with the Maháráthás. Deccan Early History, 10. 2 Compare Bombay Gazetteer, XIII. 421 note 2.
3 Bombay Archeological Survey Report, IV. 89-114; Separate No. X. 22-55.
4 See under Places, Bedsa.
5 The Bhojas and Mahábhójas appear to be a very old Deccan dynasty, as along with the Petenikas or rulers of Pathán on the north-east border of Ahmadnagar, Bhojas appear among Deccan kings in the thirteenth of Ashök's rock edicts (B.C. 250). Ind. Ant. X. 572.
6 Deccan Early History, 20; Bombay Gazetteer, XVI. 623.
7 Bombay Gazetteer, XIV. 238, 332.
8 Ushávdá appears to have been the Gujárát and Konkan viceroy of Nahápaná. His Kárlé and Nášik inscriptions mention gifts made at Somnáth Patán in Káthiáwar and at Broach, as well as at Sopára in Thána and at Govardhan near Nášik. See under Places, Kárlé.
9 Deccan Early History, 27; Bombay Gazetteer, XVI. 620.
10 Deccan Early History, 22. If Junnar was the capital of Nahápaná, the name Junnar may be not the old city, which, where there is no new city, is unmeaning, but the Yavans' city. In support of this suggestion it may be noticed that at the head of Ptolemy's (A.D. 150) Nanaguna (which apparently is the Nána pass though Ptolemy makes it a river), to the south of Nášik and to the east of Sopára is a town called Omenagara (Bertrius Ptolemy 174 and Asia Map X.), which, as the Yavans were also called Mins (Archeological Survey of India Report, II. 45, 54) may be Minagára or Yavanagara that is Junnar.
century with the Musalmán overthrow of the Devgiri Yádavs no historical information regarding Poona is available. Not a single stone or copper-plate inscription has been found in the Poona district belonging to the three great dynasties of Chalukyas (550-760), 1 Ráshtrakutas (760-973), 2 and Devgiri Yádavs (1190-1295). 3 Still, as inscribed stones and copper-plates have been found in the neighbouring districts of Ahmadnagar Sholápur and Sátára, it is probable that the Early and Western Chálukyas held the Poona district from about 550 to 760; the Ráshtrakutas to 973; the Western Chálukyas to 1184; and the Devgiri Yádavs till the Musalmán conquest of the Deccan about 1300. 4

Under the Devgiri Yádavs much of the country is said to have been

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1 The name Chálukya is derived by tradition from chaluka, chaluka, or chuluka, a waterpot, from which their ancestor is said to have sprung. This appears to be a late story, as, though chaluka or chuluka a waterpot may be the origin of the later forms Chálukya in the Deccan and Chalukya in Gujárát, it cannot be the origin of the early name which is written Chalikya, Chälükya, and Chálukya. They claim to belong to the Som-van Hawthorace and mention a succession of fifty-nine kings, rulers of Ayodhya, and after them sixteen more who ruled over the region of the south. The names of seven early Chálukya kings have been found from about 550 to 610. In 610 the Chálukya dominions were divided into an eastern kingdom whose head-quarters were Vengi in the delta of the Krishna and the Gódvári, and a western kingdom whose head-quarters are believed to have been at Bándámi in Bújápur. Of this western branch called the Western Chálukyas the names of six kings have been found who ruled from 610 to 760 about when they were overthrown by the Ráshtrakutas. Several attempts were made by the dynasty to regain their power but unsuccessfully until 973 when Táll II. destroyed the Ráshtrakutas, and, under the slightly changed name of (Western) Chálukyas, up to about 1190, thirteen of his successors ruled over the greater part of the Deccan and the Karnátak. Details are given in Fleet’s Kánarésí Dynasties, 17-30, 39-56.

2 It is not certain whether the Ráshtrakutas were northerners or a family of Rattas or Reddis the widespread tribe of Kánarésí husbandmen who were formerly the strongest fighting class in the Karnátak and Mástur. Mr. Fleet seems to incline to a northern origin and to trace the name to Ráshtrakuta or Ráthrapati, a title meaning a district head who is subordinate to some overlord. But it seems not improbable that the Ráshtrakutas were Rattas or Reddis, and that the main branch when they rose to supreme power Sanscritised their name, while the side branch of Rattas who ruled as underlords at Saundatti and Belgaum and claimed a common origin with the Ráshtrakutas kept their original name. The names of about twenty Ráshtrakuta kings have been found, the seventh of whom Dántivarman II. overthrew the Western Chálukyas about 760. His fifteen successors were powerful sovereigns who ruled till 973 when the last of their race, Kákka III., was defeated and slain by the revived Western Chálukyas, better known under the slightly changed name of Western Chálukyas. Details are given in Fleet’s Kánarésí Dynasties, 31-38.

3 The Devgiri Yádavs (1150-1310) were a dynasty of ten powerful kings who, before the Musalmán conquest (1295) held almost the whole of the Deccan, the Konkan, and the Bombay Karnátak. Their capital was originally at a place called Ténadvadé, then at Víjáypur or Bújápur, and lastly at Devgiri the modern Dáulatbad in the Nání territories. Their greatest king was the ninth, Rámpanchandra or Rámpa (1271-1308), whose minister was Hémádri or Hémádpant the reputed builder of the widespread Hémádpantí temples of the Deccan.

4 The only recorded traces of these early Hindu dynasties are the Sháivíte rock temple at Bhámubhruda two miles west of Poona, and scattered Hémádpantí remains varying from the tenth to the thirteenth century. The chief Hémádpantí remains are the Kukkubhvar temple at Pur ten miles north-west of Junnar, ponds at Behle twenty-one miles north-east of Junnar, and at Páhal twenty-five miles north-east of Poona, transformed mosques at Poona, Junnar, and Sávad, and the tank and Jumna rock-out reservoirs on the top of Shívner fort in Junnar. The broken Gangapi at the foot of the dismantled rock-out-ladder in the middle of the east or Junnar face of the Shívner scarps also belong to the time of the Devgiri Yádavs, and to show that Shivner was used by them as a fort. According to Ferishta (Briggs Edition, II. 436) Chákan as well as Shívner was an early Hindu fort. See under Places, Junnar and Chákan.
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Chapter VII.

History.

MUSALMÁNS,
1294-1760.

Delhi Governors, 1318-1347.

Deccan.)

Divided among Marāṭhā or Koli hill chiefs or pūligārs except to Nāg Nālk the Koli chief of Sinhgad no reference to any Poona local chief has been traced.

The first Musalmán invasion of the Deccan took place in 1294, but the power of the Devgiri Yādavs was not crushed till 1318. From 1318 Mahārāṣṭra began to be ruled by governors appointed from Delhi and stationed at Devgiri. At first the conquest of the country was imperfect. In 1340 the Delhi emperor Muhammad Tughlīk (1325-1351) who, in 1338, had made Devgiri his capital and changed its name to Daulatabad or the City of Wealth, marched against the fort of Kondhāna the modern Sinhgad about ten miles south of Poona. Nāg Nālk, the Koli chieftain, opposed him with great bravery, but was forced to take refuge within the walls of the fort. As the only way to the hill top was by a narrow passage cut in the rock, Muhammad, after fruitless attempts on the works, blockaded the fort. At the end of eight months, as their stores failed them, the garrison left the fort, and Muhammad returned to Daulatabad. Three years later (1341) Musalmán exactions caused a general revolt in the Deccan, which, according to Ferishta, was so successful that in 1344 Muhammad had no part of his Deccan territories left him except Daulatabad. In 1346 there was widespread disorder, and the Delhi officers plundered and wasted the country. These cruelties led to the revolt of the Deccan nobles under the able leadership of an Afghan soldier of fortune, named Hasan Gangu. The nobles were successful, and freed the Deccan from dependence on Northern India. Hasan founded a dynasty, which, in honour of his patron a Brāhmaṇ, he called Bahmani, and which held command of the Deccan for nearly 150 years. The Bahmani capital was first

1 Grant Duff’s Marāṭhās, 24.

2 Briggs’ Ferishta, I. 304. In 1294 Rāmdēv the ruling king of Devagad was surprised in his capital by Alā-ud-din Khilji the nephew of the Delhi emperor Jālāl-ud-din Khilji, and forced to pay tribute. In 1297, Rāmdēv gave shelter to Rā Naran the refugee king of Gujarāt, and neglected to pay tribute for three years (Ditto, I. 365). In 1306 Malik Kāfür Alā-ud-din’s general reduced the greater part of Mahārāṣṭra, distributed it among his officers, and confirmed Rāmdēv in his allegiance (Ditto, I. 369). In 1310 Rāmdēv was succeeded by his son Shankardev who was not well affected to the Musalmāns (Ditto, I. 373). In 1312 Malik Kāfür marched a third time into the Deccan, seized and put Shankardev to death, wasted Mahārāṣṭra, and fixed his residence at Devagad (Ditto, I. 379), where he remained till Alā-ud-din in his last illness ordered him to Delhi. During Malik Kāfür’s absence at Delhi, Harpāldev the son-in-law of Rāmdēv stirred the Deccan to arms, drove out many Musalmān garrisons, and, with the aid of the other Deccan chiefs, recovered Mahārāṣṭra. In 1318 Mubārāq Khilji, Alā-ud-din’s son and successor, marched to the Deccan to chastise Harpāldev who fled at the approach of the Musalmāns, and was pursued, seized, and flayed alive. Malik appointed Malik Beg Laki, one of his father’s slaves, to command in the Deccan, and returned to Delhi (Ditto, I. 389).

3 Briggs’ Ferishta, I. 426-427. This statement seems exaggerated. In 1346 there were Musalmān governors at Rāichūr, Mudkal, Kūrbat, Bedar, Biśpūr, Ganjaūti, Rāthā, Gilhari, Hukeri, and Berar. Ditto, 437.

4 Briggs’ Ferishta, I. 432-433.

5 Briggs’ Ferishta, II. 285-291. Hasan Gangu, the first Bahmani king, was an Afghan of the lowest rank and a native of Delhi. He farmed a small plot of land belonging to a Brāhmaṇ astrologer, named Gangu, who was in favour with the king of Delhi. Having accidentally found a treasure in his field, Hasan had the honesty to give notice of it to his landlord. The astrologer was so struck with his integrity that he exerted his influence at court to advance Hasan’s fortunes. Hasan thus rose to a great station in the Deccan, where his merit marked him out among his equals to be their leader in their
Chapter VII.

History.

MUSALMÁNS.

Bahmani,

1347-1490.

fixed at Kulbarga about 225 miles south-east of Poona, and in 1426
was moved to Bédar or Ahmadabad-Bédar about 100 miles further
east. By 1351 Álā-ud-din Hasan Gangu Bahmani, by treating
the local chiefs and authorities in a liberal and friendly spirit,
had brought under his power every part of the Deccan
which had previously been subject to the throne of Delhi.¹
In 1357, Álā-ud-din divided his kingdom into four provinces or
tarafs, each of which he set a provincial governor or tarafdár.
Poona formed part of the province of Maháráshtra, of which
Daulatabad was the centre and which included the country between
Junnar, Daulatabad, Bid, and Paithan on the north, and Poona and
Cheul on the south. This was the chief province of the
kingdom, and was placed under the charge of the king’s nephew.²
In the later part of the fourteenth century, under the excellent rule
of Muhammad Sháh Bahmani (1358-1375), the banditti which for
ages had harassed the trade of the Deccan were broken and
scattered, and the people enjoyed peace and good government.³
This period of prosperity was followed by the awful calamity of the
Durga Devi famine, when twelve rainless years (1396-1407) are
said to have wasted the country to a desert. In the first years of
the famine Mákhum Sháh Bahmani (1378-1397) is said to have
kept ten thousand bullocks to bring grain from Gujarát to the Deccan,
and to have founded an orphan school in each of the seven leading
towns of his dominions.⁴ No efforts of any rulers could preserve order
or life through so long a series of fatal years. Whole districts were
left without people, and the strong places fall from the Musalémns
into the hands of local chiefs.⁵ Before the country could recover it
was again wasted by two rainless years in 1421 and 1422. Multitudes
of cattle died and the people broke into revolt.⁶ In 1429 the
leading Bahmani noble, whose title was always Malik-ul-Tujár, that
is Chief of the Merchants, went through the Deccan restoring order.

revolt. He assumed the name of Gangu in gratitude to his benefactor, and from a
similar motive added that of Bahmani or Bráhmani by which his dynasty was
afterwards distinguished. Elphinstone’s History of India, 666. The Bahmani dynasty
consisted of the following eighteen kings, who were supreme for nearly 150 years
(1347-1490) and continued to hold power for about thirty years more:

The Bahmanis, 1447-1536.

<table>
<thead>
<tr>
<th>NAME.</th>
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<th>NAME.</th>
<th>Accession.</th>
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<tr>
<td>1 Alá-ud-din</td>
<td>1347</td>
<td>11 Humáyun</td>
<td>1457</td>
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<tr>
<td>2 Muhammad I</td>
<td>1358</td>
<td>12 Nizám</td>
<td>1461</td>
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<tr>
<td>3 Muqáhid</td>
<td>1375</td>
<td>13 Muhammad II</td>
<td>1483</td>
</tr>
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<td>4 Dáud</td>
<td>1378</td>
<td>14 Mákhum I</td>
<td>1482</td>
</tr>
<tr>
<td>5 Mákhum I</td>
<td>1378</td>
<td>Nominal Kings</td>
<td></td>
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<tr>
<td>6 Ghádí-ud-dín</td>
<td>1397</td>
<td>15 Ahmad II</td>
<td>1481</td>
</tr>
<tr>
<td>7 Sháme-ud-dín</td>
<td>1397</td>
<td>16 Alá-ud-dín III</td>
<td>1493</td>
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<tr>
<td>8 Firoz</td>
<td>1397</td>
<td>17 Váli</td>
<td>1523</td>
</tr>
<tr>
<td>9 Ahmad I</td>
<td>1427</td>
<td>18 Kalim</td>
<td>1528</td>
</tr>
<tr>
<td>10 Alá-ud-dín I</td>
<td>1435</td>
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¹ Briggs’ Ferishta, II. 291-232; Grant Duff’s Marathás, 25.
² Briggs’ Ferishta, II. 295.
³ Briggs’ Ferishta, II. 325. 326.
⁴ Briggs’ Ferishta, II. 349-350. These seven towns were Cheul, Dábhol, Elichpur,
Daulatabad, Bédar, Kulbarga, and Kándhár.
⁵ Grant Duff’s Marathás, 26.
⁶ Briggs’ Ferishta, II. 405. 406.
Deccan.] POONA. 217

So entirely had the country fallen waste that the old villages had disappeared and fresh ones had to be formed generally including the lands of two or three old villages. Land was given to all who would till it free of rent for the first year and for a horse-bag of grain for the second year. This settlement was entrusted to Dádú Narsu Kále an experienced Bráhman, and to a Turkish eunuch of the court. In 1443 the Malik-ul-Tujár, who was ordered to reduce the seacoast or Konkan forts, fixed his headquarters at Chákán, a small fort eighteen miles north of Poona, and secured Shivner the famous hill fort of Junnar. From Junnar he several times sent detachments into the Konkan. An expedition which he commanded in person ended in disaster. His Deccan and Abyssinian troops refused to advance into the woody country, and the Malik-ul-Tujár with 500 Moghals was surrounded and slain. The rest of the Moghals retired. Contrary to the advice of the Deccan officers, who tried to persuade them to withdraw to their estates, the Moghals fell back on Chákán. The Deccan officers sent false word to the king that the disaster was due to the Malik-ul-Tujár's rashness and to the turbulence and disobedience of the Moghals, who, they said, were now in revolt. The king ordered the Moghals to be put to death, and the Deccan nobles attacked Chákán. After the siege had lasted for two months, the Deccan officers forged a letter from the king and persuaded some of the Moghals to leave the fort. They gave an entertainment to the rest in the fort, and while the feast was going on, attacked them and put them to death. At the same time one party of Moghals outside of the fort were attacked and every male was put to death. Another party who were more on their guard made good their escape. The survivors succeeded in convicting the Deccan nobles of their treachery and procured their punishment. From this time Chákán and Junnar continued military posts. In 1472 and 1473 a failure of rain so wasted the country that in 1474 when rain fell scarcely any one was left to till the land. The power and turbulence of their provincial governors was a source of weakness and danger to Bahmani rule. To remove this evil Máhmud Gáwán, the very learned and able minister of Muhammad Sháh Bahmani II. (1463-1482), framed a scheme under which the territories were divided into eight instead of into four provinces; in each province only one fort was left in the Governor's hands; all others were entrusted to captains and garrisons appointed and paid from headquarters; the pay of the captains was greatly increased and they were forced to keep their garrisons at full strength. This scheme for reducing their power brought on Máhmud Gáwán the hatred of the leading nobles. They brought false charges of disloyalty against him. The king was weak enough to believe them and foolish enough to order the minister's execution. Bahmani power never recovered the murder of Máhmud Gáwán.

1 Grant Duff's Maráthás, 26.
2 Malik-ul-Tujár's fort is probably the present fort of Chákán. According to a local story the original fort was built by an Abyssinian in 1295. Grant Duff's Maráthás, 27.
3 Briggs' Ferishta, II. 436-439.
4 Briggs' Ferishta, II. 440-447.
5 Briggs' Ferishta, II. 493, 494.
6 Briggs' Ferishta, II. 503, 504.
Chapter VII.

History.

Musalmans.

Bahmanis, 1347-1490.

Under the Bahmanis, to control the Kolis and other wild hill tribes, their chiefs were given the rank of nobles or surdars and some of them were called mansabadars or honourables. One of the headmen of each mával or western valley was made a captain or náik, and, over the whole west, a tract which was known as the Fifty-two Valleys or Bávan-Mávals, a head captain or sarnáik was named whose headquarters were at Junnar.

Of the state of the Poona Deccan, at the time of the decay of Bahmani power, the Russian traveller Athanasius Nikitin (1468-1474) has left some particulars. Athanasius, who was at the time trading in horses, after a voyage through a sea swarming with pirates reached Cheul in Kolaba about thirty miles south of Bombay. After a week's stay at Cheul he started with a valuable stallion and went by land eight days to Pili to the Indian mountain, apparently Pulu Sonálu in Thána near the foot of the Nána pass. From Pulu he went in ten days to Umri, probably for his horse's sake avoiding the Nána pass, and ascending to the Deccan by some other route. From Umri, which has not been identified, he went in six days to Jooneer, that is Junnar, bringing his horse safely, but at a cost of about £16 (100 roubles). On the way, as was the custom for foreign travellers, Athanasius stopped at inns where the landlady cooked the food, made the bed, and slept with the stranger. Junnar stood on a stony island, no human hands had built it, God made the town; a narrow road which it took a day to climb, broad enough for only one man at a time, led up the hill. At Junnar lived Asat Khán a tributary of Malikruja that is Malik-ul-Tujár the governor of Danalatabad. Asat Khán held seven of Malik-ul-Tujár's twenty-seven tmás that is thánás or posts. He had been fighting the Káfars, that is the infidels or Hindus, for twenty years, being sometimes beaten, but mostly beating them. Asat Khán rode on men, though he had many good elephants and horses. Among his attendants were many Khurasanians, some of whom came from the countries of Khorasan, Oroban, Sarkesuk, and Cheyotan. All came by sea in távás or Indian ships. The winter began from Trinity Day in June, and Athanasius wintered at Junnar living there for two months. For four months day and night there was nothing but rain and dirt. The people were tilling the ground, sowing grain, tutu-regan, perhaps tur and rági, peas and all sorts of vegetables. Wine was kept in large Indian goat skins. Horses were not born in the country, but oxen and buffaloes were, and were used for riding, carrying goods, and every other purpose. The horses were fed on peas, also on khichíri boiled with sugar and oil. In the early morning they got shishenivos(?) in the winter the common people put on a fata or shoulder cloak, sometimes wearing it round the waist, sometimes on the shoulders, and sometimes on the head. The princes and nobles wore trousers, a shirt, and a

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1 Captain Mackintosh in Jour. Bom. Geog. Soc. I. 238. This arrangement was continued by the Ahmadnagar kings and by the Moghals. The last head captain was Muhammad Latif about 1670.
2 Major's India in the Fifteenth Century, Athanasius Nikitin, 9-12.
3 From the translation Athanasius seems to have used the Russian wheat in the general sense of grain. The grain must have been millet.
long coat, and three scarfs, one on the shoulder, another round the waist as a belt, and a third round the head. While he was at Junnar, Asat Khán took Athanasius’ horse, and, hearing he was no Muhammadan but a Russian, said he would give him back the horse and a thousand pieces of gold, if he would embrace the Muhammadan faith; if he refused to embrace the Muhammadan faith he would keep the horse and fine Athanasius a thousand pieces of gold. During the four days which Asat Khán gave him to consider his offer, a man named Khoza Ifocha Mahmet came from Khorasan and took pity on Athanasius, went to the Khán, prayed him not to insist on Athanasius’ conversion and brought him back his horse. Christian brethren of Russia, says Athanasius, whoever of you wishes to go to the Indian country may leave his faith in Russia, confess Muhammad, and then proceed to the land of Hindustán. Those Musalmán dogs have lied to me, saying I should find here plenty of our goods; there is nothing for our country; the goods are for the land of Musalmán, as pepper and colours and these are cheap.

In 1477 Máhmud Gáwán was succeeded in the office of minister by Nizám-ul-Mulk Bhairî.1 About 1485, Bid and other districts including Poona were added to the estates of Nizám-ul-Mulk, and the management of part of it was made over to the minister’s son, Malik Ahmad, the founder of the Nizám Sháhi dynasty (1490-1636). Malik Ahmad made Junnar his headquarters. In 1486 Zain-ud-díhn, who had command of Chákan, went into revolt, and Nizám-ul-Mulk ordered his son Malik Ahmad to reduce Chákan. Zain-ud-díhn applied for help to Yusuf Adíl Khán of Bijápúr, who sent 6000 horse which he ordered to encamp near the fort of Indáspúr, which belonged to Yusuf Adíl Khán, and watch Malik Ahmad’s movements. Besides the Musalmán commandant of Chákan, other chiefs, several of whom were Hindus, held places of strength in Malik Ahmad’s new estates. Some of these chiefs, on the plea that the king was a boy and that such changes should not be made till he came of age, refused to give up their forts. Among them was the Marátha commandant of Shivner, the hill fort of Junnar. Malik Ahmad attacked the fort, and after a long siege the garrison surrendered. The capture of Shivner was of the greatest importance to Malik Ahmad, as five years’ revenue of Maháráshtra was stored in the fort. This treasure enabled Ahmad to make rich presents to his officers and troops, and helped him to secure all the places of the greatest strength in west and south-west Poona. Among the forts which fell into Ahmad’s hands, in consequence of his success at Junnar, are mentioned Chávand and Jívíhan within ten miles west

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1 Nizám-ul-Mulk Bhairî was a Vijayanagar Bráhman from Pátri whose original name was Tímáppa, the son of Bhairî. In his infancy he was taken prisoner by the Muhammadan army of Ahmad Sháh Bahmání (1422-1435). On becoming a Musalmán he received the name of Hasan, and was brought up as one of the royal slaves. The king was so struck with his abilities that he made him over to his eldest son Prince Muhammad as a companion, with whom he was educated and became an excellent Arabic and Persian scholar. From his father’s name Hasan was called Bhairî and this the prince changed to Bhairî, the Falcon, or, according to some accounts, the falconer an office which he is said to have held. When Muhammad succeeded to the throne he made Hasan a commander of a thousand horse. Briggs’ Perishta, III. 189-190.
Chapter VII.

Section:

History,

Muslims,

Nizam Shahis,

1490-1636.

of Junnar, Lohagad about thirty miles north-west of Poona, Koari about five miles to the south-west of Lohagad, Kondhána, the modern Sinhgad about eight miles south, and Purandhar about eighteen miles south-east of Poona; Máhulí in Thána, and Páli in Bhor about twelve miles south Kolábá. In 1486 Nizám-ul-Mulk, the Bahmani minister, was assassinated at the Bedar court. On hearing of his father's assassination Malik Ahmad, who was besieging Rájápur in Janjira, returned to Junnar, assumed the title of Ahmad Nizám-ul-Mulk Bhairi, and set himself to improve the state of the country. As Malik Ahmad, though he continued to read the public prayers in his master's name, had practically thrown off his allegiance, Míahmud Sháh Bahmani II. (1482-1518) ordered Yusuf Adil Khán of Bijápur and Zain-ud-din of Chákan to attack him. But Yusuf, who soon after followed Malik Ahmad's example and assumed independence, instead of advancing against Malik Ahmad, withdrew his troops from Indápur which was part of the Bijápur territory. Malik Ahmad, or as he was now styled Ahmad Nizám, appointed Zaríf-ul-Mulk Afghan his commander-in-chief or Amír-ul-Omra, and Nasír-ul-Mulk Gujáráti, minister of finance or Mir Jumla. Ahmad tried but failed to win to his side Zain-ud-din the commandant of Chákan. As the Bahmani army was advancing against him, Ahmad left his family in Shivner and marched to meet the Bahmani force. During the night he suddenly turned on Chákan, was himself the first to scale the walls, and had helped seventeen of his men to gain a footing before the garrison took alarm. Zain-ud-din and his men fought with great bravery, but their leader was killed and the rest surrendered. From Chákan Ahmad marched against and defeated the Bahmani army. He returned to Junnar and busied himself with improving the internal management of his territory.¹ On the 28th of May 1490, at Bágh or the garden, now the site of Ahmadnagar, Ahmad gained a complete victory over the Bahmani forces.² After his return to Junnar, without a rival or an enemy, on the advice of Yusuf Adil Sháh, Ahmad assumed the position of king, had the public prayers read in his own name, and had the white canopy of state borne over his head. But this assumption of kingly power was so distasteful to some of his leading supporters that Ahmad stopped the reading of prayers in his name, and allowed his nobles to use a canopy which differed from his own state canopy only in not being lined with scarlet.³ Shortly after, at the request of his officers, Ahmad again assumed the rank of king and had the prayers read in his name.⁴

In 1493 Ahmad's sister, who was the wife of one of the Daulatabad family of Ashrafs, came to Junnar complaining of the murder of her son and of her husband by her husband's brother Malik Ashraf. Ahmad marched against Malik Ashraf, and, after besieging

¹ Briggs' Ferishta, III. 190-195. ² Briggs' Ferishta, III. 197. ³ Briggs' Ferishta, III. 198. ⁴ Briggs' Ferishta, III. 198. About the same time out of the ruins of the Bahmani kingdom rose the Adil Sháhi dynasty of Bijápur, the Kauth Sháhi dynasty of Golconda seven miles west of Haidarabad, and the Imád Sháhi dynasty of Elichpur in East Berár.
Daulatabad for two months without success, returned to Junnar. In 1494 Ahmad moved his capital from Junnar to Bâgh, the site of his great victory over the Bahmani troops in 1490, where, about half-way between Junnar and Daulatabad, he had founded the new city of Ahmadnagar. Except perhaps Indâpur, which belonged to Bijâpur, the territory of Poona remained subject to the Ahmadnagar kings.

Under the Ahmadnagar kings, though perhaps less regularly than afterwards under the Moghals, the country was divided into districts or sarkârs. The district was distributed among subdivisions which were generally known by Persian names, parqana, karydt, sammat, mahâl, and tâluka, and sometimes by the Hindu names of prânt and desh. The hilly west, which was generally managed by Hindu officers, continued to be arranged by valleys with their Hindu names of khora, murha, and mânâl. The collection of the revenue was generally entrusted to farmers, the farms sometimes including only one village. Where the revenue was not farmed, its collection was generally entrusted to Hindu officers. Over the revenue farmers was a Government agent or amil, who, besides collecting the revenue, managed the police and settled civil suits. Civil suits relating to land were generally referred to juries or panchâyats. Though the chief power in the country was Muhammadan, large numbers of Hindus were employed in the service of the state. The garrisons of hill forts seem generally to have been Hindus, Marâthas Kolis and Dhangars, a few places of special strength being reserved for Musalmân commandants or killedârs. Besides the hill forts some parts of the open country were left under loyal Marâtha and Brâhman officers with the title of estateholder or jâgîrdâr, and of district head or deshmukh. Estates were generally granted on military tenure, the value of the grant being in proportion to the number of troops which the grant-holder maintained. Family feuds or personal hate, and in the case of those whose lands lay near the borders of two kingdoms an intelligent regard for the chances of war, often divided Marâtha families and led members of one family to take service under rival Musalmân states. Hindus of distinguished service were rewarded

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1 Briggs' Ferishta, III. 200.
2 Briggs' Ferishta, III. 202. At Ahmadnagar the Nizâm Shâhi dynasty founded by Ahmad continued through ten successions to 1600, when Ahmadnagar was taken by Akbar the Moghal emperor. One more king afterwards reigned at Daulatabad, till 1630 when he was deposed and put to death. Two more infant kings were nominated and in 1636 the kingdom was destroyed by Shâh Jahân. The names and dates of the Nizâm Shâhi kings are:

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
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<tbody>
<tr>
<td>Ahmad</td>
<td>1490</td>
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<tr>
<td>Burhân</td>
<td>1598</td>
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<td>Husain</td>
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<td>Murtazâ 1</td>
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<td>Mirzâ Huzain</td>
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<td>Ismâîl</td>
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<th>Name</th>
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<td>Burhân II</td>
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<td>Ibrâhîm</td>
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<td>Ahmad II</td>
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<td>Bahâdur</td>
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<td>Murâdze</td>
<td>1605 - 1631</td>
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3 Grant Duff's Marâthás, 36, 38.
4 Grant Duff's Marâthás, 36, 33.
with the Hindu titles of rāja, náik, and rāv. Numbers of Hindus were employed in the Ahmadnagar armies.

In 1529 Burhán Nizám (1508-1558), the second of the Ahmadnagar kings, was defeated by the troops of Bahádúr Sháh of Gujárit (1525-1535). This defeat led to an important change in the management of the Ahmadnagar state. Burhán, who had retired to Junnar, believed that his failure was due to the unpopularity of his minister or peshwa.¹ Shaikh Jáfar was deprived of his office, and it was given to a Bráhman whom Ferishta calls Kávar Sen.² From the time of Kávar Sen's appointment to be minister, Hindus gained great influence in the Ahmadnagar government.³ Under the Ahmadnagar kings few references to places within Poona limits have been traced, though in ordinary times both Singhad and Purandhar in South Poona were in their hands.⁴ In 1562 Husain Nizám Sháh the third king of Ahmadnagar (1558-1565), pursued by Rám Rája of Vijayanagar and Ali Adil Sháh of Bijáipur, retired to the Junnar hills, and, employing his own troops to lay waste the districts of Junnar and Purandhar, prevented the enemy's advance.⁵ In 1564, on the accession of Murtaza Nizám Sháh, one of his brothers Burhán Nizám with his sons, was placed in confinement on Lohogad hill about eight miles south-east of Khandála, and a second brother, Sháh Kasim, was confined on Shivner near Junnar: In 1576, hearing that his brother was hated at Ahmadnagar, Burhán won over the commandant of Lohogad, and advanced from Lohogad to Ahmadnagar at the head of 6000 horse, but was not successful.⁶ Burhán's two sons Ibhrám and Ismáel continued in Lohogad till 1588 when they were carried to Ahmadnagar and Ismáel was placed on the throne.

Between 1564 and 1589 Salábát Khán, the leading man at Ahmadnagar, according to Ferishta, made the country more prosperous than it had been since Máhmuð Bahmání's time (1378-1397). In 1589 court factions forced him to retire to Burhánpur, and from Burhánpur he went to Talegaon, twenty miles north-east of Poona, and died there before the close of the year.⁷ In 1594 Bahádúr the infant son of Burhán Nizám II. was kept in confinement for over a year at Chávand, and was then raised to the Ahmadnagar throne.⁸

The rise of the Maráthás may be traced to the Moghal attack on Ahmadnagar in 1595. In 1595 king Bahádúr Nizám II. (1595-1605) ennobled a Maráthá, named Málóji Bhonsla, with the title of rája, and enriched him with the estates or jágirs of Poona and Supa, and the charge of the forts and districts of Shivner and Chákán.

¹ The Persian title of Peshwa was brought into use in the Deccan in 1397 by Ghaiás-ad-din Bahmání (1397). It was adopted from the Bahmánis by the Ahmadnagar kings, and from the Ahmadnagar kings by Shivájí. Briggs' Ferishta, II. 353.
² Briggs' Ferishta, II. 353.
³ Grant Duff's Maráthás, 34 and foot.
⁴ Khái Khán in Elliot and Dowson, VII. 272.
⁵ Lassen, IV. 214. Of the Ahmadnagar generals at this time one was an Abyssinian, one a Deccan Musalmán, and one a Koli. Ditto.
⁶ Briggs' Ferishta, III. 271, 282.
⁷ Briggs' Ferishta, III. 262, 279.
⁸ Briggs' Ferishta, III. 293, 296, 304.
The headquarters of this Máloji Bhonsla, who is said to have held several patilships, were at Verul or Ellora near Aurangabad. Máloji's father Bábji Bhonsla was descended from Bhosaji, who is said to have been the first of the family to settle in the Deccan. Bhosaji claimed descent from a younger or from an illegitimate son of the royal family of Udepur in Rajputana.1 Máloji married Dipábáí the sister of Jagpáráv Náik Nimbálkar the deshmukh of Phaltan. The story told of his rise to power in the Ahmadnagar court is, that, in 1599, at the time of the Holi festival in March-April, Máloji took his son Sháháji, a boy of five, to pay his respects to Lukhji Jádhavráv, Máloji's patron and the chief Maratha in the Ahmadnagar state. Lukhji Jádhavráv, pleased with the boy, seated Sháháji near Jiji his daughter a child of three or four. The children began to play, and Lukhji joking said to the girl, How would you like him for a husband? The guests laughed, but Máloji rose and solemnly accepted Lukhji's offer of marriage. Lukhji and his wife were furious, but Máloji stuck to his point and carried it, when, in 1599, his successful services were rewarded with the title of raja.2 In 1600 the city of Ahmadnagar was taken by the Moghals. Partly from the disorders caused by the rebellion of Jahángir's son Khusru, which followed Jahángir's accession on the death of Akbar in 1605, Moghal power in the Deccan declined. Their generals in Ahmadnagar had also to deal with the Abyssinian slave Malik Ambar, a man of the highest talent both in military and in civil affairs. Though the Moghals still held Ahmadnagar in 1605, Malik Ambar raised Murtaza Nizám II. to the throne, and succeeded in recovering Junnar and making it the head-quarters of a state which included the greater part of the former possessions of Ahmadnagar. From Junnar, he moved in the same year to Kharki near Ellora, a place which was afterwards named Aurangabad by Prince Aurangzeb. Malik Ambar's power remained unshaken till his death in 1633 when he was succeeded by his son Fáteh Khán. Great as was his success as a general, Malik Ambar is best known by his excellent land system. He stopped revenue-farming, and, under Msalman supervision, entrusted the collection of the revenues to Bráhman agents. He renewed the broken village system, and, when several years of experiments had enabled him to ascertain the average yield of a field, took about two-fifths of the outturn in kind, and afterwards (1614) commuted the grain payment to a cash payment representing about one-third of the yield. Unlike Todar Mal, Akbar's famous minister by whom the lands of North India were settled, Malik Ambar did not make his settlement permanent, but allowed the demand to vary in accordance with the harvest. This system was so successful that, in spite of his heavy war charges, his finances prospered and his country thrrove and grew rich.3

In May 1627, in Shivner fort near Junnar, Jijibáí Sháháji's wife gave birth to Shivájí, the founder of the Maratha empire.4 In 1629 the

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1 Grant Duff's Marathás, 41; Scott's Deccan, II. 4; Shivájí's Bakhar by Maláhráv Rám Chitnis (1811).
2 Grant Duff's Marathás, 41.
3 Grant Duff's Marathás, 43.
4 Grant Duff's Marathás, 55.
rains failed and a second failure in 1630 caused grievous suffering. Thousands left the Deccan and numbers perished in their homes; whole districts were emptied of people. The famine was accompanied by an almost complete loss of cattle and was followed by a pestilence. In 1629 Shāhjāhān, who had succeeded his father Māloji in Poona and Supa, broke his connection with the Nizām Shāhī government. He retired to Poona and Chākān, offered his services to the Moghal emperor, was confirmed in his lands, and received the command of 5000 horse, a dress of honour, and £20,000 (Rs. 2 lakhs) in cash. In 1632, in spite of these and other gifts, Shāhjāhān left the Moghal service and sided with Bijāpur against the Moghals. At this time Shivājī and his mother had several narrow escapes of being caught by the Moghals. On one occasion Jijibāi was taken prisoner, but was released and conveyed to the fort of Kondhāna or Sinhgad. In 1631 Murtaza Nizām II. was thrown into prison and strangled by order of Fateh Khan the son of Malik Ambār, and the infant son of Murtaza was raised to the throne. In 1634 Shāh Jahān captured Daulatabad and took prisoner the young Nizām Shāhī prince. The Moghals supposed that with the fall of Daulatabad and the capture of the prince the war with Ahmadnagar was at an end. But Shāhjāhān who had the support of Bijāpur, proclaimed another prince heir to the Nizām Shāhī kingdom, and, with the help of the local Brāhman officers, succeeded in overrunning a great part of the southern Ahmadnagar territories and seizing most of the places of strength. At Gangāpur on the Indrāyani he weighed himself against money and changed the name of the town to Tulāpur, the Weighing Town. In 1635 a Moghal army of 20,000 horse took the field against Shāhjāhān, and he was forced to retire into Bijāpur territory to the south of the Nira. According to Marātha tradition the town of Poona was destroyed by the Moghals and an ass-drawn plough drawn over the site. In 1636 Muhammad of Bijāpur sued for peace and concluded a treaty with the Moghals, under which the Ahmadnagar territory was divided between Bijāpur and the Moghals, Bijāpur securing the country between the Bhima and the Nira as far north as Chākān. In 1637, as Shāhjāhān declined to enter Bijāpur service and refused to give Junnar and other fortresses to the Moghals, Muhammad of Bijāpur helped Ranaulā Khān to overcome Shāhjāhān. They blockaded Junnar and pursued Shāhjāhān from Lohogad to Sinhgad, and from Sinhgad to the Konkan, where Shāhjāhān agreed to enter Bijāpur service and give up the forts of Junnar, Jivδhan, Chāvand, Harshira, and Kondhāna or Sinhgad. Of these Sinhgad seems to have passed to Bijāpur and the rest to the Moghals. Muhammad Ali treated Shāhjāhān with honour, confirmed him in his estates in Poona and Supa, and, with the Bijāpur minister Murārpant, employed him in settling the

1 Elphinstone's History, 507; Bādshāh Nāma in Elliot and Dowson, VII. 24-25.
2 Bādshāh Nāma in Elliot and Dowson, VII. 15. The details of Shāhjāhān's command or massāb vary from 5000 to 15,000 horse. Ditto and footnote.
3 Grant Duff's Marāthās, 53.
4 Shivājī's Bakhar by Malhārrāv Ram Chitnis (1811).
5 Grant Duff's Marāthās, 52.
6 Bādshāh Nāma in Elliot and Dowson, VII. 589; Grant Duff's Marāthās, 53.
newly gained territory between the Nira and the Bhima.¹ So strong a friendship sprang up between Murarápt and Sháhájí, that, in the same year, when the settlement was completed, they led a joint expedition into the Karnátak, where the districts of Kolhár, Bangalur, Oskotha, Bálápur, and Sera were afterwards made over to Sháhájí. When Sháhájí started with Murarápt for the Karnátak, he arranged that Shivájí and his mother Jijábáí should live in Poona, and that his estates in Poona, which, in addition to Poona and Supa now included Indápur and Bárámáti in the east and the Mátarvals in the west, should be managed by a Bráhman named Dádájí Kondadev. Dádájí managed Sháhájí’s estates with great success, continuing the system introduced by Malik Ambar. He was particularly successful in the Mátarvals or hilly west, where the people had fallen into great misery. He remitted rents, found employment for the people as guards and messengers, and extirpated the wolves that infested the country.²

North or Moghal Poona was also about this time (1636) improved by the introduction of Rája Todar Mal’s revenue system, which consisted in ascertaining by experiments lasting through a long series of years the outturn of the land, fixing a share of the grain as the government share, commuting the grain share into a money payment estimated at one-fourth of the produce, and enforcing this one-fourth as a permanent rent. From the silver coin in which it was collected this settlement was known as the tankhá. After twenty years of labour it was introduced into the Deccan by an able officer named Murshed Kuli Khán.³ Murshed’s system differed from Malik Ambar’s, chiefly in being a permanent settlement while Malik Ambar’s varied from year to year.⁴ Another change about this time (1637) introduced in the Moghal parts of Poona was the introduction of the Fasli year. The Fasli year which was started by Akbar (1556-1605) was a solar year, whose era or initial date was the Hijra. The Fasli year began from the mrig or opening of the south-west monsoon early in June.⁵ As no attempt was made to reconcile the Fasli or solar Musalmán year with the lunar, the Fasli differed from the regular lunar Musalmán year more than three years every century.

At Poona Dádájí built for Jijábáí and her son Shivájí a large mansion called Rang Mahál. He taught Shivájí, as a Marátha chief ought, to be a good archer, shot, spearsman, and rider, and, as a Marátha ought, to be ignorant of all clerkship even of the mystery of writing his own name. He taught him the rules of his caste and raised in him a love for old Hindu religious and warlike stories. From about his sixteenth year (1643) Shivájí took great delight in the stirring fellowship of freebooters, and, in their society, stayed away from his home for days, nursing the hope of one day becoming independent. His kindly obliging temper made him popular with the Marátha gentry round Poona, and he was probably none—the worse liked when reports got abroad, that, young as he

¹ Grant Duff’s Maráthás, 54, 55. ² East India Papers, IV. 420. ³ Grant Duff’s Maráthás, 57. ⁴ Grant Duff’s Maráthás, 56, 57; and Elphinstone’s History of India, 514. Before the introduction of the silver tankhá a copper tankhá was in general use. ⁵ Grant Duff’s Maráthás, 56.
was, he had a share in some large gang robberies in the Konkan. To wean him from these dangerous pursuits, Dádáji entrusted Shiváji with the management of his father’s estates. His favourite pastime was hunting in the western hills with his friends the Mávalis, to whom his skill and success as a hunter endeared him. He gained a thorough knowledge of those wild districts. He learned how easily, under the present careless management, the hill forts might be seized, and, if once seized how easily they might be held against all comers. The hill forts were easy to seize, because as the country round them was generally unhealthy, the Musálman garrisons were often withdrawn and the forts left in charge of an amíldár or other local agent. Besides this, the Bijápur government was at peace with the Moghuls, and the bulk of the regular Bijápur troops had been sent to the Karnátak. 1 In 1646, when he was nineteen years old, Shiváji took the hill fort of Torna in Bhor territory about twenty miles south-west of Poona, and in 1647 he took the small inaccessible peak of Rágjagad about three miles south-east of Torna and began to strengthen it with the view of making it his headquarters. Sháháji wrote and blamed Shiváji for this lawless conduct, and Dádáji did all that advice could do to turn him from his purpose, but Shiváji, though he made many promises, continued unmoved. Soon after Dádáji fell ill. On his deathbed (1647) he sent for Shiváji, advised him to press on his plans of independence, to protect Bráhmans and cultivators, to guard Hindu temples, and to follow the fortune which lay before him. 2 On Dádáji’s death Shiváji took complete charge of his father’s estates. Soon after a messenger came from his father asking for the payment of arrears. Shiváji evaded payment, and at last told his father that the expense of managing his Deccan estates had become so great that in future he had better trust to his Karnátak revenues. Before his authority could be supreme in his father’s estates, Shiváji had either to win over or to overpower two officers, Phirangáji Narsála who was in charge of Chákán and Báji Mohita the manager of Supa. Phirangáji he won over without much trouble. But, as Báji refused to listen to any proposals, Supa was surprised, he was made prisoner, and sent to Shákáhi in the Karnátak. Shiváji’s next acquisition was Kondhána hill. This he gained by a large bribe to the Musálman commandant, took possession of it, and named it Sinhgad or the Lion’s Den.

In 1647, about the time of Dádáji’s death, the commandant of Purandhar died. As the families were friendly, Shiváji was asked to settle some points in dispute among the commandant’s three sons. He went to the fort, persuaded the younger brothers at night to make their elder brother prisoner, and during the disturbance secretly filled the fort with his own Mávalis, and took it for himself.

1 Of these years of Shiváji’s life, Kháfi Khán the Musálman historian gives the following account. Shiváji became manager of the two estates of Poona and Supa, which at this time belonged to his father Shákáhi. He looked carefully after his father’s affairs. He was distinguished in his tribe for courage and intelligence. In that country where all the hills rise to the sky and the forests are full of trees and bushes, he had an inaccessible abode. Like other local chiefs, he set about building forts on the hills and in the plains mud forts called gadhís. Muntakhu-i-lubáb in Elliot and Dowson, VII. 256-57.

2 Grant Duff’s Máráthás, 60; Wilks’ South of India, I. 72-74.
keeping the brothers well disposed to him by the grant of lands and villages. Thus Shiváji without bloodshed secured the territory between Chákan and the Níra. It is jágír land, and Sháháji the holder of the land is in my power; if Sháháji does not object to let his son take his lands, what matters it to me. Thus perhaps Muhammad Adil Sháh reasoned and devoted his thoughts to his two chief interests, his Karnátak conquests and his Bijápur buildings.  

Meanwhile Shiváji busied himself in gathering Mávalis and horsemen. His next exploit, his first open breach of peace with Bijápur, was in 1648, when he was twenty-one years old, the plunder of a rich caravan bringing treasure from Kályán to Bijápur. The spoil was carried to Rájgad which was now Shiváji’s head-quarters. This success was followed by the capture of Bhrap and Kángori in Kolába, of Tung and Tikonaín Bhor, of Koari in south-west Poona, and of Lohogad about six miles to the south-east and Rájmáchi about ten miles to the north-west of Khandála. In the same year the Kolába forts of Tala, Ghosála, and Ráíri the modern Rájgad were taken and Birvádi and Lingana were built. In Thána, Kályán and all the forts in the neighbourhood were taken and several rich towns were plundered. In 1649, when for Shiváji’s ravages Sháháji was imprisoned by Muhammad Adil Sháh of Bijápur, Shiváji entered into a correspondence with the Moghal emperor Sháh Jahán who agreed to admit Shiváji into the imperial service and to give him the rank of commandant of 5000 horse. Sháháji was released and Shiváji contrived to evade his promises by preferring certain claims on the revenues of Jumnár and Ahmadnagar. In 1655, after an unsuccessful attempt on the part of Bijápur to seize him, Shiváji began to devise schemes for possessing himself of the whole of the Ghátmátha or hilly west Deccan and of the Konkan. In 1655 he caused the Hindu Rája of Jávli in Sátára to be murdered, took Rohira his fort, and built Prátpágad. Shiváji’s principal minister at this time was Shámrájípant whom he now dignified with the title of peshuva and also gave him a high military command.

In the north of the Poona district, since 1636 Moghal power had remained unchallenged. In 1650 Prince Aurangzeb was appointed viceroy. He made Aurangabad his head-quarters and managed his charge with vigour and success. About 1657 Aurangzeb, who was planning the overthrow of his elder brother Dára Shekkoh, sent to ask Shiváji if he would enter his service. Shiváji pretended to be horror-struck at the proposed rebellion, treated the messenger with indignity, and ordered the letter to be tied to the tail of a dog. At the time Aurangzeb took no notice of this insult but it apparently lay at the root of his unceasing hatred of Shiváji.  

At this time, apparently stirred by Shiváji’s success against Bijápur, the Kolis of north-west Poona rose in rebellion. Kení, the Sar Náik and many leading Koli chiefs agreed to try and shake off Musalmán rule, and transfer their allegiance to some Hindu prince, probably Shiváji. A Moghal army was sent into the hills, the hill forts were strengthened and garrisoned.

1 Grant Duff’s Maráthás, 61.
2 Scott’s Deccan, II, 7; Waring’s Maráthás, 63; Grant Duff’s Maráthás, 73.
the people were hunted down and either made prisoners or slaughtered, the Sar Náik and his clan were destroyed, and the prisoners were taken to Junnar and their heads cut off and piled into a pyramid and a platform built over them which is still known as the Black Platform or Kála Chabutra.¹

In 1657, with no further reason than that the state was weakened by the death of king Muhammad Adil Sháh and that his successor Ali Adil Sháh was a child, Aurangzeb declared war against Bijápúr. Shiváji took advantage of this war to increase his resources by plunder. In May 1657 he committed his first act of hostility against the Moghals. In a night attack he surprised and plundered Junnar, and carried off about £1100 (3 lakhs of pagodas) in cash, 200 horses, valuable cloth, and other articles. He escorted his booty as far as Poona, and then handed it to a party to be taken to Báljagad. From Poona Shiváji marched by un Frequented roads and surprised and partially plundered Ahmadnagar. He made great efforts to strengthen his cavalry. He bought horses from all quarters, engaged horsemen whom he could trust, began to employ Marátha shiledárs or self-mounted troopers, and appointed a new master of horse, Netzáji Pálkar, a man of vigour and influence but cruel and unprincipled. The rapid success of Aurangzeb’s advance on Bijápúr marred Shiváji’s plans. He sent one messenger after another praying for forgiveness, promising amendment, and offering to help Aurangzeb with a body of horse. Aurangzeb, who was suddenly called to Delhi by the news of his father's severe illness, agreed to pardon Shiváji, to enquire into his hereditary claims, and to receive a body of 500 of his horse. In 1659 Shiváji sent a large force under Shámrájpant Peshwa against the Sidi of Janjira in the Central Konkan, but the Sidi defeated the Peshwa’s army with great slaughter. Shámrájpant was recalled and Moro Trimal Pingale was named Peshwa in his place. A treaty was made with the Sávants of Vádi in the South Konkan, under which Shiváji obtained one-half of the revenue of that state. In the same year, near Pratápgad Shiváji assassinated Azul Khán the Bijápúr general, who was sent to reduce him, and destroyed his army. Soon after this Panhála and Pávangad in Kolhápúr fell to his officers, and Vasantgad in Sátára was taken by Shiváji himself who levied contributions along the banks of the Krishna, and left a thána or garrison with a revenue collector in the mud fort of Battis Shirála. On Shiváji’s arrival at Panhála the forts in the neighbourhood, both below and above the Sáhyádris, submitted, and Rángna and Vishágad were taken by surprise. In the next month (December 1659) Shiváji plundered as far as Bijápúr, levied contributions from market towns, and spread terror over the whole country. In 1660 Shiváji was engaged with the Bijápúr troops, who retook the forts near Panhála except Rángna and Vishágad. In January 1661 Shiváji took and plundered Báljagad in Ratnágiri and attacked the possessions of a local Marátha chief, the Dalvi of Shringápur. During the rains he built a temple to the goddess Bhaváni in the fort of Pratápgad, and from this time his religious observances became extremely strict. He chose the celebrated Rámdás Svámi as his spiritual guide, and aspired to a

high character for sanctity. He is even said to have offered all his territories to Rámdás Svámi. The Svámi had no need of lands but asked Shiváji to use the colour of his clothes in the Bhagya Jhenda or Saffron Banner. In the same year 1661 he made a rapid march across the country, and to avenge his father's wrongs, who, at the instance of the Bijápur government had been treacherously seized by Báji Ghorpade of Mudhol in 1649, surprised and killed Ghorpade with most of his relations and followers, and plundered and burnt Mudhol. The Sávants of Vádi, who contrary to their engagements had taken an active part against him, Shiváji attacked and pursued, and afterwards received as vassals. Shiváji next built the forts of Ráíri and Síndhudurg or Málván, both on the Ratnágiri coast, and fitted out a navy. He strengthened Kolába and Vijayadurg in Ratnágiri, and prepared vessels at all these places, Kolába being his chief naval centre. On condition of being supplied with guns and warlike stores Shiváji did no harm to the Portuguese. Shiváji's power was now so great that the Bijápur minister entered into a secret compact with him, which was probably brought about by the intervention of his father Sháháji, who at this time visited Shiváji with the approval of the Bijápur government. Shiváji treated his father with the greatest distinction. On hearing of his approach he went several miles to meet him, dismounted, and saluted him with the obeisance due by a servant to his sovereign. He insisted on walking by the side of his father's palanquin, and would not sit in his father's presence until repeatedly commanded. After some weeks spent in pleasure and in visiting the temple at Jejuri and other places in Shiváji's territory, Sháháji, highly gratified, returned to Bijápur, the bearer of presents from Shiváji to the king. From this time until Sháháji's death in 1664 Shiváji never attacked Bijápur, nor, when hostilities were renewed, was Shiváji the aggressor. Soon after Sháháji's death, Shiváji changed his capital from Ráigád to the inland Ráíri in the Central Konkan, which he greatly strengthened and called Ráygád. Shiváji now held the whole Konkan from Kálýán to Goá, and the Konkan Ghátmatha or hilly west Deccan from the Bhima to the Várna. His army of 50,000 foot and 7000 horse was much larger than his territory, which at its greatest breadth from Supa to Janjira did not exceed 100 miles, either required or could support. His power was formidable and the truce with Bijápur gave him the opportunity of turning it against the Moghals. In 1662, as Aurangzeb was longer and more busily employed in Northern India than was expected, Moro Trimal Pingle, Shiváji's minister or peshwa possessed himself of several strongholds north of Junnar. In the same year Netáji Pálkar, Shiváji's master of the horse, who had swept the Moghal territory close to Aurangabad, returned safe to Poona. To punish this daring raid, Sháiste Kháñ, the new Moghal governor, marched from Aurangabad with a great force towards Poona and Chákan. Shiváji, who was in Supa, retired to Sinhgad; Supa was taken, and, in spite of much annoyance from Shiváji's horse, the Musalmáns pressed on and took Poona. From Poona Sháiste Kháñ marched north to Chákan. The fort was held by

1 Elliot and Dowsen, VII, 261-262.
Shivaji's old ally Phirangaji Narsala, and, in spite of a most skilful and vigorous attack, was defended with such courage that it did not fall till two months had passed and 900 of the besiegers were slain. When Phirangaji surrendered the Moghal general treated him with great respect and sent him in safety to Shivaji by whom he was praised and rewarded. Shaista Khan placed Uzbek Khan in charge of Chakan, called Jafar Khan from Malwa to his aid, and marched after Shivaji.1 In 1663, under Aurangzeb's orders, Raja Jasvantsing the Rajput prince of Jodhpur arrived with a large reinforcement. The fair season was far advanced and the whole army lay idle near Poona. Shaista Khan, after taking several forts and strong places had gone to Poona and was living in the Rang Mahal which Dadaji Kondadev had built for Shivaji and his mother. In spite of the precautions which had been taken to prevent armed Marathas entering Poona Shivaji determined to surprise the Moghals. He sent two Brahmans in advance to make preparations. One evening in April a little before sunset Shivaji set out from Sinhgad with a considerable body of foot soldiers. These he posted in small parties along the road, and took with him to Poona only Yasaji Kank, Tanaji Malusre, and twenty-five Malvalis.2 The Brahmans had won over some of the Marathas in Shaista Khan's employ. They arranged that two parties of Marathas should enter the town one as if a wedding party the other as if bringing prisoners, and that Shivaji and his twenty-five should pass in with them. Shivaji's party passed in safety, put on their armour, and, at the dead of night, by secret ways reached the Khan's house. They entered through the cookhouse, killed the cooks, and, as they were cutting through a built-up window, the alarm was raised. Three of the Malvalis forced themselves into Shaista Khan's room, but two fell into a cistern of water and the third, though he cut off Shaista Khan's thumb, was killed by his spear. Two slave girls dragged Shaista Khan to a place of safety.3 The Marathas killed many of his followers, cut to pieces some of the women, and cut off the head of an old man whom they took for Shaista Khan. The kettle-drums beat an alarm and the Marathas retired, lighting torches and burning bonfires as they went up Sinhgad hill in derision of the Moghals.4 Next morning a body of Moghal horse galloped towards the fort. They were thrown into confusion by an unexpected fire of musketry and retired in disorder. A party of Shivaji's horse fell on them and they took to flight, the first time that Moghal cavalry had been chased by Marathas. The surprise in Poona and other small reverses filled Shaista Khan with the suspicion that Jasvantsing was in league with Shivaji. The dissensions of their leaders crippled the Moghal army, and both Shaista Khan and Jasvantsing were recalled. Jasvantsing was afterwards

1 Muntakhabe-l-Lubab in Elliot and Dowson, VII. 262-263.
2 According to Khafi Khan, Shivaji, beaten and dispirited, had retired into mountains difficult of access, and was continually changing his position. Elliot and Dowson, VII. 269. See Waring's Marathas, 74, 75.
3 This is Khafi Khan's account in Elliot and Dowson, VII. 270-1. According to Grant Duff (Marathas, 68) Shaista Khan's fingers were cut off as he was letting himself out of a window.
4 Khafi Khan in Elliot and Dowson, VII, 270-271.
allowed to remain as second in command to Prince Sultán Muazzam who was appointed viceroy. Jasvantaí made a feeble attempt to invest Sinhgad, but did not press the siege. Strong detachments were left at Chákan and Junnar and the main body of the army retired to Aurangabad. About this time Shiváji went to Poona to hear a katha or song-sermon by the Váni saint Tukárám and narrowly escaped being made prisoner by the garrison of Chákan. ¹ In 1664, after his return from sacking Surat, Shiváji heard of the death of his father Sháháji.² He came to Sinhgad and spent some days in performing his father’s funeral rites. He then took the title of Rája, struck coins in his name, and spent some months at Ráygad hill in Kolába arranging his government. His fleet scoured the coast and enraged the Musalmáns by seizing some holy Mecca pilgrims. In August Shiváji surprised and plundered the town of Ahmadnagar and swept across the country east to Aurangabad. In October the Bijápur troops broke the truce and made a vigorous effort to regain the Konkan. Shiváji seemed to be everywhere and ready at all points. He met the Bijápur army and defeated them with great loss. He burnt Vengurla in Ratnágiri, and hastened to Sinhgad to watch the Moghals who had sent a strong reinforcement to a camp at Junnar. Finding the Moghals did not intend to act on the offensive, he returned to the coast, embarked from Málvan with 4000 men, plundered the rich town of Barcelor about 130 miles south of Goa, sailed back to Gokarn in North Kánara, scoured the country, re-embarked, and returned to his capital.

In February 1665, Jasvantaí and Sultán Muazzam were recalled, and Mirza Rája Jaysing another. Rajput prince and Diler Khán were sent to conduct the war against Shiváji. They reached the Deccan early in April 1665 and lost no time in beginning operations. Jaysing went to Poona, arranged its affairs, and spread abroad his forces ravaging the country and attacking Shiváji’s forts. He himself went to attack Purandhar, about twenty miles south-east of Poona, one of the most noted fortresses in the Deccan. Diler Khán, who was sent in command of the advanced force, began the siege and invested both Purandhar and the neighbouring fort of Vajrágad or Rudrá Mahál. Jaysing left Diler Khán to prosecute the siege of Purandhar and blockaded Sinhgad.³ The commandant of Purandhar was Báji Prabhu, the deshpánḍia of Mahád in Kolába, and the fort was strongly garrisoned by Mávalis and Hetkaris that is Ratnágiri Maráthás. The deshpánḍia maintained his post with bravery and ability. He disputed every point of the approaches, but his outposts were driven in, and Diler Khán began to mine a rock under one of the towers of the lower fort. The garrison made frequent sallies, and repeatedly drove off the miners, but they were at last firmly lodged under cover. After numerous failures they succeeded

¹ Grant Duff’s Maráthás, 89. According to the Maráthás Shiváji escaped by the help of the god Vithoba of Pandharpur.
² Sháháji had continued faithful to Bijápur and had been allowed to keep his estates in the Karnátak and the fort of Armí, Porto Novo, and the territory of Tánjor. Grant Duff’s Maráthás, 89-90.
³ Grant Duff’s Maráthás, 92; and Elliot and Dowson, VII. 272.
in shattering the rock so as to enable them to attempt an assault. The assailants gained the lower fort, and, while the garrison was retiring to the upper fort, began to plunder carelessly or ignorant of their danger. The Hetkari marksmen from above opened so destructive a fire that many of the assailants sought shelter in every corner and others ran outside for cover. The Mávalis headed by their commander sallied out, attacked the Moghals sword in hand, killed all that opposed them, and drove them down the hill. Diler Khán, who was seated on his elephant near the hill foot, seeing the flight of his men, bent his bow, called on a body of Patháns about him to advance, and rallying the fugitives pushed his elephant forward. The garrison, like all Maráthás daring in success, closed with his men and the powerful Afghans recoiled from the swords of the Mávalis. Diler Khán, marking the conspicuous conduct of their leader, with his own hand pierced him with an arrow, and killed him on the spot. On the loss of their leader the garrison fled nor stopped until they reached the upper fort. The Moghals again took possession of the lower fort, but the fire from above once more forced them to leave it. After this failure Diler Khán, considering the northern face impregnable, determined on attempting to escalate the small detached fort of Vajragad or Rudra Mahál, on the north-east corner of Purandhar which commands a great part of the main works. The attempt succeeded and guns were brought to breach the upper fort. The setting in of the rains greatly retarded the operations. The Moghal artillery was bad, and, although they continued firing for weeks, they made little impression on the defences. The garrison became dispirited and sent notice that they could hold out no longer. They would have left the fort, but Shivájí, who, after his successes at sea, had at last returned to Ráygd, asked them to hold on until he should send them word to retire. Shivájí sent

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1 Khádí Khán's account (Muntakbh-i-Lubáb in Elliot and Dowson, VII. 272), while in the main agreeing with the Marátha version, gives some interesting additional details. The garrison of Purandhar made a vigorous defence and Jásing arrived with his son Kesarising. After a bastion had been blown up on one side a panic seized the defenders of the fort and caused the hill. The besiegers attacked them, and succeeded in making their way to the top of the hill when the defenders called for quarter which was granted them by the Rája and Diler Khán. The two commandants waited upon Diler Khán, and were sent to the Rája who disarmed the garrison and took possession of the forts. Eighty men, horsemen, infantry, and sappers were lost in the siege and more than a hundred were wounded. After the conquest of the two forts Rája Jásing sent Dáud Khán with 7000 horse to plunder and lay waste the country which Shivájí had won by force and violence. Great efforts were made on both sides, and for five months the imperial forces never rested from harasing and fighting the enemy. At Shivápwar which was built by Shivájí and at the forts of Kondhán or Sinhgad eight miles south of Poona, and Kanvarí (Koárí) not one trace of cultivation was left, and numbers of cattle were taken. On the other hand, the Maráthás' sudden attacks, their brilliant successes, their night assaults, their seizure of the roads and passes, and the firing of the forest, severely tried the imperial forces, and men and beasts perished in numbers. The Maráthás had also suffered heavy losses and no longer had heart to face the imperial troops. The fort of Ráygd about three miles south-east of Torna and about fifteen south-west of Poona, which Shivájí himself held, and the fort of Kondhán or Sinhgad in which were his wife and his mother's relations were both invested and hard pressed. The roads on all sides were blockaded and Shivájí knew that he could not rescue his family and that if Sinhgad was taken they would be liable to suffer the consequences of his evil deeds. Accordingly he sent some intelligent men to Rája Jásing, begging forgiveness, promising the surrender of several forts which he still held, and proposing to visit the Rája. The Rája doubting
Raghunathpant Shashthri to Jaysing, who agreed to Shivaji's proposal to enter the Moghal service and give up part of his territory. At the same time Jaysing placed no trust in Shivaji's sincerity until the Brähman convinced him that Shivaji did not intend to deceive him. Jaysing then desired him to assure Shivaji on the honour of a Rajput that he might rely not only on the emperor's pardon but on his favour and protection. While this negotiation was pending, Shivaji, with a slender retinue, in the month of July, proceeded from Pratápgad in Sátára to Jaysing's camp before Sinhgad, where he announced himself as Shivaji Rája. Jaysing sent his son Kiratsing to lead him to his presence with all the honours due to his rank. The whole camp pressed forward to see this celebrated hero and on his approach Jaysing advanced from his tent, met, and embraced him. 1 Jaysing seated Shivaji on his right hand, treated him with respect and kindness, and repeated the assurances sent by Ragunáthpant. After some conversation in the humblest strain on the part of Shivaji, he was allowed to retire to tents near those of Jaysing. Next day Shivaji went to visit Diler Khán, who was still before Purandhar and was exceedingly mortified that he was not made privy to the negotiation. He threatened to persevere in reducing Purandhar and putting every man to the sword. This was but a threat, and he was soothed and gratified by Shivaji's presenting the keys of the gate with his own hand, telling him that all his forts and country were his, that he merely sought pardon, that

his sincerity, ordered that the attack should be pressed with renewed vigour. At last two confidential Brähmans came from Shivaji and with the most binding oaths confirmed his expressions of submission and repentance. The Rája promised him security of life and honour on condition that he waited on the emperor and agreed to enter his service. He also promised him high station or mansab in the imperial service and made preparation for receiving him as became his rank. Shivaji approached with great humility. The Rája sent his agent or mansab to meet him and he also sent armed Rajputs to guard against treachery. The mansab carried a message to say that if Shivaji submitted frankly, gave up his forts, and agreed to obey, the emperor would grant his petition for forgiveness. If he did not accept these terms he had better return and renew the war. When Shivaji received the message he said with great humility that he knew his life and honour were safe if he made his submission. The Rája then sent a person of high rank to bring him in with honour. When Shivaji entered the Rája rose, embraced him, and seated him near himself. Shivaji then with a thousand signs of shame clasped his hand and said: 'I have come as a guilty slave to seek forgiveness, and it is for you either to pardon or to kill me at your pleasure. I will make over my great forts with the country of the Konkan to the emperor's officers, and I will send my son to enter the imperial service. As for myself, I hope that after the interval of one year, when I have paid my respect to the emperor, I may be allowed, like other servants of the state who exercise authority in their own provinces, to live with my wife and family in a small fort or two. Whenever and wherever my services are required, I will, on receiving orders, discharge my duty loyally.' The Rája ordered him and sent him to Diler Khán. After the siege was stopped, 7000 persons, men women and children, came out of Sinhgad fort. All that they could not carry became the property of the government and the forces took possession of the fort. Diler Khán presented Shivaji with a sword. He took him back to the Rája who presented him with a robe, and renewed his assurances of safety and honourable treatment. Shivaji, with ready tact, bound on the sword in an instant and promised to render faithful service. When the question about the time Shivaji was to remain under parole, and of his return home, came under consideration, Rája Jaysing wrote to the emperor, asking forgiveness for Shivaji and the grant of a robe to him, and awaited instructions. A mace-bearer arrived with the farman and a robe, and Shivaji was overjoyed at receiving forgiveness and honour.

1 Scott's Deccan, II. 11.
experience had satisfied him that it was folly to resist such soldiers as Aurangzeb could boast of, and that now his one hope was to be enrolled among the servants of the empire. An armistice took place as soon as Shiváji came into camp. After several conferences, subject to the emperor’s approval, it was agreed that Shiváji should give up whatever forts or territory he had taken from the Moghals. Of thirty-two forts taken or built by him in the territory which had belonged to the Nizám Sháhi government, he gave up twenty to Jaysing, among which were Purandhar and Sinhgad with all their dependent districts. According to Kháfi Khán Shiváji gave twenty-three out of thirty-five forts with a yearly revenue amounting to £400,000 (10 lákhs of huns or 40 lákhs of rupees).¹ The territory belonging to the remaining twelve forts,² of which Koári and Isvádi were in Poona, estimated to yield a yearly revenue of about £40,000 (Pagodás 100,000) and all the rest of his acquisitions, were to form his estate which he was to hold from the emperor, and his son Sambhájí, then in his eighth year, was to receive the rank of a commander of 5000 horse. The most remarkable part of the agreement was Shiváji’s proposal to be allowed assignments on Bijápur, estimated at about £180,000 (Pagodás 500,000), being a fourth and a tenth of the revenue, termed by him the chaúth and sardeshmukhi, of certain districts above the Sahyádris, the charge of collecting which he took upon himself. So eager was Shiváji to obtain the imperial authority for this arrangement, that it was granted on condition he offered to pay a tribute or peshkash of about £1,400,000 (Pagodás 4,000,000) by yearly instalments of about £110,000 (Pagodás 300,000), and to keep an additional body of troops. Shiváji’s proposals, according to custom, were sent to the emperor in the form of a petition. On Jaysing’s suggestion Shiváji intimated his desire to kiss the royal threshold. Aurangzeb agreed to Shiváji’s proposal on condition that he and his troops went with Rája Jaysing against Bijápur and that he paid the first instalment of the promised tribute. According to this agreement, Shiváji co-operated with Jaysing, and the combined army, including 2000 horse and 8000 infantry belonging to Shiváji, marched against Bijápur about the month of November. In the operations which followed, Phaltan was reduced, the fort of Táthavad escaladed, and all the fortified places on their route were taken possession of by Shiváji and his Mávalis. In consequence of these services Aurangzeb invited Shiváji to court, promised to confer on him great rank and honours, and to allow him to return to the Deccan. In 1666 Shiváji, after visiting all his forts and holding a council of his ministers at Ráygad, went to Delhi with his son Sambhájí. At Aurangzeb’s court he was treated with indignity and was watched as a prisoner. In the Deccan Jaysing had not the means to garrison many of the forts surrendered by Shiváji. He placed strong garrisons in Lohogad, Sinhgad, and Purandhar; a few men were left in such of the others as had supplies of provisions; and, of the rest, he ordered that the gates should be burnt, and such part of

¹ Elliot and Dowson, VII. 275.
² The twelve forts were: Ráygad, Torna, Ráygad, Lingana, Mahádgad, Bálágad, Ghosala, Isvádi, Páli, Bhurap, Koári, and Udedurg.
the defences destroyed as could be hastily thrown down. After Shiváji’s escape from Delhi, in December 1666, he lost no time in regaining his forts. Moropant Peshwa repaired them, replaced the garrisons, and drove out the Moghals.

In 1667, by the representations of the new viceroy Sultán Muá zam, who was accompanied and much swayed by Jasvanting a staunch Hindu, Shiváji obtained from Aurangzeb the title of Rája, a confirmation of Sambháji’s rank, and land in Berár. The districts of Poona, Chákan, and Supa were also restored to Shiváji, but the commanding forts of Sinhgad and Purandhar were kept by the Moghals. Though Aurangzeb at first agreed to Sultán Muazzam’s proposals in favour of Shiváji, he afterwards showed marked hostility to Shiváji. Accordingly Shiváji determined as soon as possible to gain the strongly garrisoned forts of Sinhgad and Purandhar which blocked his communication with Poona and Chákan. Sinhgad, Shiváji justly considered one of the strongest forts in the country, and, as the commandant, Ude Bán, was a celebrated soldier and had a choice Rajput garrison it was supposed impregnable. Security had made the Sinhgad garrison somewhat negligent, and Shiváji laid a plan for taking the place by surprise. Tánáji Máluste, whom he consulted, offered to surprise Sinhgad if he was allowed to take his younger brother Suryáji and 1000 picked Málus. Accordingly, in February 1670, one thousand Málus under Tánáji and Suryáji started from Ráygad in Kolába, and, taking different paths, met near Sinhgad. Tánáji divided his men into two parties. One party under his brother Suryáji he left at a little distance with orders to advance if necessary; the other party under his own command lodged themselves undiscovered at the foot of Sinhgad rock. When it grew dark, choosing the sheerest part of the rock as the least likely to be guarded, one of the Málus climbed the rock and made fast a ladder of ropes up which the rest crept one by one. Each as he gained the top lay down. In spite of their care before 300 of them had reached the top, some movement drew the attention of the garrison to the Málus. One of the garrison drew near and was silently slain by an arrow. Still the alarm spread, and the noise of voices and of a running to arms showed Tánáji that a rush forward was his only chance of a surprise. The Málus plied their arrows in the direction of the voices, till a blaze of blue lights and torches showed the Rajputs armed or arming, and discovered their assailants. In the desperate fight that followed Tánáji fell. The Málus lost heart and were running to the ladder, when Suryáji, Tánáji’s brother, met them with the reserve. He rallied them, asked them if they would leave their leader’s body to be tossed into a pit by Mhárs, told them the ropes were broken and there was no retreat; now was the time to prove themselves Shiváji’s Málus. They turned with spirit, and, shouting their war cry Har Har Mahádev, dashed on the garrison, and, after a desperate fight in which 300 Málus and 500 Rajputs were slain or disabled, gained the fort. A thatched house turned into a bonfire flashed the news to Shiváji. Besides those who were slain or wounded in the fort, many Rajputs who ventured over the crest of the rock were dashed to pieces. Contrary to his custom, Shiváji gave every man of the assailants a silver bracelet and
honoured their leaders with rich rewards. He grieved over Tánáji: Sinhgad the lion's house is taken, but the lion is slain: I have gained a fort and lost Tánáji. Suryájí, Tánáji's brother, was made commandant of Sinhgad, and within a month (March 1670) again distinguished himself by escalading Purandhar.¹ Máluli and Karmála in the Konkan were also taken, and the whole province of Kalyán was recovered by the end of June. In July (1670) Lohogad was surprised and taken, but an attempt on Shivner failed.² Next year (1671) Díler Khán, who was at Junnar with a considerable Moghal force, retook Lohogad and captured Chákán.³ In 1674, after great successes in South Gujarát, Khándesh, Golkonda, Sátára, the Bombay Karnátak, and North Kánara, Shivájí was crowned with great pomp at Ráygad in Kolába. At the time of his crowning Shivájí is described as forty-seven years of age, of a handsome and intelligent countenance, and for a Maráthe fair in skin. His eye was keen, his nose long aquiline and somewhat drooping, his beard trim and peaked, and his moustache slight. His expression was rapid and resolute, hard and fierce.⁴

In 1675 Shivájí made another unsuccessful attempt on Shivner his birth-place, which was never destined to fall into his hands.⁵ About this time the services of Fryer, the English physician and traveller, were sought by the Moghal governor of Jeneah that is Junnar. Fryer started from Bombay on St. George's Day, 23rd April 1673, and passed through Kalyán and Murbád which was all wasted by Shivájí and the Moghals, up the terribly steep Ávápa pass or Oppagaot.⁶ At the top of the pass was a bad starving town which he calls Oppagaot. There was a fort or castle on a hill top, and near the head of the pass a subhedár or customer, blown up with the confidence of half a dozen hillmen. From the top of the pass Fryer entered a deep valley where he met a caravan of oxen laden with provisions which had hardly escaped the Moghal army which was not far off. Fear of the villainy of Shivájí's men made Fryer's guide use great haste, and by ten at night he had travelled twenty miles (10 kos) to Ambegaon. In Ambegaon there was no one but a single fakir; the rest had fled from a party of Moghal horse. As they could get nothing to eat but a few green figs, Fryer's people pressed on through three or four wretched villages, to Beelseer or Bilsar three miles south-west of Junnar. Here his people rested as they found some provisions in a wretched hamlet which was liable to continual pillaging at the hands both of the Moghals and of the Maráthis, and bore the pillaging well because it was in the condition of having little or nothing to lose.

¹ Grant Duff's Maráthis, 94. ² Grant Duff's Maráthis, 109, 110. ³ Mr. Douglas from the Vignette in Orme’s Historical Fragments. Scott Waring (Maráthis, 87-88) gives the following details: Shivájí was short and dark with bright piercing eyes, an active body, and well-governed temper. He was religious above his countrymen, He was a good father to a bad son. Though he possessed high talents as a soldier, he was fonder of cunning than courage and of dissimulation than wisdom. ⁴ Grant Duff's Maráthis, 119. ⁵ Fryer's party included four Moor peons, a Portuguese, his own servants, a Brahman linguist, a horsekeeper, eight palanquin-bearers, a dozen fardels that is lumber or baggage-carriers, and a Turkish horse. East India and Persia, 123.
Next day, the last of April, he went on to Junnar the frontier town of the Moghals, for many years the seat of war. There was a castle at Junnar and some palaces with gardens, and the governor was in command of 17,000 horse and 3000 foot. The governor of the city and district was different from the commandant of Shivner fort who never left the hill top. Junnar city and the fort in the plain were ill-prepared to stand a siege. The Moghals were encamped there rather than settled, and, when Shiváji came in force, they retired speedily to the main army under Bahádur Khán who had a host of 40,000 horse at Pedgaon three days' journey off in Ahmadnagar on the Bhima. Fryer, in English interests, tried to persuade the governor of the value of opening a trade with Bombay through which the Deccan might be supplied with Arab and Persian horses. To do this it was necessary that the Konkan should be cleared of Shiváji's troops. The governor made light of Shiváji, but seemed little inclined to drive him out of the Konkan, either because he knew it was more difficult to do than he pretended, or, because, if Shiváji was driven out, the excuse for keeping up a large army and therefore his employment and the source of his revenue would cease. When the rains began to fall cotton was planted in the fields about Junnar. The land also yielded wheat in abundance and other grain, though the husbandmen's crops were often burned by those mountain-foxes the Maráthás. It was not safe to move about Junnar in small parties: troopers were often sent home disrobed and dismounted. Except Shivner most of the hill forts were in Shiváji's hands. In a still night many of his garrisons might be heard by voice and more by trumpet. The government of Junnar was like the government of all Moghal cities. The walls were broken but the gates remained. Disorder had scared trade, though the town was well placed and furnished with coarse calicoes, fine lawns, and plenty of cotton land. The ploughmen and weavers had followed the traders. A rich craftsman or landholder was not to be heard of in seven or eight days' journey. The markets had little but provisions which the rulers compelled the country-people to bring in, and sometimes took them by force by reason of the general poverty reigning among them. Fryer returned to Bombay by the Nána pass, a far shorter and easier way than he came. Between Junnar and the head of the pass he went by three of Shiváji's castles. It was doubtful if the Moghals could pass by that way.

1 Fryer explains why the governor was so disinclined to reduce his army. He kept only half the nominal muster of men and drew the pay of the rest, dividing his profits with the notaries who were sent by Aurangzeb to see that no frauds were committed. The same practice was followed by the under-officers. Every one had their snips verifying the proverb, 'Half the king's cheese goes in parings.' The grandees of the army were mounted on Persian Arab or Turkish steeds; the lower officers rarely got more than the race of the country which were fiery and mettlesome, but very flashing probably because the officers pinched their horses' bellies to put into their own. There were many Hindus in the Moghal army and many Musalmáns in Shiváji's army, as they thought not of their country but whose salt they ate. The Moghal army was chiefly Moghal cavalry and Gentoo infantry with matchlock muskets. Their pay was fourteen months behind hand. Still they stayed, for they were sure of something with ease, while Shiváji's rule was the freebooter's rule, no plunder no pay. Fryer's East India and Persia, 139, 141.
Chapter VII.
History.

Musalmans.
Moghals.
Sambhaji, 1630-1689.

During the last four years of his life (1677-1680) the success of his famous expedition to the Madras Karnatāk greatly increased Shiváji's power.

On Shiváji's death on the 5th of April 1680, Sambháji his son and successor showed some of his father's vigour and skill in war. He then fell into a life of pleasure and vice, wasting in dissipation the wealth which his father had amassed. Kalusha, his friend and councillor, raised the land rent by levying many fresh cesses. Still the receipts fell short of the former rental. The managers of districts were removed, the revenue was farmed, many landholders fled, and speedy ruin threatened Sambháji's territories.

In 1682 to ravage the Konkan a body of Moghal horse under Husan Ali Khán advanced from Ahmadnagar by the route of Junnar and descended the Sahyádris. In 1684, Aurangzeb issued orders to levy a poll tax or jsia on all non-Muhammadan subjects. In 1685 Aurangzeb ordered Khán Jahán to place posts or thámas in the country between Junnar and Sinhgad. Khán Jahán took Poona and the country round, and appointed Khákar Khán as governor or foujdar. In the same year (1685) a body of troops stationed under Gházi-ud-Din at Junnar was directed to move towards Ahmadnagar. The Maráthás seized this opportunity and made a rapid march northwards and plundered Broach, Aurangzeb's rebel son Sultán Akbar, whom Sambháji treated with the greatest respect, instigating if not leading the enterprise. He was intercepted near Chákan and defeated by the Moghal forces.

In 1686 Bijápur fell and the Adil Sháhi dynasty came to an end. In 1689 Aurangzeb's camp moved up the Bhima from Akluj in Sholápur and cantonned at Tulápur at the meeting of the Indráyani and the Bhima, sixteen miles north-east of Poona. While Aurangzeb was camped at Tulápur, Takhirrib Khán, who had surprised Sambháji and his favourite Kalusha at Sangameshvar in Ratágiri, arrived with his prisoners. The Maráthás made no effort to rescue Sambháji. Kalusha's oppression and Sambháji's misconduct had made them hatefull to the bulk of the people, and even had his army been disposed to undertake any enterprise in his favour, its loose and disordered state would probably have prevented the attempt. When the prisoners were brought close to the imperial camp they were bound and set upon camels. His turban was taken off Sambháji's head, drums and other noisy music sounded before him, and thousands flocked from all sides to see his entry into the camp. The prisoners were shown to Aurangzeb and ordered into confinement till their sentence was determined. Some of the Moghal nobles suggested that Sambháji's life should be spared as a means of inducing his troops to surrender the forts; Aurangzeb [Bombay Gazetteer, 238 DISTRICTS. 1 At the time of his death, Shiváji held the Konkan from Gandeví in Surat to Phonda in Kohálapur, except the small possessions of the Portuguese, the English, and the Sidi. He had posts in Kána and great possessions in the Madras Karnaták and in Tánjur. He held the West Deccan from the Híráyakeshí in Belgaum to the Indráyani in Poona, besides strong points in Ahmadnagar, Náik, and Khándesh. In Raygad he had several millions of cash besides valuable goods. 2 Grant Duff's Maráthás, 141. 3 Grant Duff's Maráthás, 145. 4 Grant Duff's Maráthás, 148. 5 Scott's Deccan, II. 70.
himself seemed inclined to this course. But Sambhaji, roused
to a sense of his disgrace and stung with shame and remorse,
expected and wished for nothing but death, and made use of every
epithet of abuse to induce some rash soldier to kill him. In this
frame of mind when Aurangzeb sent him a message offering life
on condition of his becoming a Musalmán, Sambhaji answered:
Not if you give me your daughter in marriage, and ended by
cursing the Prophet. The enraged emperor ordered a red-hot iron
to be drawn across his eyes, his tongue to be cut out, and his head to
be severed from his body. These orders were publicly carried out in
the camp at Tulápur about the beginning of August 1689.1 After
Sambhaji’s execution Rájárám, Sambhaji’s younger brother, was
declared regent during the minority of Sambhaji’s son Shiváji,
afterwards known as Sháhu. In 1690 Ráygrad fell to the Moghals
and young Shiváji and his mother Soyrábáí were taken prisoners.
Rájárám who was moving from place to place escaped to Ginji in
the Karnátak and from Ginji managed his Deccan affairs. Rájárám
remained in Ginji till 1698, when he was forced to flee to Vishálgrad
in Kolkápur. From Vishálgrad in 1699, Rájárám, joined by Parsájí
Bhonsla, Haibatráv Nimbálkar, Nímájí Sindía, Áthavle, Samsher
Bahádur, and other Maráthá commanders, proceeded with a
greater force than Shiváji ever commanded, and passed through
Gangthádi, Nánder, Berá, and Khándesh claiming chaouth and
sardeshmukhi. When he had completed his tour, Rájárám left
Khandéráv Dábháde in Báglián or North NásiK, Nímájí Sindía with
the title of Sarlašíkar in Khándesh, Parsájí Bhonsla with the title of
Senásíheb Subhe in Berá, and Haibatráv Nimbálkar in Gangthádi
to collect, as was said, the outstanding balances due to the Rája.

In February 1700, Rájárám took shelter in Sinhgad, and
died one month later from inflammation of the lungs brought
on by violent exertion. When Rájárám died leaving only widows
and infants, the power of the Maráthás seemed at an end.
But Tárbáí, the elder widow, with the aid of Rámcandrápant
Ámátya, Shankráji Náráyan, and Dhánájí Jadhav Senápati assumed
the government, seated her son Shiváji a boy of ten on the cushion
of state, and placed Rájasbáí the younger widow in confinement.
Tárbáí did not fix her residence in any one fort but moved from
place to place as seemed advisable.2 Between 1700 and 1703,
Aurangzeb besieged Sinhgad. After a three and a half months

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1 Grant Duf’s Maráthás, 159-60; and Orme’s Historical Fragments, 164.
2 According to Kháfí Khán Tárbáí won the heart of her officers and took vigorous
measures for ravaging the imperial territory. In spite of all Aurangzeb’s struggles
and schemes, campaigns, and sieges, the power of the Maráthás waxed instead of
waning. They penetrated into the old imperial territories, plundering and destroying
wherever they went. In imitation of the emperor, who, with his army and
enterprising nobles was staying in the Deccan mountains, Tárbáí’s commanders
 east the anchor of permanence wherever they penetrated, and having appointed
kamáshdárs or revenue collectors, passed the time to their satisfaction with their
wives and children, and tents, and elephants. Their daring went beyond all bounds.
They divided all the districts or pargáns among themselves, and, following the
practice of the imperial rule, appointed their subhédárs or provincial governors,
kamáshdárs or revenue collectors, and ráhádárs or toll collectors. Kháfí Khán
Muntakkhum Lúbáb in Elliot and Dower, VII, 373-375.
DISTRICTS.

Chapter VII.

History.

Musalmáns.

Moghals.

Tárbáí, 1700.

Sháhu’s Restoration, 1707.

In 1707 on the occasion of Sháhu’s marriage with the daughters of the Jádhav of Sindkhed and of Sindia the pátél of Kinnarkhed, Aurangzeb conferred on him Indápur and Supa in Poona with other districts. Tárbáí and her ministers took advantage of the absence of the main body of the Moghal army. Dhanájí Jadhav defeated Lodikhán the commandant of Poona, and retook Chákán, and the Maráthás rapidly occupied as well as plundered the country. In the same year (1707) Aurangzeb died, and steps were taken to release Sháhu. On his arrival in Poona means were successfully employed to detach Dhanájí from the cause of Tárbáí. An action took place at the village of Khed twenty-two miles north of Poona, in which the Pratónídhí was not supported by Dhanájí and was obliged to fly to Sátára. Dhanájí joined Sháhu and proceeded towards Chandan-Wandan in Sátára. Sháhu seized the families of all the men of rank who were acting against him; and summoned Shankrání Náráyan the Pant Sachiv to deliver Purandhar which he had taken shortly before; but Shankrájí did not obey. In 1711, as he still adhered to the cause of Tárbáí, Sháhu determined to reduce Shankrájí Náráyan’s territory, which, as it included Rájígad Shivájí’s first capital, was considered the centre of Marátha rule. An army was sent towards Poona and took Rájígad. Sháhu was spared the great labour of besieging the Pant Sachiv’s other forts by the news that Shankrájí had drowned himself; it was said, out of remorse

1 Kháfí Khán Muntakhábú-l-Lubáb in Elliot and Dowson, VII, 373; and Grant Duff’s Maráthás, 177.
2 Grant Duff’s Maráthás, 178; Elliot and Dowson, VII, 379.
3 Grant Duff’s Maráthás, 188.
4 Grant Duff’s Maráthás, 184. On this occasion Aurangzeb among other presents to Sháhu gave him a sword he had himself worn, and restored two swords which Sháhu’s attendants had always urged Sháhu to recover. One of these was Shivájí’s famous Bháváni, and the other the sword of Afzul Khán the murdered general of Bijaúpur all of which were taken at Raygad in 1690. These swords were in the possession of the Rája of Sátára in 1826, Ditto.
because he had bound himself by oath to Tārābāi to fight against his lawful prince.\(^1\) Shāhu with characteristic conciliation sent robes of investiture to Shankrājji’s son Nāro Shankar a child of two years old and confirmed his mutālik or deputy in that post. The Pān Sachiv’s party never again swerved from their allegiance to Shāhu.\(^2\)

In March 1708 Shāhu was established at Sātāra, and in 1710 Tārābāi with her son Shivājī\(^3\) went to Kolhāpur and established herself there. Chandrasen Jadhav, who had been appointed senāpati or commander-in-chief on his father Dhanājī’s death, was sent from Sātāra with a considerable army to levy the chaucht, sardeshmukhi, and ghāsdāna from the Moghal districts. On this occasion Chandrasen was attended by his father’s agent or kārkūn Bālājī Vishvanāth,\(^4\) the founder of the Peshwās of Poonā who was now charged with collecting the Rāja’s share of the revenue, a position of control very galling to Chandrasen. A dispute about a deer which had been run down by one of Bālājī’s horsemen forced Bālājī to flee for his life. He fled first to Sāsvad, where the Sachiv’s agent in Purandhar did not think it prudent to protect him. His pursuers were in sight but the commander of the fort would not allow him to enter. With a few followers, among whom were his sons Bājirāo and Chimnāji, Bālājī Vishvanāth attempted to cross to Pándugad fort in the opposite valley, but the Jadhav’s horenmen were on his track and searching for him in every quarter. Bālājī managed to hide himself for a few days. Then two Marāthās, Pīlājī Jadhav and Dhumal, two of his self-horsed troopers, undertook to carry him to a place of safety. They gathered a small troop of horse, and, though they were attacked on the way and a man on each side of him had to hold on Bālājī who could not ride, they carried him and his sons out of danger. After this Chandrasen, Bālājī’s rival, left the Marāthās and took service with the Nizām, and, with the Nizām’s help, drove back Shāhu’s forces from the Godāvari to the Bhima. To support his local troops Shāhu sent Bālājī whom he dignified with the title of sena kurt or army agent. Bālājī joined Haibatrāv Nimbālkar, and they together fell back on Purandhar. A battle was fought which the Marāthās claim as a victory, but which seems to have been a defeat as they afterwards retreated to the Sālpa pass. Poonā was overrun by a detachment of Marāthās in the Nizām’s service under Rambhājī Nimbālkar. An agreement was made, and, as was their custom, the Moghal troops retired for the rains to Aurangabad. As soon as they were gone, under different

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\(^1\) Shankrājji performed the \textit{jalasamadh} or water-burial by sitting tied to a wooden raft which floated on empty jars pierced with holes. As the jars filled the raft sunk and the person seated on the raft was drowned. Hindu devotees were rather partial to this form of death. Grant Duff’s \textit{Marathas}, 186 foot.

\(^2\) Grant Duff’s \textit{Marathas}, 189.

\(^3\) In January 1712 Shivājī, the son of Tārābāi, who was of weak mind, died of small-pox. On his death Tārābāi was removed from the administration, and Sambhājī the son of Rājasbāi the younger widow of Rājārām was appointed in her stead. Tārāhāi and Bhavānibhāi her son’s widow, who is said to have been pregnant at the time of her husband’s death, were put into confinement.

\(^4\) Bālājī Vishvanāth was the \textit{kukarni} or village accountant of Shivrājdh in Janjira, a village then claimed by the Sidi from which in consequence of some intrigue connected with the Sidi’s enemy Angira he had fled to Sāsvad in Poonā, and was recommended to Dhanājī Jadhav by Abājī Purandhare and Parashurām Trimbak.
leaders, the Marathás spread plundering over the country. All the leading Hindu deshmukhs and deshpándátiás in the Moghal parts of the Maratha country fortified their villages on pretence of defending them, but often joined and helped their countrymen. As Nizám-ul-Mulk favoured the Kolhâpur party, Sháhú’s influence continued to decline. In the prevailing anarchy Damájí Thorat, who was attached to the cause of Kolhâpur, strengthened a mud fort in the village of Hingui or Hingangaon, near Pátas, about forty miles east of Poona and levied contributions about thirty miles round. Bálájí Vishvanáth, who set out to reduce Damájí, was seduced to a conference, treacherously seized, and thrown into confinement, together with his friend Abájí Purandhare, Bálájí’s two sons Bájirá vày and Chimánáji, and several of their immediate retainers. Thorát threatened them with torture and death if they did not pay a large ransom. The ransom was paid, and the Sachiv was sent against Damájí. But he was defeated and himself and his chief agent made prisoners.

About the same time Bahíropant, Sháhú’s minister or peshwa, undertook an expedition into the Konkan to repel the pirate chief Àngria of Kolába. Bahíropant was defeated and made prisoner. Àngria advanced and took the forts of Rájmáchi and Lohogad in west Poona. Àngria intended to march on Sátâra, but he was met and defeated by Bálájí. After the defeat, Bálájí, by the grant of ten forts and sixteen fortified places in the Konkan, persuaded Àngria to forsake the cause of Kolhâpur and become tributary to Sháhú.1 In consequence of this valuable service, in 1714, Bálájí Vishvanáth was appointed Peshwa in place of Bahíropant Píngle who was removed. Bálájí’s friend Abájí Purandhare was confirmed as his deputy or mutálik and Rámpíjápat Bálájí the ancestor of the celebrated Náma Fadnávis as his secretary or fadnávis. After Chandráson Jâdhav deserted to the Moghals in 1710, Mánájí More had been appointed Sháhú’s commander-in-chief or senápati. Since then he had performed no service of distinction. Bálájí Peshwa now arranged that Mánájí, the commander-in-chief with Háibratráv Nimbálkár should reduce Damájí Thorá’t. Before hostilities began Bálájí succeeded in procuring the release of Damájí’s prisoner the Pant Sachív, and, in gratitude for this service, the Pant Sachív’s mother presented Bálájí with all the Pant Sachív’s rights in Purandhâr and gave him the fort as a place of safety for his family whose head-quarters had hitherto been at Sásvâd. This transfer was confirmed by Sháhú. The force assembled in the Poona district under Mánájí was too powerful for Thorát. He was driven back, Hingangam his fort was stormed and destroyed, and himself made prisoner. In 1715 Bálájí Peshwa induced the Moghal agent for the Poona district, a Marátha named Bálájí Kadam, to make over the superior authority to him on the promise that Rambhájí Nimbálkár’s estates should be respected. As soon as he acquired this authority Bálájí turned his attention to putting down the free-

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1 The ten forts were Khánderi, Kolába, Suvârdurg, Vijâyadurg, Jaygad, Devdurg, Kaulíkurdurg, Fategâd, Autschágad, and Yasvantgâd; the sixteen fortified places were Bahirurgâd, Kotla, Venkatgâd, Mánikgâd, Mirgâd, Ságargâd, Rasâlgâd, Pâlgâd, Khârepátan, Râmâdurg, Râjâpûr, Ambar, Sátvâli, Kâmte, Shrîvârdhan, and Manranjân.
booters with whom the country swarmed, he stopped revenue-farming, and encouraged tillage by granting leases at low rates. Negotiations between Sháhu and the court of Delhi were set on foot, in consequence of which in 1718 Bálájí, in command of a large contingent, was sent to Delhi to assist the Sayads. This was the beginning of Maráthá influence at Delhi with which till 1803 they were so closely connected. The battle of Sháhápúr destroyed the power of the Sayads, and established Muhammadsháh upon the throne of the decaying empire. Bálájí succeeded in obtaining from the imperial court three grants one for the chauth or one-fourth of the whole revenue of the six subhás of the Deccan, including the Haidarabad and Bijápúr territories, the Karnátak, and the tributary states of Tanjor, Trichinopoly, and Maisur, and a second for the sardeshmukhi or additional one-tenth of the Deccan revenue. The third grant was for the svaráj or home-rule by the Maráthás of sixteen districts, which they stated Shivájí held at the time of his death. Under this arrangement almost the whole of Poona, Supa, Bárámátí, Indápúr, and Junnar became part of the Maráthá home-rule. In reward for his services on the occasion Bálájí Vishvanáth received several districts near Poona in personal grant or jágir including the fort of Lohogád.

Not long after (1720) Chinkalich Khán, better known as the Nizám-ul-Mulk, who, after the murder of the emperor Ferokshir, had been appointed governor of Málwa, revolted, and crossing the Narbada and defeating the imperial forces at Burbánpúr and Bálápúr, made himself independent in the Deccan. Bálájí’s health had suffered considerably from the fatigue of the journey to and from Delhi and the labour he bestowed on the management of affairs after his return. He was allowed to retire for his rest to family seat at Sásavád, where he died in a few days in April 1721. He left two sons, Bájíráv and Chimanájí, and two daughters Bhíubái married to Abájí Náik the brother of Bápúji Náik, a rich banker of Bárámátí, and Annubáí, the wife of Náráyanráv Ghorpade of Ichalkaranjí in the Bombay Karnátak. For nearly seven months after his father’s death Bálájí’s eldest son Bájíráv was not formally invested with the dignity of Peshwa. At last Bájíráv received his robes, his brother Chimanájí received the command of an army under the Peshwa and the district of Supa in grant or jágir, and Abájípant Purandhare, their father’s head agent, was reinvested by Sháhu. Soon after his appointment Bájíráv Peshwa set out with an army for Khándesh, but, till 1724, he was forced every year to return to Sátára. Bájíráv’s great design was to extend Maráthá power in North India. In a debate before Sháhu he said, Now is our time to drive strangers from the land of the Hindus and to gain undying

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1 The svaráj or home-rule districts were Poona, Supa including Bárámátí, Indápúr, Váí, the Mánala, Sátára, Káhrád, Khatáv, Mán, Phaltán, Málkápúr, Tárá, Panhála, Ajrá, Junnar, and Kolápúr; the pargáns of Kopal, Gadág, Hálást, and all the forts which were captured by Shivájí to the north of the Túngbhadra, and Rámnagar in the Konkan including Gándeví, Jawábár, Cheul, Bhirágad, Bhíwíndí, Kháiyúndí, Déjúndí, Dábbol, Jáví, Bálájípúr, Phonds, Akoíla, and Kudál. The six subhás of the Deccan were Anrágad, Bedár, Bérár, Bálájípúr, Haidarabad, and Khándesh, yielding an estimated revenue of Rs. 18,05,17,300, the sardeshmukhí on which was Rs. 1,50,000, and the chauth and other rights Rs. 11,75,16,762. Grant Duff’s Maráthá, 200.

2 Grant Duff’s Maráthá, 209.

3 Grant Duff’s Maráthá, 212.
renown. By turning our efforts to Hindustán the Marātha flag shall fly from the Krishna to the Attok. Let us strike at the trunk of the withering tree and the branches must fall of themselves. Shāhu for the moment roused to something of his grandfather’s spirit replied, You shall plant my flag on the Himalayas. You are a noble son of a worthy father. At this time several Marātha officers, who afterwards became independent leaders or founders of states, rose to distinction. The chief of these were Malharī Holkar, the ancestor of the Holkars of Indur then chaugula or assistant headman of the village of Hol on the Nira, Ranoji Sinda the ancestor of the Sindiās of Gwālior, the Peshwa’s slipper-bearer, Udāji Povār the ancestor of the Povārs of Dhar an enterprising warrior of Mālwa, and Pilāji Gāikwār the son of Damāji Gāikwār the ancestor of the Baroda Gāikwārs.1 In 1731 Bājirāv remained at Poona and employed himself in the internal management of Marātha affairs. His victory over his rival Trimbakraù Dābhāde the Marātha commander-in-chief or Senāpati like the issue of every civil war left unfriendly feelings in many minds. Bājirāv took every means to regain goodwill, among others continuing Dābhāde’s practice of feeding some thousand Brāhmans for several days. This charitable practice Bājirāv continued at Poona and gave sums of money at the same time to the assembled Shāstris and Vaidiks. This festival was continued by his successors and was known by the name of Dakshina or money gifts.2 In 1734 Bālāji was most successful in the north gaining Mālwa and the territory between the Chambal and the Narbada, and, in 1739, his brother Chimnāji drove the Portuguese from almost all their leading possessions in the North Konkan. Bājirāv died in 1740. He left three sons, Bālāji the eldest who succeeded him as Peshwa, Raghuṇāthrāv the second afterwards so well known to the English, and Janārādān Bāva who died in early youth. He left one illegitimate son by a Muhammadan mother whom he bred as a Musalman and named Samsher-Bahādur. Bājirāv was ambitious, a thorough soldier, hardy, self-denying, persevering, and patriotic. Marātha pictures represent him eating fried jvārī ears or hurda as he rides at the head of a troop of Marātha soldiers. He was no unworthy rival of Nizām-ul-Mulk, and wielded the mighty arm of Marātha power with incomparable energy. While the main body of his army remained encamped on the Shivganga, Raghuji Bhonsla the Sena Sāheb Subha or commander-in-chief returned to Sātāra, and endeavoured to prevent Bālāji Bājirāv’s succession as Peshwa by proposing for the vacant office Bāpuji Nāik, a Brāhman banker of Bārāmati, a connection but an enemy of the late Peshwa who was Bāpuji’s debtor for a large sum. Chiefly by the help of his uncle Chimnāji, Bālāji’s claims prevailed, and he was invested in August 1740. The disappointed Bāpuji Nāik at first pressed Bālāji hard to pay his father’s debts, Bālāji was relieved from this annoyance by the influence and credit of his agent or divān, Mahādājīpant Purandhare. In 1741, on the death of his uncle Chimnāji, Bālāji Peshwa returned from the northern

1 Grant Duff’s Marāthās, 212.
2 Grant Duff’s Marāthās, 205. This dakshina fund is now used for promoting vernacular literature and providing fellowships in the two arts colleges in Poona and Bombay.
districts and spent nearly a year in improving the civil administration of Poona and Sátára. From this till 1745, a time of comparative quiet in the Deccan, Bálájí encouraged agriculture, protected the villagers and grain merchants, and caused a marked improvement in the state of the country.

Sháhu died in 1749 and was succeeded by Rám Rája, the posthumous son of the second Shiváji whose birth in 1712 was kept a secret. Before his death Bálájí obtained a deed from Sháhu Rája empowering him to manage the Marátha empire, on condition of perpetuating the Rája’s name and keeping up the dignity of the house of Shiváji through the grandson of Tárábáí and his descendants. Bálájí left the Rája in Raghjúji’s charge and went to Poona, and from this time Poona became the capital of the Marátha empire. Tárábáí, whom Bálájí had almost overlooked, although seventy years of age, showed him how dangerous it was to slight a woman of her spirit. On pretence of paying her devotions at her husband Rájárám’s tomb in the fort of Sinhgad, she endeavoured to persuade the Pant Sachiv to declare for her as the head of the Marátha empire. After much persuasion Bálájí induced Tárábáí to come to Poona, and, flattering her ambition with the hope of a large share in the administration, persuaded her to use her influence with Rám Rája to confirm his schemes. The Marátha chiefs were subservient to the Peshwa’s views and were not likely to cause opposition. Bálájí owed much of his success to his minister or diván, Mahádájipánt, who, except Sadashivráv his cousin had more influence than any one over Bálájí. Through Sadashivráv’s influence, Rám Rája the new Sátára chief agreed to renounce the entire power, and to lend his sanction to whatever measures the Peshwa might pursue. After Bálájí’s scheme had so far prospered, it was nearly ruined by a quarrel between him and his cousin Sadashivráv. Sadashivráv applied to Bálájí for the same share of authority as had been enjoyed by Sadashivráv’s father Chinnájí Appa. To this Bálájí would not agree as he was anxious that the second place should be held not by Sadashivráv but by Mahádájipánt Purandhare to whom Bálájí was under deep obligations. Sadashivráv in anger accepted the position of Peshwa to the chief of Kolhápur. As this quarrel was likely seriously to weaken the power of the Peshwa, Mahádájipánt gave up his post and Sadashivráv came to Poona as the Peshwa’s minister or diván.1

In 1750 Bálájí Peshwa arranged that the Pant Sachiv should give him Sinhgad in exchange for Tung and Tikona in Western Poona.2 He then marched with an army towards Aurangabad. In 1751 as Damájí Gáikwár did not comply with Bálájí’s commands, the Peshwa sent private orders to seize some of the Gáikwár and Dábháde families, who were living at Talegaon, and imprison them in the hill-fort of Lohagad. He also treacherously surrounded, attacked, and plundered Damájí’s camp which was near him at Sátára, and kept him in confinement in the city of Poona.3 During

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1 Grant Duff’s Maráthás, 271-272. 2 Grant Duff’s Maráthás, 271-272. 3 In consequence of this treachery Damájí is said ever after to have refused to salute the Peshwa except with his left hand. Grant Duff’s Maráthás, 274.
the same year (1751) the Moghals, supported by the French, advanced towards Poona, totally destroying every village in their route. Báláji, alarmed at their progress, endeavoured to negotiate, and at the same time to arouse suspicion and jealousy of the French among Salábat Jang’s officers. Monsieur Bussy, the French general, as the best means of counteracting such schemes and securing influence with the Nizám, exerted himself with judgment and energy. He planned an attack on the Maráthá camp at Rájápur on the Ghod river on the night of the 22nd of November, at the moment of an eclipse of the moon when the Hindus were at prayer. The Maráthá army fled before him, and though only one man of consequence was wounded, some valuable booty was taken particularly some gold vessels belonging to the Peshwa. This success added greatly to Bussy’s reputation. In spite of the surprise, next day the Maráthás were as active as ever. Still the Moghals pressed on, plundered Ránujangaon, and totally destroyed Talegaon Dábháde. At last on the 27th of November they were attacked by the Maráthás with the greatest determination, and nothing but the French artillery saved them from total defeat. The Maráthás were led by Mahádájjípant Purandhare, the late diván, supported by the two sons of Ránojí Sindia, Dattáji, and Mahádáji, and by Konker Trimbak Ekhote whose feats of valour gained him the title of Phákde or the hero. Still the Moghals pressed on to Koregaon on the Bhima. Negotiations were opened but were stopped by the news that the Maráthás had taken the Moghal fort of Trimbak in Násik. Salábat Jang demanded that the restoration of Trimbak should form part of any settlement. This Báláji refused and the Moghals moved towards Junnar continually harassed by the Maráthás. At last an armistice was concluded and the Moghals returned to Haidarabad (1752). During the next year the armistice was turned into a peace. Báláji returned to Poona and soon after prepared a large force for an expedition into the Karnátaik which turned out to be the most profitable in which he was ever engaged.¹ Before he left for the Karnátaik Báláji endeavoured to arrange a compromise with Tárábáí against whom a force had been sent in the previous year. In June 1754 Báláji returned to Poona from the Karnátaik. Damáji Gaikwárd, who had been imprisoned at Poona since 1751, was anxious to procure his release, and Báláji entered into terms, when, among other points it was arranged that Damáji should pay a sum of £150,000 (Rs. 15,00,000), should set apart for the Peshwa half of the territory conquered by him in Gujarát, and should pay a large sum as deputy commander-in-chief.

In 1751, with the object of gaining possession of Surat then the chief centre of trade in Western India, Raghubúnáthráv, Báláji’s brother, had been sent to Gujarát, but was recalled without effecting his object. Nothing more was done till at the close of the rains of 1754, to spread Maráthá power in Gujarát and to carry out the settlement made with Damáji, Raghubúnáthráv started on a second expedition to Gujarát. Shortly after a second expedition which Báláji accompanied for some distance in person proceeded to the

¹ Grant Duff’s Maráthás, 230.
Karnátak. Báláji, who was naturally indolent, left the burden of military affairs to his brother Raghunáthrav and the civil administration to his cousin Sadáshivráv. For more than the life of a man plunder and violence had been general. An improvement was begun at this time by Rámchandra Bába Shényi the friend and adviser of Sadáshiv and after his death was carried on by Sadáshiv Chinnájí.

In March 1758, Raghújí Bhonsla the Séná Sáheb Subbha died. Before his death he counselled his son to preserve union in the Marátha empire. Soon after, with the object of being confirmed in his father’s office, Raghuji’s son Jánóji came to Poona. Encouraged by Jánóji’s approach, and, on the Peshwa’s assurance of safety, Tárábái, the aged head of the Sátára state, came to Poona. She was received with great attention and agreed to the Peshwa’s former proposals. Báláji professed much anxiety for the release of Rám Bája, the Sátára chief, who was then in confinement in Sátára fort. He pressed the point, being anxious that Rám Bája should be kept in confinement and judging that to profess the opposite view was the likeliest means to bring Tárábái to take the course he wished. This calculation was correct and the chief remained a prisoner. Jánóji Bhonsla agreed to the terms subscribed by his father. He undertook to furnish 10,000 horse for the service of the state and to pay £90,000 (Rs. 9 lakhs) a year to meet the cost of the establishment of the Sátára chief. Jánóji was formally invested as Séná Sáheb Subbha, and Báláji approved of the treaty Jánóji had made in 1751 with Alivardi Khán of Haidarabad, under which the Maráthás were to receive a share of the revenues of Orissa. Jánóji then left for Berár.

In July 1755 Báláji Peshwa returned from an expedition into the Karnátak. Shortly after Báláji’s return Muzaffar Khán, who had been dismissed from the Nizám’s service appeared at Poona, made humble apologies to the Peshwa and promises of good conduct, and was again entertained contrary to Sadáshivráv’s advice. In April 1756 the capture of Ángriá’s stronghold of Gheria or Vijaydurg in Ratnágiri and the destruction of Ángriá’s power at sea was the first achievement which raised the English to importance as a political power in Western India. A land force of the Peshwa’s had acted with the English fleet. They had given little aid and by intrigues with Angria had tried to secure Gheria for themselves. This attempt was discovered and prevented by the English, and the English were in the strong position of holding Gheria of which Báláji was most anxious to gain possession. In October 1756, Mr. John Spencer and Mr. Thomas Byfield, members of the Bombay Council, came to Poona and had a long interview with Báláji Peshwa at which Raghunáthrav the Peshwa’s brother and Sadáshivráv the Peshwa’s cousin were present. As news had reached him that M. Bussy had been restored to power at Haidarabad Báláji was anxious to obtain the services of a body of English troops. To this Mr. Spencer was instructed not to agree, though, at the same time, he was to let the Peshwa know that Salábát Khán had been asking the Madras Government to supply him with English troops to aid him in
driving out the French. Bálájí expressed strong disapproval of any alliance between the English and the Nizám. Under a treaty concluded on the 12th of October 1756 Bálájí agreed to allow the Dutch no share in the trade of the Marátha dominions, and the English agreed to cede Gheria to Bálájí receiving in exchange ten villages including Bánkot in the Central Konkan and the sovereignty of the Bánkot river. Bálájí engaged to give no territory to Ángra and to settle with the Sidi of Janjira regarding his customs dues in the Bánkot river. He also agreed to waive all claims on the English company and to levy on English merchandise no additional inland duties.1 Shortly after (1756) Raghunáthráv, with Sakharám Bápú as his agent or diván started for Hindustán. They were joined by Maháráv Holkar, and together advanced to Delhi and broke the power of Ahmad Abdalli who was forced to retire to Afghanistan. This, though one of the most successful of Marátha campaigns, was costly, and was not rewarded with any large share of booty. At the close of 1756 Bálájí led an army south to the Karnáták, and crossed the Krishna in February 1757. Meanwhile news had come that the English were in trouble in Calcutta, and that war had broken out in Europe between England and France. This caused a change in Bálájí’s attitude to the English. He wrote to the Madras Government, forwarding a letter to the king of England, written with much less friendliness than he had shown in the negotiations with Mr. Spencer, and, in spite of the provision in the 1756 treaty agreeing to waive all claims on the English Company, asking for the treasure and stores which the English had carried off from Gheria. This request was probably made not in the hope of getting the Gheria spoils, but preparatory to demands for a share in the revenues of the Moghal provinces of the eastern or Páyín Ghát that is lowland Karnáták in which the English had now a direct interest. About May 1757 Bálájí returned from the Karnáták with the greater part of his army successful to Poona.

During the next two years Bálájí took a considerable part in Haidarabád affairs where a plot was on foot to cause a revolution and drive out the French. In March 1759 Bálájí succeeded for a time in keeping the English from taking Surat castle, but through the ability of Mr. Spencer and the military talents of Admiral Watson the castle and with it the post of Moghal admiral passed to the English in the same year. At Poona the civil administration continued under the management of Sadáshivráv, Bálájí’s cousin. Sadáshivráv was violent and grasping but active and vigorous, and though proud and unbending, had a large share of good nature and good sense. He was open to bribes but not under circumstances to which Marátha ideas attached shame. Sadáshivráv had a bitter enemy in Bálájí’s wife Gopikábáí, who feared that Sadáshivráv would prevent her sons from gaining their proper position and power in the state. To remove her fears Sadáshivráv was urgent in recommending to Bálájí

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1 Grant Duff’s Maráthás, 298.
the early employment of his eldest son Vishvásráv in war and in civil affairs. In spite of Sadashivráv’s goodwill in this matter, Gopíkbáí nursed a bitter dislike of Sadashivráv and did what she could to arouse unfriendly feelings between him and her husband Bálájí. This ill feeling did not turn to open discourtesy till the return of Rágunáthráv from North India in 1759. Sadashivráv blamed an arrangement of Rágunáthráv’s which had caused a loss to the state, and Rágunáthráv left him in anger telling him he had better take command of the next expedition. The quarrel between Rágunáthráv and Sadashivráv spread to other members of the family, and the ill feeling became still stronger after an attempt on Sadashivráv’s life by Múzzaftar Khán whom, contrary to Sadashivráv’s advice, Bálájí had received back to favour. There was no proof that either Bálájí or Rágunáthráv was a party to the plot. In 1760 the arrangement which had been suggested by Rágunáthráv in anger, that Rágunáthráv should take Sadashivráv’s place at the head of civil affairs in the Deccan and that Sadashivráv should take Rágunáthráv’s place at the head of the Maráthá army in North India was carried out. Before Sadashivráv left with his army for North India, news came of the success of an intrigue for the surrender of the strong fort of Ahmadnagar, which for a sum of money was betrayed into the hands of a Bráhman agent of Sadashivráv’s by Káví Jang the Moghal commandant. This act of treachery brought on a war with the Nizám. Bálájí marched with a large army to Ahmadnagar, and Sadashivráv moved eastwards. The Moghal army under Salábat Jang and Nizám Ali met Bálájí’s army at Udgir on the banks of the Mánjra about one hundred miles east of Ahmadnagar, and chiefly by the brilliant courage of Sadashivráv ended in a severe defeat to the Nizám. Under the terms of a treaty concluded after this important victory, Shivner in Poona, Daulatabad, Asirgad, Bijápur, and the province of Aurangabad were made over to the Maráthá. These territories yielded an estimated yearly revenue of over £620,000 (Rs. 62 lákhs). Of the whole territory portions yielding an estimated yearly revenue of £410,000 (Rs. 41 lákhs) were according to the Peshwa’s practice granted as military estates or jágirs. Towards the close of 1760 Sadashivráv marched to North India in command of the richest army which the Maráthá ever assembled. In the middle of January 1761 news of the ruin of the Maráthá at Pánipat reached Peshwa Bálájíráv in the Godávari valley. The message ran: Two pearls have been dissolved, twenty-seven gold mohárs have been lost, of the silver and copper the total cannot be cast up. Bálájí understood that the two leaders his cousin Sadashivráv and his eldest son Vishvásráv were slain, numbers of his nobles lost, and the mass of the proudest army the Maráthá ever put in the field destroyed. Bálájí retired slowly to Poona. The blow crushed him, his mind gave way, and he died in the end of June in the temple he had built on Parváti hill close to the south of Poona.

Though under Bálájí the Maráthá power was at its highest, and though the Maráthá praise the time of his rule, Bálájí owed more to his father and grandfather and to his brother Rágunáthráv and his cousin Sadashivráv than he owed to himself. He was
lazy sensual and dissipated, but kind generous and charitable. He loved intrigue and hated violence. He had great address, polished manners, and considerable political sagacity, tempered by a cunning which passed for wisdom. Though perhaps less well-ordered than it became about thirty years later under Nāna Fadnavis, under Bālāji Bājirāv the administration of the country round Poona was greatly improved. Bālāji Vishvanāth the first Peshwa (1714-1720) had done good by stopping revenue-farming, by granting land on cheap leases, and by encouraging villagers to protect themselves from the exactions of petty chiefs. Still, till about 1750, the country round Poona was full of turbulence and disorder. Bālāji Bājirāv appointed māmlatdārs and subhedārs to the different districts and over them in the more distant parts placed a sarsubhedār or provincial governor. Poona and the other lands between the Godāvari and the Krishna, though the best protected territories under Marātha rule, had no governor. Instead of being under a governor they were under the Peshwa's favourites and courtiers, who had absolute police, revenue, and judicial power. They stayed at court, governed by deputy, allowed their districts to fall into disorder, paid to the state but a small share of their revenues, and furnished no accounts. Bālāji Bājirāv was too indolent to reform these abuses. But Sadāshivrāv, acting on a policy which was started by Rāmchandra Bāba Shenvi, appointed a governor or sarsubhedār, and, in spite of opposition which in one case had to be met by force, compelled the managers of the districts to produce their accounts and to pay the state its share of the revenue. A respectable Shāstri was placed at the head of justice and the police was greatly improved. These reforms and the Peshwa's success in war, which enriched the Deccan with the spoils of great part of India, improved the state of the people. The Marātha peasantry have ever since blessed the days of Bālāji Bājirāv, or as he was commonly called Nāna Saheb Peshwa.²

Though power had so entirely passed from the Sātāra chief that he had to get leave from the Peshwa to appoint an agent to collect his dues as hereditary deshmukh of Indāpur, Bālāji's second son Mādhavrāv, then in his seventeenth year, in September 1761 went to Sātāra to receive investiture. The young Mādhavrāv and his uncle Rāghanuṭhrāv who was appointed regent had to face the difficulties which the ruin of Pānipat had brought upon the heads of the Marātha empire. The first difficulty was in the Konkan where the English sided with the Sidi of Janjira, saved his state from destruction by the Marāthās, and forced the Marāthās to restore part of the Sidi's lands which they had taken.³ Rāghanuṭhrāv agreed to these terms because he knew that Nizām Ali was collecting a large force in the hope of winning back the territories which had been lost to Haidarābad by the defeat of Udgir in 1760. The Peshwa's finances were low and the Marātha nobles held back from coming to the Peshwa's help. Rāghanuṭhrāv, in the hope

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1 Grant Duff's Marāthās, 307.  
2 Grant Duff's Marāthās, 320-322.  
3 Grant Duff's Marāthās, 324.
of securing the services of English troops, offered the Bombay Government large cessions of territory near Jambusar in Gujarát. What the Bombay Government wanted was the island of Salsette but this Raghunáthrav was most unwilling to give. While negotiations went on, the Moghal army had advanced close to Ahmadnagar. At Toka about forty-five miles east of Ahmadnagar the Mulsamns destroyed some Hindu temples, and most of the Maráthás in their army deserted to the Peshwa carrying with them Mir Moghal Nizám-ul-Mulk’s youngest son. The Moghals, though opposed with spirit, continued to advance. At last in 1762, within fourteen miles of Poona, negotiations were opened and on the cession of land in Aurangabad and Bedar yielding £270,000 (Rs. 27 lakhs) a year the Moghal army retired. When the danger from the Moghals was at an end Raghunáthrav’s anxiety for English soldiers ceased, and the negotiations about ceding Salsette to the English were rudely broken off.

When the treaty with the Nizám was concluded, Mádhavráv the young Peshwa, attended by Trimbákráv Máma the maternal uncle of the late Sadáshivráv, was sent south to collect the revenue, and Nizám Ali returned towards Bedar. Shortly after Mádhavráv returned to Poona, his anxiety to share in the administration brought on disputes between him and his uncle Raghunáthrav. Raghunáthrav, Sakhárám Bhagavant Bokil better known as Sakhárám Bápú, and several other ministers resigned. Mádhavráv promptly asked Trimbákráv Máma to act as minister or diván, and next under Trimbákráv appointed Gopálráv Govind Patvardhan, Jágírdár of Miraj. At the same time Mádhavráv chose as his personal agents, or kárkuna, Haripant Phadke and Báláí Jánárán Bhánu, afterwards the famous Nána Fadnavis. The failure of his plan to force Mádhavráv to keep him in power and the mutual hatred of Änanásí Raghunáthráv’s wife and Gopikábáí Mádhavráv’s mother so enraged Raghunáthrav that he retired from Násik to Anragabad, and on promise of ceding Danlatabad, Asirgád, Ahmadnagar, Shivner, and territory yielding £510,000 (Rs. 51 lakhs), he was assisted by a Moghal army, with which half-way between Poona and Ahmadnagar he met and defeated Mádhavráv. Mádhavráv saw that a war between him and his uncle must cause a complete split in the Marátha state. He accordingly threw himself into Raghunáthráv’s power, who placed him in confinement but treated him with respect. Raghunáthráv, being now in uncontrolled power, appointed Sakhárám Bápú and Nilkanthráv Purandháre his principal ministers, bestowing on Sakhárám an estate worth £90,000 (Rs. 9 lakhs) and giving Nilkanthráv the command of Purandhar fort. He raised his own infant son Bhákárráv to the office of Pratinidhi or deputy, and made Náro Shankar his deputy. These and other changes gave much offence, and, when, to gratify personal hatred, Raghunáthráv took the fort of Miraj from Gopálráv.

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1 Grant Duff’s Maráthás, 325.
2 Colonel Wilks does not mention this expedition into the Karnátak.
Patvardhan, Gopálráv and many Marátha nobles went over to the Nizám.

In the war which followed the Marátha troops ravaged the Nizám’s country, and Nizám Ali advanced and plundered Poona, taking much property and destroying and burning all houses which were not ransomed. Shortly after, in 1768, the violence of the rains forced the Mughals to withdraw to Anrängabad. In the same year Jánooji Bhonsla, who had been won to the Nizám’s side by the promise of the Sátára regency, found the Nizám’s promises deceptive and returned to the Peshwa. In the battle which followed at Rakisbon or Tándulja, in great measure owing to the courage and military talent of Mádhavráv, the Maráthás gained a complete victory. After peace was concluded with the Nizám, on the death of Raghunáthraráv’s son Bháskarráv, Bhavánráv was restored to his rank of Pratinidhi, Miráj was given back to Gopálráv Patvardhan, and on Bálájí Janárdan Bhumí afterwards known as Nána Fadnavis was bestowed the office of Fadnavis. In 1764 a large army was assembling at Poona to act against Haidar Ali who had risen to power on the ruins of the Hindu state of Músur. Mádhavráv insisted on his right to command this army while his uncle remained at Poona to conduct the government. Sakhirám Bápú joined in supporting Mádhavráv. Raghunáthraráv yielded but retired in anger to Ánandvéli near Náeik. These discussions delayed the Peshwa’s advance, and, before he could reach the Karnátak, Gopálráv Patvardhan was defeated by Haidar’s general Fázálullá Khán with great loss. Mádhavráv was more successful. In the month of May he entered the Karnátak with an army of 30,000 horse and about the same number of infantry and near Ánánávattí inflicted a severe defeat on Haidar Ali. This led to a treaty under which Haidar engaged to restore all places wrested from Muráráv Ghorpade, to relinquish all claims on the Nawáb of Sávanur, and to pay £320,000 (Rs. 32 lâkhs) to the Peshwa. After this treaty was concluded Mádhavráv left the Karnátak and recrossed the Krishná by the end of February 1765. The ill feeling between Mádhavráv and Raghunáthraráv continued to be fostered by the hatred of Gopikdbdi and Ánandibáí. As Mádhavráv knew that Raghunáthraráv could at this time gain the aid either of Nizám Ali or of Jánooji Bhonsla, he, in 1766, concluded a secret alliance with Nizám Ali who hoped to persuade Mádáhavráv to join him in attacking Haidar Ali. During the same year Nizám Ali entered into an alliance with the English with the object of overthrowing Haidar and restraining the spread of the Maráthás. In 1767 Mádáhavráv, who probably felt that the combination of the English and Nizám must be partly directed against him, advanced by himself into the Karnátak, levied £300,000 (Rs. 30 lâkhs) from Haidar and £170,000 (Rs. 17 lâkhs) from other powers in the Karnátak, and returned to the Deccán before the Nizám had taken the field. The English and the Nizám sent envoys to claim part of the Marátha plunder, but they were treated with broad and undisguised ridicule.¹

¹ Grant Duff’s Maráthás, 337.
In 1768 Mr. Mostyn came to Poona as envoy from the Bombay Government to try and secure an assurance that the Peshwa would not join in alliance with Haidar and the Nizâm. Mâdhavráv refused to give any promise and told the envoy that he would be guided by circumstances. In April of the same year, with the help of Damaji Gâikwâr and Gangâdhar Yashvant the divân of Holkar, Raghunâthráv collected a large army at Nâsik and marched about fifty-five miles north to the neighbourhood of the hill fort of Dhodap. As he was waiting at Dhodap in the hope of being joined by Jânoji Bhonsla of Berâr, Mâdhavráv surprised Raghunâthráv’s army, took him prisoner, and carried him to Poona where he confined him in the Peshwa’s palace. In 1769 to punish Jânoji for the support he had given to Raghunâthráv, the Peshwa advanced towards Berâr, and Jânoji wheeled to the west and began to plunder the country on the way to Poona. After Poona was destroyed by Nizâm Ali in 1763, Mâdhavráv had proposed to surround it with a wall. This design was afterwards abandoned on the ground that no fortified plain city could be as safe as Sinhgad and Purandhar. On Jânoji’s approach the people of Poona sent off their property. Mâdhavráv ordered Gopâlráv Patwardhan and Râmchandra Ganes to move against Jânoji with 90,000 horse, but Gopâlráv was in league with Jânoji and took no steps to stop his plundering. Mâdhavráv shortly after was forced to make a treaty with Jânoji. He next ordered Visâji Krishna Binivâle, accompanied by Râmchandra Ganes, Tukoji Holkar, and Mahâdji Sindia the illegitimate son of Rânoji Sindia and the successor in the family estates of his nephew Jankoji, to start at once with an army to Mâlwa. In spite of these urgent orders Mâdhavráv, two or three days after, when riding to his favourite village of Theur thirteen miles east of Poona, found Mahâdji’s camp without a sign of moving. He instantly sent word to Mahâdji, that if on his return from Theur he found a tent standing or his troops in sight he would plunder the camp and take his estates. This expedition to Northern India was extremely successful, and a heavy tribute was imposed on the Jâtis. Though so constantly pressed by wars and rebellions, Mâdhavráv did much to improve the civil government of his country. His efforts were greatly aided by the celebrated Râm Shâstri, an upright and pure judge in almost universal corruption. One of Mâdhavráv’s first acts was to stop the practice of forcing villagers to carry baggage without pay. The practice was so common, that the order putting a stop to it occasioned much discontent and many of the leading men disregarded the order. Mâdhavráv, who had an excellent system of spies, learned that some valuable articles belonging to the subhedâr of Bassein were being carried by forced labour. He seized and confiscated the property, and levied a heavy fine to repay the people for being taken from their fields. He issued fresh orders, which none who knew his system of spies dared to disobey. In the fair season of 1770, Mâdhavráv had leisure to turn his attention to the Karnâtak, where Haidar Ali, having made peace with the English, not only evaded the Marâthâ demands but levied contributions on the Peshwa’s vassals. To punish this insult, in November, Mâdhavráv sent forward a large body of horse under Gopâlráv Patwardhan and Mahârrâv Râstia, himself following at
the head of 20,000 horse and 15,000 foot. His progress was
successful and he reduced several places of strength. In June an
attack of the disease which was wasting him, a consumption which
he believed was brought on by the curse of the mother of the Kolhápur
chief, forced Mádhavráv to return to Poona, leaving Trimbakráv
Máma to carry on the war. In 1771, as soon as the season allowed,
Mádhavráv marched from Poona intending to join Trimbakráv
Máma. He was again taken ill, and made over the command to
Ápa Balvant who defeated Haidar and forced him to come to
terms. During the rainy season Mádhavráv’s health so greatly
improved that he seemed to have shaken off his disease. But in March
1772 his sickness returned. This attack was pronounced incurable,
and on the morning of the 18th of November he died at Theur in the
28th year of his age. He left no children, and his widow Ramábáí,
who had a great love for him, burnt herself with his body. The
death of Mádhavráv, says Grant Duff, occasioned no immediate
commotion. Like his own disease it was at first scarcely perceptible,
but the root which nourished the far-spreading tree was cut from the
stem. The plains of Pánipat were not more fatal to the Marátha
empire than the early end of this excellent prince, brave, prudent,
and successful. Mádhavráv, who is known as Thorale or Great Mádhavráv,
is entitled to special praise for his support of the weak against the oppressive,
of the poor against the rich, and, so far as the constitution of society
admitted, for his justness. Mádhavráv started nothing new. He
improved the existing system, tried to cure defects without changing
forms, and restrained a corruption which he could not remove. The
efficiency of his early government was clogged rather than aided
by the abilities of Sakhárám Bápú. The old minister’s influence
was too great for his young master’s talents. All useful acts were
set down to Sakhárám Bápú and all that was unpleasant to Mádhavráv,
an allotment of praise and blame, which Mádhavráv’s irritable
and ungoverned temper seemed to justify. When, shortly after
Raghu-náthráv’s confinement (1768), Mádhavráv removed Sakhárám,
he allowed Moroba his successor to do nothing without his orders,
and established a system of intelligence which gave him prompt and
exact information regarding both domestic and foreign events.

For some time before Mádhavráv’s death Raghu-náthráv’s
confinement had been much relaxed. As his nephew’s health declined,
Raghu-náthráv opened intrigues with Haidar Ali and the Nizám to
obtain his freedom and secure his succession as Peshwa. During
Mádhavráv’s last illness the ministers intercepted the correspondence.
Nineteen persons were sent to hill forts, and Raghu-náthráv’s
confinement would have become stricter than ever, had not Mádhavráv,
feeling that death was near, interposed, observing that it
was natural for his uncle to desire his liberty. His sound
discrimination showed him that his brother would fail to conduct the
administration if Raghu-náthráv were neither effectually restrained
nor conciliated. Judging conciliation better than restraint, he
appointed Raghu-náthráv’s friend Sakhárám Bápú minister, and
summoned Raghu-náthráv to Theur and there solemnly placed his
younger brother Náráyanráv under Raghu-náthráv’s charge. Shortly
before Mādhavrāv’s death Mr. Thomas Mostyn, of the Bombay Civil Service, came to live at Poona as an envoy of the British Government.¹ In December 1772 Narāyanrāv, the third of Bālājī Bājirāv’s sons, then seventeen years old went to Sátāra and was invested as Peshwa. Sakhārām Bāpu received the robes of prime minister under the name of kārbhārī, Bajāba Purandhāre was appointed minister or dīvān, and Nāna Fadnavis was appointed recorder or fadnavis.² Narāyanrāv and Raghunāthrāv for some time continued in apparent friendship. But the old hatred between Narāyanrāv’s mother Gopikābāi and Raghunāthrāv’s wife Ānandibāi, and the jealousy of the Brāhman ministers soon produced discord, and, on the 11th of April 1773, Raghunāthrāv was confined in a room in the palace in which Narāyanrāv usually lived when at Poona. Nāna Fadnavis stood high in Narāyanrāv’s favour, but Bajāba Purandhāre and Haripant Phadke were his chief confidants. The conduct of the leading affairs of state nominally continued with Sakhārām Bāpu, but the favourites were opposed to his power. Narāyanrāv, who had a longing for military fame, looked forward with eagerness to the next season’s campaign in the Karnātak. Troops were told to be in readiness, and orders were despatched to recall the armies from North India. On the morning of the 30th of August a commotion broke out among the Peshwa’s regular infantry in Poona. Towards noon the disturbance so greatly increased that Narāyanrāv, before going to dine, told Haripant Phadke to restore order. Haripant neglected these instructions and went to dine with a friend. In the afternoon, Narāyanrāv, who had retired to rest, was wakened by a tumult in the palace, where a large body of infantry, led by two men named Sumersing and Muhammad Yusuf, were demanding arrears of pay. Kharakasing who commanded the palace guard joined the rioters. Instead of entering the open main gate, they made their way through an unfinished door on the east side, which, together with the wall round the palace, had shortly before been pulled down to make an entrance distinct from the entrance to Raghunāthrāv’s quarter. On starting from sleep Narāyanrāv, closely pursued by Sumersing, ran to his uncle’s room. He threw himself into his uncle’s arms, and called on him to save him. Raghunāthrāv begged Sumersing to spare his life. I have not gone thus far to ensure my own destruction replied Sumersing; let him go, or you shall die with him. Raghunāthrāv disengaged himself and got out on the terrace. Narāyanrāv attempted to follow him, but Tralia Povār an armed Marātha servant of Raghunāthrāv’s, seized him by the leg, and pulled him down. As Narāyanrāv fell, Chāpājī Tilekar, one of his own servants, came in, and though unarmed rushed to his master. Narāyanrāv clasped his arms round Chāpājī’s neck, and Sumersing and Tralia slew them both with their swords. Meanwhile

¹ Grant Duff’s Marāthās, 371. The appointment of envoy was made under instructions from the Court of Directors. The object of the appointment nominally was to keep the different Presidencies informed of the movements and intentions of the Marāthās. The real object of the mission was to obtain the cession of Sālsette and the islands of the Bombay harbour.

² The first object of the new administration was the reduction of Rāygad in Kolāba (1773) which was held by the Moghals. Grant Duff’s Marāthās, 359.
the conspirators secured the whole of the outer wall of the palace. The tumult passed to the city, armed men thronged the streets, the shops were shut, and the townspeople ran to and fro in consternation. Sakharám Bápú went to the police magistrate's office and there heard that Raghunáthráv had sent assurances to the people that all was quiet. Sakharám Bápú directed Haripant Phadke to write a note to Raghunáthráv. Raghunáthráv answered telling him that some soldiers had murdered his nephew. Haripant declared that Raghunáthráv was the murderer and fled to Bárámáti. Sakharám Bápú told the people to go to their homes and that no one would harm them. On that night Bajába Purandhare and Mándoji Ghorpade had an interview with Raghunáthráv, and Trimbrárv Máma bore off Náráyanráv's body and burnt it. Visitors were received at the palace. Mr. Mostyn, the English envoy and the different agents paid their respects, but Raghunáthráv remained in confinement, detained, as was said, by the conspirators as a security for the payment of their arrears. Raghunáthráv was suspected, but there was no proof. He was known to have loved his nephew, and the ministers decided that, until the contrary was proved, Raghunáthráv should be held innocent and be accepted as the new Peshwa. Rám Shástri approved of this decision. At the same time he made close inquiries. After about six weeks he found a paper from Raghunáthráv to Sumersing, giving him authority to slay Náráyanráv. Rám Shástri showed this paper to Raghunáthráv, who admitted that he had given an order, but persisted that his order was to seize Náráyanráv, not to slay him. Examination of the paper confirmed Raghunáthráv's statement, showing that the word dhárávee seize had been changed to mórávev kill. This change it was generally believed was the work of Ánandibái Raghunáthráv's wife; it was also believed that it was under her orders that the servant Traía Povár had taken part in Náráyanráv's murder. When Raghunáthráv confessed his share in Náráyanráv's murder, he asked Rám Shástri what atonement he could make. The sacrifice of your life, replied the Shástri, is the only atonement. The Shástri refused to stay longer in Poona with Raghunáthráv at the head of affrays, left the city, and spent the rest of his life in retirement near Váí. Meanwhile the arrears of pay were discharged, Raghunáthráv was released, and his adopted son Amritráv, attended by Bajába Purandhare, was sent to Sátára to bring the robes of office. Raghunáthráv was proclaimed Peshwa. Sakharám Bápú was confirmed as prime minister or káríbhárí; and Chinto Víthal and Sadáshiv Rámcandra the son of Rámcandra Bába Shenvi were the most confidential of Raghunáthráv's advisors. Náráyanráv was murdered in his eighteenth year. His follies, which were the follies of a boy, have been blackened into crimes by the feelings and interests of his rivals. He was affectionate to his relations, kind to his servants, and loved by all his enemies. By the end of the rainy season (November 1773) the Peshwa's army in North India under Visájí Krishna returned to Poona. They had defeated an attempt of the emperor Sháh Álam II. to free himself from Marátha control, and had greatly strengthened Marátha power at the Delhi court.¹

¹ Grant Duff's Marátha, 363.
and Nizám Ali of Haidarabad lost little time in taking advantage of the disorders at Poona. Raghunáthrav resolved to oppose Nizám Ali and cripple his power. It was when the army had marched and Raghunáthrav was leaving Poona, that Rám Shástri produced the proof of Raghunáthrav's knowledge of the plot against Náráyanráv and stated that so long as Raghunáthrav remained at the head of affairs he would never return to Poona. Though the other ministers did not openly withdraw from Raghunáthrav's support they soon became estranged from his councils, and Sádásiv Rámchandra, Chinto Vithal, A'bájí Mahádev, and Sakhárám Hari, the persons of whom he made choice, were ill qualified to supply their place. Sakhárám Bápú and Nána Fadnavis on different pretences withdrew from the army and returned to Poona. They were soon followed by Ganpatráv Rástia, Bábájí Nák Bárámatickar,¹ and several other persons of consequence. Except Bajába Purandhare, Moroba Fadnavis was the last of Raghunáthrav's minister to quit his camp. All but Raghunáthrav and his dependents saw there was some scheme on foot.²

The leading members of the Poona ministry were Sakhárám Bápú, Trimbakráv Mámá, Nána and Moroba Fadnavis, Bajába Purandhare, Ánandráv Jivájí, and Haripant Phadke. All these men had been raised by the Peshwa's family and had no connection with Shiváji's and Sháhu's eight ministers. The leaders of the ministry were Nána Fadnavis and Haripant Phadke. It was found that Gangbáí Náráyanráv's widow was pregnant, and it was determined that she should be taken for safety to Purandhar, and, according to some accounts, that other pregnant Bráhman women should be sent with her that the risk of mishap might be avoided and the chance of Gangbáí's child proving a girl be amended. On the morning of the 30th of January 1774, Nána Fadnavis and Haripant Phadke carried Gangbáí from Poona to Purandhar. She was accompanied by Párvatíbáí, the widow of Sádásivráv, a lady held in high respect, and the reason of her removal was publicly announced. The ministers formed a regency under Gangbáí and began to govern in her name. All the adherents of Raghunáthrav, who, by this time had advanced beyond Ballári, were thrown into confinement. Negotiations were opened with Nizám Ali and Sábájí Bhonsla, both of whom agreed to support Gangbáí and a widespread intrigue in Raghunáthrav's camp was organized by Krishnaráv Balvant. When Raghunáthrav heard of the revolt in Poona, with the Pant Pratíndhibí and Murárráv Ghorpade, he began to march towards the city. Haripant Phadke came from Poona to meet him at the head of a division, while Trimbakráv Mámá and Sábájí Bhonsla were advancing from Purinda. On the 4th of March 1774 Raghunáthrav met and defeated the minister's troops under Haripant Phadke near Pandharpur in Sholápur. The news of this defeat filled Poona with alarm. The people packed their property and

¹ The nephew or grandson of Bápúji Nák Bárámatickar, who was married to the aunt of Bálájí Bajiráv and who endeavoured with the support of Raghújí Bhonsla to purchase the office of Peshwa in 1740.
² Grant Duff, Marathás, 300.

30th January 1774.
fled for safety to retired villages and hill forts. Instead of
marching on Poona Raghunathrav passed north to receive the aid
of Holkar, Sindia, Galkwuar, and the English. On the 18th of
April 1774, a son was born to Gangabai, Narayanrav's widow. In
Grant Duff's opinion, notwithstanding the suspicious circumstances
which formed part of the minister's scheme, there is little doubt that
the child was the son of the murdered Narayanrav. The child was
named Madhavrao Narayan, afterwards known as Savai Madhavrao.
Gangabai sent Sakharam Bapu and Nana Fadnavis to receive her son's
robes of investiture, which the Raja sent from Satara in charge of Nili-
kanthrav Purandhar. The infant Madhavrao was formally installed
Peshwa when he was forty days old. 1 Jealousy soon sprang up among
the ministers. Nana Fadnavis was too cautious to take the lead and
supported Sakharam Bapu as the head of the government. This
conduct was as much due to timidity as to design. Sakharam Bapu
was an old, cautious, time-serving courtier, but he was a man of much
more courage than Nana, and, in his humble and assiduous colleague
and adherent, he did not see a future rival and a powerful foe.
So great was Sakharam Bapu's influence that his secession would
have ruined the minister's cause. Nana's position was greatly
strengthened by Gangabai's passion for him. He could thoroughly
trust her and teach her the best means of governing the old
ministers. Nana's cousin Moroba, who had been Madhavrao's
ostensible prime minister, was dissatisfied to find that little deference
was paid to his counsel. If he could have done it with safety and
made sure of a future rise to power, he would readily have gone back
to Raghunathrav. Such of the other ministers as would not submit
to Sakharam and Nana were soon united in common discontent.
This split among the ministers became generally known by the
discovery of a correspondence on the part of Moroba, Bajaba, and
Babaji Naiik with Raghunathrav. Letters intercepted by Haripant
near Burhanpur showed that these three had formed a plan to secure
Sakharam Bapu, Nana, Gangabai, and the infant Madhavrao, all of
whom, during the rains, to escape the chill damps of Purandhar, had
come to live in Satsavd. They heard of this conspiracy on the 30th of
June, and with undissembled panic fled to the fort. The discovery of
their plot defeated the designs of the feeble triumvirate. The ministers
sent agents through the country to blacken the crimes of Raghunathrav
and hold forth on the justice of the ministers' cause. At the same
time they breathed nothing but union and concord. They deter-
mined to gain Raghunathrav's absolute submission; and their active
and judicious preparations for war showed that they understood the
best means of ensuring peace. 2 When Raghunathrav passed north
instead of marching on Poona he sent an agent to the British
resident with hurried and vague applications for aid in men and
money. The British were willing to help him, but before any
agreement could be made he had retired too far for communication
from Poona. Negotiations were next opened with Mr. Gambier the
English chief or civil governor of Surat. In the latter part of 1774

1 Grant Duff's Maratha, 368.
2 Grant Duff's Maratha, 370.
the ministers won both Sindia and Holkar to their side and sent an army of 30,000 men under Haripant Phadke to pursue Raghunathrav. In the beginning of 1775 Sakharam and Nana returned to Purandhar and from it transacted all affairs. On the 6th of March 1775 Raghunathrav entered into a treaty with the English, which is known as the treaty of Surat. With their help he went to Cambay in Gujarat, and on the plain of Aras about ten miles east of Anand in Kaira, defeated Haripant Phadke and his adherent Fatehsing Gaikwar. This news caused the ministerial party great alarm. Nizam Ali pressed them hard, professed sympathy with Raghunathrav, and doubts of the legitimacy of the young Madhavrav, and, to remain quiet, received a grant of land worth £180,000 (Rs. 18 lakhs) a year. The Maratha nobles had no disliketo Raghunathrav, and, if the next campaign proved as successful as the last, would probably have made no objection to his being named regent of the young Madhavrav. Raghunathrav was disliked by many Poona Brahmans, even by those who did not believe he was a party to the murder of Naryaanrav. The bulk of the people seemed to have no stronger feeling against him than that he was unlucky. The success which had attended the efforts of the English to help Raghunathrav and the advantages the English had gained by their alliance were lost by the action of the lately arrived members of the Bengal Council, who, contrary to the opinion of the President, Mr. Hastings, declared the Bombay treaty with Raghunathrav impolitic, dangerous, unauthorised, and unjust, and sent Colonel Upton to Poona to conclude a treaty between the ministers and the Bombay Government. This ill-judged interference strengthened the hands of the ministers at Purandhar and ultimately cemented the tottering Maratha confederacy under the administration of Nana Fadnavis. In December 1776 Sakharam Bapu received a letter from the Governor General stating that the Bombay Government had acted beyond

1 Under the treaty of Surat the Bombay Government engaged at once to send 500 European and 1000 Native troops with a due proportion of artillery to help Raghunathrav. They pledged themselves to make up the number to 700 or 800 Europeans and 1700 sepoys, with gun-lascars, artificers, and pioneers, the whole amounting to 3000 men. Raghunathrav engaged on account of 2500 men to pay £150,000 (Rs. 15 lakhs) a month with a proportionate increase or decrease according to the number of men supplied. As a security for the payment he made over temporarily the districts of Amod, Hanosot, Balsar, and part of Anklevar in Central Gujarat, and ceded in perpetuity Bassein with its dependencies, the island of Salsette, and the other islands; the districts of Jambusar and Opfad in Central Gujarat; and an assignment of Rs. 75,000 annually upon Anklevar in Broach, the whole amounting to £192,500 (Rs. 19,25,000) a year. He engaged to procure the cession of the Gaidewar's share of the revenue of Broach, and to pay all expenses the Company might incur in obtaining possession of the specified cessions, which were to be considered as belonging to them from the date of the treaty. As Raghunathrav was destitute of other funds, he deposited jewels valued at upwards of £60,000 (Rs. 6 lakhs) as a security for the promised advance, pledging himself to redeem them. The protection of the Company's possessions in Bengal and those of their ally the Nawab of Arkot was also provided for; and all British ships or vessels sailing under the protection of the British flag which might have the misfortune to be wrecked on the Maratha coast were to be given to the owners.

2 Grant Duff's Marathas, 387.

3 Grant Duff's Marathas, 390, 391.
their powers in going to war without the sanction of the Bengal Government, that they had been ordered to withdraw their troops, and that an envoy had been sent to conclude peace. Colonel Upton arrived at Purandhar on the 28th of December 1775. The ministers took full advantage of the power which the mistaken policy of the Bengal Government had placed in their hands. They assumed a high tone of demand and menace, which Colonel Upton judged to be firm and sincere. Colonel Upton though upright and moderate was ill-qualified to conduct a negotiation with Marātha Brāhmans. The ministers greatly extolled the just and honourable motives which had determined the great Governor of Calcutta to order peace to be concluded. But when Colonel Upton proposed that the English should keep Sālsette and the islands in the Bombay harbour, the cession of Bassein which they had obtained in the late war together with the revenue of Broach, the ministers were astonished that a Government which had so justly condemned the war could be so ready to keep the fruits of it. Colonel Upton argued that Sālsette was taken possession of as a precautionary measure long deemed necessary to the safety of Bombay, and the prosperity of its commerce. But the ministers would listen to nothing. They had been put to immense expense by keeping armies idle at the wish of the Bengal Government, which, if they had not been interfered with, would have long since settled the whole matter. They demanded the immediate surrender of Raghunāthrāv and the entire restoration of the territory occupied by the Bombay Government since the beginning of the war. If Raghunāthrāv was given up and all the territory restored, the ministers as a favour to the Governor General would pay £120,000 (Rs. 12 lākhas) to reimburse the East India Company for the expenses incurred by the Bombay Government. They seconded their arguments with threats, and mistook the mild remonstrances of the envoy for timidity. As Colonel Upton could not agree to these proposals on the 17th of February he wrote to the Governor General that he supposed negotiations were at an end. But almost immediately after they had carried their menaces to the highest pitch the ministers agreed to the greater part of Colonel Upton’s original demands. Before accounts had time to reach Calcutta that the negotiations were broken off the treaty of Purandhar was settled and signed on the 1st of March 1776. The chief provisions were that Sālsette or a territory yielding £30,000 (Rs. 3,00,000), and Broach and territory worth £30,000 (Rs. 3,00,000) more should be left with the English and £120,000 (Rs. 12 lākhas) paid to them on account of war expenses; that the treaty with Raghunāthrāv was annulled; that the English were to return to garrison and Raghunāthrāv’s army be disbanded within a month; and that Raghunāthrāv was to get an establishment and live at Kopargaon on the Godāvari. The Bombay Govern-

1 Grant Duff’s Marāthas, 392.
2 Grant Duff’s Marāthas, 393-394. The Peshwa’s name was not mentioned in the treaty. The ministers Nāna and Sakhrām probably left out the name, that in case the child Mādhavrāv should die Gangabāi might adopt another son.
ment still clung to Raghunáthráv's cause and received him with 200 followers at Surat, where he appealed to the Directors and to the King. The ministers threatened war if Raghunáthráv's army was not disbanded. To this the Bombay Government paid no attention, and their position was strengthened by the arrival at Bombay on the 20th of August 1776 and again in November 1777, of despatches from the Court of Directors approving the Bombay treaty of Surat with Raghunáthráv, and censuring the great and unnecessary sacrifice of the Bengal treaty of Purandhar with the ministers. Though hostilities had ceased, peace was not established.¹ In October 1776 a man claiming to be Sadáshiv Chimnáji, the leader of the Maráthás at Pánípat, with the support of the Bombay Government possessed himself of the greater part of the Konkan and seized the Bor pass and Rájmáchi fort. Near Rájmáchi he was attacked and defeated by a ministerial force, fled to Kolábá, was given up by Ángria, and was dragged to death at an elephant's foot in Poona. On the 11th of November Raghunáthráv was allowed to live in Bombay and an allowance of £1000 (Rs. 10,000) a month was settled on him.² In November Colonel Upton was recalled from Poona and Mr. Mostyn was sent as envoy in his place. The Poona ministers next showed their dislike to the English by trying to establish their enemies the French in a position of power in Western India. At Poona an agent of France was received with distinction and Mr. Mostyn was treated with studied coldness. In the middle of March 1777 several Frenchmen, who landed at Cheul in Kolábá went to Poona, and, early in May 1777, one of them St. Lubin was received in Poona as an ambassador from France. The port of Cheul was promised to the French and an agreement made for the introduction of troops and warlike supplies.³ Though the treaty of Purandhar and the suppression of Sadáshiv's rising had strengthened the ministers' government in the Deccan, in the Bombay Karnátak they had suffered several reverses from Haidar and the Kolbápur chief. In September 1777, Gangábáí the infant Peshwa's mother died from a drug taken to conceal the effects of her intimacy with Nána Padnavis. In October 1777, Mr. Hornby the Governor of Bombay reviewed the position of the Poona ministers, and showed how their difficulties were increased by Sindia's and Holkar's want of support, by the defection of other Marátha nobles, by Haidar's victories, and by Gangábáí's death.⁴ The effect of Mr. Hornby's minute must have been greatly increased at Calcutta by the length which Nána's hate of the English carried him in his dealings with St. Lubin and by the Directors' despatch received in November 1777 strongly censuring the Calcutta treaty of Purandhar, and, under

¹ Grant Duff's Maráthás, 396. ² Grant Duff's Maráthás, 398. ³ Account of Bombay (1781). St. Lubin had been in India before. Though he was not an ambassador, St. Lubin had authority from the French to find what advantage could be gained from an alliance with the Maráthás. He offered Nána to bring 2500 Europeans and 10,000 disciplined sepoys, and abundance of war stores. ⁴ Grant Duff's Maráthás, 404.
su...suitable circumstances approving an alliance with Raghunáthrav.1 Meanwhile (1778) at Poona dissensions among the militar...party increased. Nána Fadnavis despised the abilities of his cousin Moroba Fadnavis, but, with a Bráhman’s caution, he was at more pains to conceal his contempt than his enmity. Moroba was supported by all Raghunáthrav’s partisans, particularly by Bajába Purandhare, Sakharám Hari, Chinto Vithal, Vishnu Narhar, and lately by Tukoji Holkar. Still Nána was confident, a spirit which Mr. Mostyn believed was due to assurance of support from France. After the death of Gangábálí, Sakharám began to be jealous of Nána and expressed a qualified approval of a plan to restore Raghunáthrav, and Moroba wrote to the Bombay Government proposing the restoration of Raghunáthrav. The Bombay Government, who from Nána’s dealings with the French were satisfied that their safety depended on a change of ministry at Poona, agreed to restore Raghunáthrav, provided Sakharám Bápu, the chief authority in Poona, expressed his approval of the scheme in writing. The decision of the Bombay Government was approved by the Governor General. To help their plans and to counteract French designs in Western India, a force under Colonel Leslie was ordered to cross the continent, and place themselves under the orders of the Government of Bombay.2 Sakharám Bápu refused to record in writing his approval of the plan to restore Raghunáthrav and further action was stopped. At Poona Nána attempted but failed to seize Moroba. In spite of this failure, with the help of Sakharám Bápu and with the offer of a position in the ministry, Nána succeeded in inducing Moroba to join his party. The effect of this change was at first a loss to Nána. Moroba, with the help of Holkar’s troops, was more powerful than Nána, who retired to Purandhar and agreed to the plan for bringing Raghunáthrav to Poona provided no harm should come to himself or his property. But Nána, by reminding Sakharám Bápu of the evil results of Raghunáthrav’s former term of rule at Poona, persuaded Sakharám Bápu and through Sakharám Bápu persuaded Moroba to give up the idea of bringing Raghunáthrav back. The enjoyment of power under the existing arrangement and Nána’s persuasion led Moroba still further to adopt Nána’s views and favour St. Lubin and a French alliance.

The Bombay Government remonstrated with the ministers for keeping St. Lubin in favour in Poona. Nána saw that the English would not stand further friendship between the French and the Maráthás. He accordingly dismissed St. Lubin in July, and granted passports for the Bengal troops through Marátha territory on their way across India to counteract French influence in Western India. While dismissing St. Lubin, Nána assured him that if St. Lubin could bring a French corps to India he would grant the French an establishment in Marátha territories; and, while granting passports to the British for safe conduct through Marátha territory, Nána was sending secret orders to the Marátha officers and to the Bundelkhand chief to do

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1 Grant Duff’s Maráthás, 406.
2 The force consisted of six battalions of sepoys, proportionate artillery, and some cavalry. Grant Duff’s Maráthás, 406.
what they could to stop the English. 1 Nána allowed Moroba to remain in power for about a year. On the 8th of June 1778 Haripant Phadke and Mahádúji Sindia joined Nána at Purandhar and a bribe of £90,000 (Rs. 9 lakhs) removed the source of Moroba’s strength by the transfer of Hoklar from Moroba’s interests to the interests of Nána. 2 On the 11th of July 1778, Moroba was seized by a party of Sindia’s horse, made over to Nána, and placed in confinement. The whole of Moroba’s party were arrested except Sakharáum Bapu, who, for the sake of the Purandhar treaty, had to be left at liberty. 3 In spite of Nána’s triumph, the Bombay Government resolved to continue their efforts to place Raghunáthráv in the regency, and directed Colonel Leslie to march on Junnar. At Poona, Nána Fadnavis on the plea of age, removed Sakharám Bapu from the administration, and placed a body of Sindia’s troops over his person and house. Self-mounted horsemen or shiledárs were recruited all over the country and ordered to assemble at the Dasara festival in October. In the different ports vessels were refitted, forts were provisioned and repaired, fresh instructions were despatched to harass Leslie’s march, and an agent was sent to Bombay to amuse the Government by making overtures to Raghunáthráv. This last deception failed, as the Bombay Government knew from Mr. Lewis what was going on in Poona.

On the 22nd of November 1778, under agreement with Raghunáthráv, an advanced party of British troops under Captain James Stewart, consisting of six companies of native grenadiers from different corps with a small detail of artillery, moved from the port of Ápti in Kolábá, took possession of the Bor pass without opposition, and encamped at Khandála. The main force landed at Panvel in Thána on the 25th November, but from delay in making a road for the guns up the Bor pass, they did not reach the top of the pass till the 23rd of December 1778. The force was under the command of Colonel Egerton and Mr. Carnac. It included 501 Europeans, 2278 Native Infantry and 500 gun lascars. They were accompanied by Raghunáthráv, his adopted son Amritráv, and a few horse. Some skirmishing had taken place between Captain Stewart and small parties of the enemy, in which the British sepoys showed great zeal. At Khandála Colonel Egerton, the commanding officer, reserving the advance as a separate corps under Captain Stewart, divided the main body of his force into two brigades, one commanded by Lieutenant Colonel Cay and the other by Lieutenant Colonel Cockburn. Through fairly level, though in places somewhat marshy land, these three divisions advanced at the rate of about three-quarters of a

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1 Grant Duff’s Maráthás, 409 - 410.
2 Grant Duff’s Maráthás, 408.
3 Grant Duff’s Maráthás, 401. Among the better type of Maráthás who devoted their lives to the attempt to place at the head of the state the generous soldier Raghunáthráv, instead of Nána the scheming and cowardly courtier, was a Káyaasha Prabhu named Sakharáum Hari. Sakharám, who had spent his life in Raghunáthráv’s service and never wavered from his master’s interest, was arrested with others of Moroba’s party. He was chained in irons so heavy that, though a man of unusual strength he could hardly lift them. His allowance of food and water was slow starvation. Still at the end of fourteen months when too weak to rise, his spirit and his love for his master remained unshaken. My strength is gone, my life is going, when voice and breath fail my bones shall about Raghunáthráv, Raghunáthráv.
miles a day, one division always occupying the ground which the other had quitted. In this way eleven days passed before they reached Kárla a village eight miles from the ground which Captain Stewart had occupied about six weeks before. The extraordinary slowness of this march encouraged the enemy’s advance guard, which under Bhivráv Yashvant Páne brought infantry, rockets and guns to harass them, but on every occasion were attacked and driven back with the greatest spirit. During the march from Khandála the army lost Lieutenant Colonel Cay an excellent officer, who was mortally wounded by a rocket on the 31st of December. A still more serious loss was at Kárla, on the 4th of January 1779, the death of Captain Stewart the leader of the advance, a true soldier active gallant and judicious, whose distinguished courage so impressed the Maráthás that for years he was remembered as Stewart Phákde or Hero Stewart. This creeping advance of the Bombay army gave Nána Fadnavis and Mahádji Sinds ample time to gather their forces. As the chief signer of the Purandhar treaty Sakhárám Bápú could not well be longer kept under restraint, and, after a formal reconciliation, he nominally returned to his office of minister. Nána’s military leaders were Mahádji Sinda, Haripant Phadke, and Tukoji Holkar. But, as in spite of his bribe of £90,000 (Rs. 9 lakhs), Nána mistrusted Holkar, he was kept in a position from which it was almost impossible for him to join Raghunáthráv. As the English drew near, the Marátha army advanced to Talegaon about twenty miles east of Khandála and eighteen miles west of Poona. On the 6th of January 1779, ill health forced Colonel Egerton to resign the command to Colonel Cockburn. Colonel Egerton started for Bombay, but as the Maráthás had cut off communications he was forced to return to the army where he continued a member of the committee. On the 9th of January, 1779, when the Bombay army reached Talegaon, the Maráthás retired. The village was found to be burnt, and it was said that if the Bombay army advanced further Chinchwad and Poona would also be burnt. Though they were within eighteen miles of Poona and had stores and provisions for eighteen days the Committee, that is apparently Mr. Carnac, scared by the union and the determination of the Maráthás proposed a retreat. In vain Raghunáthráv, who had once led 50,000 of his countrymen from the Narbada to the Attok, pleaded for an action, one success would bring forward numbers of his partisans; in vain Mr. Reid, Mr. Mostyn’s assistant stated that a party of horse in Moroba’s interest were on their way from the Konkan; in vain Colonel Cockburn engaged to take the army to Poona and Captain Hartley and Mr. Holmes argued that if an advance was impossible negotiations should at least be begun before a retreat was ordered. The committee had determined to retreat and did not delay one day. At eleven on the night of the 11th of January the heavy guns were thrown into a pond, stores were burnt, and 2600 British troops began to retreat before 50,000 Maráthás. The Committee imagined their retreat

1 Grant Duff’s Maráthás, 415. Mr. Lewis estimated the Marátha force at 35,000; the Maráthás at 100,000; Colonel Cockburn at 120,000; Grant Duff at 50,000.
would remain unknown. By two next morning, within three hours of their start, a party of Marathás fired on the advanced guard; shortly after the rear also was attacked and the baggage plundered; at daybreak the army was surrounded and large bodies of horse were coming to the attack. The weight of the assault fell on the rear, composed of Hero Stewart's six companies of grenadiers and two guns now under the command of Captain Hartley a distinguished officer and well known to the men. Shortly after sunrise the rear was again attacked by the main body of the Marathás, horse and guns. The sepoys fought with enthusiasm, the red wall, as Sindia said, building itself up again as soon as it was thrown down. Five companies of Europeans and two companies of sepoys were sent to support Captain Hartley, who, in spite of constant attacks, continued till noon to keep the Marathá force at bay. During the whole of the morning the main body of the army were engaged in returning the fire of the Maratha artillery and suffered little loss. About noon Major Frederick was sent to take the command in the rear. About an hour after Major Frederick was ordered to retire on the main body and the whole force moved to the village of Vadgaon where the advance guard was posted. Crowds of followers pressed in and the entrance into Vadgaon was a scene of confusion and loss. At last the troops cleared themselves, drove off the Maratha horse, got guns into position, and by four in the afternoon the army had some respite. Early next morning (13th January 1779) the enemy's guns opened on the village and a body of infantry advanced to attack it. They were repulsed, but a feeling spread among some of the officers that the men were dispirited and were ready to desert. The commander's example encouraged this feeling. A further retreat was deemed impracticable, and Mr. Farmer the secretary of the committee was sent to negotiate with the ministers. The ministers demanded Raghunáthrav, but the committee were saved the disgrace of surrendering him, by Raghunáthrav's agreeing to give himself up to Sindia. The ministers, that is Nana and Sindia who between them held the real power, insisted that the committee should agree to surrender all the territory which the Bombay Government had acquired since the death of Mádhavrav Ballál (1772), together with the Company's revenue in Broach and Surat which the Marathás had never possessed. When these terms were laid before the committee Captain Hartley pleaded that one more effort might be made to retreat but his proposal was rejected. A message was sent to the ministers that the committee had no power to enter into any treaty without the sanction of the Bombay Government. Still Mr. Carnac immediately after sent Mr. Holmes to Sindia with full power to conclude a treaty. Sindia, though highly flattered by this direct negotiation, gave in nothing from the Maratha demands, and Mr. Holmes had to agree that everything should be restored to the Marathás as in 1772 and that a message should be sent to stop the

1 Grant Duff's Marathás, 425.
2 The English loss on the 12th January was fifty-six killed, 151 wounded, 155 missing. Of the killed and wounded fifteen were European officers. Grant Duff's Marathás, 417.

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Chapter VII.

History.

Maráthás,
1720-1817.

Vadgaon,
1779.

advance of the Bengal troops. Sindia's favour was purchased by a private promise to bestow on him the English share of Broach and by the gift of £4100 (Rs. 41,000) to his servants. The Bombay army, after leaving Mr. Farmer and Colonel Stewart as hostages, were allowed to withdraw.

Mr. Carnac's first act on reaching the Konkan was to suspend his order stopping the advance of the Bengal troops. When news of the disgrace at Vadgaon reached Bombay Mr. Hornby disavowed Mr. Carnac's power to make a treaty. On the 19th of February he proposed to the council that their object should be to secure peace so as to exclude the French from the Maráthás dominions and to prevent the cession of English territory. He thought the £4100 (Rs. 41,000) spent in presents to Sindia's servants should be paid and the promise of the grant of Broach to Sindia confirmed.

The position of the English which was almost ruined by the disaster at Vadgaon was retrieved by the success of Goddard's march. On hearing that the Bombay army had suffered a defeat at Vadgaon, Goddard pressed on with speed from Rájegad in Bundelkhand and reached Surat on the 25th of February 1779. When news of Vadgaon reached the supreme Government they ordered Goddard, whom they had already appointed their plenipotentiary, to conclude a treaty with the Maráthás. The new treaty was to be on the basis of the Purandhar treaty with an additional article excluding the French from any establishment in Maráthás territory. Goddard was also, if he gained the opportunity, to come to a separate arrangement with Sindia. Sindia who continued to keep Raghunáthráv in his power arranged that lands worth £1,200,000 (Rs. 1,20,00,000) a year should be settled on Raghunáthráv in Bundelkhand. On his way to Bundelkhand Raghunáthráv escaped from his guard and reached Surat where he prayed General Goddard to give him shelter. Goddard agreed to shelter him (12th June 1779) and gave him an allowance of £5000 (Rs. 50,000) a month. The escape of Raghunáthráv caused some coldness between Nána and Sindia. This passed off and Holkar and Sindia with 15,000 horse agreed to oppose Goddard in Gujarát.

When the rains of 1779 were over, as the Maráthás refused to come to terms, troops were sent from Bombay and overran North Thána and secured the revenue. On the 1st of January 1780 Goddard marched south from Surat to act with the Bombay troops. In December 1780 he captured Bassein, while Hartley defeated the Maráthás with heavy loss at the battle of Dugad about twenty miles north of Thána. After these successes in the Konkan, in the hope that a display of vigour would bring Nána to terms, Goddard advanced and took the Bor pass on the 1st of February 1781. Goddard kept his head-quarters at Khopivli or Kámpoli at the foot of the pass and sent proposals to Nána. Nána who was busy

1 Grant Duff's Maráthás, 418.
2 Grant Duff's Maráthás, 480.
3 Goddard's route lay through Multán, Khemlassa, Bhilsa, Bhopal, Hoshangabad, and Burhánpur. After refreshing his army at Burhánpur he resumed his march on the 6th of February, and, in twenty days, reached Surat a distance of 300 miles.
4 Grant Duff's Maráthás, 424.
5 Grant Duff's Maráthás, 431.
collecting troops negotiated for a time, and, when his preparations were ready, returned Goddard's proposals on the ground that no terms could be considered which did not provide for the safety of the Marathás' ally Haidar of Muisur. On the 15th of April Goddard began to retreat on Bombay. From the first he was sorely pressed by the Marathás. Only his skill as a general and the courage of his troops enabled him on the 23rd of April to bring them safely to Panvel. The Marathás considered this retreat of Goddard's one of their greatest successes over the English. In September 1781 Lord Macartney, Sir Eyre Coote, Sir Edward Hughes, and Mr. McPherson addressed a joint letter to the Peshwa stating their wish for peace, the moderation of the Company's views, the desire of the British nation to conclude a firm and lasting treaty which no servant of the Company should have power to break, and assuring the Peshwa that satisfaction should be given in a sincere and irrevocable treaty. General Goddard, who still considered himself the accredited agent on the part of the supreme Government, also opened a negotiation, and assumed, what was privately agreed, that Sindia should use his endeavour to obtain a cessation of hostilities between the Peshwa and the English until the terms of a general peace could be adjusted. In January 1782 the Bombay Government sent Captain Watherstone to Poona, but shortly after his arrival official intelligence was received that Mr. David Anderson had been deputed to Mahâdjî Sindia's camp, as Agent of the Governor General with full powers to negotiate and conclude a treaty with the Marathás. On this Captain Watherstone was recalled. At last on the 17th of May the treaty of Salbai was concluded and ratified by the Peshwa on the 20th of December 1782. Its chief provisions were that Raghunâthráv should have £2500 (Rs. 25,000) a month and live where he chose; that all territory should remain as before the treaty of Purandhar; that all Europeans except the Portuguese should be excluded from the Maratha dominions; that Haidar should be compelled to relinquish his conquests from the English; and that Broach should be given to Sindia for his humanity to the English after the convention of Vadgaon. Raghunâthráv accepted the terms of the treaty and fixed his residence at Kopargaon on the Godâvari in Ahmdnagar. He survived only a few months. His widow Anandibâi shortly after gave birth to a son Chimnâji Ápa. The infant Chimnâji together with Bâjirâv, who at the time of his father's death was nine years old, remained at Kopargaon till 1793 when Nâna Fadnavis removed them to Junnâr.

In 1784, a conspiracy formed with the object of deposing Mâdhavrâv Nârâyan and raising Bâjirâv, the son of the late Raghunâthráv was discovered and crushed by Nâna. In the same year Mudâjî Bhonsla the chief of Berâr visited Poona. He showed a sincere desire to connect himself with the head of the state, and, in the name of his son Raghunj, entered on a new agreement pledging himself never to assist the English against the Peshwa's Government and promising to co-operate in the expected war with Tipu. One

Chapter VII.

History.

Marathás, 1720-1817.

Treaty of Salbai, 1782.

1 Grant Duff's Marathás, 452. 2 Grant Duff's Marathás, 459, 520.
effect of the treaty of Salbai was greatly to favour Sindia’s desire to form an independent Maratha dominion. In 1784 he took Gwalior from the Rana of Gohad who had forfeited his claim to British protection; he obtained supreme authority at Delhi; he was appointed commander-in-chief of the Moghal forces and manager of the provinces of Delhi and Agra; and made a claim on the British for chauth for their Bengal provinces which was disavowed by Mr. McPherson. In 1785 the news of Sindia’s success in Northern India was received at Poona with surprise and joy. A small body of the Peshwa’s troops was sent to join him as a measure of policy to preserve the appearance of the Peshwa’s co-operation and supremacy. In the same year at Nana’s desire Mr. Charles Malet was chosen to be British resident at Poona.

In December 1789, on hearing of Tipu’s movements, Nana Fadnavis made specific proposals to the Governor General in the name both of his master and of Nizam Ali. These proposals with slight modifications were accepted. A preliminary agreement was settled on the 29th of March 1790, and, on the 1st of June, for the suppression of Tipu an offensive and defensive treaty was concluded at Poona between Mr. Malet on the part of the Company and Nana Fadnavis on the part of the Peshwa and Nizam Ali. In 1792 Sindia, who was supreme at the Dehli Court, marched from the north towards Poona bearing from the Emperor of Delhi to the Peshwa the deeds and robes of the hereditary office of Vakil-i-Mullak or Chief Minister, whose hereditary deputy in North India was to be Sindia. Nana Fadnavis applied to the English for the permanent services of Captain Little’s Detachment which had acted with Parashuram Bhau in the war in the Karnatak in 1790 and 1791. This proposal was not agreed to. Sindia, afraid that Nana might enter into some such arrangement with the English, and to allay Nana’s well-founded jealousy of his regular infantry, brought with him only a small party under an Englishman named Hessing and a complete battalion commanded by Michael Filoze a Neapolitan. Sindia reached Poona on the 11th of June and pitched his camp near the Sangam or meeting of the Mutha and Mula rivers, the place assigned by the Peshwa for the residence of the British envoy and his suite. Nana, who was jealous of Sindia, did all he could to prevent the Peshwa’s accepting the titles and insignia brought from the emperor. He represented the impropriety of adopting some of the titles, especially that of Maharahdji Adhray, the greatest of great rajjas, which was inconsistent with the constitution of the Maratha empire. Still Sindia persisted and the Rajja of Satara gave the Peshwa leave to accept the honours. Nine days after his arrival, Nana visited Sindia who received him in the most cordial manner, refused to sit on his state cushion in the minister’s presence, and treated him with the greatest respect. Next day Sindia paid his respects to the Peshwa, carrying with him numberless rarities from North India. The following morning was fixed for the ceremony of investing the young Peshwa with the title and dignity of Vakil-i-

1 Grant Duff’s Marathás, 484.
**POONA.**

**Chapter VII**

**History.**

Marathás, 1720-1817.

Sindia in Poona, 1792.

_Footnote:
1 Grant Duff's Marathás, 503.
2 Of this force upwards of one-half were either paid by the Peshwa's treasury, or were troops of vassals under his direct control. Daulatrav Sindia's force was more numerous and more efficient than that of any other chieftain, although the greater part of his army remained in North India and Malwa. Jivba Dada Bakshi commanded immediately under Daulatrav and had lately joined him with a reinforcement. The whole consisted of 25,000 men, of whom 10,000 were regular infantry under De Boing's second-in-command M. Perron. Raghjhi Bhonsla mustered 15,000 horse and foot, Tukoji Holkar had only 10,000, but of these 2000 were regulars under Dudrence and most of the Pendhariis were followers of Holkar. Parasurâm Bhāu had 7000 men. Grant Duff's Marathás, 614._
Nána Fadnavis consulted the chief officers separately, and seems to have adopted the plans of Jivba Dáda Bakshi the Shenvi commander of Sindia's troops, and of Tukoji Holkar. He appointed Parshurám Bháu to act as commander-in-chief. The war ended on the 11th of March by the defeat of the Moghals at Kharda in the Járkhed sub-division of Ahmadnagar, a defeat due more to Moghal panic than to Marátha bravery. Nizám Ali was obliged to treat and surrender an obnoxious minister Mashir-ul-Mulk, who had resisted the Marátha claims. After the battle the Peshwa returned to Poona; Nána Fadnavis was employed in distributing the acquisitions and in settling affairs with the different chiefs; Parshurám Bháu and Raghují Bhonsla remained near Poona; Holkar encamped at Jejur about twenty-five miles south-east of Poona; and Sindia at Jápgaon in Ahmadnagar. By the middle of September 1795 Daulatráv Sindia had taken leave of the Peshwa and gone to Jápgaon on his way to Hindustán; Parshurám Bháu had returned to Tásgaon in Sâtára; Holkar remained at Poona; and Raghují Bhonsla left Poona at the middle of October being dismissed with great honour. Nána Fadnavis was at the height of his prosperity. Without calling the help of any foreign power he had gained every object of his ambition. Daulatráv Sindia was well disposed towards him and Sindia's ministers and officers were more intent on forwarding their own views in the government of their young master than in schemes for controlling the Poona Court. Tukoji Holkar had become imbecile both in mind and body and his officers were in Nána's hands. Raghují Bhonsla was completely securéd in his interests, and the Bráhman estate-holders were of his party. The fair prospect that the Peshwa's Government would regain the tone and vigour of the first Mádhráv's time (1761 - 1772) was ruined by Nána's fondness for power. His unwillingness to let even his master share with him the control of the state brought on Nána a catastrophe which undermined his authority, overturned the labour of his life, and clouded his last days with trouble and misery.¹

Though Mádhráv was now (1795) twenty years old, Nána loosened none of the restraints under which he had been reared. At the same time he became more than ever watchful of all the state prisoners whose liberty might endanger his own power. In 1794, before the beginning of the war with Nizám Ali, Bájiráv and Chimnáji Ápa, the sons of Raghunáthráv, with their adopted brother Amritráv were taken from Násik to the gadhi or mud fort of Junnar and were kept there in close custody. The bulk of the people thought the imprisonment of these youths harsh, cruel, and unneeded. The old partisans of Raghunáthráv and all who disliked Nána strove to strengthen and embitter this feeling, praising the youths and overdrawing the harshness of their confinement. The knowledge how widely this feeling was spread made Nána still warier and more careful. He felt that Bájiráv, the elder brother, though a youth of only nineteen, was a rival whom he had reason to fear. Graceful and handsome, with a mild persuasive manner, Bájiráv was famed for skill as a horseman,

¹ Grant Duff's Marathás, 518.
archer, and swordsman, and for a knowledge of the sacred books greater than any Maratha Bráhman of his age had ever been known to possess. Mádhavráv heard with delight these accounts of his cousin’s skill, and prayed that he might be set free and become his friend. In vain Nána warned him that Bájiráv was no friend to him but a rival. The more Nána warned and lectured the stronger grew Mádhavráv’s longing to know his cousin. Bájiráv heard that Mádhavráv loved him and was anxious that Bájiráv should be set free. Through his keeper Balvantráv, whom after long persuasion he at last won over, Bájiráv sent Mádhavráv a message of respect and sympathy: We are both prisoners, you at Poona and I at Junnar, still our minds and affections are free and should be devoted to each other; the time will come when we two together will rival the deeds of our forefathers. When Nána heard of this correspondence which had lasted for some time he showed an altogether unusual rage. He upbraided Mádhavráv, doubled the closeness of Bájiráv’s confinement, and threw Balvantráv into a fort loaded with irons. Mádhavráv galled by restraint and overwhelmed with anger and grief for days refused to leave his room. At the Dasara on the 22nd of October, he appeared among his troops and in the evening received his chiefs and the ambassadors. But his spirit was wounded to despair, a melancholy seized him, and, on the morning of the 25th of October 1795, he threw himself from a terrace in his palace, broke two of his limbs, and died after two days, having particularly desired that Bájiráv should succeed him. When he heard that Mádhavráv had thrown himself from the terrace and was dying, Nána summoned Parashurám Bháu, recalled Raghúji Bhonsla and Danalatráv Sindia, and called in Tukoji Holkar who was in Poona. He hid from them Mádhavráv’s dying wish that Bájiráv should succeed him, and warned them that Bájiráv’s succession would be certain ruin to any one who had sided against Raghunáthráv. He enlarged on the family connection between Bájiráv and the English; his accession would end in the English ascendancy; why not continue the prosperous government which the Deccan had for years enjoyed. He proposed that Mádhavráv’s widow Yashodábai should adopt a son and that Nána should conduct the government till the son came of age. Holkar gave this scheme his support, and by January (1796) the leading nobles had agreed to it and withdrawn from Poona. This decision was told to Mr. Mallet. The English could raise no objection and nothing remained but to choose the child. Bájiráv was informed of these measures. He knew that Báloba Tátya one of Sindia’s officers was well disposed to him; he heard that on his death-bed Jivba Dáda Bakshi, Sindia’s prime minister, told his master that he was ashamed that he had agreed to keep Bájiráv from his rights, and he promised Sindia territory worth £40,000 (Rs. 4 lakhs) if he would help him to become Peshwa. Sindia promised and a formal agreement was drawn up. When Nána heard of the agreement between Bájiráv and Sindia, he sent in haste for Parashurám Bháu who marched from Tásgaun in Sátára to Poona, 120 miles in forty-eight hours. Nána and Parashurám Bháu agreed that their only chance was to be before Sindia and at once offer the Peshwaship to Bájiráv. Parashurám Bháu started for Junnar and
made the offer. When Parashurám Bháu had held a cow by the tail and sworn by the Godávari, Báiúiráv was satisfied and went with him to Poona. As soon as Báiúiráv reached Poona he had a meeting with Nána. Báiúiráv, assured of the succession, agreed to keep Nána at the head of his administration, and both promised to bury former enmity. When Báloba Tátya and his master Sindia heard that Báiúiráv had deserted them in favour of Nána they marched on Poona with a large force. The timid Nána was dismayed and told Parashurám Bháu that as it was against him that Sindia was coming he had better retire. Nána accordingly withdrew to Purandhar and then to Sátára. When Sindia reached Poona he had a friendly meeting with Báiúiráv. But his minister Báloba Tátya could not forgive Báiúiráv's desertion. He proposed that Mádhavráv's widow should adopt Báiúiráv's younger brother Chimnájí, and that Parashurám Bháu should be prime minister. Parashurám Bháu consulted Nána, and Nána said the scheme was good, provided Parashurám Bháu got Báiúiráv into his hands. Parashurám Bháu overlooked this condition and told Báloba that his scheme had Nána's approval. Báloba expressed himself pleased as he feared that Nána might organize a combination against his master. Nána obtained the robe of investiture from the Sátára chief and was on his way with it to Poona when he heard that Parashurám Bháu had not secured possession of Báiúiráv. He suspected treachery, sent on the robe, and halted at Vái in Sátára. During all this time Báiúiráv knew nothing of the plot to pass him over in his brother's favour. To settle some dispute, regarding certain arrears of pay he had promised to make good to Sindia, Báiúiráv went to Sindia's camp. Towards evening confused news came that Parashurám Bháu had seized Chimnájí and carried him off. Báiúiráv was keen for pursuit; but no one knew where the boy had been taken and till morning pursuit was useless. Báiúiráv stayed the night in Sindia's camp. Next morning he saw the snare into which he had fallen when he was advised to remain with Sindia as no place outside of the camp was safe for him. Parashurám Bháu had taken Chimnájí to Poona, and on the 26th of May 1796 contrary to his wish, Chimnájí was adopted by the name of Chimnájí Mádhavráv and formally invested as Peshwa. The day after the new Peshwa was installed Parashurám Bháu proposed that Nána Fadnavis should come to Poona, be reconciled to Sindia's minister Báloba, and assume the civil administration, while the command of the troops should remain with Parashurám Bháu. In reply Nána Fadnavis requested that Parashurám Bháu's eldest son Harípant, might be sent to Vái to settle preliminaries. Instead of coming as an envoy, Harípant crossed the Nira at the head of 4000 to 5000 chosen horse. Nána's suspicions were strengthened by a letter from Babáráv Phadke advising him to lose no time in putting himself in a place of safety, and Nána retired to Mahád close to Ráyga fort in Kolába. Nána's fortunes now seemed desperate. But necessity forced him out of his timid and half-hearted measures. He exerted himself with a vigour of judgment, a richness of resource and a power of combining men, which from his European contemporaries gained him the name of the Marátháa Machiavel. ¹ Nána's two chief enemies were Parashurám Bháu who was acting as minister at Poona and

¹ Machiavel, a great Italian statesman.
Báloba, Sindia’s minister. His chief hope lay in persuading Bajiráv, like himself a chief loser under the present arrangement, to throw in his lot with his. In these extremities Nána’s wealth, which he had been laying by for years and had placed with trusty bankers all over the country, was of the greatest service. Money could buy some leading man in the Peshwa’s army to counteract Parashurám Bálu; money could buy a party in Sindia’s camp to oppose Nána’s other chief enemy Báloba; if only Bajiráv were on his side promises of territory would win Sindia and the Nizám. Nána’s negotiations with Bajiráv were made easy by the arrival of a trusty dependent now in Bajiráv’s service bringing friendly assurances from Bajiráv who urged Nána to exert himself as their cause was the same. Nána’s schemes succeeded. He had Tukoji Holkar ready at a signal to help him with all his power. He won over Bábáráv Phadke who was in command of the Peshwa’s household troops as a make-weight to Parashurám Bálu, and gained Sakhárám Ghátge, whose daughter Sindia was most anxious to marry, an enemy of Báloba Sindia’s minister. He offered Sindia Parashurám Bálu’s estates in the Bombay Karnátak, the fort of Ahmadnagar, and territory worth £100,000 (Rs. 10 lakhs) on condition that he would place Báloba in confinement, establish Bajiráv as Peshwa, and withdraw to North India. To these terms Sindia agreed. When Bajiráv and Bábáráv Phadke, the command-ant of the Peshwa’s household troops knew that Sindia’s alliance was secured, they began openly to collect troops with funds placed at their disposal by Nána. Báloba Tátya, Sindia’s minister, found out that Bajiráv and Bábáráv were raising troops. He seized and imprisoned Bábáráv in Chákan, surrounded Bajiráv’s encampment, and disbanded his troops. Báloba thought Bajiráv was the root of the whole conspiracy, and arranged that he should be sent to North India under the charge of Sakhárám Ghátge. On the way Bajiráv used every endeavour to win over Ghátge, and, on the promise that Bajiráv when he came to power would get him appointed Sindia’s minister, Ghátge allowed Bajiráv to halt on the plea of ill-health. Mashir-ul-Mulk, the Nizám’s minister, whom he had lately freed from confinement in Poona was allowed by Parashurám Bálu to collect troops to be used against Nána. But Nána had already gained the Nizám and his vizier, promising, if the Nizám helped Bajiráv to be Peshwa and Nána to be minister, that the lands won by the Maráthás after the battle of Kharída (1795) should be restored to the Nizám and outstanding claims cancelled. On Dásara which fell on the 11th of October the regular battalions in the Peshwa’s service under Mr. Boyd marched to the Níra bridge and a brigade of Sindia’s regulars started towards Ráygad both apparently with the object of crushing Nána. Nána’s plans were now complete. On the 27th of October Sindia arrested his minister Báloba and sent a body of troops, accompanied by some of the Nizám’s to seize Parashurám Bálu. Parashurám Bálu was warned and fled, taking Chinnáji Ápa, but was pursued and captured. Bajiráv was brought back and camped at Koregaon on the Bhima. Nána left Mahád, met the troops which he had collected at the Sálpa pass in Sátára and was joined by the Peshwa’s infantry under Mr. Boyd. Before advancing Nána
required a guarantee from Bājirāv that no treachery was intended, and that if he ever wished he might resign his post as minister in the certainty that his person and property would be respected. Nānā Fadnāvis resumed the duties of prime minister on the 25th of November and Bājirāv was installed Peshwa on the 4th of December 1796. The Śāstris declared Chimnājī’s adoption illegal and after a nominal penance Chimnājī was appointed governor of Gujarāt.1 The English and Raghuji Bhonsla of Nāgpur approved of Bājirāv’s accession. At the time of his accession Mr. Tone, who was then in Poona, described Bājirāv as over middle size, fair, and graceful, with a manly sensible and majestic face and impressive manners.

During these irregularities the army had fallen into disorder. In 1797 a desperate affray took place in the streets of Poona between a body of Arabs and a party of Mr. Boyd’s sepoys, in which upwards of 100 persons were killed and many shops and warehouses were plundered. The treaties with Sindia and Raghuji Bhonsla were fulfilled, and Raghuji left for Nāgpur. But as Bājirāv, unless it was greatly modified, refused to ratify the treaty of Māhād with Nizām Ali, Mashir-ul-mulk quitted Poona without taking leave of the Peshwa and returned highly incensed to Haidarābad (13th July 1797). This dispute with the Nizām and the death of Takoji Holkar in August 1797 considerably weakened Nānā’s power. On Holkar’s death (13th July 1797) Malhārārv quarrelled with his brother Kāshirāv, who was imbecile in mind and body, and, with his two illegitimate brothers Yashvantrāv and Vithoji, removed to Bhāmurbūra, about two miles north-west of Poona city. Nānā favoured Malhārārv, and Kāshirāv applied for help to Sindia. Sindia promised help with the greatest readiness, sent a strong force to Bhāmurbūra, and, as Malhārārv refused to yield, his camp was surrendered and he was killed. His half-brothers Yashvantrāv and Vithoji escaped. This success gave Sindia power over the whole of Holkar’s resources and was a deathblow to the schemes of Nānā Fadnāvis. Bājirāv secretly encouraged Sindia, who, in transferring Āngria’s estates in Kolābā from Mánājī to his own relation Bāburāv and in other matters, began to exercise a more arbitrary power than the Peshwa had ever claimed.2 Hitherto Bājirāv whose appearance and misfortunes always won sympathy was believed to have an excellent natural disposition. This belief was the result of his talent for cajoling and deceiving. From the beginning his conduct was governed by two principles to trust no one and to deceive everyone. His great object was to free himself from the control of Sindia and of Nānā. Sindia he regarded as a less evil than Nānā. At the worst he thought that at any time he could get Rid of Sindia by persuading him to go to North India. To free himself from Nānā’s control Bājirāv entered into a plot with Gḥāтge, whose daughter was not yet married to Sindia, and persuaded him that so long as Nānā remained in power Gḥāтge’s hope of becoming Sindia’s minister could never be realised. They agreed that Nānā should be placed in confinement. On the 31st of December 1797, Nānā, while

1 Grant Duff’s Marāṭhās, 527-529. 2 Grant Duff’s Marāṭhās, 501.
POONA.

Chapter VII.

History.

Maráthás, 1720-1817.

Nána Seized, 1797.

returning a formal visit to Sindia, was seized with all his retinue; his guards were attacked and dispersed; and under Ghatge’s orders Nána’s house and the houses of his adherents were plundered. Many resisted; firing went on for a night and day; the whole city was in an uproar; all went armed and in bands. When Nána was seized in Sindia’s camp, Bájiráv, as if on business, sent for the leading members of Nána’s party and put them in confinement.1 Nána was sent to Ahmadnagar fort. Bájiráv appointed his own half-brother Amritráv prime minister and raised the unexperienced Bálájipant Patvárdhan to the command of the army. When as he supposed he had got rid of Nána’s control, Bájiráv began to devise means for dismissing Sindia. But he had first to carry out the promises he had made. Sindia was married to Ghatge’s daughter, and money difficulties caused by marriage expenses and the cost of his army at Poona pressed hard on Sindia, so that he urged Bájiráv to give him the £2,000,000 (Rs. 2 krors) he had promised. Bájiráv said he had not the money. If Sindia would make Ghatge his minister, Bájiráv would give Ghatge leave to recover from the rich people of Poona as much as was required. Sindia agreed and Ghatge was made minister and empowered to levy the amount required from the people of Poona. Ghatge’s first step was to raise money from the members of Nána’s party who were confined in Bájiráv’s palace. These men of high position and reputation were dragged out and scourged till they gave up their property. One of them, a relation of Nána’s, was tied to a heated gun, and as he would not part with his property, remained tied to the gun till he died. These cruelties were not confined to Nána’s friends. Merchants, bankers, and all in the city who were supposed to have wealth, were seized and tortured with such cruelty that several of them died. Though the plan of levying money by force from the people of Poona was Bájiráv’s, Bájiráv never supposed that the money would be collected with such cruelty. He remonstrated with Sindia but his complaints were of no effect. Amritráv, Bájiráv’s brother, who did not know that Bájiráv had any share in the matter proposed to seize Sindia. To this Bájiráv willingly agreed. Before this Bájiráv and Amritráv, to make the Peshwa’s infantry more nearly a match for Sindia’s, had agreed to engage British officers and Mr. Tone was chosen to command the first brigade. Their relations with the Nizám were put forward as the reason for this increase of their troops and Sindia was asked to join in an expedition to recover the arrears due under the treaty of Kharda (1795). Sindia readily agreed. About this time there was much ill-feeling among Sindia’s officers and Sindia became very unpopular. Bájiráv fostered the feeling of dislike to Sindia, so that if he seized Sindia he might have less difficulty in preventing an outbreak among Sindia’s followers. Bájiráv arranged with Amritráv that Sindia should be invited to his palace and should be seized by Ába Kále who commanded one of the Peshwa’s regular battalions. Sindia was asked to come but excused himself. Bájiráv ordered

1 See Mr. Uhtoff’s Despatches.
him to attend. At their meeting he upbraided Sindia for his disobedience, and for all the sufferings which he had caused in Poona. He ordered Sindia to withdraw from Poona to Jâmgão in Ahmadnagar. Sindia expressed the greatest willingness to move, but regretted that until the present arrears of pay were made good his army could not leave Poona. When the time came to give the signal for seizing him, Bâjîráv’s courage failed and Sindia was allowed to leave. Bâjîráv had afterwards the meanness and weakness to tell Sindia what Amîtrâv had intended and to advise him to be on his guard. Fresh difficulties arose from the arrears of pay due to the Peshwa’s army. They were ordered to march to Sâtára to put down a rising. Instead of starting they raised a riot in Poona and kicked about the street the turban of one of Bâjîráv’s favourites who tried to interfere. Govindrâv Pingle, one of the ministers who was in confinement, sent word to Bâjîráv that the only man who could bring the troops to order was Naropant Chakraved, the former commander who had been imprisoned as a friend of Nâna’s. Bâjîráv restored both Pingle and Naropant to liberty, and Naropant quelled the tumult in a day. But as Bâjîráv could not trust Naropant at a distance he had to release Parashurâm Bhâun to restore order at Sâtára. Disorders increased at Poona. Daulatrâv Sindia’s uncle Mahâdji on his death in 1795 had left three widows. Daulatrâv promised to make ample provision for them and they continued to live in his camp. No provision was made and even their comforts were scrimped. The youngest of the three widows was a beautiful woman and the others either discovered or invented a criminal intimacy between her and Sindia. The ladies openly accused Sindia of the crime and Ghatge who was sent to quiet their complaints being refused an entrance forced his way into their tents and seized and flogged them (1798). The Shenvi Brâhmans, of whom Bâloba was the head and who before Ghatge’s rise to power were the strongest party in Sindia’s army, took the side of the widows. After much discussion it was arranged that the widows should be taken to Bûrbánpur and should be kept there in a state of suitable comfort. On their way to Bûrbánpur their friends learned that the widows were being taken not to Bûrbánpur but to Ahmadnagar fort. Under the influence of the Shenvi Brâhmans a Pathán named Muzaffar Khán, who was in command of a choice body of cavalry, assailed the escort, rescued the widows, and carried them back close to Sindia’s camp. Ghatge persuaded Sindia to let him attack Muzaffar. Muzaffar had warning and retired with the widows pursued by Ghatge. He left the ladies in the camp of Amîtrâv, Bâjîráv’s brother who was near the Bhima, turned on Ghatge, defeated him, and put him to flight. Bâjîráv approved of his brother’s kindness to the widows, and asked Colonel Palmer, the British Resident, to mediate between them and Sindia. Sindia refused, and, on the night of the 7th June, sent Ghatge with five battalions of regular infantry under Du Prat, a Frenchman, to surprise Amîtrâv’s camp and seize the ladies. Ghatge’s attempt failed and he had to retire with loss. Sindia then promised to arrange for a suitable establishment for the ladies, and Amîtrâv came into Poona and camped close to Sindia. It was the Muharram time, and Ghatge, under pretence of keeping
order, brought two brigades of infantry and twenty-five guns close to Amritráv's camp, suddenly opened fire on it, charged and dispersed Amritráv's troops, and pillaged his camp. This outrage was nothing less than war with the Peshwa. Holkar came and sided with the Peshwa, the other Marátha nobles joined his standard, and the Peshwa negotiated an alliance with Nizám Ali. Sindia alarmed by the treaty between the Peshwa and the Nizám tried to arrange a settlement, but the demands of the ladies became so extravagant that nothing could be settled. To intimidate Bájiráv Sindia sent an envoy to Tipu, but Bájiráv had done the same. A more powerful means of influencing Bájiráv and also a means of raising money was to set Nána Pándavnís free. Sindia brought Nána from Ahmadnagar and received £100,000 (Rs. 10 lákha) as the price of his liberty. The release of Nána was shortly followed by the revocation of the treaty between the Peshwa and Nizám Ali. These events forced Bájiráv to begin negotiations with Nána Pándavní, and Sindia, who did not know that the treaty between the Peshwa and the Nizám had been revoked, was anxious to come to terms, insisting only that Nána should be placed at the head of Bájiráv's affairs. Meanwhile Ghátge had been acting with such reckless cruelty that Sindia felt that Ghátge's disgraceful acts were alienating the minds of all his supporters. He accordingly gave orders for Ghátge's arrest which was successfully effected. Ghátge's arrest helped to reconcile Sindia and Bájiráv. The need of reconciliation was also pressed on them by the change of policy on the part of the English. The timid neutrality which had marked the English policy under Sir John Shore was reversed by the Marquis of Wellesley's arrival in India on the 26th of April 1798. Soon after his arrival the Marquis of Wellesley, then Lord Mornington, directed the Political Agents at Poona and Haidarabad to secure the alliance of those states so that at least their resources might not be applied against the British Government. With the object of removing Sindia from the Deccan who was known to be always anxious to obstruct British influence, the British agent at Poona set forth the reported designs on India of Zamán Sháh king of Kábúl, the grandson of Ahmad Sháh Abdáli terrible to Maráthás. The British agent also offered the Peshwa a body of the Company's troops to protect his territory and revive the authority of his government. Bájiráv had not long before asked for the help of British troops and his offer had been refused. He could explain this sudden change in the view of the English only by an understanding with Nána, and his suspicion was confirmed when the English agent spoke strongly in favour of Nána's restoration.

1 Under this treaty the Peshwa confirmed the articles of the treaty of Mahád which was passed between Nána Pándavní and the Nizám in 1796; Marátha claims on Bedar were remitted and a tract of territory yielding £80,000 (Rs. 8,00,000) of revenue was ceded to Nizám Ali. Nizám Ali agreed to support the Peshwa against any encroachment of Nána Pándavní, but in case Nána was set free by Sindia it was agreed that Bájiráv would allow him a yearly pension of £10,000 (Rs. 1,00,000). Raghunjí Bhonsla of Nágpur, if he chose, was to be considered a party to this treaty, and was to receive the whole of Garh Mandla from Bájiráv. Grant Duff's Maráthás, 539.
As Nána was the object of Bájiráv's strongest hate and fear the wish to prevent an understanding between Nána and the English overcame all other considerations. Sindia was ready to leave for North India but Bájiráv at a private meeting persuaded him to stay to prevent Nána from bringing English troops into Poona. While these private negotiations with Sindia were on foot Bájiráv was secretly praying Nána who was then in Sindia's camp, to return to Poona and take his post as minister. Nána at first refused unless under a guarantee from the British Government that his person and property should be safe. To overcome Nána's fears Bájiráv went alone at night to Nána's house, and using to the utmost his extraordinary powers of persuasion and deception induced (15th October 1798) the old man to resume his post as minister without any guarantee. Within a few months (1799) Nána was told by Yashvantráv Ghorpade and by Sindia that Bájiráv was again trying to persuade Sindia to put him in confinement. Nána went to Bájiráv, charged him with this treachery, and implored him to let him give up his post as minister and withdraw to private life. Bájiráv denied any knowledge of the proposals, asked who had dared to make use of his name, and told Sindia to arrest them. Sindia arrested Bájiráv's minister Govindráv, and Shivrám another of Bájiráv's agents, who bore the loss of their property and their liberty without impeaching their master's truthfulness. After this satisfaction Nána resumed his duties. As far as possible Nána avoided public business. But for some months affairs had been in progress which no one at Poona but Nána could prevent from seriously affecting the power of the Peshwa. On the first of September 1798 a new treaty was concluded between Nizám Ali and the English under which Nizám Ali agreed to disband his French troops and replace them with English troops, and under which the English undertook to mediate between the Nizám and the Peshwa and to do their best to bring the Peshwa to a friendly settlement.1 The Maráthás viewed this treaty with much jealousy and the British agent urged the Peshwa to conclude a similar treaty. He evaded the subject by an assurance that he would faithfully execute the conditions of existing engagements, and, in the event of a war with Tipu, promised to afford his aid. In these replies Bájiráv followed Nána's advice. Nána pressed him, after giving these promises, to take care that his promises were fulfilled; any instance of bad faith would add greatly to the power of the English in their future dealings with the Maráthás. In this matter Bájiráv followed his own inclination. Though, with the help of Parashurám Bhán, Nána arranged that as in 1790 a Marátha contingent should be ready, in 1799, when the fourth Maisur war broke out, the English instead of Marátha support found that Tipu's envoys were publicly received in Poona, and that Tipu's agent had paid Bájiráv £130,000 (Rs. 13 lakh). The Governor General noticed the conduct of the court of Poona by countermanding the detachment which was in readiness to act with

1 Grant Duff's Maráthás, 542.
Parashurám Bháu, an action which Nána Fadnavis who did not know that Bájiráv had received the £130,000 (Rs. 13 lakhs) could not understand.

When he heard that (4th May 1799) Seringapatam had fallen, that Tipu was slain, and that his power was at an end, Bájiráv affected the utmost joy, tried to persuade Colonel Palmer that the backwardness of the Marátha contingent was due to Nána, and sent urgent orders to the governor of the Marátha Karnátak to advance into Tipu’s country. Sindia also, while secretly striving to encourage resistance among Tipu’s partisans, sent abundant congratulations to Colonel Palmer. Though the Peshwa had failed in his promise of help, in the hope of making him agree to a treaty like the treaty he had concluded with the Nizám, the Governor General set apart a portion of Tipu’s conquered country for the Maráthás. This tract of territory, which included the greater part of the Sunda lands now in North Kanára, yielding an estimated revenue of £26,800 (Rs. 2,68,000), was rejected by the Peshwa. The Poona Government regretted that the disorder in the Marátha country had prevented them from sending the promised contingent to act against Tipu; in the case of the French landing in India the Peshwa undertook to join with the English in fighting them, at the same time the Peshwa would not agree to exclude Frenchmen from his service. He refused the Company’s offered mediation in his existing disputes with the Nizám, and treated as absurd the proposal to include Baghúji Bhonsla of Nágpúr as a principal in the intended alliance. Sindia’s affairs continued in confusion. After Ghatge’s attack on Amri ráv’s camp in 1798 the ladies sought refuge with the Kolhápur chief. In Kolhápur they were joined by the leading Shenvi Bráhmans in Sindia’s service. Numbers of horsemen flocked to their standard, and they marched north (February 1799) burning all Sindia’s villages between the Krishna and the Godávari. Sindia’s horse fled before them, and, though they gave way to his regular battalions, as soon as the regular troops turned to go back to Poona the ladies’ troops followed them and continued their work of ruin. The country swarmed with horsemen, and though plunder was not indiscriminate the devastation was great.1 In addition to his troubles with the widows Sindia’s power was threatened by a revolt in North India and by the escape and rapid success of Yashvantráv Holkar in Málwa. In these straits Sindia’s headmen advised him to set Báloba Tátáya free and appoint him minister. Báloba promptly made a settlement with the ladies. But after all was arranged the murder of one of their followers enraged the ladies and they withdrew and again marched through the country plundering.2 In August 1799, with the approval of their chiefs, Báloba and Nána deliberated on measures to counteract the close alliance between the Nizám and the English. For some time Sátára and Kolhápur had fallen into complete disorder and Parashurám Bháu the Peshwa’s commander had lately been killed. A combined force of the Peshwa and Sindia marched towards

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1 Grant Duff’s Maráthás, 545. 2 Grant Duff’s Maráthás, 546.
Kolhápur, defeated the chief, forced him to seek safety in Panhála, besieged Kolhápur, and had nearly taken it when (1800) events at Poona forced a prompt settlement and saved the existence or at least the independence of the Kolhápur state.

Nána’s health, which had long been declining, failed rapidly in the beginning of 1800, and he died at Poona on the 13th of March. This event sealed the ruin of the Peshwa’s government. In figure Nána was tall and thin, dark in complexion and grave in manners, with a quick searching and intelligent expression. In private life he was truthful, frugal, and charitable, a most orderly and painstaking worker. He respected the sincerity and vigour of the English, but, as political enemies, looked on them with the keenest jealousy and alarm. As a politician his early life was disfigured by timidity and ambition. During his last years he acted with the courage and sincerity of a patriot, regardless of consequences to himself, counselling Bájiráv to do what he believed was for the good of the state. In his early life he devoted his energies to maintain the improved civil management which had been established by Mádhavráv Ballál (1761-1772). In later years home intrigues and foreign troubles so filled his time and his thoughts that in practice almost all check on abuses disappeared. Even in Poona city so slack was the control that Ghásirám the head of the city police was able without check to commit a series of murders, and at last, when his guilt was proved, was punished not by the law but by a rising of the townsmen who stoned him to death. With Nána passed away all that was wise and moderate in the Peshwa’s government.

Nána died leaving a young widow and no children. The desire to seize his wealth, which in spite of all he had latterly been forced to part with was said to be still immense, soon set Sindia and Bájiráv quarrelling. When the insurrection in North India was crushed, Sindia, under the influence of Ghátge determined to destroy Báloba. He was seized and thrown into Áhmadnagar, death freeing him from the tortures which Ghátge had planned for him and which he carried out in the case of two of Báloba’s supporters blowing one from a gun and mangling the other by tying round him and setting fire to a belt of rockets. While Sindia vented his hate on the Shenvi Bráhmans, Bájiráv gratified his revenge by seizing and throwing into confinement the former supporters of Nána and of Parashuram Bhán and other Patwardhans. Sindia was now all-powerful at Poona. He had Bájiráv so entirely in his hands, that he for some time kept a guard round Bájiráv’s palace lest he should attempt to escape. Before the close of 1800, the rapid success of Yashvantráv Holkar, who had overrun almost the whole of Málwa, compelled Sindia to leave Poona and march north. Before he left Poona he forced Bájiráv to give him bills worth £470,000 (Rs. 47 lákha). Several bloody battles were fought between Sindia and Holkar in Málwa. The infamous Ghátge joined Sindia’s army and gained a complete victory over Holkar. Yashvantráv, though nearly ruined, by a skilful march arrived unexpectedly in the neighbourhood of Poona. When Sindia left Poona, instead of trying to win
the respect of his people, Bājirāv gave his attention to distressing and pillaging all who had opposed either himself or his father. One of the first who suffered was Mādhhavrāv Rāstía, whom he invited to visit him, seized, and hurried to prison. This act, followed by others like it, caused general discontent. Lawlessness spread and the Deccan was filled with bands of plundering horsemen. Among the prisoners taken in one affray was Vithoji the brother of Yashvantrāv Holkar. According to Marāṭha practice the punishment to prisoners taken in a plundering raid was not always death. Something short of death might have sufficed in the case of a son of Tukoji Holkar. But Tukoji Holkar had been Nāna’s friend and the Holkars were Sindia’s enemies. So to death Bājirāv added disgrace and sat by as Vithoji was bound to an elephant’s foot and dragged to death in the streets of Poona (April 1801). Bājirāv’s cruelty brought on him the hate of Vithoji’s brother Yashvantrāv, a hate which for years haunted Bājirāv’s coward mind. Shortly after Vithoji’s death, the news of Yashvantrāv’s vow of vengeance and of his successes against Sindia’s troops at Ujain (June 1801) led Bājirāv to address him in friendly terms as the heir of Tukoji Holkar. As Sindia was fully occupied with his fight against Holkar, who had more than once defeated his troops, Bājirāv thought the opportunity suitable for seizing Sindia’s officer Ghatge. Ghatge, whose plundering was causing much misery in the Deccan, came into Poona and in his demands for money insulted the Poona Court. Bālāji Kunjar, Bājirāv’s favourite, asked him to his house to receive some of the money he demanded. Ghatge came; but noticing from a signal given by Bālāji Kunjar that treachery was intended, he forced his way out, leaped on his horse, escaped, and returned to Poona with a force threatening to sack the city. The British Resident was called in to effect some settlement of Ghatge’s claim, and Poona was saved further loss by an urgent message from Sindia requiring Ghatge in Mālwa. Early in 1802 Shāh Ahmad Khān, an officer detached by Yashvantrāv Holkar, carried his ravages into the Peshwa’s territories between the Godāvari and Poona, and cut off almost to a man a force of 1500 horse under Narsing Khandērav the chief of Vinchar. The consternation at Poona caused Bājirāv to renew negotiations with the English. He wished to have a force, but he objected to its presence in his territory, and he still refused to agree that the English should arbitrate between him and the Nizām. Yashvantrāv Holkar himself soon moved towards Poona. The Peshwa did all in his power to stop him. Yashvantrāv said, You cannot give me back Vithoji but set my nephew Khandērav free. Bājirāv promised; but, instead of setting him free, had Khandērav thrown into prison at Asirgad. Meanwhile Sindia’s army joined the Peshwa’s, and together they prepared to stop Holkar at the Ali Bela pass in north Poona. Yashvantrāv, knowing their strength passed east by Ahmadnagar, joined his general Fatesing Māne near Jejuri, marched down the Bājvārī pass, and on the 23rd of October 1802 encamped between Lonī and Hudapsar about five miles east of Poona.

About eight days before Yashvantrāv’s arrival the joint Sindia-Peshwa army had fallen back from Ali Bela and taken a position
close to Poona near the present cantonment. The Peshwa ordered Yashvantrāv to retire. He replied he was willing to obey; but that Sindia, not he, was the rebel and had refused to give up Yashvantrāv’s nephew Khanderāv whom Bājirāv had ordered him to set free. On the morning of the 25th of October the armies met, and, after a well contested fight, the battle ended in a complete victory for Yashvantrāv which was chiefly due to his own energy and courage. Bājirāv making sure of victory came out to see the battle but the firing frightened him and he turned southward. On learning the fate of the battle he fled to Sinhgad. From Sinhgad he sent an engagement to Colonel Close binding himself to subsidise six battalions of sepoys and to cede £250,000 (Rs. 25 lākhs) of yearly revenue for their support. He had already agreed to waive his objection to allow the troops to be stationed in his territory. For some days after his victory Yashvantrāv showed great moderation at Poona. He placed guards to protect the city, treated Bājirāv’s dependents with kindness and made several attempts to persuade Bājirāv to come back. Bājirāv, after staying three days in Sinhgad, fled to Rāygar in Kolāb, and from Rāygar retired to the island of Suvarndurg off the north coast of Ratnāgiri. From Suvarndurg, alarmed by news of the approach of one of Holkar’s generals, he passed to Revdanda, and from Revdanda sailed in an English ship to Bassein which he reached on the 6th of December 1802. Meanwhile, at Poona, when Holkar heard that Bājirāv had fled from Sinhgad, he levied a contribution from the people of Poona. The contribution was arranged by two of Bājirāv’s officers and it was carried out in an orderly manner. When Yashvantrāv found that Bājirāv would not return he sent a body of troops to Amritrāv with the offer of the Peshwahip. Amritrāv at first refused; but, when Bājirāv threw himself into the hands of the English, Amritrāv held that he had abdicated and took his place. After much hesitation he was confirmed as Peshwa by the Sáhāra chief.

This settlement of affairs at Poona was followed by a plunder of the city as complete and as wickedly cruel as Sindia’s plunder in 1798. Every person of substance was seized and tortured out of their property and several out of their life. The loss of property was unusually severe as some time before the battle of the 25th of October Bājirāv had set guards to keep people from leaving Poona and Holkar took care that after the victory these guards were not withdrawn. These excesses were begun even before Colonel Close left Poona. Both Amritrāv and Holkar were anxious to keep Colonel Close in Poona. They wished him to mediate in their differences with Sindia and the Peshwa, and his presence seemed to show that the British Government approved of their usurpation of power. Finding that no persuasion could alter Colonel Close’s purpose he was allowed to leave on the 20th of November 1802.

On the 31st of December 1802, at Bassein in the North Konkan, Bājirāv agreed to a treaty, under which the English undertook to restore Bājirāv to power in Poona and to maintain permanently in the Peshwa’s dominions a subsidiary force of 6000 regular infantry with the usual proportion of field artillery and European artillerymen. In return for these troops the Peshwa agreed that districts
yielding a yearly revenue of £260,000 (Rs. 26 lâkhs) should be assigned to the English; that he would keep a force of 3000 infantry and 5000 horse; that he would entertain no European of any nation hostile to the English; and that he would have no dealings with any power without consulting the British Government. The treaty of Bassein made the English sovereign in the Deccan; Bâjirâv bought safety at the cost of independence. In March 1803 to re-establish Bâjirâv at Poona the subsidiary force at Haidarabad under Colonel Stevenson took a position at Purinda near the Peshwa’s eastern frontier. General Wellesley was detached from the main army of Madras which was assembled in the north of Maisur, and, with 8000 infantry and 1700 cavalry, was directed to march towards Poona to co-operate with Colonel Stevenson. General Wellesley left Harihar in Maisur on the 9th of March and crossed the Tungbhadra on the 12th. On the banks of the Krishna he was joined by the Patvardhan and other Marâtha and Brâhman Karnâtak estateholders, all of whom, especially the Patvardhans, showed much friendliness to the British. On the 19th of April as he drew near Poona, General Wellesley was warned that Bâjirâv’s brother Amritârâv was likely to burn the city. To prevent this misfortune General Wellesley pressed on with the cavalry of his division, and the Marâtha troops under Apâ Sáheb Gokhla and others of the Peshwa’s officers, using such speed, that, though kept six hours in the Little Bor pass, he reached Poona on the 20th of April after a march of sixty miles in thirty-two hours. In the country south of the Bhima straggling bodies of Holkar’s plunderers were seen, who, on being ordered to desist, had retired. Before General Wellesley reached Poona all hostile troops had left. Holkar had gone to Chandor in Nâsk in some days before, and Amritârâv had started that morning for Sangamner in Ahmadnagar. On the 13th of May, escorted from Panvel by 2800 infantry of whom 1200 were Europeans, Bâjirâv entered Poona, was installed as Peshwa, and received presents from the leading men of the state.

1 General Wellesley’s route was by Miraj and Pundharpur to Bârâmati. He camped at Bârâmati on the 18th of April and at Moreshwar on the 19th. At Moreshwar he heard that Amritârâv meant to burn Poona. After halting for a few hours at Moreshwar he moved with one native battalion and the whole of his cavalry. Though detained six hours in the Bor pass he entered Poona at two on the 20th of April, a march of sixty miles in thirty-two hours. The infantry joined him on the 22nd. Col. Close in Wellington’s Despatches, I. 166. During this war General Wellesley made one greater march than this. When engaged on the Godâvari he started on the morning of the 4th of February 1804 with the British cavalry, the 74th Regiment, the first battalion of the 8th Regiment, 500 men belonging to other native corps, and the Maisur and Marâtha cavalry. After a march of twenty miles on the 4th word was brought that the enemy were twenty-four miles off. He marched again on the night of the 4th, but the road was bad and they did not reach the place named till nine next morning. The infantry arrived at the point of attack along with the cavalry. The enemy had heard of their advance, were in retreat, but still in sight. They were pursued from height to height till the whole body was scattered. All was over by twelve on the 5th. The troops had marched sixty miles in thirty hours. General Wellesley thought this was quicker even than Marâthas. He often spoke of it as the greatest march he ever made. Wellington’s Despatches, II. 97, 98, 100, 101; III. 448.

2 Amritârâv fought and defeated the Râja Bahâdur of Nâsk. He afterwards entered into an agreement with General Wellesley, and finally retired to Benares on a yearly pension of £80,000 (Rs. 8 lâkhs). Grant Duff’s Marâthas, 569.
Chapter VII.

History.

Marathas, 1720-1817. Condition, 1803.

In consequence of the ravages from which the country had for some years suffered, and especially from the ruin caused by Holkar and his Pendhrâris, 1803 was a year of scarcity in the Deccan, and, in consequence of the complete failure of rain in September and October 1803, the last months of 1803 and the first half of 1804 was a time of deadly famine. Meanwhile, secretly encouraged by Bâjirâv, Sindia and Raghunji Bhonsla were preparing to contest British supremacy in the Deccan. The capture of Ahmadnagar fort on the 12th of August 1803 and the famous victory of Assaye, 160 miles north-east of Poona, on the 23rd of September made the British supreme in the Deccan. For some time the country round Poona continued disturbed by insurgents and freebooters. When they were crushed, until Bâjirâv stirred war in 1816, the presence of British troops at Poona, Sirur, and Ahmadnagar preserved peace. When it passed under British sovereignty Poona, like most of the Deccan, was little more than a desert. In January 1803, writing from information received at Maisur, General Wellesley described the country round Poona as entirely exhausted. It was in great confusion. The heads of villages and districts no longer obeyed the chiefs who had governed them; each had assumed supreme authority in his own district, and they were carrying on a petty but destructive war against each other. In April 1803, after his march from Miraj through Bârâmati and the Little Bor pass, General Wellesley wrote: In the country to the south-east of Poona Holkar could not possibly maintain an army. They have not left a stick standing within 150 miles of Poona. They have eaten the forage and grain, have pulled down houses, and have used the material as firewood. The people have fled with their cattle. Between Miraj and Poona, except in one village, not a human being had been seen. General Wellesley's rapid march saved Poona from burning. The people showed the most lively gratitude and great numbers returned to their homes. The Poona market was well supplied with grain, but forage was so scarce that General Wellesley determined to march west to the hills. He went no further than Punavle, about fifteen miles to the west of the city.

1 The Hon, Mountstuart Elphinstone, who was on General Wellesley's staff at the head of one of the branches of the Intelligence Department and took part in all the engagements in this war, describes the Maratha camp as an assemblage of every sort of covering of every shape and colour, spreading for miles on all sides over hill and dale mixed with tents, flags, trees, and buildings (Colebrooke's Elphinstone, I. 175; II. 137). When the Marathas marched, a sea of horse foot and dragoons poured over the country fifteen miles long by two or three broad. Here and there were a few horse with a flag and a drum, mixed with a loose and straggling mass of camels, elephants, bullocks, dancing girls, beggars and buffaloes, troopers and followes, lancemans and matchlockmen, traders, and agents or mutasuds (Ditto). Of his life in the English camp Mr. Elphinstone gives the following details: Tents are struck before five, and early breakfast is taken about six. Then we mount and ride coursing a mile or two out on the flank, reach the camping ground between ten and twelve, and sit if the chairs have come or lie on the ground. When the tents are pitched we move into them and talk till breakfast. After breakfast we work read talk or rest in the tents till dark. Then comes some exercise, dressing for dinner, dinner, and talk till nine. Colebrooke's Elphinstone, I. 84-85. 2 Wellington's Supplementary Despatches, III. 351, 559. 3 Wellington's Despatches I. 143. 4 Wellington's Despatches, I. 145. 5 Wellington's Despatches I. 147.
because he found that as soon as he moved all the people of property left Poona.\(^1\) From Punavle he sent his cattle further up the valley to graze.\(^2\) In the country to the north-east of Poona (18th June 1803) the people were in the villages and they had "grain in underground pits, but there was no government, or indeed anything but thieving.\(^3\) The country was very poor. From the Peshwa to the lowest horseman no one had a shilling.\(^4\) The entire Marātha territory was unsettled and in ruins. Owing to Holkar’s plunder and extortion whole districts were unpeopled and the towns destroyed. As the estateholders for several years had received no rents they were forced to allow their troops to plunder their own territories. Every man was a plunderer and a thief; no man who could seize or steal would till.\(^5\) The Peshwa’s resources were small and the land about Poona was waste.\(^6\) In 1803 the rainfall in June July and early August was sufficient, apparently abundant.\(^7\) But the late rains of September and October completely failed; except in the west the bulk of the early harvest must have perished and the late crops were probably never sown. The failure of rain was specially severe in the central and eastern parts of Poona and Ahmadnagar. By the eleventh of October there was every reason to expect a great scarcity of grain if not a famine. The troops in Poona could be supplied only from Bombay and Bombay only from Kānara. In Bombay the fear of famine was so strong that Governor Duncan kept for the use of the settlement grain which was meant to have gone to the army in the Deccan.\(^8\) Even in the hilly west of Poona, which depends little on the late rains, early in October, famine was raging.\(^9\) The English traveller Lord Valentia reached Khandāla from Bombay on the 9th of October. Close to the pond vultures and dogs were feeding on about a hundred dead bodies. Famine was in every face, several houses were empty, and the last victims had never been removed from the places where they perished. This terrible suffering seems not to have been due to a local failure of rain as the hills were green to the top, there were many paddy fields, and the harvest was nearly ripe. Kārāla was the first stage from Bombay where Lord Valentia saw no famine corpses. The country near Talegaon was level and without tillage or trees, and a little beyond Chinchvad were signs of Holkar’s devastations: the village of Aundh on the Mutha was nearly in ruins. The streets of Poona showed no great signs of suffering, but the sight of dead bodies on the river banks in every stage of decay was distressing. Colonel Close the resident distributed charity chiefly from a fund of £4000 (Rs. 40,000) which Lady Mackintosh had collected in Bombay. He at first gave the people boiled rice. But the sight of the food drove the people nearly frantic and numbers lost their share. Money (2 as.) was

\(^1\) Wellington’s Despatches, I. 155; III. 91. \(^2\) Wellington’s Despatches, III. 91.

\(^3\) Wellington’s Despatches, III. 156, 188. \(^4\) Wellington’s Despatches, III. 190.

\(^5\) Wellington’s Despatches, I. 240. \(^6\) Wellington’s Despatches, I. 332.

\(^7\) Wellington’s Despatches, I. 288 and other passages.

\(^8\) Wellington’s Despatches, I. 441–447.

\(^9\) Travels, II. 112–169. Lord Valentia noticed that the Indráyan or Bor pass valley between Kārāla and Talegaon was strewn with agates, onyx, and carnelian. When he was in Poona he made a large collection of agates which were to be had in profusion. Ditto, II, 118.
Chapter VII.

History.

Marathas, 1720-1817.
Condition, 1803-4.

Accordingly given instead of grain. About 5000 people were relieved every day. The Peshwa confined his charity to the relief of Brâhmans of whom he fed great numbers. In December 1803 General Wellesley wrote: The Peshwa has not in his service a common writer or civil officer to whom he can trust the management of a single district. His territories are all either in the hands of his enemies or are without managers on his part. All the persons capable of arranging his state are either in the service of his enemies or are imprisoned and oppressed by himself. Rich districts are going to ruin because all the persons fit to manage them are in prison or oppressed by the Peshwa. Unless the Peshwa sets these people free and employs them in settling the country the Poona state will never revive. In January 1804 General Wellesley described the Deccan as a chaos. If a militia was not raised and government put in some regular train all must fall to pieces. The Peshwa's government was only a name. The country along the Bhima five miles north of Poona was unsettled, a dreary waste overrun with thieves. The Peshwa was unfit to manage the government himself. He gave no trust or power to any one and had no person about him to conduct the common business of the country. Towards the end of February (23rd) General Wellesley wrote: The Peshwa does nothing to improve his government. His only system of government is that of a robber. He does not choose to keep up an army and his territories are overrun by armed men who are ready to enlist with any one who will lead them to plunder. Except the British troops there is no power in the country to support the government and protect the industrious classes of the people. Conceive a country in every village of which twenty to thirty horsemen have been dismissed from the service of the state and have no means of living except by plunder. There is no law, no civil government, no army to keep the plunderers in order; no revenue can be collected; no inhabitant will or can remain to cultivate unless he is protected by an armed force stationed in his village. Habits of industry are out of the question; men must plunder or starve. The state of the police was also lamentable. The Peshwa's ministers and favourites were the patrons and the sharers of the profits gained by the thieves in their plunder of those whose necessities forced them to travel through the country. In March, General Wellesley wrote: Bájiráv's great object is to gain money to meet the expenses of the pleasures of his court. He makes no attempt to organize the force, which, under the treaty of Bassein, he is bound to support, and is anxious to employ English troops in putting down robbers and helping his revenue-collectors. General Wellesley refused to

1 Lord Valentia was present at the Dasara on the 13th of October. There was a great review in which the British troops took part. The Peshwa, on an elephant, passed along the line to a spot where the branch of a tree had been stuck in the ground. He got off the elephant and performed the ceremonies. He plucked some ears of corn, a salute was fired, and he went off in a looking-glass elephant-car. Formerly whole fields of corn used to be wasted, the Peshwa leading the wasters.

2 Wellington's Despatches, I. 547.

3 Wellington's Despatches, II. 16, 17.

4 Wellington's Despatches, II. 42.

5 Wellington's Despatches, II. 125, 127.

have anything to do with the police of the country or the little dirty amildāri exactions. At the end of April (23rd) the accounts of the state of the Deccan were very distressing. Even in the Nizām's country, which was better off than the west, the sufferings were extreme. It was scarcely possible to get forage or grain; a detachment was some days without food and lost 100 horses in one day. At Poona the British cavalry horses had for some time been fed on Bombay rice. Rice was not wholesome food for horses, but it was the only grain that could be got. General Wellesley doubted if he could move his troops from Poona. In May matters were worse. In Poona all but the fighting men suffered much distress. By great exertions grain was procured but it sold for five pounds (2½ shers) the rupee. Forage was very scarce except near the Bor pass, and even there it was dear and bad. In the beginning of June, so many cattle died and General Wellesley received such dreadful accounts of the want of forage that he determined to stay in Poona as a measure of prudence if not of necessity.

Towards the end of December 1805 Sir James Mackintosh, the Recorder or Chief Justice of Bombay (1804-1811), came from Bombay to visit Colonel Close the Resident at Poona. He was pleased with Chinchwad and its sacred family, in one of whom the god Ganeş dwelt, and whose sacredness had saved the village from ruin in Holkar’s ravages in 1802. Just before reaching Poona, Mackintosh was interested to see a thousand Marātha horse, a fair sample of the terrible cavalry who had wasted and won almost the whole of India. Their air was martial even fierce and next to the Bombay watermen, probably the Koli fishermen, they were more robust than any Indians Mackintosh had seen. They had no uniform and their clothes and arms were most neglected. Their horses varied; some were very wild and some very mean, none were showy. The English in Poona moved with considerable state. In front went two scarlet-coated couriers or harkarās on camels, then an escort of sepoys, then several scarlet mace-bearers, then some of the party on horses and the rest on elephants. The Residency at the Sangam, which Mackintosh describes as a set of bungalows spread over the enclosure, was fitted conveniently and luxuriously. Poona city had its principal streets paved with stone and was reckoned one of the best built native towns in India. The Peshwa's residence, the Saturday Palace or Shanvār Vāda, from its size well deserved the name of palace. A gateway opened into a large rather handsome square surrounded by buildings, whose walls were painted with scenes from Hindu mythology. The staircase at one corner was steep and narrow, an odd contrast to the handsome square. The audience hall was a long gallery supported by two rows of massive wooden pillars. The hall was carpeted and at one end on a white cloth were three pillows, the Peshwa's state seat. Bājirāv, who was then about thirty-four, was a fair man, very handsome, with a perfect gentlemanlike air and manner, simply and neatly dressed.

1 Wellington's Despatches, II. 85, 147, 197.
2 Wellington's Despatches, II. 214. 3 Wellington's Despatches, II. 224-225.
4 Wellington's Despatches, II. 288. 5 Mackintosh's Life, I. 274-288.
in white muslin. He had the easy bearing of one who had a long familiarity with a superior station. Though more elegant than dignified he was not effeminate. Of the three chiefs of nations to whom Mackintosh had been presented, George III., Napoleon, and Bajirav, Mackintosh preferred the Brâhman. The etiquette of Bajirav's court was a whisper. When they moved to Bajirav's own room, an unfurnished bare-walled closet with a white floor cloth and some small pillows, Bajirav spoke warmly of his happiness under the British alliance. Mackintosh's assurance that the English would always protect his security and comfort, brightened his face with apparently genuine delight. Mackintosh thought Bajirav's feelings natural, perhaps reasonable, and obviously unaffected. He had lost independence but had gained rest for himself and his people, personal enjoyment and comfort, and outward dignity. An ambitious man might prefer the independence, a philosopher's choice might vary. Bajirav was neither a hero nor a sage; he was devoted to nothing but to women and to the gods. On leaving the palace a diamond crest was fastened in Mackintosh's hat, a diamond necklace was thrown round his neck, and several pieces of gold and silver cloth and fine muslin were laid before his feet. According to custom these presents were given up and sold on account of the Honourable East India Company.

In spite of the unfeigned obviously natural joy and thankfulness which carried conviction to such shrewd and practised observers as Lord Valentia, Sir James Mackintosh, and Colonel Close, since his restoration to power, Bajirav had been steadily disloyal to the English. He wrote (1803) to the chiefs who were in league against the English explaining that his wretched dependence on the enemy was due to the treachery of the southern estate-holders; he failed to give General Wellesley any help in his campaign against Sindia (1803), and did his best to stop his supplies; and in conducting his affairs with the English Resident, he employed Saddishiv Mankeashvar, whose chief qualification for the post was his open enmity to the English. That the English recommended it was enough to secure the failure of any plan for the good of his government. During

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1 Mr. Elphinstone on first meeting Bajirav (April, 1802) found him a handsome unaffected person, with a good and dignified face though there was some coarseness about the mouth. Colebrooke's Elphinstone, I. 46.
2 Colebrooke's Elphinstone, I. 291. Lord Valentia, who had three interviews with Bajirav in October 1803, was satisfied that the Peshwa highly valued the English alliance and was sincerely delighted when he heard the news that Holkar's fort of Chândor in Nânik had fallen to the English army (Travels, II. 130). Colonel Close, according to Lord Valentia, had no doubt that the Peshwa was sincere in his gratitude to the English. He had never seen the Peshwa so evidently pleased or heard him more unequivocally declare his sentiments. The way in which the Peshwa and his brother Chimnâjil lived together without jealousy proved how excellent was the Peshwa's heart (Ditto, 136). With Lord Valentia's, Sir James Mackintosh's, and Colonel Close's high opinion of Bajirav's evident sincerity it is interesting to compare the Duke of Wellington's opinion, who, and Mr. Elphinstone under his influence, were the only Englishmen who resisted the fascination of Bajirav's manner. The Duke of Wellington, says Grant Duff (Marâthâs, 572 foot), had (1803) remarkably correct views of Marâthâ character; his opinion of Bajirav's future conduct was prophetic. In May 1803, when Bajirav was established at Poona, Colonel Close (Wellington's Despatches, I. 170) described the Peshwa's disposition as wholly satisfactory. The Duke at the same time (14th May 1803) wrote (Ditto, 164): 'The Peshwa showed much quickness
the years between 1805 and 1811, under Colonel Close and for a short time after under Mr. Russel, affairs went smoothly at Poona. Bājirāv for a time seems to have honestly considered the English alliance a piece of good fortune and the country greatly improved. On the 10th of November 1808, Sir James MacKintosh paid a second visit to the Deccan. He found Kārā a miserable village of fifteen or twenty huts and about fifty people. It paid £100 (Rs. 1200) a year to a man of rank at Poona, who had lately threatened to raise the rent to £120 (Rs. 1200), and the people had threatened to leave. MacKintosh thought the state of the people wretched. They felt they were governed only when they paid taxes, in every other respect they were left to themselves, without police or justice, except such as the village system supplied. It was hard to say why taxes were paid, unless to bribe the sovereign to abstain from murder and robbery. At Talegaon the wood entirely ceased. The land was bare and little cultivated; there were no villages; the

and ability: he appeared particularly anxious to perform the stipulations of the treaty at the smallest possible expense to himself. Early in June, when he had to leave Poona to act against Sindia and the Berār chief without any help from Bājirāv, the Duke (4th June; Ditto, I. 179) felt that the Peshwa had broken the treaty by not furnishing an army and had broken his word to the Duke by not settling with the southern chiefs. Still he believed the Peshwa was not treacherous. On the 5th of June (Ditto, III. 166) he began to doubt if the Peshwa was only incapable. Stubborn facts proved that something besides the Peshwa’s incapacity for business prevented a Marāṭhā army helping the English. On the 19th of June (Ditto, I. 186–188), when he could get no supplies and was worse off than in an enemy’s country, he could no longer help feeling that the Peshwa was thwarting him. On the 20th of June he believed the Peshwa disliked the English alliance. He had found out that the Peshwa had daily communications with Sindia and Holkar of which the Resident at Poona knew nothing (Ditto, III. 191). On the 22nd of June (Ditto, III. 201) he describes Bājirāv as unwilling as well as incapable, a prince the only known principle of whose character is insincerity. On the 24th of June (Ditto, I. 194) the Duke was satisfied that the Peshwa was not true to the English cause and was preventing grain coming to his army. On the 25th of September he wrote (Ditto, I. 410): The Peshwa is sincere in his intention to keep to our alliance, but there is crookedness in his policy. He has no ministers; he is everything himself and everything is little. In January 1804 he wrote (Ditto, II. 87–88): The Peshwa’s only principles of government are revenge and jealousy of me. He will begin again, or rather will continue for I believe he has never stopped, his intrigues with Sindia. I certainly have a bad opinion of him; he has no public feeling and his private disposition is terrible. I have no positive proof that he has been treacherous, but I have a strong suspicion of it, and I know that since he has signed the treaty of Bassin he has done no one thing that was desired. In February 1804 (Ditto, III. 468), when he found that Bājirāv had Frenchmen hid for a month in Poona, he wrote: Is not this shocking? What is to be done with the fellow? This is our good and faithful ally! And again on the 7th of March (Ditto, II. 138): The Peshwa calls on everything except money and revenge. If he is sincere how can we explain his never telling the Resident that the Frenchmen had come to Poona. According to Mr. Elphinstone, who, after studying his character for several years (November 1815): Bājirāv’s ruling passions were fear and revenge. His great art was dissimulation. He was habitually insincere, joining a talent for insinuation to a natural love of artifice and intrigue. His want of courage was marked by his eagerness for power and his fearlessness for deference. He was proud and haughty but to serve his ends stooped to any meanness. Changeable humours hid fixed designs. He was able, humane when neither afraid nor vengeful, frugal, courteous, and dignified. Half his life was spent in fests, prayers, and pilgrimages, and a large share of his revenue on magical practices. He was most strict to guard against ceremonial impurity, and almost daily spent hours in disgusting debauchery in large assemblies of women of rank. (Colebrooke’s Elphinstone, I. 257–288.

road was lonely; and the whole country seemed empty. At
Punavle were the ruins of a large castle or vāda which had been
destroyed by Holkar in 1802. It had both square and round towers
and was not unlike an English feudal castle of the rudest form. Sir
James was met by Colonel Close on the morning of the 12th of
November and taken on an elephant to the Sangam. He describes
Colonel Close as without accomplishment or show, plain, cautious,
and with a degree of mildness that formed a singular contrast with
the firmness and even sternness which he had shown on trying
occasions. He had a calm understanding, wholly employed in
practice, united to a strength of nerve which qualified him equally
for a cautious or a vigorous policy. He was a very superior man
who among common observers might easily have passed for a very
common man. According to Colonel Close's information the
population of the city of Poona was about a hundred thousand. The
police was entrusted to a military Brāhman of the family of Gokhla
who had a considerable establishment and his duty was either
so easy or so skilfully performed, that, notwithstanding the
frequent meeting of armed men, instances of disorder were rare.
Gokhla punished all small offences. Great crimes were punished
by the officers entrusted with the districts and in very serious cases
by the government. Capital punishment was rare. Civil disputes
were settled by arbitration under the sanction of the ministers.
There was not a court of judicature, nor a judge in the whole
Marāṭha dominions; nor were there any regular forms of trial. Mackintosh speaks less civilly of Bājirāv than he spoke of him in
1805: The Peshwa has just come back from Pandarpur. He is a
disgusting mixture of superstition and dissolute manners, a combina-
tion which was not unnatural among Hindus, who, in Mackintosh's
opinion, had expunged purity of manners from their catalogue of
virtues.

During the six years ending 1811 the bulk of the residency work
was in the hands of a Pārsi named Khusruji, a man of judgment
and great address, who had been won over to the Peshwa's interests.
In 1811 Mr. Russel was succeeded by the Honourable Mountstuart
Elphinstone. Mr. Elphinstone had been at Poona in 1802 as Colonel

\[1\] Mr. Elphinstone (21st September 1812) describes Sir Barry Close as a man of
a strong and hardy frame, a clear head, and vigorous understanding, fixed principles,
unshaken courage, and a contempt for pomp and pleasure. His entire devotion to
the public service and his extreme modesty and simplicity combined to form such a
character as one would expect to meet in ancient Rome rather than in our own age
and nation. Colebrooke's Elphinstone, I. 270.

\[2\] Nothing seemed so strange to the Recorder as that so great a country could exist
without a judge. Two circumstances diminished his wonder. The first was the power
of the officers of villages or rather townships, who, throughout India, preserved a sort
of republican constitution under despotic princes and retained their authority in the
midst of the revolutions among their superiors. The second was the great power of
the Brāhmans and heads of castes who were a kind of natural arbitrators in all
disputes, and who could punish offences by expulsion from caste, a penalty more
terrible than any which the law could inflict. These two authorities, with the
irregular jurisdiction of the executive officers, were sufficient to maintain tranquility.
Still the absence of regular forms of criminal justice had the usual effect in corrupting
nations so unfortunate as to be destitute of that great school of morality. Sir James
Mackintosh's Life, I. 460-1.
Close's assistant, in 1803 he was on General Wellesley's staff in the war against Sindia and the chief of Berär, and between 1803 and 1807 he was Resident at the Berär chief's court at Nágpur. Mr. Elphinstone was well versed in Maráthá politics and Maráthá state-craft, and did all business direct not through Khusruji. This change was most distasteful to Khusruji who succeeded in raising in the Peshwa's mind a dislike of Mr. Elphinstone. This dislike was to a great extent removed in 1812, when, as the Patelvdhan and other southern estateholders refused to acknowledge the Peshwa's supremacy, Mr. Elphinstone assembled an army at Pandharpur, marched towards the Krishna, and forced the estateholders to abide by their original agreement with the Poona state. Bájiráv was profuse in his acknowledgments to Mr. Elphinstone. In 1813, in connection with these troubles, he declared that he wished to have no more vassal horse. He was anxious to raise a brigade of native infantry, drill it by European officers, and pay it from his treasury. To this the Governor General readily agreed (1813), and, at Khusruji's suggestion, Captain John Ford, of the Madras establishment, who had been long attached to Colonel Close's escort, was appointed commandant of the brigade. Able officers from the line, chosen by Captain Ford, were also lent from the Bombay establishment to help to form and discipline the corps. Except a small proportion of Maráthás the men were chiefly raised in the Company's provinces in Northern India. On entering their battalions they swore fidelity to the Peshwa, adding of their own accord the condition, so long as he continued in alliance with the British. The cantonment allotted for this brigade was at the village of Dápuri about four miles north-west of Poona. One brigade of British troops was stationed at Poona near Gárpür, a spot originally chosen to guard the city; the rest of the subsidiary force were posted about half-way between Poona and Ahmadnagar, on the river Ghod near the village of Sirur. Some time before 1813 a quarrel, which seems to have been stirred up by Bájiráv, broke out between Khusruji the resident's agent and Sadáshiv Mánkeshvar one of Bájiráv's ministers. Khusruji had received from the Peshwa the valuable post of sarsubhedá r or governor of the Maráthá Karnátak. Sadáshiv Mánkeshvar who coveted this appointment accused Khusruji of mismanagement, and Mr. Elphinstone told Khusruji that he must choose between his agency at the residency

1 Mr. Elphinstone's plan of life at Poona was to ride ten to twenty miles in the morning, do club exercise, breakfast, apply to public business and private correspondence from about ten to two, lunch on a few sandwiches figs and a glass of water, rest half an hour, read and write, drive in the evening, take more club exercise, dine on a few potatoes and one or two glasses of claret and water, and read till sleep at eleven. Especially in the hot weather he suffered much from low spirits and bad health. Colebrooke's Elphinstone, I. 235.

2 The Peshwa had soon a fresh instance of the value of the British force whom he found it necessary to call in against Apa Desáí, who, refused to comply with certain claims devolving on the Peshwa by the late settlement and to give up some territory belonging to the Rája of Kolhpúr. The British authorities interposed, but Bájiráv artfully contrived to induce Apa Desáí to trust to his lenity, and resist the demands. By this insidious conduct the Desáí was led to forfeit one-fourth of his estate to the Peshwa. Grant Duff's Maráthás, 621. Compare Colebrooke's Elphinstone, I. 235.
and his government. Khusruji chose the residency agency and his appointment as governor of the Karnátak was given to Trimbakji Dengia one of Bájiráv's chief favourites. This Trimbakji, afterwards the main cause of Bájiráv's fall, was originally a spy who had risen to notice by the speed with which he brought Bájiráv an answer from Poona when (1802) he was at Mahád in Kolába in flight from Holkar. Trimbakji continued a most active useful and unscrupulous servant to Bájiráv, supple in adopting his master's views and bold in carrying them out. He boasted that he was ready to kill a cow if his master told him. He was perhaps the only man who ever gained Bájiráv's confidence, as he was too low to be feared, too despicable to excite jealousy, and too servile to irritate by opposition. Bájiráv's success against his southern estateholders led him to speak vaguely of enforcing his claims on the Nizám, Sindia, and the Gáikwár. At this time Bájiráv apparently had no thought of acting against the British Government. It was Trimbakji's bitter hatred of Europeans which succeeded in flattering Bájiráv into the belief, that, if he only steadily added to his army, he might in time be able to make himself independent of the English. Accordingly the Peshwa began systematically to strengthen his force, chiefly engaging Gosávi and Arab infantry. Mr. Elphinstone raised no objection. On the contrary he was anxious to see the Peshwa's force strengthened, so that they could more effectually resist the attacks of the Pendháris who were now causing great loss in many parts of the Deccan. At this time Khusruji exercised an evil influence on the Peshwa by constantly enlarging on the great gains which the British Government had received from the treaty of Bassein. Mr. Elphinstone was aware of Khusruji's views, determined to remove him, and made a liberal provision for him in Gujarát. As he was leaving Poona Khusruji died of poison. Though a searching inquiry was made it remained doubtful whether Khusruji committed suicide, as he knew his corrupt practices would become public as soon as he left Poona, or whether he was poisoned by Trimbakjiat Bájiráv's suggestion because Khusruji knew too many of their secrets. In 1815 Trimbakji, who continued to rise in favour with Bájiráv, was made agent in the affairs with the British Government. Trimbakji studied his master's humours and gained entire ascendancy over his mind. His measures, though ignorant violent and treacherous, were vigorous. His punishments were at once lenient and severe. Robbery and murder might be compensated by a fine; a failure in a revenue contract was an unpardonable offence. The Peshwa farmed his districts to the highest bidder. Those who failed in their contracts had to give up their whole property and that of their securities. If their whole property was insufficient they were thrown into hill-forts and treated with the greatest rigour. Bájiráv's net revenue was about £1,200,000 (Rs. 120 lakhs) out of which he saved about £500,000 (Rs. 50 lakhs) a year. In 1816 he was believed to have collected £5,000,000 (Rs. 5 crores) of

1 Colebrooke's Elphinstone, II. 288, 293.
2 In 1816 (27th November) Pendháris were plundering within fifteen miles of Poona and driving the people into Poona. Colebrooke's Elphinstone, I. 343, 346.
treasure. 1 Bájiráv's court was gay and licentious beyond that of
any former Peshwa, a characteristic agreeable to most Poona Bráhmans.
His time was passed in the practice of gross debauchery and of
religious rites. He claimed great holiness and was most careful to
keep all religious rules and ceremonies. Apparently to lay the ghost of
Náráyanráv Peshwa, whom his parents had murdered and who
seems to have haunted him, Bájiráv planted several hundred thousand
mango trees about Poona, gave largesses to Bráhmans and religious
establishments, and was particularly generous to Vithoba's temple
at Pandharpur. 2 He never listened to his people's complaints.
If villagers tried to approach him, his attendants drove them off.
The revenue-farmers had generally the superintendence of civil
and criminal justice and these powers enabled them to increase their
collections. The court of justice at Poona was so corrupt that a suitor
without money or influence never won a case. In 1815 the Peshwa
continued to send agents to Sindia and Bhonsla and for the first time
sent agents to Hokar and the Pundháris. These agents were sent
with the object of forming a league to prevent any aggression on the
part of the British, or to take advantage of any reverse in the Nepál
(1815) or other war which might weaken the British and give the
leaguers the chance of shaking off their power. Bájiráv had no
definite plans. Still he had gone so far that his intrigues would have
justified the English in depriving him of power. From time to time
Bájiráv spoke to Mr. Elphinstone of the necessity of settling his claims
on the Nízám and on the Gáikwár. Mr. Elphinstone was at all times
ready to arrange for an inquiry, but Bájiráv always let the subject

1 Grant Duff's Maráthás, 625. General Briggs says (Colebrooke's Elphinstone, I. 303):
Out of a yearly revenue of a million and a half sterling Bájiráv laid by half a million.
In 1816-17 he must have had at his disposal upwards of eight millions of treasure in
jewels and in specie.

2 The suggestion offered in the text to explain the planting of the mango groves
may seem to differ from the usual explanation that the mangoes were planted to atone
for the crime and to gain purity or puṇya. The suggestion that the atonement and
purity Bájiráv sought was freedom from the haunting of a ghost or unclean spirit is
based on the following considerations: The mango is one of the holiest, that is the most
effective spirit-scourers, among Hindu trees. That the object of planting the
mango groves was to keep Náráyanráv's ghost at a distance is supported by the story
told by Grant Duff (Maráthás, 625) that one of Bájiráv's religious advisers saw
Náráyanráv's ghost and that it ordered a dinner for 100,000 Bráhmans, an
entertainment which was at once provided. Two passages in Mackintosh's account
Futher support the view taken in the text. The Kolis at times pay divine honours
to persons who have died a violent death particularly if they or their ancestors caused
the death. They pay these honours to the spirit of the murdered man to win its
favour and that the past may be forgotten. The second passage shows that the
Marátha Bráhmans in Bájiráv's time held the same views as the Kolis about ghost-
hunting. In 1777 Balvantráv Bode, the brother-in-law of Nána Fadnavis, treacherously
seized and killed five Koli outlaws at Junnar. After the execution of the Kolis
Balvantráv became very unhappy. He lost all peace of mind. To regain his
tranquillity he built a temple near Junnar, and, in it, as the object of worship, set five
stones or panát tings representing the five Kolis whom he had executed. That is the
ghosts of the five Kolis haunted Balvantráv and he set up these stones as houses for the
ghosts that they might be pleased with the civility shown them, live in the stones, and
give over troubling him. It was probably Náráyanráv's ghost that so often took
Bájiráv to Pandharpur. It was also apparently to get rid of this same ghost that
Raghunáthráv passed through the holed stone in Malábár Point in Bombay whose
guardian influence cleansed the passer through from sin, that is freed him from ghosts.
Compare Moore's Oriental Fragments, 506.
Gangadhar Shastri at Poona, 1815.

Chapter VII.

His story.

History.

Marathás, 1720-1817.

DISTRICTS.

drop. At heart he had no wish to have his claims settled; if his claims were settled his chief opportunity of intriguing with the Nizām and the Gaikwār would cease. At last in 1815, as part of a scheme to establish his ascendancy over Gujarāt, he again pressed an adjustment of his claims on the Gaikwār. The Governor General thought it advisable to let the two states settle their affairs by direct negotiation, and that the British Government should not arbitrate unless the states failed to agree. At an early stage in the discussion an agent of the Gaikwār named Gopālāry Mairāl had been sent to Poona. The claims of the Gaikwār and the Peshwa were very intricate, and, when Bājirāv, adopting Trimbakji’s policy, determined for purposes of intrigue to keep open the discussion no progress was made. For the intrigues which Bājirāv hoped to develop out of these discussions Gopālāry Mairāl, who was upright sensible and cautious, was unsuited. In 1814 the Peshwa asked that another agent should be sent both to adjust the accounts and to gain a renewal of the lease of the Peshwa’s share of Gujarāt. The Gaikwār’s new agent was Gangādhar Shāstri. Gangādhar Shāstri had originally been in the employment of the Phadke family in Poona. He had gained a place at Baroda through Fatesing Gaikwār, had proved of the greatest service to Colonel Walker in settling the claims of the Gaikwār on his feudatory chiefs, and had recently been the leading man at Baroda.1 So strong was the distrust of Bājirāv and the dread of Trimbakji that the Gaikwār asked and obtained the formal guarantee of his minister’s safety from the British Government. On a previous occasion in 1811, Bājirāv had approved of Gangādhar Shāstri’s appointment. Since then he had heard from his supporters in Baroda that Gangādhar Shāstri was a friend to the English. In 1814 when Gangādhar Shāstri was again proposed as the Gaikwār’s agent, Bājirāv objected, stating that when he was a clerk under Phadke, the Shāstri had once been insolent to him. As Bājirāv had not raised this objection in 1811, Mr. Elphinstone refused to attach any weight to it. In 1815, as Gangādhar Shāstri found that his negotiations with the Peshwa must end in nothing, with Mr. Elphinstone’s approval, he determined to return to Baroda and leave the settlement to British arbitration. This determination produced a sudden change on Bājirāv and Trimbakji. If these questions were left to Mr. Elphinstone all excuse for correspondence between the Peshwa and the Gaikwār would cease and intrigue against the English would be made most difficult and dangerous. At any cost Gangādhar Shāstri must be won to their interests. Gangādhar Shāstri’s weak point was vanity. Trimbakji told him what an extremely high opinion Bājirāv had formed of his talents from the ability with which he had supported the Gaikwār’s interests. The Peshwa was most anxious to get Gangādhar

1 Mr. Elphinstone (15th June 1814) describes Gangādhar Shāstri as a person of great shrewdness and talent who keeps the whole state of Baroda in the highest order, and, at Poona, lavishes money and marshals his retinue in such style as to draw the attention of the whole place. Though a learned Sanskrit scholar he affects the Englishman, walks fast, talks fast, interrupts and contradicts, mixes English words with everything he says, and calls the Peshwa and his ministers old fools and damn rascal. Colebrooke’s Elphinstone, I. 275.
Shástri into his service. He must not leave Poona at once. This was followed by marked friendliness on Báiiráv’s part, even by the offer of his sister-in-law in marriage to Gangádhára Shástri’s son. Báiráv also agreed to an adjustment of the Peshwa’s claims on the Gáikwár which Gangádhára Shástri proposed. The marriage preparations were pushed on. But as no answer came from the Gáikwár to the proposed settlement Gangádhár Shástri began to fear that his master suspected that this offer of marriage had won him to the Peshwa’s side. Gangádhar Shástri hesitated about the marriage and much to Báiiráv’s annoyance it was put off. He further enraged Báiiráv by refusing to allow his wife to visit the Peshwa’s palace because of the debauchery from which it was never free. Still Trimbakji continued more cordial and friendly than ever. In July (1815) Báiiráv asked Gangádhár Shástri to go with him on a pilgrimage to Pandharpur. Contrary to Gopálráv Mairál’s advice Gangádhár Shástri went. On the 14th of July Gangádhár Shástri dined with the Peshwa. In the evening Trimbakji asked him to Vithoba’s temple where the Peshwa was. Gangádhar Shástri went and found the Peshwa most gracious and pleasing. He left the temple in high spirits, and before he had gone 300 yards was attacked and killed. The heinousness of this crime, the murder of a Bráhman in holy Pandharpur, raised a strong feeling against the murderers. Gopálráv Mairál openly accused Trimbakji, and Mr. Elphinstone, after a long inquiry, proved that Trimbakji had hired the assassins. Báiiráv was called on to give up Trimbakji to the British Government. He put Trimbakji under arrest but refused to surrender him. British troops were moved on Poona, Báiiráv’s heart failed him, and Trimbakji was surrendered on the 25th of September. Sítárám the Baroda minister, who was in the Peshwa’s pay, had helped Trimbakji’s plans for murdering Gangádhar Shástri. Between the time of Gangádhar Shástri’s murder and Trimbakji’s surrender Sítárám busied himself in raising troops. He was taken into custody by the Resident at Baroda much against the will of the regent Fátésing Gáikwár whose conduct showed that like Sítárám he had become a party to Báiiráv’s intrigues against the British. Trimbakji was confined in the Thána fort. In the evening of the 12th of October he escaped and reached a safe hiding place in the Ahmadnagar hills.

After the surrender of Trimbakji Báiráv’s chief advisers were Sádáshiv Bháun Mánkeshvar, Moro Dikshit, and Chimnájí Náríyán. The two last were Konkanasth Bráhmans, who, like most of Báiiráv’s courtiers, had gained their prince’s favour by their families’ dishonour. The agent between Báiiráv and Mr. Elphinstone was Captain Ford the commandant of the Peshwa’s regular brigade. Trimbakji’s escape seemed to restore Báiiráv’s good humour and he continued on the most cordial terms with Mr. Elphinstone. He was now busier than ever organising a league against the English. With Síndia, Holkar, the Rája of Nágpur, and the Pendhárí’s constant negotiations went on. He greatly added to the strength of his army and supplied Trimbakji with funds

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1 Grant Duff’s Maráthás, 632.
to raise the Bhils, Kolis, Rámoshis, and Mángs of Khandesh Násik and Ahmadnagar. Other gangs were organised in different parts of Bákírvá's territories, which, if they attracted Mr. Elphinstone's notice, were instructed to play the part of Pendháris or insurgents (1817). Mr. Elphinstone had exact knowledge of what was going on. He sent word to the minister that a large body of troops was assembled at Nátáputa, a village south of the Níra and within fifty miles of Poona. Were these troops the Peshwa's or were they insurgents? The minister replied that the Peshwa had no troops in that part of the country, and that Bápú Gókhla's horse had been sent against the insurgents. When Gókhla's horse reached the Níra they camped among the insurgents and could hear nothing of them. 1 Still Mr. Elphinstone persisted that a large insurrection was on foot in that part of the country, and Bákírvá asked him to take his own measures to suppress it. Colonel Smith, who commanded the Poona subsidiary force, marched to the Níra, the insurgents moved to Ját, Colonel Smith followed them, and they retired north through a little known pass in the Mahádev hills to join a second body of insurgents which had gathered in Khandesh under Trimbakji's relative Godáji Denglia. Before the arrival of the Níra insurgents Godáji's troops had been dispersed by Lieutenant Evan Davis with a body of the Nizám's horse. Bákírvá could no longer deny that there were insurgents. He ordered the chief of Vincur in Násik to act against them, and, soon after, forwarded a letter from the Vincur chief, giving fictitious details of a defeat of the insurgents. Meanwhile Bákírvá continued to levy both infantry and cavalry. Mr. Elphinstone warned him of the danger he was running and asked him to stop. Bákírvá in reply assumed a peremptory tone, demanding whether Mr. Elphinstone meant war or peace. Mr. Elphinstone directed Colonel Smith to move towards Poona with the light division and told Bákírvá that he had called Colonel Smith to his support. Affairs were urgent. The insurgents were making head in Khandesh; May was already begun; and Bákírvá might retire to a hill fort and during the rains organize a general rising of all the Marátha powers. Disturbances in Katak prevented communication between Poona and Calcutta. But a private letter from the Governor General reached Mr. Elphinstone advising him to make the surrender of Trimbakji a preliminary to any arrangement he might come to with Bákírvá. Mr. Elphinstone determined to act without delay. At the Peshwa's desire he visited him and Bákírvá's persuasiveness and the soundness of his arguments would have convinced any one to whom the facts were not known that he could not possibly be unfriendly to the English. While Bákírvá's acts contradicted his words Mr. Elphinstone was not to be deceived. He warned Bákírvá of the dangers he had brought on himself, and told him that unless Trimbakji was either given up or driven out of the Peshwa's territory, war with the English must follow. Several days passed without an answer from Bákírvá. Then Mr. Elphinstone formally demanded the surrender of

1 Grant Duff's Maráthás, 632-633.
Trimbakji within a month and the immediate delivery of the three hill forts of Sinhgad and Purandhar in Poona and Raygad in Kolaba as a pledge that Trimbakji would be surrendered. Bajirav had an exaggerated idea of the importance of his friendship to the English. He believed Mr. Elphinstone would not go to extremities and he hoped he might tide over the few weeks that remained till the fighting season was past. On the 7th of May Mr. Elphinstone sent word, that, in case Bajirav did not agree to hand over the three forts in pledge of Trimbakji’s surrender, Poona would be surrounded. At one o’clock in the morning of the 8th Bajirav sent a messenger in the hope that Mr. Elphinstone might be pursued not to surround the city. The discussion lasted all night; day had dawned before the messenger told Mr. Elphinstone that Bajirav agreed to hand over the three forts. The troops were already moving round the city, and had completely surrounded it before Mr. Elphinstone reached the head of the line. As soon as Bajirav issued an order for the surrender of the forts the troops were withdrawn. The Peshwa, as if he at length had resolved to give up his favourite, issued a proclamation offering £20,000 (Rs. 2 lakhs) and a village worth £100 (Rs. 1000) a year, to any one who would bring in Trimbakji dead or alive. He seized some of Trimbakji’s adherents and sequestrated the property of others who were concerned in the insurrection. Though these proceedings deceived neither his own subjects nor Mr. Elphinstone, they were taken as the preliminary concessions without which the English could entertain no proposals for the future relations between the two states. Two days later (10th May 1817) Mr. Elphinstone received instructions from the Governor General, the Marquis of Hastings, which were framed with the object of preventing Bajirav again organising or taking part in any combination against the English. Under these instructions Mr. Elphinstone drew up the treaty of Poona which was signed by Bajirav on the 13th of June 1817. In this treaty Bajirav admitted that Trimbakji murdered Gangadhar Shastri; he agreed to have no correspondence with any foreign power that is with any other state; he renounced all rights to lands beyond the Narbada on the north and the Tungbhadra on the south; he agreed to receive a yearly payment of £40,000 (Rs. 4 lakhs) as a settlement of all his claims on the Gaikwad; to cede to the English the fort of Ahmadnagar; and instead of the contingent of 5000 horse and 3000 foot which he furnished under the treaty of Bassein to cede to the English territory yielding a yearly revenue of £340,000 (Rs. 34 lakhs).1 Bajirav disbanded a number of his horse, but it was found that each self-horsed trooper had received eight months’ pay and had promised to attend if summoned and to bring friends. The Peshwa’s regular battalions were transferred as part of the force which the English were to keep up in return for the fresh grant of territory. Only one battalion under Captain Ford was kept in the Peshwa’s pay, and, in their stead, the English raised a new corps. In July 1817,

1 This territory included Dharwar and other parts of the Karnatak, the North Konkan, and the Peshwa’s revenue in Gujarat. Grant Duff’s Marathas, 635.

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when the arrangements under the treaty of Poona were adjusted, Bājirāv left Poona on his yearly pilgrimage to Pandharapur.

At this time (1816-1818), under the Marquis of Hastings (1814-1823), the whole power of the British in India was set in motion to crush the Pendhāris, a horde of robbers, who, under the patronage of Sindia, Holkar, and the Peshwa, and under the shadow of the weak policy which had paralysed the English since the close of the Marquis of Wellesley’s government (1805), had risen to dangerous strength and spread unrest and ruin over Mālwa, Central India, and much of the British possessions. During 1816 and the early months of 1817 the Marquis of Hastings determined, besides suppressing the Pendhāris whose head-quarters were in Mālwa and Central India, to enter into fresh treaties with the powers of Rajputāna and Central India whose relations with the British Government and with each other had remained unsatisfactory since 1805. At the same time he determined to put an end to the great Marātha league whose head was the Peshwa and whose chief members were the Bhonsla of Nágpur, Sindia, and Holkar.

As a part of the Marquis of Hastings’ great scheme, at the close of the rains (October 1817), all available British forces were to be sent from the Deccan to Mālwa. The intention of moving the English troops northwards was not kept secret, and, when Bājirāv came to know of it, he determined not to miss the chance which it gave him of being revenged on Mr. Elphinstone. Part of the arrangement for the Pendhāri and Central India campaign was the appointment of Sir John Malcolm as Political Agent with the army of the Deccan. With his usual vigour, before moving north to Mālwa, Sir John Malcolm visited all the Residents and native courts in the Deccan. When Sir John Malcolm reached Poona in August Bājirāv was at Māhuli, the sacred meeting of the Vena and the Krishna in Satāra. He asked Sir John Malcolm to visit him at Māhuli and Sir John Malcolm went. Bājirāv complained of his crippled state under the treaty of Poona and of the loss of the friendship of the English, and declared his longing to have the friendship renewed. Sir John Malcolm advised him to collect troops, and, in the coming war with the Pendhāris, to show his loyalty by sending a contingent to the English aid. Bājirāv warmly approved of this plan, and spoke with such cordiality, candour, and sense that Sir John Malcolm went back to Mr. Elphinstone satisfied that all that was wanted to make Bājirāv a firm ally of the English was to trust him and to encourage him to raise troops. Mr. Elphinstone told Sir John Malcolm that in his opinion to trust Bājirāv and to let him raise troops would end in making him not a fast ally of the English but their open foe. Still though this was his opinion he would not oppose Sir John Malcolm’s scheme. In August Bājirāv received back Sinhgad, Purandhar, and Bāygad. He stayed at Māhuli till the end of September doing his best, as he had promised Sir John Malcolm, to collect a strong army. Bājirāv’s chief adviser was Bāpu Gokhla a brave soldier of much higher position and character than Trimbakji. Under Gokhla’s influence Bājirāv behaved with generosity to many of his great vassals restoring their lands and striving to make himself popular. Perhaps because he knew that no one trusted him
he bound himself under a writing and by an oath to be guided by Bapu Govkha. To meet the expense of his preparations Bājirāv gave Govkha £1,000,000 (Rs. one kror). Forts were repaired, levies of Bhils and other hill tribes arranged, and missions sent to Bhonsla, Sindia, and Holkar. The part of the scheme which Bājirāv liked best, and whose working he kept in his own hands, was the corruption of the English troops and officers and the murder of Mr. Elphinstone. Yashvantrāv Ghorpade, a friend of Mr. Elphinstone's and of many British officers, was at this time in disgrace with Mr. Elphinstone on account of some intrigues. Under an oath of secrecy Bājirāv induced Yashvantrāv to undertake to buy over the British officers, and to this, on the advance of £5000 (Rs. 50,000) Yashvantrāv agreed, and kept his vow of secrecy with such care that he never mentioned Bājirāv's scheme to a soul. Yashvantrāv had a great regard for Mr. Elphinstone. It was to Yashvantrāv and to a Brāhman named Bālājipant Nātu that Mr. Elphinstone owed his knowledge of Bājirāv's plans. The Peshwa returned to Poona at the end of September. Reports of attempts to corrupt the British sepoys came from all sides, and there was the still graver danger that Bājirāv would influence others by threatening to persecute their families, many of whom lived in his South Konkan territories. Bājirāv's plan was to ask Mr. Elphinstone to a conference and murder him, but to this Bapu Govkha would not agree.

On the 14th of October Mr. Elphinstone and Bājirāv met for the last time. Bājirāv spoke of the loss he suffered under the treaty of Poona. Mr. Elphinstone told him that his only chance of regaining the goodwill of the English was to lose no time in sending his troops north to aid the English in putting down the Pendhāris. Bājirāv assured him that his troops would start as soon as the Dasara was over. Dasara Day fell on the 19th of October. It was the finest military spectacle since the accession of Bājirāv. During the day two incidents showed the ruling feelings in Bājirāv's mind; he openly slighted Mr. Elphinstone and he ordered a mass of his horse to gallop down on the British troops as it to attack and then to wheel off. The next week (19th-25th October) was full of interest. By night and day parties of armed men kept flocking into Poona from all sides. General Smith's force was now close to the Chándor hills in Nāsik, too far to help Mr. Elphinstone, and the European regiment which was on its way from Bombay could not reach Poona for ten days. The British troops at Poona were cantonned to the north of the town. Gardens and hedges in many places led within half musket shot of the lines offering every help to attacking Arabs or to disloyal sepoys. First small parties, then large bodies of the Peshwa's troops came out and settled round the British lines. Vinchurkar's horse with some infantry and guns camped to the west of the residency between it and Bhāmburda village. The Peshwa was urged to strike before reinforcements could reach Mr. Elphinstone. On the night of the 28th of October the guns were yoked, the horses saddled, and the infantry ready to surprise the British lines. But Bājirāv's force was daily increasing; his intrigues with the sepoys were not completed: there was still time for delay. Next day (29th October) Mr. Elphinstone complained
to the Peshwa of the crowding of the Marāthā troops on the British lines. When the message was received Bāpu Gokhla was for instant attack. But the arguments of the night before again prevailed, the Peshwa’s schemes were not yet completed, the European regiment was, he believed, still far distant, and every hour the Marāthā army was growing. At four next afternoon (30th October) the European regiment after great exertions reached the cantonment. Next day (1st November), except 250 men who were left to guard the residency, Mr. Elphinstone moved the troops to a good position at the village of Kirkee four miles north of Poona. This movement gratified Bājurāv as he took it for a sign of fear. The British cantonment was plundered and parties of troops continued to push forward as if in defiance. Bājurāv let three days more pass to allow the Patvardhans and his other Karnātak feudatories to join his army. Meanwhile General Smith, warned how matters stood at Poona, had ordered his light battalion to fall back on Sirur about forty miles north-east of Poona. On the 3rd of November Mr. Elphinstone directed the light battalion and part of the auxiliary horse to move from Sirur to Poona. When Bājurāv heard that these troops had been summoned he determined to delay no longer.

The strength of the two forces was, on the English side, including Captain Ford’s battalion which was stationed at Dāpuri about four miles west of Kirkee, 2800 rank and file of whom about 800 were Europeans. The Marāthā army, besides 5000 horse and 2000 foot who were with the Peshwa at Parvati, included 18,000 horse and 8000 foot, or 33,000 in all. Mr. Elphinstone had examined the ground between the British head-quarters at Kirkee and Captain Ford’s encampment at Dāpuri. The two villages were separated by the river Mula, but a ford was found which Captain Ford’s three six-pounders could cross. Mr. Elphinstone arranged that in case of attack Captain Ford should join Colonel Burr’s brigade, and explained to all concerned that at any hazard they must act on the offensive. In the afternoon of the fifth Bājurāv’s army poured out of Poona, everything hushed but the trampling and the neighing of horses, till, from the Mutha to the Ganesh Khind hills, the valley was filled like a river in flood. The residency was left and was at once sacked and burned, and Mr. Elphinstone retired to join the troops at Kirkee. A message to advance was sent to Colonel Burr who moved towards Dāpuri to meet Captain Ford’s corps; the corps united and together pushed on to the attack. Amazed by the advance of troops whom they believed bought or panic-struck, the Marāthā skirmishers fell back, and the Marāthā army, already anxious from the ill-omened breaking of their standard, began to lose heart. Gokhla rode from rank to rank cheering and taunting, and opened the attack pushing forward his cavalry so as nearly to surround the British. In their eagerness to attack a Portuguese battalion, which had come up under cover of enclosures, some of the English sepoys became separated from the rest.

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1 Colebrooke’s Elphinstone, I, 383; Forrest’s Elphinstone, 50.
of the line. Gokhla seized the opportunity for a charge with 6000 chosen horse. Colonel Burr who saw the movement recalled his men and ordered them to stand firm and keep their fire. The whole mass of Marātha cavalry came on at speed in the most splendid style. The rush of horse, the sound of the earth, the waving of flags, and the brandishing of spears was grand beyond description but perfectly ineffectual. The charge was broken by a deep morass in front of the English. As the horsemen floundered in disorder the British troops fired on them with deadly effect. Only a few of the Marātha horse pressed on to the bayonets, the rest retreated or fled. The failure of their great cavalry charge disconcerted the Marāthás. They began to drive off their guns, the infantry retired, and, on the advance of the British line, the field was cleared. Next morning the arrival of the light battalion and auxiliary horse from Sirur prevented Gokhla from renewing the attack. The European loss was sixty-eight and the Marātha loss 500 killed and wounded.1 On the evening of the 13th General Smith arrived at Kirkee. Since the 5th the Peshwa’s army had received the important reinforcements he had been expecting from the Patwardhans and other southern feudatories. They moved from the city and took their position with their left on the late British cantonment at Gārpīr and their right stretching some miles east along the Haidarabad road. About sunset on the 16th General Smith threw an advanced guard across the river to take a position to the east of the Peshwa’s army at the village of Ghorpadi. The British troops were met by a body of the Peshwa’s infantry, but, after a severe struggle, they gained their position. During the night they were not molested and next morning the Peshwa’s camp was empty. Bājirāv had fled to Sātāra. During the day Poona was surrendered. The greatest care was taken to protect the peaceable townsmen and order and peace were soon established. On the 22nd of November General Smith pursued Bājirāv to Māhuli in Sātāra, from Māhuli to Pandharpur, and from Pandharpur to Junnar, among whose hills Bājirāv hoped that Trimbakji would make him safe. At the end of December, finding no safety in Junnar, Bājirāv fled south towards Poona. Colonel Burr who was in charge of Poona, hearing that the Peshwa meant to attack the city, sent to Sirur for aid. The second battalion of the 1st Regiment, under the command of Captain Staunton, started for Poona at eight at night on the 31st of December. They were 500 rank and file with 300 irregular horse and two six-pounder guns well-manned by twenty-four European Madras artillerymen under a sergeant and a lieutenant. On reaching the high ground above the village of Koregaon, about ten in the morning of the first of January 1818, the battalion saw the

1 Details of the battle of Kirkee are given under Kirkee, Places of Interest. Blacker in his Marātha War (65-69) passes over Mr. Elphinstone’s share in the victory of Kirkee. There is no doubt that Mr. Elphinstone planned and won the battle. Canning in the House of Commons said: In this singular campaign Mr. Elphinstone displayed talents and resources which would have rendered him no mean general in a country where generals are of no mean excellence and reputation. Forrest’s Elphinstone, 55; compare Colebrooke’s Elphinstone, II. 127.
Chapter VII.

History.

**British, 1817-1818.**

**Fight at Koregaon, 1st January 1818.**

Peshwa's army of 25,000 Maratha horse on the eastern bank of the Bhima. Captain Staunton continued his march and took possession of the mud-walled village of Koregaon. As soon as the Marathas caught sight of the British troops they recalled a body of 5000 infantry which was some distance ahead. The infantry soon arrived and formed a storming force divided into three parties of 600 each. The storming parties breached the wall in several places especially in the east, forced their way into the village, and gained a strong position inside. Still in spite of heat, thirst, and terrible loss the besieged held on till evening when the firing ceased and the Peshwa's troops withdrew. Next morning Captain Staunton retired to Sirur. His loss was 175 men killed and wounded including twenty-one of the twenty-four European artillery-men. About one-third of the auxiliary horse were killed, wounded, or missing. The Marathas lost five or six hundred men. During the whole day Bajirav sat about two miles off, watching 800 British troops keep 30,000 Marathas at bay. In his annoyance he upbraided his officers Gokhla, Apa Desai, and Trimbakji all of whom directed the attacks: You boasted you could defeat the English; my whole army is no match for one battalion of them. From Talegaon Bajirav fled to the Karnatak. He found it in Major Munro's hands and turned north, avoiding his pursuers by the skill of Gokhla. While the pursuit of Bajirav was going on the Marquis of Hastings had ordered Mr. Elphinstone to take over the whole of the Peshwa's possessions, except a small tract to be set apart for the imprisoned chief of Satara. Satara fort was taken on the tenth of February 1818, and a proclamation was issued that for his treachery the Peshwa's territories had passed to the British. The proclamation promised that no religion should be interfered with: and that all pensions and allowances should be respected, provided the holders withdrew from Bajirav's service. Nothing was said about service estates or jagirs. It was soon understood that they would be confiscated or continued according as the holders showed readiness in tendering allegiance to the new government.

Before the country could be settled Bajirav had to be caught and his hill-forts to be taken. On the 14th of February Brigadier General Pritzler marched from Satara by the Nira bridge to Sinhgad. The siege was begun on the 24th of February and on the 2nd of March, after 1417 shells and 2281 shot had been spent, the garrison of 700 Gosavis and 400 Arabs held out a white flag and next day surrendered the fort. From Sinhgad General Pritzler marched to Purandhar which was surrounded by the 11th of March. A mortar battery was opened on the 14th and on the 15th a British garrison occupied the neighbouring fort of Vajragad. As Vajragad commands Purandhar, the Purandhar garrison at once surrendered, and the British colours were hoisted on the 16th. In the north Colonel Deacon, on the

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1 Details of this famous fight are given under Koregaon, Places of Interest.
20th of February, after taking some places in Ahmadvnagar, came to Sirur. On the 25th he reached Chakan, but, in spite of its strength, the garrison held out for only one day surrendering on the 26th. The British loss was four Europeans killed and wounded. After Chakan Colonel Deacon's detachment went to Lohagad and Isapur. At Lohagad there was already a besieging force under Colonel Prother who had reached Lohagad on the 4th of March from the Konkan by the Bor pass. Isapur was taken without resistance on the 4th, and on the 5th Lohagad was surrendered before the battery guns were placed in position. Tung and Tikona in Bhor immediately surrendered and Rájmachi was occupied without resistance. Koári, a place of importance commanding a pass, was attacked on the 11th. On the 13th a fire broke out and on the 14th a magazine exploded and the garrison of 600 surrendered. The dependent fort of Ganga was occupied on the 17th. On the fall of Koári the troops returned to Poona. A fourth detachment under Major Eldridge on the 24th of April marched to Junnar which they found empty. They then took Chávand, Jivdhán, Hadswár, Náráyangad, and Harishchandragad near the Poona-Ahmadvnagar boundary. Of these Chávand and Jivdhán alone made a show of resistance. Chávand was bombarded on the first of May and next morning after 150 shells had been thrown the garrison of 100 men surrendered. Jivdhán, close to the Nána Pass, was attacked on the third of May, and surrendered after an hour's firing. This completed the capture of the Poona forts.1

About the middle of February, after the fall of Sátára, General Smith went in pursuit of the Peshwa who was at Sholápúr. After several forced marches General Smith came in sight of the Maráthás at Ashta about fifteen miles north of Pandharpur. The Peshwa taunted Gokhla with the success of his arrangements for preventing his master being surprised. Gokhla vowed that at least the approach to him would be well guarded. He waited with 500 horse for the English cavalry, attacked them as they passed out of a river bed, caused some loss and confusion but was killed and the Maráthás put to flight. The Rája of Sátára and his mother and brothers, to their great joy, were rescued from Bájiráv's power. This surprise and defeat and the death of Gokhla upset the Maráthás plans and did much to hasten submission. Bájiráv fled to Kopargaon in Ahmadvnagar, and from Kopargaon to Chándor in Násik. From Násik he passed into the Central Provinces, where, on the banks of the Vardha he was defeated and his troops dispersed. From the Vardha he tried to pass north to Sindia. At last from Dholkot near Asirgad he sent to Sir John Malcolm an offer of surrender, and on the 3rd of June surrendered and received a maintenance of £80,000 (Rs. 8 lakhs) a year.2

By the end of May the Poona force was divided between Sirur, Junnar, and Poona. At Sirur were stationed the head-quarters of

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1 Pendhári and Maráthas War. 294-316. Details are given under Places.
2 Grant Duff's Maráthás, 674-5. In the amount of the maintenance and in some other stipulations Sir John Malcolm showed that, in spite of the lesson he had learned at Máhuli, he was unable to resist Bájiráv's fascinations. Bájiráv died at Bithur in 1851.
the force, the head-quarters of the cavalry brigade and horse artillery, the remains of the foot artillery, His Majesty's 65th Regiment, the light battalion and the right wing of the 1st battalion of the 7th Bombay Native Infantry. At Junnar were placed one battalion of Bombay Native Infantry, two six-pounders, and a party of Captain Swanston's Horse. At Poona city and cantonment were placed details of Artillery and Pioneers, one Regiment of Light Cavalry, one European Regiment, and three battalions of Bombay Native Infantry.1

To the management of the city of Poona and the tract which lay between the Bhima and the Nira, Mr. Elphinstone, who had been named sole Commissioner to settle the conquered territory, appointed Captain Henry Dundas Robertson Collector, Magistrate, and Judge. The north of the conquered territory, now including North Poona Ahmadnagar and Nasik, which stretched between the Bhima river and the Chándor hills, was entrusted to Captain Henry Pottinger. With each of these officers, whose authority corresponded to that of the Peshwa's sarsebhédárs, experienced natives were appointed to numerous subordinate situations on liberal salaries. To restore order in the country, to prevent the revenue being turned to hostile purposes, to guard and to please the people, and to improve not to change the existing system were the first objects to which Mr. Elphinstone directed the Collectors' attention. As almost all the British troops were either pursuing the Peshwa or taking the western forts the Collectors' power of restoring order was at first small. Still by raising irregulars something was done to reduce the smaller places and destroy straggling plunderers. Mr. Elphinstone's great object was to learn what system was in force and to keep it unimpaired. He was anxious to stop people making laws for the country before they knew whether the country wanted laws.2 In 1819 Mr. Elphinstone made arrangements for obtaining a knowledge of local customs and laws. Inquiries were circulated to all persons of known intelligence. A mass of valuable information was gathered, and, from the judicious nature of the questions, the inquiry tended to gain the confidence of the people rather than to arouse their suspicions. To prevent insurrection, to settle claims and rewards, to provide for all who had suffered, and to better the condition of those who were worthy of favour were among the duties which devolved on the Commissioner. At first to prevent disorders or risings a strict system of private intelligence, which was agreeable to Marátha ideas of government, was kept up. Armed men travelling without passports were forced to lay down their arms, and the hoarded resources of the late government were seized wherever they were found. After the first year Mr. Elphinstone was able to relax these rules. No passport was required except from armed bodies of more than twenty-five men, and no search for treasure was allowed unless there was good reason to believe that the information regarding it was correct. A strong military force held positions at Poona, Sirur, and Junnar, and numbers of the enemy's irregular infantry were

1 Blacker's Marátha War, 315, 316. 2 Colebrooke's Elphinstone, II. 46.
employed in the British service. The ranks of the auxiliary horse were already filled by men enlisted beyond the borders of the Marathá country, but more than half the horses which returned from Bajiráv’s army died in the course of six months from the fatigue they had undergone. Few attempts at insurrection occurred. One conspiracy was detected which had for its object the release of the pretended Chitursing, the murder of all the Europeans at Poona and Sátára, the surprise of some of the principal forts, and the capture of the Rája of Sátára. The conspirators were men of desperate fortunes among the unemployed soldiery; many of them were apprehended and tried, and the leaders, some of whom were Bráhmans, were blown from guns. This example had an excellent effect in restraining conspiracies. Except service-estates or jágirs, which could not be continued on the former basis of supplying contingents of troops, every species of hereditary right, all established pensions, charitable and religious assignments, and service-endowments were continued. Regarding the service-estates or jágirs many points required consideration. In the first instance, unless specially exempted, every service estate or jágir was taken possession of in the same way as the territory in the immediate occupation of the Peshwa’s agents. Estates which had been sequestrated by the Peshwa were not restored. Some of the estateholders had established claims by their early submission or by former services to the British Government. The rest might justly be granted a suitable maintenance but could have no claim to the estates which they formerly held on condition of furnishing troops. Liberal pensions in land or money were granted to those who had aided the British Government during the revolution. The ministers of the late government and of the time of Nána Padnávis who were wholly unprovided with means of living received life allowances. Mr. Elphinstone was anxious to maintain the sardárs or gentry and nobles in the position they had held under the Peshwa. To deprive them of all signs of rank would be felt as oppressive by the upper classes and would be disapproved as unusual by the lower orders. The chiefs were classed according to their rank and the estimation in which they were held under the former government. They were freed from the immediate jurisdiction of the civil court, an appeal being allowed from the Agent to Sardárs in Poona to the Governor in Council or to the Sadar Court. The jury or pancháyat was the ordinary tribunal for the decision of civil suits. The criminal law was administered by individual judges assisted by the authority of Hindu law in regulating the measure of punishment. In all important cases the sentences were passed subject to the Commissioner’s approval. In revenue matters the farming system was abolished and the revenue was collected through government agents. Many poor Bráhmans had become greatly dependent on the charitable gifts or dakshina which Bajiráv, in the belief that they atoned for sin, had lavishly distributed. To have at once stopped these grants would have caused much suffering. At the same time

1 Colebrooke’s Elphinstone, II. 62, 75.
so much evil was found to attend the grant of money in promiscuous charity that the greater part was devoted to founding a Hindu college at Poona.

Of the management of the country at the time of its transfer to British rule, Mr. Elphinstone (28th September 1819) had no great fault to find either with the criminal justice or the police. The panchâyats or civil juries were less satisfactory. They were difficult to summon, and they were slow and in all but simple cases were puzzled. The mass of the people were not opposed to the change of rule from the Peshwa to the British. They were strongly inclined for peace and had by no means been favoured under the Brâhman government. Still there were many disaffected Brâhmans, deshmukhs and other hereditary officers, and discharged soldiery. The country had greatly improved during the sixteen years of British protection. The people were few compared to the arable area; the lower orders were very comfortable and the upper prosperous. There was abundance of employment in the domestic establishments and foreign conquests of the nation. A foreign government must have disadvantages: many of the upper classes must sink into comparative poverty, and many of those who were employed by the court and the army must positively lose their bread. In August 1822 when as Governor of Bombay he came on tour to the Deccan, Mr. Elphinstone found the road so had in places that his party had to dismount and reached Poona with lame and shoeless horses. The country was not changed. The town was the same, only all of the horses and most of the gentry were gone. On his next visit to the Deccan in 1826 Mr. Elphinstone found that by reductions of assessment and still more by stopping exactions the burdens of the people had been much lightened. In spite of bad seasons and redundant produce the condition of the people was probably better than in the best years of the Peshwa's government. The police was worse than under the Marâthas though perhaps not so bad as he had expected. Even in the neighbourhood of Poona there had been two or three bands of banditti and there was still one band headed by persons who had been captured and released from want of proof. Except gang robbery and perhaps drunkenness, Mr. Elphinstone did not think crime had increased. In his opinion the most unsuccessful part of the new system was the administration of civil justice.8

8 In the same year (1826), partly owing to the scarcity of 1825 partly owing to the reduction in the local garrison, the Râmoshis of south Poona rose into revolt and outlawry. For three years

1 Colebrooke's Elphinstone, II. 53. 2 Colebrooke's Elphinstone, II. 54.
3 Colebrooke's Elphinstone, III. 57. 4 In the Sâtâra Proclamation of 9th February 1818, Mr. Elphinstone pointed out that when the English restored Bâjîrâv to power the country was waste, the people wretched, and the government penurious. Since 1803, in spite of revenue-farming and exactions, under British protection, the country had recovered and Bâjîrav had heaped together about eight millions sterling of jewels and treasure. Forrest's Elphinstone, 53; Colebrooke's Elphinstone, I. 303.
5 Colebrooke's Elphinstone, II. 79, 80. 6 Colebrooke's Elphinstone, II. 141.
7 Colebrooke's Elphinstone, II. 191, 192. 8 Mr. A. Keyser, C.S.
bands of Rámoshis were guilty of atrocious acts of violence. Under the leading of one Umáji they were so enterprising and successful that, in 1827, as they could not be put down, their crimes were pardoned, they were taken into pay, employed as hill police, and enriched with land grants. The success of the Rámoshis stirred the Kolis of the north-west Poona and Ahmadnagar hills to revolt. Large gangs went into outlawry and did much mischief in Poona, Thána, and Ahmadnagar. Strong detachments of troops were gathered from all the districts round, and, under the skilful management of Captain Mackintosh, by 1830, the rebel gangs were broken, their leaders secured, and order restored. The next serious disturbances were risings of hill tribes between 1839 and 1846. Early in 1839 bands of Kolis appeared in various parts of the Sahyádris and attacked and robbed several villages. All castes joined them and their numbers soon rose to three or four hundred, under the leading of three Bráhmans Bhán Khare, Chinnáji Jadhav, and Nána Darbáré. The rising took a political character; the leaders declared that they were acting for the Peshwa, and assumed charge of the government in his name. As further reductions had lately been made in the Poona garrison the Bráhmans persuaded the people that the bulk of the British troops had left the district. The prompt action taken by Lieutenant Rudd the superintendent of police and Mr. Rose the assistant collector prevented much mischief. Hearing that an attack was intended on the mahálkari’s treasury at Ghode, Mr. Rose hurried to Ghode, collected a force of messengers and townspeople, and successfully repulsed the repeated attacks of 150 insurgents who besieged them through the whole night. This was their only serious venture. Shortly after Lieutenant Rudd with a party of the Poona Auxiliary Horse attacked and dispersed the band, taking a number of prisoners. As soon as the main band was broken the members were caught in detail and the rising was at an end. Fifty-four of the rebels were tried, of whom a Bráhman Rámechandra Garesh Gore and a Koli were hanged, twenty-four were pardoned or acquitted, and of the rest some were sentenced to transportation for life and others to various terms of imprisonment. The prompt and vigorous action of Messrs. Rose and Rudd received the thanks of the Court of Directors. In 1844 the hill-tribes again became troublesome, and, as usual, they were joined and helped by disaffected persons of various castes. The leaders of this rising were Rághu Bhangria and Bapu Bhangria the sons of a jamádar of the Ahmadnagar police a Koli by caste whom the Kolis carried off and forced to join them. The Bhangriás’ head-quarters were the hilly country in the north-west of Poona. They attacked and robbed several villages generally without doing much harm to the people, but in two instances cutting off headmen’s noses. The police made several captures. In one case Captain Giberne the superintendent seized as many as seventy-two outlaws,

though Bápu Bhángria the leader escaped. On the 20th of September 1844 Rághu Bhángria's gang cut off a native officer of police and ten constables who were benighted in the hills and killed all but three. In 1845, the disturbances spread to the Purandhar sub-division south of Poona, and from Purandhar south through Sátára. The Poona police were strengthened by sixty-two Rámoshis, and on the 18th of August 1845, in consequence of a quarrel with one of his own men, Bápu Bhángria was caught. In spite of the loss of their leader the gangs, who had the secret support of several influential persons, continued to harass the country and plunder villages. Government money was seized while it was being collected, a pátíl was murdered because he had helped the police to detect some former outrage, several moneylenders were robbed and one or two were mutilated, and a writer in the Purandhar mámlatdár's establishment was murdered. In Purandhar, with the aid of a Gavlì named Kems and a large band of followers, the sons of Umájí the leader in the 1825 rising committed similar depredations. On one occasion at Jejuri they carried off the litter with the holy image but they brought it back. As the police were not strong enough to restore order, in May 1845 a detachment of Native Infantry was quartered at Junnar, other troops were sent to Purandhar, and one hundred men were set to watch the Málsej and Nánà passes by which the rebels moved up and down to the Konkan. Early in 1846 the Magistrate reported the country quiet, though, in spite of rewards, the ringleaders were still at large. During 1846 Umájí's sons were caught, but they escaped and were not retaken till April 1850 after heading a gang robbery which resulted in the murder of two persons. Except the chief Rághu Bhángria, the other leaders were all secured. A reward of £500 (Rs. 5000) was offered for Rághu Bhángria who was supposed to be gifted with supernatural power, and exercised great influence not only over his own men but over all the north-west Poona hills where, for years, he lived on blackmail levied from Poona and Thána villages. At last on the 2nd of January 1848 Rághu Bhángria was caught by Lieutenant, afterwards General, Gell, and a party of police at Pandharpur where he had gone dressed as a pilgrim. Since 1846 the outlaws had ceased to give much trouble, and, on the 19th of April 1850, the capture of Umájí's sons Tukya and Mankalá brought the disturbances to a close.

During the 1857 Mutinies Poona was free from open acts of rebellion, even from offences requiring political prosecutions. In June 1857 a discharged constable was flogged for attempting to raise a disturbance in the city of Poona. Later in the same year the maulvi of Poona, Nural Huda, who was one of the leaders of the Wáhábí sect of Musalmáns in Western India, was detained in the Thána jail under suspicion of carrying on a treasonable correspondence with the Belgaum and Kolhápur Musalmáns who had joined the mutineers. One or two suspicious characters from Northern India were forced to return to their own country, and Chaturisng a noted bad character who had given trouble for forty years was made a prisoner on suspicion of intriguing with the rebels. The Kolis and other hill tribes attacked a few villages and robbed their
old foes the moneylenders, but even among them there was no outbreak of importance. In 1858 a man was prosecuted and condemned to death for publishing a seditious proclamation in favour of Nána Sáheb, the late Peshwa’s adopted son. But the conviction was quashed as inquiry seemed to show that the charge was malicious. In September 1857 a seditious paper was posted near the college and library in the city of Poona. The authors were not discovered, and so little importance was attached to this demonstration that no reward was offered for their apprehension. The local authorities were watchful, and the dangerous element in Poona city, which is always considerable, was overawed by the garrison.

In 1873, in the north-west of Poona, Houya, an influential Koli, at the head of a well trained gang, began a series of attacks on the moneylenders who habitually cheat and oppress the hill-tribes and at intervals drive them into crime. Many of the moneylenders were robbed and some had their noses cut off. Houya was caught in 1876 by Major H. Daniell then superintendent of police. In 1875 the spirit of disorder spread from the Kolis to the peace-loving Kunbis of the plain country, and, between May and July, chiefly in Sirur and Bhimthadi, eleven assaults on moneylenders by bands of villagers were committed. Troops were called to the aid of the police and quiet was restored. In 1879 the peace of the district was again broken by three gangs of robbers. One of these gangs was of Poona Rámoshis led by Vásudev Balvant Phadke a Poona Bráhman, another of Kolis under Krishna Sábla and his son, and a third of Sátára Rámoshis under two brothers Hari and Tátya Makáji and one Ráma Krishna. Within Poona limits no fewer than fifty-nine gang robberies were committed. These three gangs and a fourth gang in the Nizám’s country were put down before the end of 1879.

1 Details are given under Capital.
CHAPTER VIII.
THE LAND.

SECTION I.—ACQUISITION AND STAFF.

The lands of the district of Poona have been gained by conquest, cession, exchange, and lapse. Most of the country fell to the British on the overthrow of the Peshwa in 1817. In 1844, under Government Resolution 1290 dated the 20th of April 1844, on the death of the Chief of Kolaba, the half village of Chákan in Khed lapsed to the British Government. In 1861 His Highness Sindhia, by a treaty dated the 12th of December 1860, in exchange for other lands, ceded twelve villages, three in Sirur, seven in Bhimthadi, and two in Haveli. In 1866 His Highness the Gáikwár, under Government Political Resolution 2974 dated the 9th of October 1866, in exchange for other lands, ceded the half village of Chákan in Khed and one other village in Haveli. In 1868 His Highness Holkar, under Government Revenue Order 4470 dated the 28th of November 1868, in exchange for other lands, ceded six villages, one in Junnar, four in Khed, and one in Sirur.

The revenue administration of the district is entrusted to an officer styled Collector, on a yearly pay of £2790 (Rs. 27,900). This officer, who is also chief magistrate and the executive head of the district, is helped in his work of general supervision by a staff of four assistants, of whom two are covenanted and two are uncovenanted servants of Government. The sanctioned yearly salaries of the covenanted assistants range from £840 (Rs. 8400)

1 Materials for the Land History of Poona include, besides elaborate survey tables prepared in 1881 by Mr. R. B. Pitt of the Revenue Survey, Mr. Elphinstone's Report dated the 25th of October 1819 Edition 1872; Mr. Chaplin's Report dated the 20th of August 1822, Edition 1877; East India Papers III. and IV. Edition 1826; Mr. Pringle's Lithographed Report dated the 6th of September 1828; Mr. Blair's Lithographed Report dated the 9th of December 1828; Manuscript Selections 157 of 1821-29; Mr. Williamson's Report 2610 dated the 23rd of November 1838; Mr. Vibart's Report 311 dated the 24th of February 1842; Bombay Government Selections New Series LXX. CVII. and CLI.; and survey and yearly jama bandi administration and season reports and other reports and statements in Bombay Government Revenue Record 16 of 1821, 50 of 1822, 68 of 1823, 69 of 1823, 70 of 1823, 71 of 1823, 72 of 1823, 74 of 1823, 95 of 1824, 117 of 1825, 123 of 1825, 174 of 1827, 175 of 1827, 212 of 1828, 351 of 1831, 352 of 1831, 407 of 1832, 426 of 1832, 427 of 1832, 434 of 1832, 484 of 1833, 517 of 1835, 550 of 1834, 595 of 1834, 628 of 1835, 665 of 1835, 666 of 1835, 684 of 1836, 698 of 1836, 766 of 1837, 772 of 1837, 974 of 1838, 1059 of 1839, 1098 of 1840, 1241 of 1841, 1344 of 1842, 1414 of 1842, 1453 of 1843, 1508 of 1844, 17 of 1846, 17 of 1847, 15 of 1848, 23 of 1849, 205 of 1849, 16 of 1850, 24 of 1851, 18 of 1852, 172 of 1853, 15 of 1855, 17 of 1855, 13 of 1859, 15 of 1860, 17 of 1861, 90 of 1861, 13 of 1862-64, 235 of 1862-64, 75 of 1866, 57 of 1867, 59 of 1868, 65 of 1869, 95 of 1871, 81 of 1872, 89 of 1873, 97 of 1875; Government Resolution on Revenue Settlement Reports for 1873-74, Revenue Department 6092 dated the 27th of October 1875; Bombay Presidency General Administration Reports from 1872 to 1889; and the printed acquisition statement of the Bombay Presidency.
POONA.

Chapter VIII

Land.

Section I

Staff, 1884.

District Officers.

Sub-Divisional Officers.

Village Officers.

to £1080 (Rs. 10,800); and the salaries of the uncovenanted assistants are £360 (Rs. 3600) and £720 (Rs. 7200). For fiscal and other administrative purposes, the lands under the Collector's charge are distributed among nine sub-divisions, including the city of Poona, which for revenue purposes is a separate sub-division known as the Poona sub-division and placed under the city мамладар who is a second class magistrate. Of the nine sub-divisions five are entrusted to the covenanted first assistant and the remaining four to the covenanted second assistant collector. Of the uncovenanted assistants one, styled the head-quarter or huzur account officer, and who is a deputy collector, is entrusted with the supervision of the account office and stamp and opium departments. The other, styled city magistrate, who is also a deputy collector, does the criminal and miscellaneous revenue work connected with the city. The treasury is in charge of the Poona Branch of the Bank of Bombay. The covenanted assistant collectors are also assistant magistrates, and have, under the presidency of the Collector, the chief management of the different administrative bodies, local fund and municipal committees, within the limits of their revenue charges.

Under the supervision of the Collector and his assistants the revenue charge of each fiscal division is placed in the hands of an officer styled мамладар. These functionaries who are also entrusted with magisterial powers have yearly salaries varying from £180 to £300 (Rs. 1800 - 3000). Three of the fiscal divisions, Haveli Khed and Bhimthadi, contain each a subordinate division or пета махал, placed under the charge of an officer styled mahálkari, who, except that he has no treasury to superintend, exercises the revenue and magisterial powers generally entrusted to a мамладар. The yearly pay of the mahálkari is £72 (Rs. 720).

In revenue and police matters the charge of the 997½ Government villages is entrusted to 1128 headmen of whom six are stipendiary and 1122 are hereditary. Most of them are Kumbis, but some are Musalmáns and others belong to the Bráhman, Shenvi, Gurav, Náví, Dhobi, Dhangar, and Koli castes. One of the stipendiary and 116 of the hereditary headmen perform revenue duties only, one of the stipendiary and 117 of the hereditary attend to matters of police only, and four stipendiary and 889 hereditary headmen are entrusted with both revenue and police charges. The yearly pay of the headmen depends on the village revenue. It varies from 4s. (Rs. 2) to £23 14s. (Rs. 237) and averages £3 (Rs. 30). In many villages, besides the headman, members of his family are in receipt of state land-grants representing a yearly sum of £290 (Rs. 2900). Of £5223 (Rs. 52,230) the total yearly charge on account of the headmen of villages and their families, £435 (Rs. 4350) are met by grants of land and £4788 (Rs. 47,880) are paid in cash. Several of the larger villages have an assistant headman or chaughula. He is generally a Marátha Kumbi by caste and is paid 10s. to £5 (Rs. 5 - 50) a year. To keep the village accounts, prepare statistics, and help the village headmen there is a body of seventeen stipendiary and 816 hereditary or in all of 833 village accountants. Most of them are Bráhmans and others belong to the Prabhu, Sonár, Gurav, and Golak castes. Every village accountant

Deccan.]
has an average charge of about one village, containing about 900 inhabitants, and yielding an average yearly revenue of £160 (Rs. 1600). Their yearly salaries vary from 6s. to £29 14s. (Rs. 3-Rs. 297) and average £7 12s. (Rs. 76). The total yearly charge amounts to £6570 (Rs. 65,700) of which £30 (Rs. 300) are met by land-grants and £6540 (Rs. 65,400) are paid in cash.

Under the headmen and accountants are 6495 village servants, who are liable both for revenue and police duties. They are Kolis, Mhárs, or Rámoshis. The yearly cost of this establishment amounts to £3027 (Rs. 30,270) being about 8s. (Rs. 4) to each man or a cost to each village of about £3 (Rs. 30). Of the whole amount, £2602 (Rs. 26,020) are met by grants of land and £425 (Rs. 4250) are paid in cash. The average yearly cost of village establishments may be thus summarised:

### Poona Village Establishments, 1884.

<table>
<thead>
<tr>
<th></th>
<th>£</th>
<th>Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headmen</td>
<td>5225</td>
<td>52,250</td>
</tr>
<tr>
<td>Accountants</td>
<td>6670</td>
<td>66,700</td>
</tr>
<tr>
<td>Servants</td>
<td>3027</td>
<td>30,270</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14,920</strong></td>
<td><strong>1,48,230</strong></td>
</tr>
</tbody>
</table>

This is equal to a charge of £14 16s. (Rs. 148) a village or about thirteen per cent of the district land revenue.

Of the 1201 villages of the district 997½ are Government and 203½ are private or alienated. Alienated villages¹ are of three classes, *sharākati* or share villages whose revenues are divided between Government and private holders, *saranjámi* or military service grant villages, and *inám* or grant villages. By caste the holders of these villages are Bráhmans, Maráthás, Prabhus, Mális, Vánis, Gosávís, and Músalmáns. A few proprietors of alienated villages live in their villages and themselves manage them. Few alienated villages are in the hands of one proprietor; but it is the rental of the village not its lands which are divided among the sharers. The estates or estate-shares are often mortgaged but rarely sold to creditors. The condition of the people and the character of the tillage in alienated and neighbouring Government villages show no marked difference. Most holders of land in alienated villages pay a fixed rent, but some are yearly tenants. Tenants generally pay their rent in cash; but, in villages where the survey rates are not fixed, in a few cases they pay their rent in grain. The acre rates generally vary from 3d. to 3s. (Rs. ¼-1¼). In villages where the survey rates have not been introduced the rents are not fixed under any uniform system. In some villages the rent is so much the *bigha*, in others it is so much the *khandi*, and a lump payment is sometimes charged on a certain plot of land. In villages under the survey settlement the rates are the same as in Government villages; and in villages into which the survey has not been introduced, the alienees levy a rent equal to about 3d. to 3s. (Rs. ¼-1¼) the acre. The alienees make no special arrangements to meet the case

¹ Collector of Poona, 3070 of 25th April 1884.
of a tenant improving his field by digging a well in it, or by turning it from dry crop to rice land. The aliens set aside land free of assessment as village grazing land. In surveyed alienated villages the occupants have the same rights as regards trees as in Government villages. If an alienee applies to the Collector for help to recover his dues, assistance is given in accordance with the provisions of the Land Revenue Code.

SECTION II.—HISTORY.

The earliest revenue system of which traces remained at the beginning of British rule was the jātha that is the family estate or the thal that is the settlement system. In 1821 from every original paper he could find relating to settlers or thalkaris and their occupation of land, the Collector Captain Robertson found that, at a former time, the whole arable land of each village was apportioned among a certain number of families. The number of families seems to

1 Captain Robertson, Collector, 10th October 1821, East India Papers IV. 530-531.

In 1821 in some villages the jāthas or family estates were (Extract Revenue Letter from Bombay 5th November 1822, East India Papers III. 805) large plots of land with a fixed rental, called mund, and in other villages the large holding was divided into fields each with a fixed rate, called thika or tika; these words seem to be of Dravidian origin and perhaps belong to the time of the Devgiri Yādava (1100-1310) who had a strong southern element. The division and possession of land and the boundaries of villages were well defined before A.D. 1600 the time of Malik Ambar, the minister of Ahmadnagar, and Captain Robertson was of opinion that private property in land existed from a very much earlier period. In an old account of the village of Ving of the Nirthadi district it is stated that „during the management of Nahi Yār of the Kulbarga Sultān there was neither a division of the fields nor of the bounds of the village, the plains being covered with grass, and the occupation of the people the feeding of horned cattle or gure for which a fixed sum was exacted. During the management of the Baridis in Bedar (1498-1526) and in the administration of the black and white Khojas (probably Khajās) the village bounds were fixed; portions of land were given to particular persons whose names were registered and a rent or dast was established.‘ The preamble to a paper exhibiting a renewed distribution of lands in the village of Gord in A.D. 1583 after that village had been depopulated and probably reduced like the village of Ving (though as a much later period) to be a pasture land for cattle, proves also something regarding the division of land at a remote period. ‘Karim Beg Sāheb Nawáb sent Jānu Sāheb to settle the country. On reaching the village of Sāl in A.D. 1593, where he halted for a month, Jānu Sāheb attached the pātīla of the whole country until the pātīla put a stop to excitors of sedition and to plunderers going about the country. He then made an agreement with them, which set forth that as government had come to know that the country had been completely ruined from the disturbances and rebellions of late years, it was desirous of repeopling it and bringing it again into a flourishing condition, and therefore that it granted kaus to the pātīla to assemble the villagers who had fled. The pātīla having been promised their kāstī(?) rights, agreed to the terms and went to their different villages. Among the rest the pātīla of the village of Gord which was waste, assembled the inhabitants and went to the sarkār, where they requested that their lands might be measured out and assessed according to the measurement. In consequence of this, government ordered that the settlement made in Kutub-ud-din’s time should be renewed. The people, satisfied with this order, returned home, and having met in the darugha of Syed Ambar Cudri, they determined that the old mirdadār should resume their old estates, and that those lands whose former proprietors were not present should be bestowed on new proprietors. As all agreed to the justice of this, the lands were occupied as follows: Bunyād Thalkari or original landlord and Ināmār Jejjī, Pātīl, Kāle Mūkāmād to possess (1) his own field called Parinda containing twelve khandis of which ten and a half khandis are arable, and (2) three and a half khandis of the field called Chinukhele which contains seven khandis extending from the road to the river and of which the former mirdadār is not present.’ Captain H. D. Robertson, Collector, 1st May 1820, East India Papers IV. 415-416.
have seldom been fewer than four or more than twenty-five except in large villages with dependent hamlets or vadis which in some cases seemed to have thirty to forty original families. The lands each family occupied were distinguished by the occupant’s surname. Thus in a village the settlement or holding, thal, of a family of the Jádhav tribe was called Jádhav Thal; the holding of a Sindia family Sindia Thal; and of a Pavár family Pavár Thal; and though none of their descendants remained, the estates still (October 1821) kept the name of the original settler. These holdings were called jathás or family estates. Whether each estate at first belonged to a single person is not known. It seemed to Captain Robertson, that, at the time of the original settlement, one man with his children took a fourth or a fifth or a sixth share of the village lands. His reason for this opinion was that in the family estates which remained perfect in 1821 the original estate was held in small portions by persons of the same family and surname who had acquired their separate shares by the Hindu law of succession. These descendants were collectively termed a jatha or family. Among them they were supposed to possess the whole of the original estate; and as a body they were responsible for the payment of whatever was due to government and others for the whole estate. If the owner of one of the shares let his land fall waste, the whole family was responsible for his share of the rental; and the land of his share was placed at their disposal. In the same way, if a member of the family died without an heir, his portion of the family estate was divided among the surviving relations according to the Hindu law of inheritance. The individual members and sharers of the land of a jatha or family estate appeared always to have been at liberty to do what they pleased with their own portions. They might let them out for a year or for several years or they might allow them to lie fallow. But whatever they did with their land they were responsible to the other members for their share of the government demand. It was therefore an object with the whole of the members of a family estate or jatha to see that no individual by extravagance or carelessness ruined himself and burthened the rest with the payment of his share of the rental. Any member of the family estate was also free to dispose of his share of the patrimony or ‘báproti’ literally father’s bread. If a sharer of a joint estate wished to sell his share, it was never allowed to go to a stranger if any of the family was able to buy it. If no member of the family was able to buy it, and if the holder of the share was forced to sell, the share was made over to any one, a Bráhman or a Kunbi of another family, or a Musalmán, whoever might offer to buy it. The admission of outsiders as members of the joint estate by purchase gave rise to a distinction between the shareholders. The sharers who belonged to the original family were known as ghar bháus or house brothers and the sharers who entered by purchase were known as birádár bháus literally brethren, brothers apparently in the sense of legal brothers.1 The new brother became liable to all the particular customs and rules

1 East India Papers, IV. 551. Birádár, a brother, a Persian word used only in grants deeds and public papers.
which bound the body of sharers he had joined. In 1821, though there remained no trace of the practice, several old settlers or thal-karis agreed in stating that very long ago the representatives of the eldest branch of the family estate or jatha looked after the cultivation and gathered the dues from the younger branches. The head of the family stood between the younger branches and the headman or mukadam of the village. When from any cause the family estate failed to pay the government rental, the village headman never looked to the individual members but to the head of the family to make good what was wanting. Though this practice had ceased long before the beginning of British rule, a trace of it remained in the custom of having one family estate chosen, either by government or by other family estates, to undertake, through its head, the duty of collecting their shares of the government demand from the different estates. To this duty was joined the responsibility of making good any failure in the amount of the government-demand. The members of the family-estate who were thus chosen to represent the village were all styled pâtís, and the head of the pâtís estate was called the mukadam or chief of the pâtís and therefore the chief of all the other joint estates of the village. In some villages for the same reason that it was found convenient to have one responsible family-estate it was found desirable to have a second joint-estate to help the first. In this way arose the chaughulás or families of assistant pâtís. In 1821 the members of the family-estate which was responsible for the village rental or the jatha of pâtís were respected more than the members of the other family-estates. The position of head or mukadam of the village was attended with several advantages. Besides his own share of his family-estate the headman held grant or inám lands free from tax. He also had the control of the village expenses and several other substantial perquisites. In the same way as all the members of a family-estate or jatha were obliged to make good the share of any defaulting member, so the body of family-estates were bound to make good the share of any defaulting estate.

In Captain Robertson’s opinion the village head or mukadam had formerly been and still was as much a natural head of the village society as a servant of government. It was a matter of no small importance to the members of the joint estates to have a representative who could meet and settle the claims of the officers of government. The headman had been and was still a magistrate by the will of the community as well as by the appointment of government. He enforced the observances of what in England would be termed the bye-laws of the corporation; he formerly raised by contribution a sum of money to meet the expenses of the

1 Captain Robertson thought that, from the meaning of the word pâtís, which he apparently derived from pudukit that is the holder of a grant or lease, the use of pâtís as a member of the responsible estate was not the original use of the word. In his opinion the word pâtís was originally applied to a person by whom the whole of a new village was settled. He noticed that the use of the Persian term mukadam showed that the practice of choosing one man to be responsible for the whole village revenue did not date from before the Musalmán conquest of the Deccan. Captain Robertson, Collector, 10th October 1831, East India Papers IV. 531-534
corporation and to support his own dignity as its head; he suggested improvements for the benefit of the association and marshalled its members to aid him in maintaining the public peace; he dispensed civil justice as a patriarch to those who chose to submit to his decision as referee, or he presided over the proceedings of others whom either he or the parties concerned named as arbitrators. Captain Robertson was of opinion that in virtue of his position as president of the corporation, the mukádam was originally granted the management of its affairs, and the regulation of the village feasts and temples, and that, like other presidents, he had turned this power to his own advantage, and by degrees, increased the amount of the village charges.

In a country like the Deccan, which for centuries had been subject to perpetual revolutions and disturbances, many villages must have found the benefit of forming a society, all of whose members were bound to support each other. The strength of the feeling of fellow-ship or association was shown by the walls which guarded the villages and by the bravery with which in disturbed times these walls had often been defended against large bodies of troops.

Though in theory the leading family estate and its head were responsible for the whole rental of the village and were bound to make good the failures of minor family estates, this responsibility could be enforced only in ordinary years. When any great and general calamity happened, and the ruin of villages from war or from pestilence was not uncommon and in nine cases out of ten was the result either of the weakness or of the greed of the government, the government was forced to take less than the full rental, sometimes to recover only from the ground which was actually under tillage. Still in times of disorder and misrule the remissions were often insufficient to prevent the impoverishment if not the ruin of the responsible head. Headmen were forced to part either with the whole or with some of their rights and privileges. When a headman was forced to sell his rights and privileges two or three sharers by purchase were occasionally established, and each took a certain number of family estates, or if the original family estates had been broken, they took a certain number of individuals for whose share of the rental they became responsible and from whom they received mán-pán or tokens of respect. These divisions of the headship were known as thalkaris' sarfás or sarifás that is settlers' dues. A sharer or takshimdór of the headship had also assigned to him a share of the waste or gatkul land in proportion to his share of the headship. This plan of ranging a certain number of family estates or of individuals under each sharer in the headship was, no doubt, a good arrangement for the individual landholder as it saved him from the risk of having to pay headship dues to more than one person. The respect or mán-pán enjoyed by the head or mukádam was never shared by his relations unless when the office had been lately

1 Until the kamál or highest that is the Marátha settlement, which was made between 1758 and 1760, the headman was allowed to spend what amount he chose on village expenses. In 1760 government undertook to regulate village expenses and the sums spent were entered in the yearly rent statement or jamdání. East India Papers, IV, 532-533.
acquired by purchase. When a headship was bought the signs of respect or màn-pàn were generally distributed among all the members of the purchasing family.\(^1\)

Another revenue system of which traces remained at the beginning of British rule was the system of Malik Ambar, the famous Abyssinian minister of the last Nizám Sháhi king Murtaza II. at the beginning of the seventeenth century. Malik Ambar seems to have adopted many of the principles of Todar Mal's settlement which was introduced into parts of Upper India and of Gujarát during the reign of the Emperor Akbar (1556-1605), and into Khándesh and parts of the Deccan during the reign of Sháh Jahán (1627-1658). According to Captain Robertson, the object of Todar Mal's settlement was to measure the land under tillage into bighás and to divide the lands into four classes according to their quality, to ascertain from year to year what crops had been grown, to strike a medium of the value of the crops grown, and to take one-fourth of the estimated value of the crops in cash. This was called the cash rent settlement or jâmâbândi nagdî and the holdings which were held under this settlement were known as râkbâs or areas.\(^2\)

Like Todar Mal's settlement Malik Ambar's system was based on a correct knowledge of the area\(^3\) of the land tilled and of the money value of the crop, and the determination to limit the state demand to a small share of the actual money value of the crop. Malik Ambar's settlement was introduced between 1605 and 1626. In 1820 he was still remembered as the benefactor of the people. According to a Marátha legend which narrated events that occurred about 1618, Malik Ambar was said to have doubled the revenues of the government at the same time that he improved the state of the people. According to another tradition it was Malik Ambar who established the village servants or balútáts.\(^4\) One chief point of difference between the systems of Todar Mal and of Malik Ambar was that Malik Ambar converted his grain demand into fixed cash rates. These conversion rates did not vary with the fluctuations in the price of grain and from their extreme lowness were probably at the time when they were introduced greatly below the actual prices. Todar Mal's conversion rates from grain into cash seem to have been based on the produce prices which were ruling when his survey was introduced. His system provided for a revision of the conversion rates so that they might continue in agreement with the actual market prices of grain.\(^5\)

Malik Ambar's experiments to fix the average outturn of the different plots of village land were confined to the

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\(^1\) Capt. Robertson, Collector, 10th Oct. 1821, East India Papers IV. 531-534.
\(^2\) East India Papers, IV. 409.
\(^3\) It is doubtful if Malik Ambar's bighás were of uniform size.
\(^4\) Captain Robertson, 1st May 1820, East India Papers IV. 408-409.
\(^5\) East India Papers, IV. 410. According to Grant Duff (Marátha History, 43) Malik Ambar abolished revenue farming, and committed the management of the land revenue to Bráhman agents under Muhammadan superintendence. He restored such parts of the village establishment as had fallen into decay and he revived a mode of assessing the fields by collecting a moderate proportion of the actual produce in kind, which, after the experience of several seasons, was (1614) commuted for a payment in money settled annually according to the cultivation. His assessment was said to be two-fifths and his money commutation one-third of the produce.
arable lands of the village. Hill lands were not included. Before Malik Ambar’s time the boundaries of the villages were known. What he did was to introduce into the arable land, for waste and hill lands seem not to have been included, the practice of division into equal areas or bighás and of varying the demand on these areas according to the quality of the soil. Under Malik Ambar’s plan when the whole arable land of the village had been ascertained, it was divided according to ancient practice into two classes bāgāyat or garden land and jirāyat or corn-land. The arable area was also divided into khālsa or land which yielded a revenue to government and ināmat or land whose government rental had been alienated through favour or in return for service. After deducting the land whose government rental had been alienated from the total area, the khālsa land, that is the land which paid a rent to government, was entered as including so much garden or bāgāyat and so much corn-land or jirāyat. In the accounts two classes of rent-alienated land were distinguished, dūmāla or two-owned inām which was held by vatandārs and wholly inām which was held by mosques and temples and by village servants. After the entries regarding the rent-alienated lands, were the details of the assessment of the rent-paying or khālsa lands and lastly there was an entry of the cesses, some of them fixed others varying, which were levied on the craftsmen shopkeepers and village servants or balutās. 1 Captain Robertson found no evidence to show what portion of the produce Malik Ambar took as the government share. He thought it fair to conclude that Malik Ambar fixed the share at less than one-third, which had been the usual exaction before his time. In Captain Robertson’s opinion he probably adopted Todar Mal’s plan and fixed the rent at one-fourth of the produce. 2 Malik Ambar encouraged the higher kinds of cultivation by levying no special garden rates. 3

As regards the character of Malik Ambar’s survey well informed natives were of opinion that the areas were fixed not by measuring but by a glance estimate or nazār pāhbāni. This view seemed to be supported by the fact that he continued to use the old terms for measuring. He seemed to have divided the land into good and bad without attempting so elaborate a classification as was intended

1 East India Papers, IV. 415.
2 Captain Robertson, 1st May 1820, East India Papers IV. 418 ; Capt. Robertson’s Report of 1st February 1825, Bom. Gov. Rev. Rec. 117 of 1825, 479. Compare Grant Duff (Marātha History, 43) who states that Malik Ambar’s share when reduced to cash equalled one-third, and Elphinstone’s History of India, 553. Grant Duff’s estimate has been accepted by later writers. See Bom. Gov. Sel. CVII. 9. According to the tankha assessment which was introduced by Todar Mal the celebrated minister of Akbar, and which derived its name from the small silver coin in which the revenues were collected, the lands were in the first instance assessed with reference to the fertility in a proportion varying from one-half to one-seventh of the gross produce according to the expense of culture and to the description of crop grown. The government share was then commuted for a money payment and in time when a measurement classification and register had taken place, the regulated assessment was fixed at a fourth of the whole produce of each field throughout the year and thus became the permanent assessment of the land. This is Captain Grant’s description of the principles on which the tankha assessment was fixed. Mr. Mills, Principal Collector, 23rd December 1833, Bom. Gov. Rev. Rec. 698 of 1836, 53.
in Todar Mal’s scheme. Malik Ambar though he may have called the divisions of land or holdings bighás, seems to have used the word bigha in its original sense of share and not in its later sense of an area containing a definite number of square yards. He seems to have fixed the amount which a holding could bear by a test of the produce it yielded. In some cases a man might hold double as large a bigha as another, but the land was probably only half as rich and so the pressure of the demand was the same. It was the crop-yielding powers of the different estates which were fixed, not their areas.\(^1\) At the same time the fact that when tested by measurements the quantity of grain taken on an estimate bigha varied from about 54 to 90 pounds (\(\frac{7}{5}\) to \(\frac{1\ 1}{3}\) of a man) showed that Malik Ambar had taken pains to ascertain the capabilities of the village lands. According to a tradition, which Captain Robertson believed was correct, the plan he followed in ascertaining the productive powers of a field was by a test or nimtána of the produce it yielded.\(^2\) At harvest time the sheaves were counted in a field of an estimated number of bighás. Three sheaves, a good, a middling, and a bad, were picked out and the quantity of grain each contained was ascertained and the average of the three yields was struck and this average multiplied into the whole number of sheaves gave the grain-yield of the field.\(^3\) These experiments were repeated through a series of years some say as many as ten years to ascertain the effect of the season on the yield of the land. In this way the yield in an average season was ascertained.

The amount realized by the trade and other cesses varied from year to year, and the share of the village revenue which continued to be taken in grain fluctuated with the price of grain, but under Malik Ambar’s system the bulk of the demand on each village became constant.\(^4\) Malik Ambar’s settlement contains no reference to waste land. According to Captain Robertson he based his estimate on the whole arable land of the village without reference to the state of cultivation. After fixing what rental it should pay to government he handed the management of the village to the pátíls with orders that they should realize the amount.\(^5\) It appears that under Malik Ambar’s system the whole of the detailed arrangement with the actual landholders was left to the village head. Under this system the headman was either a contractor who was bound to raise a certain sum from the village

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\(^2\) Captain Robertson (East India Papers, IV. 420) notices that the test or nimtána system was still common in North India and in parts of Khandesh and Gujarat. It was the basis of the bádi or crop-share system. The test system was the system adopted by Shiváji’s father Shhálí’s headman Dádáji Kondádev when he introduced a settlement into the MÁval or western hill tracts of Poona in 1645.

\(^3\) East India Papers, IV. 429.

\(^4\) East India Papers, IV. 418.

\(^5\) Captain Robertson, 1st May 1820, East India Papers IV. 418. It has already been noticed that Malik Ambar’s survey did not include unarable waste lands. If his settlement was the boon which it was believed to be, it seems difficult to understand how he could have called on the village to pay for more land than was actually under tillage or at least was held for cultivation.
or he was the representative of the whole body of landholders or 
miráśdārs. As the headman or the representative was bound to pay 
the whole village rental, so each holder was bound to pay the whole 
of the share of the rental to which his land was liable whether his 
land was under tillage or was waste.  

After Malik Ambar's examination or glance survey of the arable 
land of a village the quantity of grain which it should be called 
upon to pay was fixed. After the quantity of grain which the 
whole village should yield was fixed, the rents of alienated lands were 
deducted and either the whole of the grain or some part less than 
the whole was turned into a cash payment. There seemed to be no 
instance of a fixed money settlement which had not before been 
a fixed grain settlement. As Malik Ambar made his commutation 
rates permanent he was forced to fix them very low. In Malik 
Ambar’s estimates the price or money value of grain was not more 
than one-seventh of the average price of the same amount of grain 
between 1820 and 1825. This Captain Robertson was assured by the 
hereditary revenue officers was not due to any change in the size of 
the grain measures. Calculations made by Captain Robertson seemed 
to show that on the shenဆhā bigha of 3926½ square yards or about 
4⅛ths of an acre, which was the land measure in use in the Deccan 
since the time of the Moghals, Malik Ambar's demand amounted in 
grain to about 82 pounds (⅛ths of a man of twelve ḫulās or 
about 101 pounds) and in money according to Malik Ambar’s grain 
prices to 7½d. (5 as.) and according to the prices of grain in 1820 
varied from 3s. 6d. to 4s. (Rs. 1 ½-2). According to Captain 
Robertson the low rates fixed by Malik Ambar greatly enriched the 
country. The headmen were able to let out waste lands at rates 
which secured cultivators; the interests of landholders were 
fostered, and cultivators appeared in villages which had before been empty.  

About 1637 when Mahomed Sháh (1626-1656) of Bijápur made 
an alliance with Sháh Jahán, the Bijápur king gave to Sháháji, 
Shiváji’s father, the greater part of the present district of Poona 
including the divisions of Chákan, Poona, Supa, Bárámáti, Indápáur,

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1 East India Papers, IV. 418-419.  
2 Captain Robertson (1st February 1823, Bom. Gov. Rev. Rec. 117 of 1825, 479) says 
‘the whole arable and assessed lands.’ 
3 Captain Robertson, 1st May 1823, East India Papers IV. 419-420; 1st February 
4 Captain Robertson, 1st May 1823, East India Papers IV. 420. Captain Robertson’s 
calculation of the average amount of grain taken under Malik Ambar’s system was 
based on a knowledge of the area of arable land ascertained by actual measurement 
between A.D. 1662 and 1666 and of the quantity of grain taken as a fixed rent by 
Malik Ambar and his successors. The quantity of grain was fixed on a shen salarié bigha. 
The measurements introduced by the Moghals showed that in an uniform area of 
3926½ square yards, that is on a shen salarié bigha, the rates introduced by Malik Ambar, 
based chiefly on the ascertained outturn, varied from ⅛ths to ⅛ths and ⅛ths of a 
man. The average was ⅛ths. This average was ascertained by summing the arable 
land in forty villages and comparing it with the whole fixed quantity of grain payable 
by these villages under Malik Ambar’s permanent settlement. According to 
Captain Robertson’s calculations, on the average price of grain between 1820 and 
1825 which was 42 pounds for 2e. (5 ḫulās the rupee), ⅛ths of a man represented a 
shen salarié bigha rate of Re. 1 as. 5½; ⅛ths of Rs. 1 as. 10½; ⅛ths of Re. 1 as. 12½; ⅛ths of Rs. 1 as. 15½; ⅛ths of Rs. 2 as. 1½; and ⅛ths of Rs. 2. 
and the twelve mountain valleys called Mávals. Shahájí entrusted the management of his land to Dádájí Kondadev a Bráhman who is said to have been extremely just and prudent, but very severe. Dádájí Kondadev took advantage of the distress in 1630 to tempt large numbers of cultivators to settle in the lands under his charge, and took such pains to improve the country that, if we may credit his historian, there were not twenty cubits of arable waste in the whole of his charge. This statement seems to be mainly poetical as another Marátha account describes the Mávals or the greater part of the hilly west of Poona as miserable and empty of people, overrun with woods and with wolves. Dádájí destroyed the wolves and cleared much of the forests and introduced or confirmed Malik Ambar’s settlement, fixing the amount of the government demand by a test or nimtána of the actual outturn of the crop. In connection with Dádájí Kondadev’s revenue management it is worthy of note that when Shahájí overran the eastern Karnátak he drew numbers of Marátha Bráhmans from Poona and appointing them deshmukhs, deshpándes, and kulkarnis, introduced Dádájí’s revenue system into his conquests. The same practice was introduced by Shivájí about 1652 into his Konkan and other conquests.

In 1664 when the Moghals under prince Muazzam drove Shivájí out of his father’s lands, they found the country much reduced by the ravages of war and pestilence. Between 1662 and 1666 they made a correct measurement and division into uniform bighás of 3926½ square yards of a large area of land near Poona. But in the depressed state of the country they were not able to continue Malik Ambar’s system. In 1664 in its stead prince Muazzam introduced a crop division or bátáí system under which the outturn was divided equally between the government and the landholder or rayat, who, besides paying half of his crop, had to meet the cost of the district superintendent or deshmukh and the accountant or deshpání and also of the village headman and village accountant. Special garden rates of £1 7s. 7½d. the acre (Rs. 11½ the bighá) in channel watered or pátastral and of 18s. 4½d. the acre (Rs. 7½ the bighá) in well watered or motasthal lands, were for the first time introduced.

In 1669 when Shivájí reconquered Poona he introduced a cash rental instead of a payment in kind. The rates seem to have been based on the custom or ríváj, which was apparently in use before Malik Ambar’s time, of government taking one-third and leaving two-thirds to the landholders. This one-third demand represented an acre rate of about 260 pounds (2 mans 2½ páylis the shensháká bighá) in first rate land; 177 pounds (1½ mans the bighá) in second rate land; and 118 pounds (1 man the bighá) in third rate land. On the
grain prices ruling about 1825 these amounts represented a cash 
acre rate of 18s. (Rs. 5 as. 4½ the bigha) in first rate land; of 
8s. 10d. (Rs. 3 as. 9½ the bigha) in second rate land; and of 8s. 11d. 
(Rs. 2 as. 6½ the bigha) in third rate land. Shiváji continued prince 
Munazzam’s garden rate of £1 7s. 7½d. the acre (Rs. 11½ the bigha) in 
channel and of 18s. 4½d. the acre (Rs. 7½ the bigha) in well-watered 
land. No change was made in the relations between the government 
and the landholder. The settlement was, as it had been under 
Malik Ambar’s settlement, by village or mauzedaż. The village had 
to make a lump sum. The villagers were left to arrange among 
themselves for the payment of shares which had fallen waste. 
Land deserted by its owner became the joint property of the 
agriculture. The remaining villagers tilled it either dividing it among 
landowners or forming themselves into more compact units, 
to cultivate it as common land. If 
this system had been continued Captain Robertson thought that 
individual property in land would have disappeared. Under this 
system Shiváji’s rental was uncertain and the people suffered, and 
in 1674 Malik Ambar’s system of a fixed money rent for the whole 
that a new settlement was introduced. The new 
settlement was introduced into great part of 
Junnar between 1758 and 1768 and at a later date into the 
neighbourhood of Poona. The rates under this new system were 
termed the kamál. The amount of money levied under the kamál 
was about twice as great as it had been under Malik Ambar’s tankha 
settlement. The land was measured and entered in shenkhái bighás 
and the bigha rates were fixed according to the quality of the soil. 
The kamál or Peshwa system also suffered from the tankha or Musalmán 
system in levying the village rental on the area actually under tillage 
and not on the whole arable area of the village. Under the new system 
the whole rental or kamál ákád of a village was composed of the

original rental or aïn jama and of extra or shivīya jama. Thus in the
village of Avsari Khurd the kamāli settlement gave the following details.
The measurements showed an area of 2530 acres or 8120 shenshāhī
bighās in actual cultivation, assessed at £393 (Rs. 3930). Of the whole
area 19 acres (23 1/3 bighās) were garden land or bagāyat assessed at 1s.
9/4 d. an acre (Rs. 6 a bighā); 192 acres (236 2/3 bighās) were green
products and fruit tree land called mala and assessed at 7s. 4 2/3 d. an
acre (Rs. 3 a bighā); 336 acres (414 1/3 bighās) of black or first class
grain land called kālī and assessed at 4s. 1 1/2 d. an acre (Rs. 2 a bighā);
435 acres (536 1/3 bighās) of second class grain land assessed at 3s. 5/4 d.
an acre (Rs. 1 1/4 a bighā); 478 acres (589 1/4 bighās) of third class grain
land assessed at 2s. 5/4 d. an acre (Rs. 1 a bighā), and 1070 acres
(1319 1/4 bighās) of fourth class grain land assessed at 1s. 10 1/4 d. an acre
(Rs. 3 1/4 a bighā). To this original rental or aïn jama was added
under shivīya jama or extras £4 16 s. (Rs. 48) under Mhārs’ land or
Mhār hadola, £15 8 s. (Rs. 154) as trade tax or mohārfa, and £6 12 s.
(Rs. 66) from village servants entered as baluta.1

1 East India Papers, IV. 427. It seems doubtful how far the elaborate system describ-
ed in the text was introduced. In the Purandhar sub-division a very much rougher system seems to have been in force. The arable lands were parcelled into chāhrs, each
chāhrī representing about 120 bighās. These which contained lands varying much in
quality were assessed in poor villages at Rs. 36 to Rs. 60, in middle villages at Rs. 60
to Rs. 90, and in good villages at Rs. 90 to Rs. 120 or Rs. 130. Lt. Shortrede 1st Oct. 1835
Bom. Gov. Rev. Res. 698 of 1836, 85; Mr. Mills, 23rd Dec. 1835, Do. 58. Capt. Robertson,
1st May 1820, East India Papers, IV. 427. Other items of extra assessment or
shivīya jama are mentioned by Mr. Elphinstone: On the cultivators dakhak patti or a
tax of one year’s revenue in ten; on the lands of the dehmukh and dehpandt chāhrī a
fourth of the fees levied every year; on the Mhārs a mhdr mhdrī; on mhrāta
a mhrāta patti once in three years; on indmāras an indmā tījāt or one-third of the
government share of their lands and an indmā patti or occasional tax imposed in
times of need; pāndhar gana an additional 12 per cent on the tankha, levied once
in twelve years; and wāhir humda or an extra tax on lands watered from wells.
Other taxes were on traders alone. These were mohārfa or a tax on shopkeepers
varying with their means, in fact an income tax; bālāti or a tax on the twelve
village servants; these too were sometimes included in the aïn jama and in some
places the mohārfa formed a distinct head by itself; bāzīr bāltak or a tax on stalls
at fairs; kumbhār khān or a tax on earth dug up by the potters. The following
fell indiscriminately on both classes: ghar patti or ambār shīki or house tax levied
from all but Brāhmans and village officers; bāchak pāhāti or a fee on the annual
examination of weights and measures; tuy or a similar tax on examining the scales
used for bulky articles; dānka, or dānka, or a tax on the right to beat a drum on
particular religious and other occasions; kharādi jinnas or purveyance or a tax
on the right to purchase articles at a certain rate; this was generally commuted
for a money payment; tagān takka or a tax on marriages; pāt dān or a particular tax
on the marriage of widows; wais patti or a tax on buffaloes; bākari patti or a tax
on sheep. There were also occasional contributions in kind called fad farmaṇi such as
bullocks’ hides, charcoal, hemp, rope, and butter, which were often commuted for fixed
money payments; many other sums were paid in commutation for service. All these
collections were made by the pāṭel in small villages though in towns there was a
separate officer to levy those not connected with the land. Government had other
sources of revenue included in the shivīya jama or extra collections in each village
besides those enumerated. The principal were kamāvīs gunhegārī or khand farakī as
fines and forfeitures, bātānātī escheats and profit from deposits and temporary
sequestrations; vanchardī grazing fees; ghāskatāī grass fees; devasthān dabi derived
from offerings to idols; kharbuja ṭāṭī or a tax on melon gardens in the beds of
rivers. Besides all this and besides the village expenses or gaon kharādi there were
taxes to defray the mhrād dāvīs or district expenses not already provided for by
government, in which were included many personal expenses of the mamlādārs
and a large fund for embroilment and corruption for the mamlādār and the courtiers
who befriended him. In addition to all these exactions there were occasional impositions
on extraordinary emergencies which were called jāti patti or extra cess and ekddli.
After 1720, in parts of Poona not included in the svaráj,\(^1\) the full rental or kamál was divided between the Maráthás and the Moghals, or when the Nizám became independent, between the Maráthás and the Nizám. To the full rental or kamál ten per cent were added for the Marátha sardeshmukhi or overlordship. Taking the whole demand including the overlord’s charge at 100, ten went to the overlord. Of the remaining ninety, forty-five went to the Moghals and forty-five to the Maráthás. The forty-five parts left to the Moghals were divided into two groups one of 33\(\frac{1}{2}\) called jágir and the other of 11\(\frac{1}{2}\) called fawjádári. The Marátha share like the Moghal share was divided into two, one of 33\(\frac{1}{2}\) called bátti or the chief’s share, and one of 11\(\frac{1}{2}\) called mokása or the share given away by the chief. But the divisions of the Marátha share were uncertain, as various claims or amals were granted to the Pant Sachiv and other high officers.\(^2\) In other cases, some of the Marátha shares or báttis seem to have been added to the original rental or ain jama. Thus in an example given by Mr. Chaplin the original bigha rate is shown at 8 mans. To this 3\(\frac{1}{2}\) of a man and three shers are added for sardeshmukhi and for mahálmajur, 1\(\frac{1}{2}\) a man for sáhotra, 1\(\frac{1}{2}\) of a man for hak chautháí, and 2\(\frac{1}{2}\) shers for desáí. In addition to the original assessment, extra cesses styled pattís were levied, examples of which Mr. Chaplin cites a butter cess ghípati, a grain cess galla patti, and a present or sádar-bhet. A house-tax and a female buffalo tax were also levied.

In uplands or varkas, where coarse grains were alone grown, an estimate of the crop was made, and from a half to one-third was taken as the government share which was commuted for a money payment at a rate which was established for each village. When rates were fixed at a páhaní or survey, the amount of government rent was not changed until a fresh survey was made.\(^3\)

In large villages and in market towns called peths and kasbás the non-agricultural cesses were collected through the shets or leaders of the merchant and craft guilds, who, among the men of their own class, held a position of headship corresponding to the position held by a pátíl mukádám in a village. These headmen distributed the assessment among the members of their caste or trade, according to their knowledge of their circumstances, and with the concurrence of the individuals themselves in full assembly. The government demands on traders and craftsmen were regulated by a reference to what it had been usual to collect. New cesses were always resisted with great clamour, and unless the agent of government could support his demands by the documents of previous years, he had great trouble in levying the cess.\(^4\)

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1 The Poona districts included in the grant of the svaráj were Poona, Supa including Birlámutí, Índásíp, and Junímar. Grant Duff’s Maráthás, 200.
2 East India Papers, IV. 586 - 587.
3 Mr. Chaplin, 26th Aug. 1822, Ed. 1877, 25 - 27.
4 East India Papers, IV. 588.
After the introduction of the kamāl or full settlement about 1760 the revenues were managed by agents who examined the village accounts in detail and settled or were supposed to settle for the revenues according to the actual state of cultivation, or by fixing with the head of the village for the payment of a stipulated sum for one year. The kamāl which had taken the place of the tankha in the village accounts was the basis of all these settlements. In villages which were just able or were barely able to pay it, the kamāl was always demanded and became almost a fixed settlement. In villages which had grown richer since the kamāl was fixed, an additional amount was levied either by guess or after examining the increased cultivation. The additional amount levied in this way was generally a perquisite of the local agents and was entered in the accounts under mahāl majkur that is sub-divisional charges or under some other suitable head. These agents were spread over the whole Marātha empire and were men of influence and ability. They were of two classes sarsubheddr or provincial governors and subheddr who corresponded to the English Collectors and had charges yielding a yearly revenue varying from £10,000 to £50,000 (Rs. 1,00,00,00 - Rs. 5,00,000).2 Neither the sarsubheddr nor the subheddr was bound to live at the head-quarters of his charge. The management of affairs was usually entrusted to an able and confidential agent or kārbdhhī, on whom all the power of the office devolved. When a district chief or subheddr was appointed he was furnished with an estimate of the revenues of his district with a list of all the authorized charges including militia or shibandis, pensions, religious expenses, and salaries. This estimate was prepared by the secretaries or daftardārs of the state under the eye of the Peshwa or of his minister. The tankha, and after the middle of the eighteenth century the kamāl, formed the basis of these government estimates, and the changes which had taken place since the introduction of the kamāl were calculated on the basis of the payments of the last year. The subheddr's salary, which was generally calculated at one per cent on the revenue of his charge, or £500 to £600 (Rs. 5000 - 6000) a year, and his establishment were next fixed and the amount deducted. The balance which was left, was divided into several sums which at stated periods were required to be paid into the government treasury at Poona. The subheddr had to pay the revenue in advance. He generally had to pay half of the amount at the beginning of the year and the rest by instalments but always in advance.3

When the account year was closed (4th June), the subheddr was obliged to furnish detailed statements of the sums he had realized.

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1 According to Mr. Elphinstone's Report (25th October 1819, Ed. 1872, 22) on the territories conquered from the Peshwa, the sarsubheddr was appointed in Gujarāt, Khāndesh, the Karnātak, and other remote provinces.

2 Mr. Elphinstone (Report of 25th October 1819, Ed. 1872, 24-26) uses the title māmulātdār instead of subheddr. He says the officer in charge of a large district was called māmulātdār; there was sometimes a provincial governor or sarsubheddr between the māmulātdār and government. Capt. Robertson (May 1820) says that a subheddr sometimes formed part of his charge to a māmulātdār. East India Papers, IV. 431.

DISTRICTS.

If it appeared that he had collected more than had been estimated, the subheddār was called on to pay the surplus; if any deficiency had arisen, and if there was no reason to suppose that his accounts were false or his management negligent, he was not obliged to make good the deficiency. As the subheddār always paid in advance, at the close of the year there was generally a balance in his favour. Deductions were sometimes made from this balance on the score of embezzlements. The rest was carried over from year to year; the balance was sometimes reduced by partial payments but it was seldom cleared. All balances due to government were exacted unless the subheddār could show that the receipts had fallen short of the estimates without any carelessness or dishonesty on his part. The eighteenth century subheddār was a government agent whose chief duty in times of peace was to move about his charge redressing grievances, superintending his officers, and collecting the revenue. He was also a judge and a magistrate, but it was because he was the collector of the revenue that he held the offices of judge and magistrate.

When the subheddār or his representative came to his charge, his first duty was to ascertain with precision how much fresh land had been or was likely to be brought into cultivation in the course of the year. For this purpose he deputed local managers. Those sent to superintend large groups of villages, called a taraf pargana or makhāl, were termed kamāvisdārs or tarafdārs and those who had charge of a few villages were called kārkuns and shekhādārs that is clerks. The kamāvisdārs, tarafdārs, kārkuns, and shekhādārs were appointed by the subheddār. As a check upon them and upon the subheddār there was a set of hereditary officials called fee-men or darakdārs because they were partly paid from local fees. Among these were the divān or minister, the fadnavis or registrar, and the potnis or treasurer, whose duty it was to draw up and sign a yearly statement of the receipts and expenditure in the subheddār’s office and to report to government any evil practices of the subheddār. There was a second set of hereditary officers who like the divān and fadnavis were intended to exercise a check on the subheddār chiefly in the interest of the landholders. These were the district superintendent or deshmukh and the district accountant or deshpānde. Both were generally known by the title of landlords or zamindārs. The deshmukh held for a group of villages much the same position as the village headman held with regard to one village and the position of deshpānde or group accountant corresponded to the position of the kulkarni or village accountant. As these hereditary district officers or zamindārs were considered chiefly to represent the interests of the cultivators, the village headmen looked to them for help in resisting exactions and in obtaining remissions. The subheddār’s staff of kamāvisdārs, kārkuns, and shekhādārs, was employed in framing

1 Mr. Elphinstone, 1819, Ed. 1872, 22-24.
2 East India Papers, IV. 430. According to Mr. Elphinstone (1819, Ed. 1872, 22) the kārkun had charge of a considerable number of villages and had under him an officer called shekhdar who had four or five villages.
from actual inspection and with the help of pâtils and kulkarnis, a return of the area of rent-alienated land belonging to inâmdârs and others; of the area of arable waste which had been brought under tillage during the year; and of the area of arable which still remained waste. After this examination was completed, the revenue of each village for the current year was calculated from the mirâds land under tillage or which belonged to resident mirâsdârs together with the rents due from short rate or ukti and lease or kauli land. This estimate was not the final settlement; it was only the basis on which the dates of paying certain sums were fixed, until at the close of the year the actual government demand was finally determined. Still the estimate was always near enough to the final assessment to insert it in the pâtil's agreement to pay the village revenue. When the inspectors of the cultivation were ready to submit their labours, it was usual for the subhedâr to visit each village group called taraf mahâl or pargana. The pâtils of the group met at his office, and after receiving a general assurance that the subhedâr would not take more than was usual, gave a written engagement specifying the quantity of cultivated land, the area of waste, and the area granted to new settlers, and promised to realize and to pay the revenue and received a counterpart from the subhedâr. On their return to their villages the pâtils began to collect the revenue. If any crops failed after the estimate was framed, the failure was taken into account in fixing the final demand. It was understood by government that, unless he farmed the revenues for the year, the pâtil was merely a government agent, and that neither he nor the kulkarni was entitled to any advantage beyond their established rights and salaries. For the same reason if the amount received from a village fell short of the estimate, no attempt was made to recover the balance from the headman or from the accountant. The payments of revenue were generally in three instalments, one corresponding with the early or monsoon crops or kharif which was due about November-December, a second corresponding to the cold weather or rabi crops which was due in January and February, a third corresponding to the hot weather or tusâr crops which was due in February and March, and a fourth which was sometimes levied about March-April to recover outstanding balances. In October or November when the early or principal harvest was nearly ready, the subhedâr moved through his charge. The headmen and accountants, who were generally accompanied and supported by some of the leading landholders, laid before him the papers showing the old settlement rates, apparently both Malik Ambar's tankha and the kamâl of 1760 together with the latest year's payments or vasul ókâr, and such a statement of extra items as gave a full view of the state of the village. The minute knowledge which the subhedâr's staff of clerks called kârkuns or shekhdârs had of the villages under their charge, enabled the subhedâr to check the correctness of the village accounts. Some discussion generally followed in which the villagers looked to the

1 East India Papers, IV. 431. 2 Mr. Elphinstone, 1819, Edition 1872, 24-26.
hereditary district officers the deshmukh and the deshpande to help them to gain any remission or concession which they thought they required. The discussion generally ended in the preparation of a final rent statement or jamabandi patta to which the patil gave a formal agreement. If the patil refused to accept the conditions offered by the subheddar, an officer was sent to examine the state of the village crops. If even then no agreement could be made, the subheddar, though this rarely happened in Poona, arranged to take one-half of the crop. The practice of keeping the village crops under guard until the settlement was made, though unknown immediately round Poona, was common. When one of the three revenue instalments fell due, the subheddar’s clerk sent a messenger to each village to help the patil. The Marathas summoned the landholders who paid their rent to the patil in the presence of the village goldsmith or potdar who assayed and stamped the money, and of the accountant who granted a receipt. When the instalment was collected, the headman sent it by the Marathas under charge of the under-patil or chaughula with a letter to the deshmukh and another to the mamlatdar. At the mamlatdar’s office the money was again tested by a moneychanger and if any of it was found to be bad, the village goldsmith or potdar was made responsible. When the money was accepted the subheddar granted a receipt. When the account year closed these receipts were resumed and the patil was furnished with a statement showing the amount of revenue fixed for the year, the dates of its realization, and the balance, if any, outstanding. This statement was ratified by the subheddar in the usual way.

A subheddar held his appointment for only one year. His reappointment to his charge depended chiefly on his influence at court and they generally had sufficient address to hold their charge for a considerable period in some cases, according to Mr. Elphinstone, for as much as fifty years.1 Though the subheddar’s nominal pay was seldom more than £500 (Rs.5000) or £600 (Rs.6000) a year, and though the system of payment in advance seemed to make any considerable profit impossible, the subheddars valued their posts and clung to them as long as they could. They generally succeeded in bringing over to their side both the district hereditary officers who were supposed to represent the people, and the divan, fadnavis, and potdar, who were supposed to represent the government; and, to answer appeals and complaints to head-quarters which under good rulers were encouraged and attended to, the subheddar had an agent or vakil at court. The subheddars added to their income by concealing unusual receipts, by making false entries of remissions, and false musters and by holding back allowances and pensions. Their chief source of profit was under the head of sadilpdr that is extra or contingent charges. As a portion of the money spent under this head went to bribe the ministers and auditors, the details were not closely examined and the subheddar generally succeeded in keeping more to himself than he paid in bribes.2 Some subheddars let out a few of their

mahdls in farms to persons styled mamlatdrs. They were vested with all the subhedar's magisterial powers except that they could not pass sentence in capital or other heinous crimes. When the account year came to an end the pdtil had to continue to perform his duties with vigour without receiving any orders from the subhedar. It made no difference to the pdtil whether the subhedar was continued in office or a new man was appointed. Sometimes two or three months of a new account year passed before the pdtils knew who was to be their superior for the coming year. It was necessary that the pdtil should take this independent action, because when a subhedar was changed, the former holder of the office was naturally remiss for some time before he left and his successor was at first ignorant of his charge. Considerable liberty was therefore left to the pdtils in using their discretion as to the means best suited to stimulate the cultivators to industry. Except in years of famine, pestilence, or war, the headman was generally able to induce the people again to take the land which they had tilled in the previous year. Those who were not mirasdars or hereditary holders and had once tilled a field, were generally willing to till it again so long as they had a sufficient stock of cattle. At the beginning of the year (June 5th) the pdtil's chief care was to encourage hereditary holders to invest their gains in bringing arable waste under tillage; to obtain new temporary holders or upris and to help the old temporary holders to free themselves from the pressure of creditors and to prevent the sale of their cattle and goods or other extreme measures which might force them to leave the village. With this object the pdtil went to the creditors and persuaded them that if the debtor had time he would pay what he owed; or he promised to lay the debtor's case before the subhedar and obtained from him some advance or tabari. To tempt hereditary holders to till arable waste the headman undertook to procure a lease in which, according to the length of time the land had lain waste, the cultivator was allowed part remission of rent during terms varying from four to ten years.1 Holders of these leases were free from the demands, which the hereditary holders generally had to pay as donations to holy men especially gostavis, and contributions to travelling tumblers and musicians. The headmen expected that a man who had enjoyed a rising lease would continue to hold the land at least for a year or two after the full rent became due. During those years they continued free from the extra levies to which the regular holders of village lands were liable. Besides the village rent the pdtil had to see that all payments in kind to government were duly made and

1 Generally when the land had lain waste for fifteen years an increasing lease or a written istava kaul was granted for ten years. Under these leases no rent was charged for the first year, a ninth part of the full rent was charged in the second year, two-ninths in the third year, three-ninths in the fourth year, and so on till the tenth year when the full rent was levied. Land which had been waste for more than six and less than fifteen years was offered on a lease of six years, free in the first year and charged a fifth in the second, two-fifths in the third, and so on till in the sixth year the full rent was levied. Land which had lain waste less than six and more than two years was given on a lease of four years with a gradually increasing rental. East India Papers, IV. 432.
that the village and group officers received their dues. If a cultivator either refused or evaded payment, the pátíl called on the government messenger to interfere. The messenger heard what the defaulter had to say. If he thought the headman was acting unjustly or that the defaulter was really unable to pay, he took him to the subhedár who, if the defaulter's explanation satisfied him, granted him a complete or a partial remission. If the messenger thought the landholder had no good reason for refusing to pay, he would punish him by making him sit in the sun, by keeping him fasting, or by placing him in durance in the village guard-house or cháudi. If this treatment failed to make the defaulter pay, the messenger took him to the māmlatdár, who if he pleased might inflict slight corporal punishment, handing him roughly, pulling and pushing him about, and thumping him on the sides and back. If the māmlatdár was no more successful than the messenger, the defaulter was reported to the subhedár who ordered that his bullocks and property, and, if he was a mírasdár and the case was extreme, his land should be attached. If the amount realized from the sale was less than the sum he owed, the debtor was thrown into prison with fetters on his legs until it was fully ascertained that he had no other resources, when he was set at liberty.

If a pátíl proved refractory and refused to obey the summons of the local officer, the subhedár sent a messenger or a horseman to the village with a written order to the pátíl to pay the bearer a certain sum every day varying from 2s. to £5 (Rs.1-50) in proportion to the pátíl's wealth or to the gravity of his offence. If a pátíl persisted in not obeying the summons, and also in refusing to pay the fine, militia or shibandis were sent to bring him by force and he was then fined. Rigorous treatment either of a landholder or of a headman was seldom necessary in recovering the regular revenue. It was more employed in exacting extraordinary taxes.\footnote{1} The pátíl was bound to recover within a year all advances that is tagáti or takávi which the subhedár had made. These advances were never made to the landholders direct. They were made through the pátíl and at his request. And though the persons to whom the advances were made were still insolvent and required further help from government, the money was generally resumed at the close of a year and if the subhedár chose, a fresh advance was made for the new year. The pátíl frequently furnished cultivators with means of recovering themselves by lending them money; if the cultivator was unworthy of this indulgence and failed to pay back the advance, the pátíl was bound to make it good. Under this system of land management distrains were rare. If a temporary holder or uprífled and the rest of the villagers would not make good what he owed, his bullocks were sold. Government never sold a mírasdár's field or his bullocks though a mírasdár's relations might occasionally force him to part with some of his property to make good sums which they had paid to government on his account.\footnote{2}

There were local varieties in the system of land management, and conditions varied with the character of the times and the character

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\footnote{1} Mr. Elphinstone, 1819, Edition 1872, 22-26.  
\footnote{2} East India Papers, IV. 526.
of the Peshwás. Till the beginning of British rule the Peshwa Mádhavráv (1761-1772) was remembered with affection for his moderation, and Sakhárám Bápú and Nána Fadnavis with respect for their masterful knowledge tempered with justice and kindness.\(^1\)

The cultivators were said to have been in a state of comparative prosperity under Peshwa Mádhavráv Náráyan (1774-1796) and traces of former prosperity remained. In those times the government collected its revenues through its own agents; the maximum of the land-tax was fixed, and only charged on lands actually under tillage; while remissions were made in bad seasons, and in cases of great distress sums of money were advanced without interest or on a moderate interest. The revenues fluctuated according to the prosperity of the country.\(^2\)

Between 1772 and 1800, the years of the administration of Nána Fadnavis, the management of the Peshwa’s land revenue was perhaps more efficient than at any other time. The mámlatdárs or subhedárs were chosen from families of character and respectability. The office was given to trustworthy persons without any special agreement as to the amount of revenue their charge would supply. On their appointment they sometimes though not always paid a portion of the revenue to the treasury. Each received a deed or sanad enjoining the faithful discharge of their duty, and directing them to adopt as a guide a separate account of the assets and expenses of their charge. The deed or sanad also instructed them to ascertain what collections of the current year their predecessors had made, to credit them for the charges in proportion to the period they were in office, and to realize the balance after taking the late mámlatdár’s acknowledgment of the amount outstanding. At the same time the former mámlatdár received an order directing him to give over to his successor the charge of the district with all its forts, garrisons, and magazines, to transfer to him all collections after deducting allowances or charges up to the period of his removal, and to certify to him the amount of arrears due, whether from the district land revenue or from other sources. The commandants of the forts were also ordered to place themselves under the direction of the new mámlatdár, and the hereditary district officers or zamindárs were enjoined to acquaint the new mámlatdár with the resources of their charge. If his charge was important and contained a fort, the yearly pay and allowances of a mámlatdár amounted to about £430 (Rs. 4300). If his charge was rich but contained no fort his pay and allowances amounted to about £240 (Rs. 2400).\(^3\) When a new mámlatdár came to his charge, if it was an important charge, he

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\(^3\) The pay and allowances of the Shikyam charge which had a fort and yielded a yearly revenue of £10,200 (Rs. 1,02,000) amounted to Rs. 4279. The details were Pay Rs. 1000, a palanquin Rs. 800, oil Rs. 18, palanquin furniture Rs. 63, cloth Rs. 40, a house allowance or kárkuni from the secret service or antaast fund Rs. 2,358; total Rs. 4279. The details for Junnar, which had no fort and yielded £11,574 (Rs. 1,15,740), were Pay Rs. 2000, clothes Rs. 21, palanquin furniture Rs. 75, firewood Rs. 375, total Rs. 2371. Appendix to Mr. Chaplin’s Report, 20th August 1822 Edition 1877, 145-146, East India Papers IV. 625.
found two sets of local hereditary officials, one set called feemen or 
darakdārs, because they were partly paid by local fees, some of whom 
were district and others were fort officers, and another set known as 
landlords or zamīndārs, the hereditary superintendent or deshmukh 
and the hereditary accountant or despānde of a group of villages. None 
of these hereditary officers could be dismissed by the māmlatdār, 
nor could he employ them on any duties except those which were 
specially prescribed to them. The fee-men or darakdārs both of 
their groups and of forts received their pay and allowances in 
the same way as the māmlatdār. They were of three classes 
subha-nīsbati or provincial, mahāl or divisional, and killedār or 
belonging to forts; in the provincial staff there were besides twelve 
kārkuns or clerks, eight members, the minister or divān, the auditor 
or mujumdār, the registrar or fadnavis, the secretary or daftardār, 
the treasurer or potnis, the assay clerk or potdār, the petty 
registrar or sabhāsad, and the under secretary or chitnis. Of 
the district or provincial fee-men or darakdārs the chief was the 
minister or divān who as chief factor under the māmlatdār counter-
signed all letters and orders. He received about £59 (Rs. 590) a 
year of which £35 (Rs. 350) were pay and £24 (Rs. 240) expenses 
or kārkuni. The auditor or mujumdār approved deeds and accounts 
before they went to the registrar or fadnavis. He received £49 
(Rs. 490) of which £25 (Rs. 250) were pay and £24 (Rs. 240) were 
expenses. The registrar or fadnavis dated all deeds and orders, 
paid, £9 (Rs. 90) allowances for assistants, and £32 (Rs. 320) 
expenses. The secretary or daftardār, from the registrar's waste 
book, made up the ledger and sent a monthly abstract to head-
quarters. He received £28 (Rs. 280) of which £15 (Rs. 150) were 
pay, £1 (Rs. 10) for clothes, and £12 (Rs. 120) for expenses. The 
treasurer or potnis kept a record of collections and the balance of 
cash, and helped in writing the waste book and the ledger. He 
received £15 (Rs. 150) of which £18 (Rs. 130) were pay and £2 
(Rs. 20) expenses. The assay-clerk or potdār, of whom there 
were always two, examined the coins. They received £21 (Rs. 210) 
between them. The petty registrar or sabhāsad kept a register of 
petty suits and reported them to the māmlatdār. He received £25 
(Rs. 250). The under-secretary or chitnis wrote and answered 
specials. He received £17 (Rs. 170) of which £12 (Rs. 120) were 
pay, £1 (Rs. 10) were for clothes, and £4 (Rs. 40) were expenses. The 
twelve clerks or kārkuns had an average pay of £20 (Rs. 200). If 
any of them went to head-quarters for the audit of accounts 
he was paid £35 (Rs. 350) extra. Each division or village group, 
called mahāl or taraf, had three revenue officers, a deputy or 
havāldār, an auditor or mujumdār, and a registrar or fadnavis.

1 The fee-men or darakdārs were generally though not always hereditary. Mr. 
Elphinstone, 1819, Edition 1872, 22.

2 In some tracts there were no hereditary district officers. In such places their 
duties were performed by the fee-officials or darakdārs. Appendix to Mr. Chaplin's 
Report of 1832, Edition 1877, 156; East India Papers IV. 631.
and four militia or shibandi officers, the asham-navis, the registrar or asham-fadnavis, the roll-master or häsiri-navis, and the secretary or asham-daftardar. Of the three revenue officers the deputy or havaldar made and remitted collections and inquired into petty complaints. Besides an uncertain sum for expenses or kárkuni, he received £29 (Rs. 290) of which £20 (Rs. 200) were pay, £5 (Rs. 50) were for oil, £2 6s. (Rs. 23) for an assistant, and £1 14s. (Rs. 17) for clothes. The divisional auditor or mahál mujumdar had on a small scale the same duties as the provincial auditor. He received about £35 (Rs. 350) of which £10 (Rs. 100) were pay, and about £25 (Rs. 250) allowances. The divisional registrar or mahál fadnavis had duties corresponding to the duties of the provincial registrar. He received about £37 (Rs. 370) of which £12 (Rs. 120) were pay, and about £25 (Rs. 250) were allowances. Of the four militia or shibandi officers the asham-navis kept a roll showing each man’s name family name and village, his arms, and his pay. He received £53 (Rs. 530) of which £25 (Rs. 250) were pay, £7 (Rs. 70) were for oil and an umbrella, and £21 (Rs. 210) for expenses. The militia registrar or asham-fadnavis kept the accounts, and, if there was no muster-master, wrote out the musters. He received £30 (Rs. 300) of which £20 (Rs. 200) were for pay and £10 (Rs. 100) for expenses. The muster-master or häsiri-navis mustered and made out the abstracts. The military secretary or asham-daftardar made out the militia ledger-book. He received £27 (Rs. 270) of which £15 (Rs. 150) were for pay and £12 (Rs. 120) for expenses. To all forts of any size a staff of six civil officials was attached; a havaldar or deputy-commandant, a sarnaubat or assistant deputy, an accountant or sabnis, a registrar or fadnavis, a storekeeper or fadnavis of stores, and a clerk or kárkun. The deputy commandant or havaldar arranged all guards and patrols and gave leave to people to go out and in. He received £36 (Rs. 360) as pay. The assistant deputy or sarnaubat was under the deputy and superintendent public works: he received £21 (Rs. 210) pay. The accountant or sabnis wrote out the garrison accounts and reported enlistments and discharges. His pay was £22 (Rs. 220). The registrar or fadnavis dated and certified the accounts and kept a record of receipts and payments. He received £19 (Rs. 190). A storekeeper or fadnavis of stores was sometimes kept on £16 (Rs. 160). The writer was paid £10 (Rs. 100). In addition to their pay and allowances these fee-men or darakdars had, according to their rank, a following of a certain number of militiamen, and those who were connected with forts made percentages in supplying wood, betel, and other articles.

When a mámlatdár was appointed to a new district he either went himself or sent his agent or kárbhári to take over charge from the former mámlatdár. He next summoned the district hereditary officers or zamindars and the heads of villages, each of whom, according to rule, from the deshmukh or district superintendent and the deshpánde or the district accountant to the shet mahúdan or alderman and the village mukádam or headman, paid his respects and presented the new mámlatdár with an offering or nasar. At this reception the mámlatdár delivered to the district officers the
head-quarters’ mandate enjoining obedience to his authority. When the reception was over the māmlatdār transacted business in office which was usually attended by the district superintendents and accountants or by their deputies. The district superintendent or deshmukh and his people helped in the general management of the revenue and the district accountant or deshpānde furnished records and kept an account of the collections.¹ His clerk wrote all requisitions to the villagers which were dated and signed in due form by some of the fee-men or darakdārs and confirmed by the māmlatdār. When the heads of villages were present an account of each village was drawn up and signed by the headman and accountant, and countersigned by the outgoing māmlatdār. When this was finished a statement of the actuals of the past year was made ready and sent to head-quarters by the māmlatdār’s agent. Next an estimate or ajmād of the next year’s resources was prepared. The traditional total rental whether Malik Ambar’s tankha or the Marāṭha kamāt was entered, and from it was taken the value of all rent-grants or indāms. The balance formed the aṁ jama or regular receipts as opposed to śivīya or extras which included customs, farms, fines, and presents.

Under the head of charges came permanent military and other allowances and revenue assignments, cost of establishments, pay of militia and messengers, and religious and charitable allowances. The balance was then struck and divided into two parts, one to be forwarded to government the other to be kept in hand. The amount to be sent to government was fixed with reference to the remittances of the previous year with such changes as the character of the season made necessary. Part of the amount due to government was usually paid in advance in July or August. The rest was divided into three or four instalments, the payment of which was not very uniform. The share of the revenue which was kept in hand was on account of interest due by government on advances, premium paid for bills of exchange or remittances, new allowances granted during the year, and remissions for destruction of crops or other contingencies. The māmlatdār was enjoined not to hold back any items which could be recovered and which belonged to government and to take care that all produce sales were made at the season when the best prices were likely to be secured. After these formalities the estimate was approved by the minister and confirmed by the Peshwa’s sign manual. A copy was then delivered to the māmlatdār. In some parts of the district, especially near the Nizām’s possessions, the lands were farmed from year to year. Abatements were granted to the farmer on account of the charges of the government officers and of charitable and religious allowances. He was made to promise that he would

¹ Under Nānā Fadnavis the duties of the district accountant or deshpānde were to take from each village accountant in his charge a statement of the village areas and the rates of assessment in his village and from these returns to draw up comparative abstracts showing how the details of the current year differed from those of the year before. These differences he had to explain to the māmlatdār. East India Papers, IV. 631.
POONA.

keep back none of these payments, and an assurance was given that in the event of any calamity he should receive the usual consideration. As regards the relations of the mámlatdārs with the people the mámlatdārs managed their charges through the hereditary officers and the village headmen and accountants. In each village the mámlatdār examined the jamin jhāda or register of lands, the receipts and charges of the past year, and the present state of cultivation. He called for accounts of the particular fields under tillage, ascertained whether they grew dry-crop garden produce or rice, whether they were tilled by hereditary or by temporary holders, whether they were held at a fixed contract rent or on a lease. He learned from the village and district officers what area of arable land had become fallow and why it had become fallow. If necessary he appointed agents to promote cultivation in particular villages and empowered these agents to grant leases for the tillage of waste lands, or made such concessions to the heads of villages as in their opinion would persuade the people to enlarge the area under tillage. He also by advances or remissions helped the people to buy seed or cattle. In fixing the rent settlement or jamābāndi of a village, particulars of the cultivation were entered and if necessary checked by an actual inspection of the lands. With the help of the headmen and the accountants the whole of the village lands were entered and all grants were deducted. The rest was divided into waste and cultivated, and the cultivated area was divided into dry-land and garden. It was stated whether the garden was watered by wells or by watercourses, and whether it was held by hereditary or by temporary husbandmen. The details, the rates of assessment, and the produce of the whole, were shewn, together with the items of the different cesses. From the gross assets or jama were taken the amounts due to district and village officers, the village charges and the permanent assignments on the village revenue. The balance formed the settlement or beriz. From the settlement in some cases a sum for official expenses or darbār kharch was taken, and in others for grantees and alienees to whom certain shares in the village revenue had been assigned. When all these demands were adjusted what was left was sent to the public treasury by instalments in November December and January. The instalments seem not to have been fixed according to any uniform scale. They depended a good deal on the agreement between the mámlatdār and the villagers, and on the time at which the settlement was concluded. If the settlement was not made till the year was far advanced, the same instalments were paid as in the past season and the amount was adjusted when the rent settlement was ended.

The following were the proportions in which rents were collected at different dates. In villages which had both an early or kharif and a late or rabi crop, the first or Dasara instalment was levied in October or Āshvin. The amount was small. In Kārtik that is November twenty-five per cent of the revenue became payable; in January-February twenty-five per cent more; in February-March twenty-five per cent, and the remainder in March-April. In
villages which had a small early harvest and a heavy late harvest, the early instalments were lightened and about one-half was kept for the March-April payment. On the other hand in villages whose harvest was chiefly of early crops the early instalments were the heaviest. The village collections were generally begun eight or ten days before the date fixed for sending the instalment to the mâmlatdâr. If from special circumstances rents were difficult to realize, the mâmlatdâr forbore from pressing the people. Village rents were often partly paid by orders or havâlîs on bankers; similarly the husbandmen paid the headman by orders; and so general was this practice that not more than one-fourth of the revenue was paid directly in cash.

Though as a rule the distribution of the assessment among the villages was made by the headman and village accountant, the mâmlatdâr, if he doubted either the honesty or the authority of the headman, might distribute the assessment among the villagers either himself or by an agent. All local coins were accepted in payment of the government dues. But if they fell much below the proper value an additional cess or allowance was levied. In collecting arrears considerable indulgence was shewn. If the exacting of arrears was likely to cripple a husbandman so that he could not till his land, the demand was put off till the next year or it was cancelled. It was the practice for the mâmlatdâr to grant receipts for all formal payments, but as a rule the village accountants gave the husbandmen no receipts. At the end of the year, after all the collections had been made, the mâmlatdâr delivered to the villagers a demand collection and balance account showing the original rent settlement, including all branches of revenue both in money and kind except the secret-service or antast items, the remittances that had been made to his treasury, and the charges that were admitted. In exchange for this he took a voucher, in the handwriting of the village accountant and signed by the headman, of the actual receipts and disbursements, together with a copy of the vasul balî or balance account. All vouchers given in acknowledgment of remittances were then received back by the mâmlatdâr and deposited among the divisional records. The chief items of extra revenue or shivâya jama which the mâmlatdâr entered in the public accounts were: a marriage tax or lagan tâlka, a remarriage tax or pât dâm, chîthi masâlî, khand gunhegâri, nasar, harki, karz chauthâi, and bittanmâl.

At the close of the year, either the mâmlatdâr himself or his registrar or secretary delivered the following accounts into head-quarters: the mahâlki jhadî or rough statement of receipts and charges; the rent settlement of each village with the signatures of the hereditary district officers; a muster-roll of the militia and the receipts for their pay; an establishment list or moin jâbta with a record of absentee; a statement of receipts of pensions and allowances; a customs contract; a list of articles supplied to forts; and a statement of official expenses or darbâr kharch.

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1 Appendix to Mr. Chaplin’s Report, 20th August 1822 (Ed. 1877), 144-162. East India Papers, IV. 624-633, 636.
At head-quarters these accounts were compared with the estimate which had been framed at the beginning of the year. If the statements agreed and the full revenue was realized, the chief clerk read them over to the Peshwa and they were passed. If there were any differences in detail between the estimates and the actuals a táleband or variation statement was prepared. If the variations resulted in a failure of revenue, unless the mámlatdár was a confidential servant, an inquiry was made and if necessary the mámlatdár was called on to pay the differences. If a mámlatdár, by paying the revenue in advance and failing to realize the whole of it or by being forced to engage a special body of militiamen to keep the peace, spent more than he had received, subject to certain small deductions, the government granted interest at twelve per cent a year on the amount which stood at the mámlatdár's credit.

The particular points to which the attention of the head-quarter officers was directed, were to collect from time to time balances due by mámlatdárs; to inquire into and redress complaints; to make arrangements for establishing the authority of government in any district where it might be disputed; and to superintend the mámlatdár's administration of civil and criminal justice, who generally inflicted all sort of capital punishments without a reference to head-quarters.

Mámlatdárs were seldom removed for petty faults. Many of them remained thirty or forty years in the charge, and on their death were succeeded by their sons. So too the feemen or darakádárs were not removable except for misconduct and the office frequently passed from father to son. If a charge of misconduct was brought against a mámlatdár the accuser was required to give security that he would prove the charge. If he proved the charge he was rewarded; if the charge seemed to have been honestly brought and the mámlatdár's conduct seemed doubtful, the informer was allowed to go without punishment; and if the charge seemed groundless, the informer forfeited his security. Charges of misconduct were rare. The Maráthás disliked informers and made sport of them calling them Taskar Pant or Mr. Thief.

The revenue functions of the mámlatdárs differ little from those which have been already described as belonging to the time before Nána Fadnavis. The mámlatdárs were expected to promote the improvement of the country, to protect all classes from oppression, to dispense civil justice, and to superintend the police. They were not forbidden from taking any advantage they could from trade or from lending money at interest, and they were often connected with the moneylenders who advanced part of the revenues of villages. Such a connection must often have been prejudicial to the people, but under Nána's management abuses were restrained within narrow limits. The village headmen and accountants had the immediate duty of superintending the cultivation and of seeing that it was kept up to the usual standard. If there was any falling off owing to the death or emigration of hereditary holders, the other hereditary holders were expected to cultivate the fields which were given up. If the falling off was due to the poverty of temporary
holders, it was the duty of the headman to persuade others to take
the vacant land. To help him to persuade people to take up waste,
the headman was allowed to make trifling abatements of rent.
But if any great or unusual reduction was required, he had to
apply for sanction to the mámlatdáır. The headmen and accountants
furnished all the village accounts to the mámlatdáır, sometimes
through the hereditary district officers and sometimes direct. In
country towns the collection of the house and other non-agricultural
cesses was entrusted to aldermen and heads of the communities of
merchants and craftsmen. In the smaller towns these collections
were made by the village headman and accountant.

The rent settlement or jamábanti of the villages was fixed by
the mámlatdárs. In making the individual settlement the village
headmen added to the rent settlement the sum deducted in the
tharáo yádá on account of village charges and other expenses, and
distributed the whole among the people. Any deficiency that might
arise in distributing the settlement was made good by a second
levy or patti. If even after the second levy a deficiency remained,
the amount was raised by a loan from a moneylender. The loan
was sometimes repaid by a special cess or patti in the following
year, or if this was likely to cause distress, the mámlatdáır got leave
to remit an equal amount to enable the villagers to liquidate the
debt. If the loan was large, this was the usual course; if it was
small, the inhabitants themselves usually agreed to make it good.
The first instalments of the revenue were collected before any
settlement was made, according to the individual payments of the
preceding year, and considerable indulgence was shown in exacting
balances whose realization was likely to cause severe pressure. As
regards the local charges on the village revenue the amounts once
sanctioned were continued without fresh instructions until resumed.
The permanent yearly village charges were also incurred on the
authority of the headman and accountant, but excessive disbursements
were, when ascertained, retrenched and brought to the public
account. If a village fell into arrears, lands thrown up by the
holder or left waste were sometimes sold and transferred on
hereditary tenure to other holders. Petty quarrels among the
villagers as far as possible were settled by the headmen and
accountants. Except when they were serious and the mámlatdáır’s
authority was required, disputes about land were settled on the spot.
The petty village officers or balutidárs received their usual fees
from the villagers for whom they performed the customary services.
These petty officers could not be removed by the headman and
accountant. If they were guilty of grave misconduct, the matter
was represented to the mámlatdáır who punished or dismissed the
offenders. At the end of the year when the headman and accountant
rendered returns of receipts and charges and received a balance or
jama vasul báki statement, the mámlatdáır presented them with an
honorary dress or shérpadv. It was not usual for the headman and

1 In some villages the village charges were kept separate. East India Papers, IV.
635.
accountant to grant landholders any receipt for their payments. The relations between them made such a security unnecessary.\(^1\)

Under the system which has been here described, with, as a rule, men of ability and position in charge of the same districts for long terms of years, and with the provision that the weight of all general calamities and of most minor losses should fall on the government and not on the people, in spite of the terrible period of distress caused by the famine of 1792, the bulk of the landholders remained in their hereditary estates till the close of the eighteenth century.\(^2\)

Early in the nineteenth century the wasting of the district by Holkar in 1802 and the failure of the late rains of 1803 caused grievous distress. For a year or two the assessment fell to about one-fourth.\(^3\) At the close of 1802 when the disorders among the Maráthás had reduced the country to a desert, the Peshwa saved his possessions from future desolation by placing himself under British protection. So great was the security which accompanied the transfer of the sovereign rights to the British, that, within a few years, the Peshwa was able to collect as large a revenue as before the destruction of 1802 and 1803.\(^4\) Partly apparently from the disordered state into which the miseries of 1803 had thrown the management of the country; partly perhaps because the support of the British to a great extent made it indifferent to him whether the people were contented or were discontented, Bájiráv gave up the former attempt to improve the country by securing men of honour and position to administer its revenues, and to prevent their misconduct by complicated checks. In its stead he introduced the practice of farming the revenue for short terms to the highest bidder.\(^5\) The new system had the two great advantages of relieving the central government of a great mass of labour and responsibility, and of transferring a great part of the loss from failure of crops and other causes from the state to the revenue contractor and to the people. According to Mr. Elphinstone the changes introduced by

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\(^1\) Appendix to Mr. Chaplin’s Report of 20th August 1822, Ed. 1877, 144-162 and East India Papers IV. 634-636.

\(^2\) Captain Robertson, 1st May 1820, East India Papers IV. 434.


\(^4\) Bom. Gov. Rev. Rec. 698 of 1836, 85. The incursions of plundering armies and a succession of calamitous seasons had nearly depopulated the Índapúr sub-division when in 1807 the villages were re-established on kaul or īstāv leases providing for a yearly increase of revenue till the ninth year when the full tankha (kamdi?) rates were to be taken. This settlement only partially succeeded. A further term was added to the leases during the currency of which the war broke out and the Deccan fell into the hands of the British. Bom. Gov. Rev. Rec. 666 of 1835, 6-7.

\(^5\) Soon after Bājiráv became Peshwa, the system of collecting revenue through government agents was laid aside and that of farming the revenues from year to year to the highest bidder was adopted. All intercourse between the government and the landholders ceased, and the landholders fell into the hands of a set of greedy and unprincipled contractors. The consequences were certain. The contractors made the most of their leases by every temporary experiment; the husbandsmen were urged to cultivate beyond their means, and taxed for lands not even cultivated; remissions were not made in times of calamity. The people became loud in their complaints against the prince who thus abandoned them; and ultimately there were frequent defalcations of revenue, from the contractors being unable to realize their rents. Dr. Coats’ Account of Loni, 1820, Trans. Bom. Lit. Soc. III, 227.
farming the revenues were aggravations of the evils of the former system rather than complete innovations. The office of māmlatdār, instead of being conferred as a favour on a person of experience and probity, was put to auction among the Peshwa's attendants, who were encouraged to bid, and were sometimes disgraced if they were backward in bidding. Next year the same operation was repeated and the district was transferred to a higher bidder. The revenue farmer had no time for inquiry, and no motive for forbearance. He let out his district at an enhanced rate to under-farmers who repeated the process until the farming came down to the village headmen. If a village headman farmed his own village, he became absolute master of every one in it. No complaints were listened to, and the māmlatdār who was formerly a check on the headman now urged him to greater exactions. If the headman refused to farm the village at the rate proposed, the case of the villagers was perhaps worse, as the māmlatdār's own officers levied the sum required with less knowledge and less pity. In either case the actual state of cultivation was disregarded. A man's means of paying, not the land he held, fixed the amount at which he was assessed. No moderation was shown in levying the sum fixed. Every pretext for fine and forfeiture, every means of rigour and confiscation, were employed to squeeze the people to the utmost before the day when the māmlatdār had to give up his charge. Amidst all this violence a regular account was prepared, as if a most deliberate settlement had been made. In this fictitious account the collections were always underrated, as this enabled the headman to impose on the next māmlatdār, and enabled the outgoing māmlatdār to deceive the government and his fellows. The new māmlatdār pretended to be deceived; he agreed to the most moderate terms, and except making advances, gave every encouragement to increase the cultivation. When the crops were in the ground, or when the end of his term drew near, he threw off the mask, and plundered like his predecessor. In consequence of this, the assessment of the land, being proposed early in the season, would be made with some reference to former practice, and contingent and other charges would accumulate, until the māmlatdār came to make up his accounts. Then his exactions were most severe. He had a fixed sum to complete, and if the collections fell short of the sum, he portioned the balance among the exhausted villages, imposed an extra assessment, and left the headman to extort it on whatever pretence and by whatever means he thought proper.1 As the villagers were very often unable, with any amount of pressure, to pay the sums which were demanded of them, the payments were usually made by drafts on the moneylender, who had the chief banking business in the village. Little was collected in cash. The moneylender stood security and in return was allowed to collect the revenue and his own debts together.2

The section of the people who suffered chiefly under the farming

1 Mr. Elphinstone, 1819, Ed. 1872, 27-28, East India Papers IV. 166-167.
system were the hereditary and other well-to-do holders. In spite of the disorders of the eighteenth century and of the famine of 1792, at the close of the century the bulk of the mirdsdiars were still in possession of their hereditary holdings. But under Bājirāv's farming system, when the amount of his collections fell short of what he had undertaken to pay, the farmer turned on the hereditary holders and robbed them with such ingenious greed that many left their lands and all were brought to the brink of ruin. In spite of the exactions of the farmers which reduced almost all the landholders of the district to one level, so great was the advantage of the security ensured by the British protectorate that in the thirteen years before the overthrow of the Peshwa in 1817 the district increased greatly in wealth. Bājirāv, whose chief interest in government was to collect money, amassed a sum estimated at £25,000,000 (Rs. 5 krors). And the state of the bulk of the people is said to have improved from what it was at the beginning of the century. They had much wealth in flocks and herds which were less exposed to the greed of the revenue farmer than the outturn of their fields.

SECTION III.—BRITISH MANAGEMENT.

As regards land administration, the sixty-six years (1818-1884) of British management fall under two nearly equal divisions, before and after the year 1854 when the introduction of the regular thirty years' revenue survey settlement was completed. The thirty-six years ending 1854 include two periods before and after the introduction of the survey settlement of 1836. Of these periods the first on the whole was a time of stagnation or decline, and the second was a time of progress. The establishment of order, together with the removal of abuses and the high prices of field produce, caused in the first four years of British management (1818-1822) an increase both in tillage and in revenue. This was followed by about fourteen years of very little progress or rather of decline, the district suffering from bad harvests or from the ruinous cheapness of grain due to large crops, small local demand, the want of means of export, and a reduction of money caused by the stoppage of the inflow of tribute and pay which used to centre in Poona as the Peshwa's head-quarters. The result was a considerable fall both in tillage and in revenue. The assessment introduced at the beginning of British rule when prices were high about forty pounds the rupee for Indian millet, pressed heavily on landholders in seasons either of bad crops or of low

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1 East India Papers, IV. 434.
3 At Bājirāv's restoration the country was laid waste by war and famine, the people were reduced to misery, and the government derived scarcely any revenue from its lands. Since then, in spite of the farming system and the exactions of Bājirāv's officers, the country has completely recovered, through the protection afforded it by the British Government; and Bājirāv has accumulated those treasures which he is now employing against his benefactors. The British Government not only protected the Peshwa's own possessions, but maintained his rights abroad. Mr. Elphinstone's Pātāra Proclamation, 1816, in Forrest's Elphinstone, 1894, 93.
4 At Poona the Indian millet or jedri rupee prices were about 97 pounds in 1817, 46 in 1818, 24 in 1819, 39 in 1820, and 64 in 1821, 1822, and 1823. Bom. Gov. Sel. CVII. 118, or CLI. 96.
DISTRICTS.

prices. Consequently the leading features of the revenue system before 1836 were high assessment and large remissions. About 1825, with a view to relieve the distress, Mr. Pringle was appointed to survey the district and revise the assessment. His survey settlement was introduced over the whole district between 1829 and 1831. The measure proved a failure partly from the heaviness and inequality of the assessment and bad seasons and low prices, and partly from the evil practices of Mr. Pringle's native establishment. The defects of the settlement were early foreseen by the revenue officers, and, in Indápur and other parts of the collectorate, the new rates were either not levied or were soon discontinued, and the difference between the amount due and the amount collected was shown as a remission. About 1835 the regular revenue survey was undertaken. The first settlement guaranteed for thirty years was introduced into Indápur in 1836-38, and the last into Mával in 1853-54.

After the battle of Kirkée in November 1817 the greater part of the present district of Poona fell to the British and by the close of the year all local disturbance had ceased. The only parts of the district which suffered from the war were Havélí, Junná, and Sirur, through which the Peshwa Bajiráv passed on his way to the Berárs. The chief measures adopted by the English were to appoint (April-June 1818) a Collector of Poona to travel over the district and control the collection of the revenue and also to act as district magistrate and circuit judge. The officer appointed was Captain H. D. Robertson. The straggling charges of the Marátha mámlatdárs were formed into compact sub-divisions yielding a yearly revenue of £5000 to £7000 (Rs. 50,000-Rs. 70,000), and over each a mámlatdár on £7 to £15 (Rs. 70-150) a month was placed. One of the chief difficulties in starting the new administration was the want of men suited to be mámlatdárs. As the British occupied the country before the Peshwa's cause was desperate, few men of local position or training at first entered the English service. The English were forced to employ what men they could find without much regard to their merit. Still when the struggle with the Peshwa was over and the final treaty was concluded, the Collector was able to secure a fair number of respectable servants of the old government. A few mámlatdárs were brought from Madras, partly from motives of general policy and that they might act as a check on local corruption, and partly to introduce some models of system

3 Most writers have agreed that the rates first introduced by the British were too high. Sir G. Wingate wrote about 1840: There could be little doubt that the early Collectors over-estimated the capability of the Deccan and that the rates drained the country of its agricultural capital. Deccan Riots Commissioners' Report, 1875, para 33 pp. 18-29. According to some accounts one cause of distress was the falsifying of village records by the hereditary officers. Lieutenant Shortrede, 1st October 1835, Bom. Gov. Rev. Rec. 698 of 1836, 85-86.


4 Héber's Narrative, III. 120. Captain Henry Dundas Robertson had charge of the city and district of Poona of which he was Collector of Revenue, Judge, and Magistrate. His districts lay between the Nira and Bhima. Grant's Maratha, 670.

4 Mr. Elphinstone, October 1819, Ed. 1872, 30, 31, East India Papers IV. 168-169.
and regularity. 1 The chief change, in fact almost the only intentional change, introduced in the revenue management was abolishing revenue farming. Farming was abolished in all departments except in the customs where there were no complaints, and apparently no oppression. In other respects as far as possible the existing system was maintained. The object was to levy the revenue according to the actual cultivation; to lighten the assessment; to introduce no new cesses; and to abolish no cesses except the obviously unjust. The orders were above all things to avoid innovations. In spite of the efforts to avoid innovations the introduction of foreign rulers and of foreign maxims of government caused many changes. In the revenue department Mr. Elphinstone believed that most of the changes were beneficial. The improvement was not so much in the rules as in the way of carrying out the rules. Faith was kept with the landholder, more liberal advances were made, he was free from false charges as pretexts to extort money, and his complaints found a readier hearing and a surer redress. On the other hand some of the new ways were distasteful to certain sections of the people. There were more forms and there was more strictness. The māmlatdārs disliked the narrow limits within which their discretion was bounded; they preferred the old system of perquisites to the new system of pay. The heads of the villages saw that the minuter inquiry into the distribution of the Government rental among the villagers weakened their power, and that the closer examination of the village charges or sādīvār kharch reduced their incomes. In the minds of the people, against the advantage of a decrease in village charges, was set the blank caused by the stoppage of former charities and amusements. Every effort was made to ascertain the condition of the landholders and to make the assessment light. Where there was any suspicion of fraud lands were measured. During the first two years (1817-1819) the Collector settled with the headman for the payment of the whole revenue of the village, and gave him a deed or patta. After the first season, before the settlement was concluded the Collector ascertained how much each landholder had to pay and that he agreed that the amount set against him represented his fair share. In all cases the foundation of the assessment was the amount which the village had paid when the people considered themselves well governed. From this amount deductions were made either because of a reduction in cultivation or on other specific grounds. The assessments were much lighter than formerly and much clearer and more uniform. 2

The chief difficulty in the way of a satisfactory village settlement was the want of records. Under the farming system the village records ceased to be used. Occasionally papers handed down from

1 The Madras māmlatdārs were more active, more obedient, more exact, and more methodical than Marāthā Brāhmans. They introduced new forms of respect for their immediate superiors and at the same time showed less consideration to the great men of the country. To the bulk of the people their bearing was rough, harsh, and insolent. It was interesting to consider which of these characteristics the Madrasis had taken from the Musalmans and which from the English. Mr. Elphinstone, 25th October 1819, Ed. 1872, 30-31, East India Papers IV. 168-169.

2 Mr. Elphinstone, 1819, Ed. 1872, 30-32, East India Papers IV. 168-169.
Chapter VIII.

Land.

The British.

1827-18.

In 1817-18 the existing Maratha settlement was maintained and deductions were granted for any payments which had been made since the beginning of the year. The settlement was with the village headmen, who, Captain Robertson says, imposed upon him and drained the people as much as they could. The people claimed to have suffered from the war and considerable deductions had to be made on this account, though, except in the tracts of Bajirav's march, Captain Robertson believed the people had suffered less than they were accustomed to suffer in years of peace and regular taxation. At the close of the year all balances were remitted. In 1818-19 the crops were flourishing and the returns good. On account of the difficulty of collecting detailed village information, Captain Robertson continued the settlement with the headmen. There were no


2 Captain Robertson, Collector, 1st February 1825, Bom. Gov. Rev. Rec. 117 of 1825, 509. According to Dr. Coats (20th February 1820, Trans. Bom. Lit. Soc. III. 228) the people of Loni village hailed their transfer to the British as a happy event. The abolition of the revenue contracting system, and the liberal remissions in consequence of losses by the war, confirmed the high expectations that had been formed of British justice and liberality.

3 Captain Robertson, 10th October 1821, East India Papers IV. 596.

4 Dr. Coats writes on the 29th of February 1820 (Trans. Bom. Lit. Soc. III. 273-276) about the revenue settlement of the Loni village on the Ahmadnagar road. These details apply to the whole Poona district. "The revenues are derived from a direct tax on the land, and some extra impositions which must also indirectly come from the same source. The land tax varies from year to year according to the quantity under cultivation. Lands are classed into three kinds and pay a fixed tax according to their quality, agreeably to a rate and measurement made 200 years ago by the Muhammadans; previously to which time the custom seems to have been for the government to have a certain per cent. or, about 15 per cent., of the produce, for money at the market price. The land tax is not increased in favourable seasons, and in very unfavourable seasons the Government makes a remission. Waste and foul lands pay such small rent as may be agreed on between the tenant and the Government agent till they have been brought fully under cultivation, when they become liable to the established tax. Of £130 (Rs. 1300), the amount of the revenue settlement for 1818, £120 (Rs. 1200) were derived from the direct tax on the land and £10 (Rs. 100) from indirect taxes; £24 8s. (Rs. 244) of this amount were granted to defray the expenses of the religious and charitable establishments of Loni, and various customary charges and presents allowed by the Government, and £20 (Rs. 200) were remitted by the Collector in consequence of the unfavourable season and the poverty of the cultivators. The yearly settlement for the revenue the village is to pay for the ensuing year, takes place a little before the beginning of the rainy season. The pattis and kulakarni first assemble all the cultivators, when the lagren or written details of cultivation for the past year are produced, and an agreement made with each of them for the quantity he is to cultivate in the approaching season. As the pattis credit with the Government depends on the prosperity of his village and the state of cultivation, he endeavours to extend this by all means in his power. The headman will not allow a thakhari or hereditary landholder to throw up lands he had cultivated the year before; and, should any part of his thal or estate be waste, he upbraids him and threatens to exact the land tax for it if he does not bring it under cultivation. The headman has less hold on the upri or casual holder who will go where he can get land on the best terms, and is obliged to treat him with great consideration. If from any cause the upri threatens to throw up his lands, he is privately promised better terms and
complaints of over-assessment. Perhaps the dread of the new Government prevented the headmen from oppressing the people; perhaps they took advantage of the change and frightened the people from complaining. Captain Robertson surveyed and measured the Nâne Mâval. The surveyors were men from Balâri in Madras and they were allowed to carry out Sir Thomas Munro's survey rules. But the survey was badly done and showed so enormous an assessment that Captain Robertson did not adopt it.

In October 1819 an attempt was made to introduce a *rayatvâr* or individual landholder settlement instead of a *mangîjvâr* that is a village or headman settlement. The change had to be introduced slowly and with caution. In the first season the mistake was made of settling with the people for the customary or *vahivât* rates and not for the full or *kamâl* rates, and either the village headmen or the hereditary officers raised large sums from the people in addition to what they paid to Government. In this year the crops were fair, and the price of grain was high about twenty-four pounds the rupee (24 -3 pâylis). But an epidemic of cholera, which had broken out in the previous season, proved so fatal that the population was seriously reduced and cultivation spread but little.¹

Chapter VIII.

Land.

The British. 1830-21.

Of the state of the district and of the system of land administration in 1820-21, when the power of the British had been long enough established for their officers to gain a familiar knowledge of the people and of the condition of the district, several reports, chiefly those of Captain Robertson the Collector, have left interesting and fairly complete and clear details. After June 1820, when Indapur and Shivner or Junnar were transferred from Ahmadnagar to Poona, the district stretched (October 1821) about 120 miles from north-west to south-east with an average breadth of about thirty-five miles and an area of about 4200 square miles. The population was about 500,000 or 119 to the square mile, and the yearly revenue was about £100,000 (Rs. 10,00,000), of which about £65,000 (Rs. 6,50,000) belonged to Government and about £35,000 (Rs. 3,50,000) were alienated. The 1213 villages of which 317½ were alienated, were grouped into nine sub-divisions, Poona City, Bhimthadi, Indapur, Pabal, Khed, Purandhar, Haveli, Maval, and Shivner or Junnar, the last eight yielding an average revenue of £12,500 (Rs. 1,25,000) and under the charge of mamlatdars whose pay varied from £84 to £180 (Rs. 840-Rs. 1800) a year.

About 700 men were engaged for the protection of the district of whom 192 were cash-paid fort guards or shibandis, 407 were revenue messengers or peons, and 100 were land-paid militia or shetsanadis.

The country was divided into two chief parts, the sunset or mával lands in the hilly west from which Shiváji had drawn the flower of his troops, and the eastern plain or desh. The western hills were covered with timber and brushwood, and the eastern hills and the whole plain country were bare of trees. Many rivers passed east and south-east from the Sahyádris. Their valleys, which were known as khores and ners, had rich soil, and, with some exceptions, were well peopled and fairly cultivated though there were no watered crops or high tillage. The stock of fish was by no means plentiful, and few of the fish were good eating. Tigers were found in the west, and all over the district were panthers, hyenas, wolves, and wild hog. The hills yielded little; the supply of teak and poon (Calophyllum elatum) was scanty, and the timber was small. The hill grass in the west was good for horned cattle though not for sheep or for horses, and on the skirts of the eastern hills there was excellent grass both for sheep and for horses. Compared with other parts of India the climate was good, the air was light, the cold bracing, and the heat not oppressive. During 1818-19 numbers had perished in a deadly plague of cholera; but this was unusual; the chief diseases were fever, ague, affections of the liver and bowels, and violent colds. Except a few showers from

509-514, 516-517; 10th October 1821, East India Papers IV, 550. So terrible was this cholera that in one village of 1000 people 469 died. B. Gov. Sel. Cl. 254.

1 Captain H. D. Robertson, Collector, 1st May 1820 and 10th October 1821, East India Papers IV.

2 Captain Robertson, 1st May 1820, East India Papers IV, 403; 10th October 1821, East India Papers IV, 524-525.


4 East India Papers, IV, 590. 6 East India Papers, IV, 404.

7 East India Papers, IV, 403; Heber's Narrative, Ed. 1829, III, 114.

8 East India Papers, IV, 404.
the north-east in November the supply of rain was from the south-west. Within about fifty miles from the Sahyádris the fall of rain was generally sufficient. East of this the supply was scanty and in Supa and Pátas great scarcities were frequent. Of the 1213 villages or maujés some were alone and others had hamlets or vádís. Forty to ninety villages formed a group called a tarf or mahál with in each group a market town or kasba. Five to eight village groups formed a division called subhás, prínt, or desh. The village boundaries were in most cases natural boundaries, the limiting line in hilly districts as a rule carefully following the pánlot or watershed. Most of the villages were open. Some had walls of mud and stone and in others the sides and gable ends of the outer houses were so connected as to form a valuable defence.1 There were three chief varieties of soil, black or káli, white or pándhri, and red or tám.bat. Of the black soil there were three varieties; the first called dombí and kevádhás, the richest variety but not the most popular because of the large amount of water which it required; the stony called khádká or dhonstruct, the most esteemed variety because it wanted comparatively little water, though it required manure and in spite of the husbandman’s skill in mixing crops was believed to be losing its power; the third variety of black was when the black was mixed with sand, clay, or limestone. Of the white or pándhri there were several varieties. Most of it was charged with lime. But the husbandmen liked it as it was a clean soil growing few weeds. The red or copper soil was of several shades. It was generally a poor soil along the skirts of the hills rough and stiff to work and requiring deep ploughing. If well worked it sometimes yielded large crops. The chief varieties were pure red or nirñal tám.batí, the lightest and richest variety, deeper and sandier than any other; upland or máj jamín thin and with rock near the surface; válsar or sandy fairly rich when tolerably deep; and chopan shedvat or chikni a clayey soil found near river banks. Of other soils in swampy lands there was a clayey variety called shembá or updá. Roughly, of the whole area of arable land perhaps about fifty per cent were black or káli, twelve per cent white or pándhri, thirty per cent red or tám.batí, and eight per cent of other soils. Of the fifty per cent of black land about forty yielded dry grains or jírvat or were waste; and of the remaining ten, two per cent yielded garden crops, five per cent cold weather or rábi crops watered by channels, and three per cent cold weather crops watered from wells. Of the twelve per cent of white land one per cent yielded garden crops, two per cent cold weather crops watered by channels, two per cent cold weather crops watered from wells, and seven per cent dry crops.2 Of the thirty per cent of red land twenty-seven per cent yielded dry crops or were waste. Of the remaining three per cent half a per cent yielded garden crops, one and a half per cent yielded channel watered cold weather crops, and one per cent well watered cold

1 Extract Revenue Letter from Bombay, 27th November 1822, East India Papers III. 793-794. East India Papers, IV. 403.
2 Captain Robertson, 10th October 1831, in East India Papers IV. 565-566.
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Land.

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DISTRICTS.

weather crops. The eight per cent of other soils either yielded dry crops or were not under tillage. According to these returns eighty-two per cent of the arable land yielded dry crops, and eighteen per cent yielded watered crops. Of the watered land ten per cent were black, five white, and three red. Of the eighty-two per cent of dry crop land about forty per cent black, seven per cent white, and seven per cent red, or fifty-four per cent in all, could grow cold weather crops; the remaining twenty-eight per cent grew only early or rainy weather kharif crops. Of these eighty-two per cent of unwatered land only twenty-two per cent were under late crops, about forty per cent were under kharif crops, and about twenty per cent were waste or fallow. Of the arable land of the district about twenty per cent or one-fifth were waste, and eighty per cent or four-fifths were under tillage. Of the eighty per cent under tillage about half were under dry-crops. Of the remaining forty per cent three and a half were under garden crops, six under well-watered late crops, eight and a half under channel watered late crops, and twenty-two were not watered. Of the forty per cent under early crops thirty-five per cent grew the better dry grains, four per cent grew rice, and one per cent grew hill grains or varkas.\(^1\) Of the grains grown in the Poona district seventeen, which were specially prized by the people, were known as the great gifts or mahadán. These were alshi, chavlya, harbhare, hulge, jayas, jondhle, kodru, lákh, masur, mug, rice, sátu, til, tur, udid, vátáne, and wheat. The other products were small grains, ambádi, bájri, bhàddi, ñonglya, harik, jayas, káthán of sorts, kardái, maku, math, mohrya, náglí, pàute, rán-mug, rán, sorti, síras, til, and vari. Besides these there were several wild or self-sown grains, chiefly barbade, devbhát, hávri kamal-bíj, pákad, til, udid, and varsh-bíj. The crops generally grown were on garden land betel leaves, chillies, carrots, garlic, ginger, jódri, Indian corn, kadval, kothimbir, onions, peas or vátáne, radishes, rágíra, rále, sátu, sugarcane, sweet-potatoes, tobacco, wheat, and yams; on black land ambádi, bájri, gram, hulge, jódri, math, mug, pàute, rále, tobacco, tur, vátáne, and wheat; on poor land bájri, bhàddí, hulge, math, náglí, sáva, til, and vari; on uplands bájri, bhàddí, jondhle, náglí, sáva, tur, and vari; and on pulse or káthán land, gram, kardái, masur, sátu, vát, vátáne, and wheat. The following is a rough estimate of the quantities of seed required to sow a bigha or about three-fourths of an acre of the different crops:\(^2\)

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\(^1\) East India Papers, IV. 565-567. By kharif is to be understood crops brought to maturity by the monsoon rains; and by rabi, those that are matured by dews and by irrigation and partial showers in the fair season, from November till March. It is to be remarked that no rice is cultivated by irrigation, all which is sown depending solely on the south-west rains, and a partial and uncertain supply from streams that continue to flow for a fortnight or three weeks after the south-west rains cease. Captain Robertson, 10th October 1821, East India Papers IV. 568.

\(^2\) In the west the land was divided into three classes, varkas or upland, káthán or pulse, and bhádhr or rice. Captain Robertson, 10th October 1821, East India Papers IV. 572-574.
Deccan.

POONA.

POONA CROPS: PAYLIS OF SEED TO THE BIGHA, 1831.

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The result of two experiments on first rate black land made by Captain Robertson on the 31st of October 1820 was to show an average outturn of grain to the English acre worth about £3 (Rs. 30), the outturn being turned into money on the basis of about forty pounds of millet (5 paylis) to the rupee. Estimates of the best black land in three good and three bad years gave a mean bigha outturn of 103 paylis or about 824 pounds worth £2 4s. (Rs. 22). From this, Captain Robertson thought that to give a fair return for a series of years, one-fourth should be taken to represent the failure of crops on account of want of rain. The

1 The trials on which this estimate was based were: In Talegaon Dhamdhere in one pondo or one-twentieth of a bigha of the field called Gokal which had the best soil and yielded the best crop of the year (a middling year), 1/4ths of the crop were baji and 3/4ths jowri. It yielded 51 paylis, that is 110 paylis worth Rs. 22 to the bigha. The second trial was in the village of Tanki in the field of one Tulaji Kalle, in one-twentieth of a bigha of the best black land of a middling crop of spiked millet or baji mixed with other grains. The baji yielded 5 1/2 paylis that is at the rate of 62 1/2 paylis the bigha, worth Rs. 12 1/2, and the other products worth Rs. 14 15s. or a total value of Rs. 27 as.7 East India Papers, IV, 568.

2 East India Papers, IV, 569. The details are:

Poono Crops: Best Unwatered Black Land, 1820.
mean bigha outturn would then be about 616 pounds (77 pāyālis) worth £1 12s. (Rs. 16).¹ To this should be added about 56 pounds (7 pāyālis) worth 3s. (Rs. 1 ¼) for a second crop or a total mean outturn of about 672 pounds (84 pāyālis) worth £1 15s. (Rs. 17 ¼). Experiments and estimates seemed to show that the mean outturn of second class land was about one-third less than the mean outturn of the best land that is about 445 pounds (56 pāyālis) worth about £1 3s. 4d. (Rs. 11 as. 10½). Similar estimates gave for the poorest lands an outturn of about five-sevenths less that is of about 192 pounds (24 pāyālis) worth about 6s. 4d. (Rs. 3 as. 3¼). That is for the three leading classes of land an average outturn of about 437½ pounds (54 ½ pāyālis) worth about £1 1s. 7d. (Rs. 10 as. 12¾).² The rates in force in the greater part of the district under the Marātha or Kamāl settlement were, except in the western rice lands or about twenty-two per cent of the whole, a bigha of dry land fit to yield vegetables or jīrāyat malai, 6s. (Rs. 3); a bigha of pulse or kathān land 4s. (Rs. 2); a bigha of second class land 8s. (Rs. 1 ½); a bigha of third class land 2s. (Re. 1); and a bigha of fourth class land 1s. 6d. (12 as.), that is an average of about 8s. 3½d. (Re. 1 as. 10½) that is equal to about one-sixth of the average outturn.³ As regards watered land Captain Robertson’s estimates of outturn were for unhusked wheat on a bigha of black soil of the first sort about 1728 pounds (216 pāyālis), of the second sort about 1344 pounds (168 pāyālis), and of the third sort about 1264 pounds (158 pāyālis). This gives for the three sorts an average of about 1440 pounds (180 pāyālis) the bigha that is about 1728 pounds (216 pāyālis) the acre.⁴ The current assessment on a bigha yielding this produce was 8s. (Rs. 4) if it was watered from a channel, and 12s. (Rs. 6) if it was watered from a well. Captain Robertson’s experiments in rice lands gave a bigha outturn of about 1806 pounds (1 khandi and 1½ mans or 225½ pāyālis) for a good crop, about 1281 pounds (15½ mans or 160½ pāyālis) for a middle crop, and about 777 pounds (9½ mans or 97½ pāyālis) for a poor crop, that is an average of about 1288 pounds (15½ mans) equal to 161 pāyālis the bigha or 207 pāyālis that is 30½ English bushels the acre. The season of 1820 when the experiments were made was a poor rice year and a more correct average was said to be 20 mans the bigha or 37 bushels the acre.⁵

¹ East India Papers, IV. 560-570.
² That is about 520 pounds (65 pāyālis) worth Rs. 12 as. 9½ the acre. East India Papers, IV. 570. According to Captain Robertson (10th October 1821 East India Papers, IV. 570) 2½ pints are equal to one measured sher. The equivalents of pāyālis in the text are given at two pounds the sher or eight pounds the pāyāl.
³ East India Papers, IV. 570.
⁴ Captain Robertson estimates this acre outturn of 216 pāyālis or 864 sher equal to 32 English standard bushels, and notices (10th Oct. 1821) that the poorest land in Scotland yields of oats from one bole and a quarter to one bole and a half or from five to six bushels to the English acre; the average barley produce to the acre on middling land in Scotland is twenty bushels; the average of wheat is twenty-four bushels. In Yorkshire the average of oats is fifty-eight bushels. Barley in the midland district of Gloucester yields sometimes sixty bushels but the average is thirty-four bushels; in the vale of Gloucester a farmer in 1784 averaged from fifty acres no less than forty-five bushels to the acre of wheat but this was considered a very superior crop. East India Papers, IV. 571.
⁵ East India Papers, IV. 571-572.
As regards the style of tillage Captain Robertson noticed that land was not ploughed oftener than once in three or four years. In the other years harrowing was considered enough. But this harrowing was laborious as to destroy the weeds it had to be repeated four times, each time in an opposite direction. As regards the cost of tillage Captain Robertson’s inquiries showed that a set of eight bullocks could till about 26 acres (35 bighás) of good bad and indifferent land, and about 19 acres (25 bighás) of good land. A bullock cost on an average £1 16s. (Rs. 18) and lasted ten years, that is the team of eight bullocks represented an average yearly charge of £1 9s. (Rs. 14½). The cattle were fed on grass and straw which cost almost nothing, and a few sugarcakes costing for the eight bullocks about 4s. (Rs. 2) a year. To work the eight bullocks four men were wanted who, if all four were hired, would cost £18 4s. (Rs. 184). Other yearly expenses for field tools would amount to an average of about 16s. (Rs. 8). The average cost of seed on about 26 acres or 35 bighás at about eight pounds the acre (3 shers the bigha) represented £1 1s. (Rs. 10½). That is a total yearly outlay of about £22 (Rs. 219). To this cost of tillage were to be added the rent and other charges on the 26 acres (35 bighás) of land. These at £5 15s. 6d. (Rs. 57½) for the assessment, 18s. (Rs. 6½) for extra cesses, and £7 (Rs. 70) for the claims of district and village officers and servants, amounted to about £13 (Rs. 134¼). That is for 26 acres (35 bighás) of good middle and bad land a total expenditure of about £35 (Rs. 353½). The average produce of the 26 acres (35 bighás) was about 437½ pounds (54½ pāyālis) worth £1 1s. 7d. (Rs. 10 as. 12½) the bigha representing a value of £37 15s. 5d. (Rs. 377 as. 11½), and this, after deducting the £35 (Rs. 353½) of charges, left a balance of £2 8s. 11d. (Rs. 24 as. 7½). If instead of hiring the four men two of the men, as was the case in most families, belonged to the household, though the cost of food and clothes would remain the same or might slightly rise, £4 (Rs. 40) would be saved in wages. If, instead of being bought, the bullocks were reared at home, the yearly outlay on bullocks might be reduced about 7s. (Rs. 3½), and the wife and children, from the sale of milk butter and cowdung-cakes, might make £3 (Rs. 30) a year. These three items together amounted to £7 7s. (Rs. 73½) which with the balance of £2 8s. 11d. (Rs. 24 as. 7½) of receipts over expenditure amounted to a total of £9 15s. 11d. (Rs. 97 as. 15½). In the best land, according to Captain Robertson’s calculations the balance of receipts over charges in regular tillage would be £9 5s. (Rs. 92½) instead of

1 East India Papers, IV. 578.
2 The details are: Food, 2880 pounds or 360 pāyālis of millet or nāgāli at 40 pounds (5 pāyālis) the ropes, £7 4s. (Rs. 72); cash at £2 (Rs. 20) each for three men and £2 4s. (Rs. 22) for the fourth or a total of £8 4s. (Rs. 82); clothes for the four men £3 (Rs. 30). Total £18 8s. (Rs. 184). East India Papers, IV. 576.
3 The details are: Every year, for the plough ropes 5s. (Rs. 2½) and āndāla 3s. (Rs. 1½) or in all 8s. (Rs. 4); every five years, a phāl 3s. (Rs. 1½), a halās 5s. (Rs. 2½), a yoke or ju 5s. (Rs. 2½), shābāt or shābātā 4s. (Rs. 2), kulās 4s. (Rs. 2), paṇis (7½) 5s. (Rs. 2½), pādhar or pādhar 6s. (Rs. 3), paṇe (7½) 5s. (Rs. 1½), sīndir (1) 6s. (Rs. 3), total £2 2s. (Rs. 20½) in five years or 8s. (Rs. 4) every year. Total for dead stock 16s. (Rs. 8) a year. East India Papers, IV. 576.
4 Capt. Robertson in East India Papers, IV. 576.
Chapter VIII.

Land.

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£2 8s. 11d. (Rs. 24 as. 7fs), that is, together with the £7 7s. (Rs. 73fs) savings from the home work of the men and the extra earnings of the women and children, a total profit of £16 12s. (Rs. 166). On the basis that the father and son worked instead of two of the hired men this estimate of cost of tillage, rent, and other charges, and value of produce showed that in good lands the Government share of the outturn was 13 per cent and the landholder’s share 87 per cent. Out of the landholder’s 87 per cent 16 per cent went to claimants and village servants, 29 per cent represented the cost of tillage, and 42 per cent the balance left for the support of the family which generally contained six members. In average lands the Government share was 17 per cent and the landholder’s share 83 per cent. Out of the landholder’s 83 per cent 18 per cent went to village servants and other claimants, 34 per cent represented the cost of tillage, and 31 per cent the maintenance of the landholder’s family. In Captain Robertson’s opinion these results showed that Government took from the landholder quite as large a share of the produce as it could safely take. Regarding the cost and profit of rice tillage Captain Robertson gave the following estimates. Only two bullocks were required for one plough. A man and his family might live on the produce of one plough but they would be wretchedly poor. A pair of bullocks could plough about 4 acres (5 bighás) of rice and about 1½ acres (2 bighás) of nadchhi and sáva. The best way of growing rice was by planting the seedlings. This was laborious and costly. It would take fifty men one day to plant the seedlings of one man of seed, or 150 men for one day to plant 4 acres (5 bighás). Labourers called in to plant for one day’s work were paid about eight pounds (1 páyl) of rice and a cake of some other grain. The planting of rice, where each handful of seedlings had to be separately pressed into the ground, was much more troublesome than the planting of nadchhi and vari whose seedlings were thrown down at intervals and left to take root. Ten men could plant as large an area of nadchhi or vari as 150 men could plant of rice. At the rice harvest a man and his wife could cut four acres (5 bighás) in eight or nine days. But there was always special expenditure as the grain had to be carried and stacked before it got too dry, and several men were generally hired and paid about eight pounds (1 páyl) of rice for a day’s work. In growing nadchhi or vari except at harvest, little outside help was wanted. Sáva had to be weeded when the grain was about a foot high. The weeding was carried out by the mutual agreement of the villagers with no other cost except a small outlay on liquor. As they worked in the chilly rain very lightly clad, it was hard work to keep the weeders in spirits. They were generally given as much liquor as they could drink and had a drummer behind them who kept drumming and

1 The details of the charges and receipts of about 19 acres (25 bighás) of the best land are: Cost of tillage as for poorer land Rs. 219, Government assessment at Rs. 2 a bigha Rs. 50, extra cesses Rs. 6, allowances and village servants’ shares Rs. 70; total Rs. 345. Under receipts, 22 bighás at 84 paylás worth Rs. 17½ a bigha give Rs. 497½ that is a balance of Rs. 92½. East India Papers, IV. 577.

2 East India Papers, IV. 578.

3 East India Papers, IV. 578, 579.
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every now and then shouted Bhulere dada bhale bhai dada, or Well done brothers well done.¹

There were few masonry watercourses in Poona. What there were had been built by the Moghals and were cleaned and repaired by Government. Six of the sub-divisions had no regular dams and no watering lakes or reservoirs. If a stream passed near his fields a landholder occasionally made a temporary dam and dug a channel. But it was neither according to rule nor according to practice to make the whole members of a village undertake such works. In villages which had an old water-work, the people might give their labour to repair it; but even this was not a condition of their tenure. Since the English had conquered the country no new reservoirs or watercourses had been made.²

The greater part of the people were Kunbis or cultivators.³ Their number had probably not increased during the three years of British rule. A good many of Bajirav's servants and messengers had come and settled in their villages. But the cholera had perhaps swept away more than had come back; and a good many, tempted by low leases, were leaving Indapur (October 1821) and settling in the Nizam's country.⁴ After a succession of years of good or fair harvests and high prices the state of the husbandmen was by no means wretched. Still they were generally small, poor, and badly clothed. The people of the eastern plain as a rule were abler bodied and better looking than those of the west. This was said to be because the eastern people lived on millet, and the western people on rice rägi and sava. Few husbandmen in any part of the district ate wheat; what wheat they grew went to the nearest market town.⁵ All ate flesh and drank liquor. But they were not drunken, and drunkenness was very rarely a cause of crime.⁶ Though as a whole the husbandmen might be described as badly clothed, the people of the west were much worse clothed than the people near Poona. In the west they had little but a blanket and a scanty cloth round the middle while near Poona the men had generally a very good pair of cotton breeches.⁷ In the west rents were high, the claims of village servants and others were heavy, and the people were poor.⁸ In the east the houses were of mud and stone with flat mud roofs; in the west they were smaller and were covered with thatch.⁹ The usual yearly rate of interest was (October 1821) twelve per cent; but 18½ per cent a year (¼ a. a month for a rupee) was common, and in the west twenty and twenty-four per cent were paid. When the interest was paid in grain about 75 per cent (a sher a rupee a month) was taken. If grain was borrowed for food, one quarter to three quarters more than the quantity borrowed had to be repaid; and if grain was borrowed for seed, double the quantity borrowed

¹ East India Papers, IV. 578-579. ² East India Papers, IV. 592. ³ East India Papers, III. 793. ⁴ East India Papers, IV. 592. ⁵ Capt. Robertson, 10th Oct. 1821, East India Papers IV. 592; Extract Rev. Letter from Bombay 27th Nov. 1822, East India Papers III. 793. ⁶ East India Papers, IV. 404. ⁷ East India Papers, IV. 404. ⁸ East India Papers, IV. 592. ⁹ East India Papers, III. 794; East India Papers, IV. 408.
had to be repaid. It had been and it still was usual for the husbandman to make a bargain with a grain dealer to advance him the price of his crop before the crop was cut, and he paid his rent by an order or havála on the grain dealer to whom he had made over his crop. In this the husbandman suffered as he was generally pressed for money and the grain dealer held back till he was able to buy at something less than the market value of the grain.1 Though as a class the villagers were frugal and provident, owing to the oppression of the revenue farmers many were deeply in debt. These debts were of long standing and were often made of compound interest and occasional aids. Such debts could in fairness be settled only by a compromise which could rarely be obtained except through a jury or panchávit.2

Under the landholding class at the beginning of British rule was a class of slaves. Dr. Coats (Feb. 1820) found in the village of Loni eight families of slaves, comprising eighteen persons. In reward for good services one of the slave families had virtually received their freedom, lived in a separate house, and tilled on their own account. The others lived in their masters' houses. The slaves were well treated. They were clad and fed and except that they took their meals apart, were treated in the same way as the members of the family. If they behaved well they got pocket money on holidays, and their masters were at the expense of their marriages which cost £5 or £6 (Rs. 50 or 60). The men worked in the fields; the women helped their mistresses; and when unmarried were sometimes their masters' concubines. The present race were all home-born. Some of them were descended from women brought as prisoners from Hindustán and the Karnátak. Freedom was sometimes given to slaves from religious motives, for good conduct, and sometimes because they became burdensome. Such persons took the name of shínda or bastard and were considered inferior and were avoided in marriage. Slave-dealing was thought disreputable, and was not much practised. Boys were rarely brought to market; sales of girls were commoner. Beautiful girls were bought by the rich as mistresses, or by courtesans, or by taught dancing and singing and fetched £10 to £50 (Rs. 100–500). The less favoured were bought as servants in Bráhman families.3

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1 East India Papers, IV. 580.
2 Mr. Chaplin, 20th August 1822, East India Papers IV. 514.
3 Trans. Bom. Lit. Soc. III. 229–240. Regarding the condition of the people at the beginning of British rule the authorities do not altogether agree. In his paper (Trans. Bom. Lit. Soc. III. 225–228) Dr. Coats described (29th Feb. 1820) the condition of the people of Loni as extremely deplorable. Their houses were crowded, and not sufficiently ventilated; and their cattle and families were often under the same roof. Their food, although seldom deficient in quantity, was not always wholesome and nutritious; and they were wretchedly clothed. Though exercise and water-drinking generally made them wear well, the constant labour of their women out of doors united them for nursing, and in consequence a large proportion of their children died in infancy. The heavy exactions imposed on them by the Government kept them poor, and did away every prospect of independence or improvement. They were improvident, and seldom troubled themselves with the future. The township of Loni contained eighty-four families of landholders all of whom, excepting fifteen or sixteen, were more or less in debt to moneyed men in the neighbourhood, generally to Bráhman or shopkeepers. The total indebtedness amounted to £1433 (Rs. 14,330), and besides this the community owed £307 (Rs. 3070). The usual rate of interest was
In 1821, according to Captain Robertson, there were eight leading and many subordinate tenures. These were *sosti* or full rent, *kauli* or lease, *ukti* or short rent, *dumāla* or service granted, *inámaiti* or rent alienated, *sherti* or Government hold, *pdl* or *sut* that is rent-free, and *gahān* or mortgaged.

*Sosti* included land which paid Government a full rental. It was of two kinds, *mirāsi* or hereditary and *gatkul mirāsi* when the hereditary holder was absent. Land held by a *mirāsdār* was considered to be the holder's property; he could either sell it or mortgage it. *Gatkul mirāsi* was land whose hereditary holder had disappeared, and which the headman might let on the best terms he could secure and was not bound to pay Government more than the original holder would have paid had he remained. Land of this kind was considered to belong to the village community and by the village was saleable and assignable in mortgage to defray public debts and public expenses. Under the British system the headman ceased to have power to dispose of this class of land.

*Kauli* or leasehold included land let for a series of years at an increasing specified assessment. If on the last year of the lease the full rental was paid, leasehold land came to be ranked with full rent or *sosti* land. It belonged to the village community and was saleable and assignable by it. Under the Marāthās leases were granted by the village headmen; under the British the power of granting leases was directed and controlled by the māmlātīsārs.

*Ukti* or short rate tenure included all land held on something less than a full rental. It was of two kinds, *ukti* or *makta gatkul mirāsi* and *khand makta mirāsi*. *Makta gatkul mirāsi* was hereditary land whose holder had disappeared and which for some short specified time was let to some one else at a rental short of the full amount; it belonged to and was saleable by the village community; *khand makta mirāsi* was similar land let under similar circumstances but on a permanent agreement. This land was saleable and assignable

twenty-four per cent a year, but when small sums were borrowed, the interest was often as high as 4 anna per rupee a month or about forty per cent. The indebtedness of individual landholders varied from £4 to £20 (Rs. 40-200) and two or three were over £200 (Rs. 2000) in debt. These debts had generally been contracted to meet marriage expenses, or to buy cattle and food. Each debtor kept a running account with his creditor, and took a receipt for sums he might from time to time pay, while the interest was brought against him till it equalled the principal, where it ought legally to stop; *dān dawar kan tiyar* or for money double for grain treble, was the maxim that guided juries in settling these debts. Few of these in debt knew anything about their accounts. It was a common opinion among them that they had discharged all just demands on them over and over again. As none of them knew anything of accounts this was possibly not without truth. Besides owing money, about a fourth of the villagers were indebted to their neighbours for grain and straw borrowed to support themselves and their cattle till the next harvest. This they were bound to repay in kind, and with never less than an increase of fifty and often of seventy-five per cent. The whole of the landholder's crop was generally mortgaged before it was reaped. This was the case in ordinary times. In bad seasons or in case of any calamity the evil was much increased. If any of their cattle died they had no means of replacing them but on the terms above explained; and if they failed in this, their only resource was to quit their fields for a time and endeavour to save a little money by becoming servants to Brāhmans and others, or perhaps by enlisting as soldiers.

1 Capt. Robertson, Collector, 10th Oct. 1821, East India Papers IV, 543-547.
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Chapter VIII.

Land.

Tenures, 1821.

Dumala.

Inamati.

in mortgage by the holder. This which was more favourable than the ordinary hereditary tenure was extremely rare.

DUMALA, literally two-owned land, in the sense that the original owner had not entirely parted with it, was land held for service. It included 

shatsanadi land held for military service as garrison troops; bakshis or gift-land, generally garden land granted to a man for his life and then recalled; and saranjam land held rent-free at the pleasure of Government without any stipulation of service. Gaon nisbat dumala, or two-owned village-land was village land granted rent-free to a Ramoshi or watchman who could neither sell nor mortgage it.

Inamati or rent-alienated land was land granted in perpetuity, through favour, in charity, or to an hereditary office-holder. It included sanad inamati or deed-rent-alienated and gaon nisbat inamati or village-rent-alienated. Sanad inamati had four varieties. All of them were liable to pay the dues of village and district claimants or hakdars and all of them originated from the ruling power. Sanad inamati land was held in perpetuity by a deed or sanad from the ruling power, free of all Government exactions. A grant of this kind seemed to have been always made from ownerless and fallow land. The right assumed by Government to grant such land was not disputed by the village corporation. The other three varieties of deed-held land were inam nimai which paid a Government rent equal to one-half of the full rent, inam tijai which paid a one-third Government rent, and inam chauthai which paid a one-fourth Government rent. Gaon nisbat inamati was of seven varieties, the headman’s land pasodi, the Mhār’s land of two kinds hinki and hādola, temple land or devasthān, craftsmen’s land or vēveli, charity land or dharmādāya, and ordain-land or dev teki. Of these, two paid the claimants’ dues and one made some payment to Government. Grants of this class were made by the village corporation, but Government appeared to have the power to order an assignment in inam under this head. The headman’s grant or pasodi, which perhaps originally meant a grant for clothes, was saleable and assignable in mortgage with or without the office of headman. It was free from all charges except the claims of village servants or balutās. The grant to the Mhār known as hādkī or hinki was a plot of land set apart by the Mhār for carcasses and bones except a fringe round the edge which they tilled; it paid no rent or other charge. The other Mhār grant known as hādola or the bone-land was instead of cash payments. It was saleable and assignable in mortgage and was free from all claims. Temple or devasthān land was assigned for the village gods and for mosques. This land was in charge of the ministrant at the village temple, who was generally of the Gurav caste. He sold the produce and set apart the price to meet the daily charges for the god’s red paint, clothes, food, oil, and vessels. It was neither transferable nor saleable. In the west of the district a grant of land to the village craftsmen or balutās, who were known as vēvelikars, took the place of a share of the produce. Charity land or dharmādāya was land given in charity or instead of a money payment. It was assignable in mortgage and saleable by the holders. It paid
POONA.

no tax or fee. Ordeal land or dev teki the last of the village grants was land held by a headman or Mahr in return for having gained for the village some disputed land by passing an ordeal. It was saleable and assignable in mortgage.

Sheri was at the disposal of Government and was managed by the Government direct, not through the headman or any of the village agents. It was entirely Government property and paid no fee.

Pál or Sut land was a small plot of rent-free land in a large holding, which was thrown in to make up for some disadvantage under which the holding suffered.

Gahán. The last special tenure was land held in mortgage or gahán. There were six forms of mortgage: (1) The mortgager handed the land to the mortgagee and continued to pay the Government demand and at the end of a certain term the whole debt was cancelled; (2) the mortgagee paid the Government rent; (3) the mortgagee took the produce of the estate as interest and the principal had to be separately paid; (4) the mortgager managed the land and paid the mortgagee a share of the produce; (5) if the mortgager failed to pay within a certain time, the land passed to the mortgagee; (6) the mortgagee paid the rent on condition that if the mortgager did not pay the principal within a certain period he must sell the land to the mortgagee at a fixed price.

Pálnuuk. Besides those noticed by Captain Robertson there was a local tenure in the Mulshi petty division formerly of Mával now of Havelli. This was styled pálnuuk or rent-exemption and resembled the pándharpesha or leading villager tenure of the North Konkan. Under the pálnuuk tenure freedom from village charges and other claims were granted to hereditary district officers Bráhmans and others specially mentioned. In some cases this pálnuuk or reduction in rent amounted to as much as sixty-one per cent and in no case was the remission less than eighteen per cent. In 1830, September 6th, when he was introducing his settlement into the Mávals, Mr. Pringle noticed that in some villages, chiefly in the Paud vale, Bráhmans, village officers, and certain others were free from extra cesses, villagers' claims, village expenses, and other charges. The tenure was called pálnuuk or freedom from cesses and was like the leading villager or pándharpesha settlement in the North Konkan. Though the privilege was not supported by distinct grants, Mr. Pringle was satisfied that it had long been enjoyed and had been admitted by the Maratha government. Mr. Pringle thought that the privilege should be confined to those who were in actual enjoyment of it. He accordingly prepared a register which showed that 196 privileged holders enjoyed a concession representing a yearly sum of

1 Though Capt. Robertson does not mention pálnuuk, the following passage in his report (10th Oct. 1821) seems to refer to this tenure. 'In twelve or fourteen villages of the Paud Khore certain Bráhmans do not pay the full assessment.' He thought this privilege had been acquired because they were rich and respectable, and not from their being poor. East India Papers, IV. 580.
2 Poona Collector's Compilation of 1853, 47, 388.
In proposing the Mával survey settlement in January 1854, Captain Francis, the Survey Superintendent, thought it advisable to make a temporary concession to the pālānukdārs like the concession proposed for the Konkan pāndharpeshās. He thought Mr. Pringle’s statement of the enjoyment of the pālānuk concession should be adopted as the basis of the settlement. That if the new survey rates proved not higher than the existing concession rates the new rates should be levied. That where the new survey rates proved higher than the existing concession rates, if the holder was the same person who had held in Mr. Pringle’s time, the enhanced rates should not be levied for ten years; and, if the holder was the lineal descendant of the person who had held in Mr. Pringle’s time, the enhanced rates should not be levied for five years. In cases where the holder had acquired the land in any way except by descent the new enhanced survey rates should be at once introduced. Captain Francis suggested that a statement should be prepared to show what remissions the different holders would be entitled till the proposed concessions came to an end. The demi-official letter from the Chief Secretary, on the authority of which Captain Francis introduced the proposed settlement into Mával in 1853-54, seems to have taken no notice of Captain Francis’ proposals regarding the pālānuk concessions. The matter was brought to the notice of Government in February 1855. In August 1855 Government decided that the question should be reserved for a future occasion. At present (1884) there are pālānukdārs in fifty-six villages. Before 1854 the assessment according to māmul rates amounted to £318 (Rs. 3180) and the pālānuk to £136 (Rs. 1360). Under the survey introduced in 1854 the assessment on pālānuk lands was reduced to £273 (Rs. 2730) and the amount of pālānuk to £95 (Rs. 950). This represents the sum now (1884) actually recovered from the pālānukdārs. It will thus be seen that the pālānuk levied under the māmul rates was 6½ annas in the rupee or 42 per cent, whereas that recovered under the survey rates amounts to 5½ annas in the rupee or 34 per cent. So that the concession now allowed is more favourable than that under the māmul rates. There is an occasional

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1 Bom. Gov. Sel. LXX. 11-12. Under a circular of the Revenue Commissioner N. D., 963 of 8th August 1844, it was decided that the concession ceased with the death of the original pālānukdār. This circular was modified three years after by Gov. Letter 2898 of 14th July 1847, which declared that the transfer of land by lineal descent did not affect the concession, Revenue Circular Order, Book, 1860, 415.


lapse from failure of lineal descendants or in consequence of the sale of the land to an outsider and the transfer thereof to the purchaser's khāta. Government have lately (1881-82) decided that mortgage with or without possession does not amount to such a transfer of the privileged land as destroys the holder's right to the usual remission. At the same time the former opinion seems to be upheld that the privilege ceases on any portion of the land which passes from the holder's name except by lineal succession.

At the beginning of British rule the main division of the Poona husbandmen was into hereditary holders called thalkarīs or mirāsdārs and casual holders called upris. Among the hereditary holders Captain Robertson thought there were some whose families dated from pre-Musalmán times when they used to hold from a Hindu chief on Musu’s rental of one-sixth of the produce. The hereditary tenure remained in all villages in the district except in about thirty villages which had never recovered from some great calamity. Besides the freedom from the chance of being ousted the hereditary holder had many advantages over the upri or casual holder. In the west the hereditary holder was free from several cesses. He could build and sell a house; he had a voice in the village councils; and he had a share in the village grazing land. In the east in addition to these advantages the hereditary holder and his wife had precedence in village ceremonies and his children made better marriages than the children of casual holders. In 1821 of about 80,600 landholders who paid direct to Government, about 19,700 were hereditary holders and about 10,900 were casual holders, that is there were about twice as many hereditary holders as casual holders. As regards the proportion of hereditary holders in different parts of the district, Poona City came first with thirteen to one, Haveli and Shivner came second and third each with five to one, Pábal was fourth with four to one, Khed was fifth with five to three, Purandhar was sixth with three to two, Mával was seventh with ten to seven, Bhimthadi was eighth with nine to ten, and Indápur was last with one to three.

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1 Collector of Poona, 612 of 26th January 1884.
2 Gov. Res. 6414, dated the 28th of October 1881, and 408 of 19th January 1882.
3 East India Papers, IV. 529.
4 Captain Robertson, 10th October 1821, East India Papers IV. 579.
5 Ext. Rev. Let. from Bombay, 5th November 1823, East India Papers III. 800.
6 East India Papers, IV. 585. The details are:

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<td>10,538</td>
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Chapter VIII
Land

The British

Landholders, 1881.
Chapter VIII.

Land.
The British.

Villages, 1821.

All landholders were members of village communities which formed the most important feature of Deccan society. The Poona village communities were miniature states with an organization almost complete enough to protect the members if all other Government was withdrawn. They were an excellent remedy for the imperfections of a bad Government; they prevented the evil effects of its negligence and weakness and even presented some barrier against its tyranny and rapacity. Each village had a portion of ground attached to it which was committed to the management of the villagers. The boundaries were carefully marked and jealously guarded. The village lands were divided into fields each of which, whether tilled or waste, had a name and well known limits. Except a few traders and craftsmen the villagers were almost all husbandmen. Over each village was a headman or pâtil with an assistant or chaughula and a clerk called kulkarni and twelve subordinate servants called bára balutás.²

The headman or pâtil² held his office direct from Government, under a written paper or vatan patra, which specified his duties, his rank, and the ceremonies of respect to which he was entitled; and his perquisites, and the quantity of freehold land allotted to him as wages. In 1820 the pâtils about Poona, generally said they held their pâtilship from the emperor of Delhi, or from one of the Sátára Rájâs; in Dr. Coats' opinion many were held from the Peshwâs, an origin which was not acknowledged because the Delhi and Sátára grants were considered more sacred. The vatan patra was sealed with the sovereign's seal, had the signature of several witnesses to it, and ended with a curse on any one who should disturb or dispute the rights of the holder. The pâtilship was hereditary and saleable; but the office was looked on as so respectable, and the property attached to it was considered so permanent, that there were few or no instances of its being wholly sold, although, as a means of averting misfortune, part of it had often been transferred by sale. This was the reason why there were two pâtils in many villages, and three or four in some. When there were more than one headman the duties and rights of the office were divided, according as it might be stipulated in the deed of sale; the original pâtil always kept the precedence. The prominent duties of the pâtil were, along with the village accountant, to ascertain and collect the Government dues

¹ Mr. Elphinstone, 1819. Dr. Coats writing in 1820 (29th February) says, 'The township of Loni has its own officers, is governed by its own laws and usages, and is in a great measure independent of all without. Its boundaries and institutions have undergone no alteration from time immemorial; while the great political changes that have been continually going on in the succession of the states it has been subject to, have neither given it much disturbance nor excited much interest. Almost its only intercourse with the Government is the payment of its taxes. Its members are connected with those of the neighbouring townships by intermarriages, and a friendly interchange is kept up between them. It is commonly left to protect itself from external enemies, and is held responsible for the police within its limits. The officers of the township are two pâtils who are its civil magistrates; the chaughula or deputy pâtil; the kulkarni or secretary and accountant; and the bára balutás are its twelve subordinate servants.' Trans. Bom. Lit. Soc. III. 194-196, Ed. 1877.

from the landholders, and to see they were paid to the persons authorised to receive them; to encourage people to settle in his village; to let out waste lands, and promote agriculture by every means in his power; and to punish offences, redress wrongs, and settle disputes among the villagers. In matters of a trifling nature he decided himself, and punished the offender by stripes or reproof, but was not allowed to fine. In cases of more importance he called a panchātī or council. Serious, particularly criminal, cases were referred to the mãlātādār or the Government. The pātīl was also responsible for the police of his township. For neglect of duty the pātīl was punished by the Government by fine and imprisonment; but, unless for treason or other serious crime, he was seldom deprived of his office. The pātīl had great power and influence, and did not always make good use of his power. He was sometimes said, in collusion with the kulkarnī, to impose on the landholders in the settlement of their accounts, and with the kamāvisadār to cheat the Government. The pātīls were proud of their dignity; all the ceremonies of etiquette and respect they were entitled to were minutely laid down, and they would quarrel with a person for withholding any of their honours sooner than for doing them an injury. A greater proportion of them could write than of the village hereditary landholders. Otherwise, except in knavery, they were not more accomplished, and scarcely differed from them in dress, manners, or way of living. The pātīls paid to Government every twelfth (sic) year a tax or dahāk patti equal to one year's salary.

The kulkarnī¹ or village clerk kept the numerous village records and accounts. The most important were: (1) the general measurement and description of the village lands; (2) the list of fields with the name size and quality of each, the terms under which it was held, the name of the holder, the rent for which he had agreed, and the highest rent ever yielded by the field; (3) the list of all the villagers whether husbandmen or otherwise, with a statement of the dues from each to Government and the receipt and balance in the account of each; (4) the general statement of the instalments of revenue; and (5) the detailed account, in which each branch of revenue was shown under a separate head, with the receipts and balance on each. Besides the public records, the village clerk generally kept the accounts of all the landholders, with each other and with their creditors; acted as a notary public in drawing up all their agreements; and even conducted any private correspondence they might have to carry on. He had lands, but oftener fees, allotted to him by Government from whom he held his appointment.

Under the headman were the twelve village servants or bāra balutās, the carpenter, the ironsmith, the washerman, the barber, the potter, the silversmith or assayer, the idol-dresser, the water-carrier, the shoemaker or currier, the rope-maker, the watchman messenger and guardian of boundaries, and the Muhammadan mullo or priest.² There were also the Brāhman astrologer to cast nativities and the

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¹ Dr. Coats, 29th February 1820, Trans. Bom. Lit. Soc. III. 196-197.

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Bráhman priest to attend to religious ceremonies. In some parts of the district there was a village watch composed of Bhils and Rámoshis.¹ According to Dr. Coats (29th February 1820) the balútás were hereditary and held their situation from the township. Their hereditary papers or vatón pátra were in the name of the pátil and township, and were witnessed by several of the villagers. The deed bound the holder to devote his services to the common good, according to custom, on condition that each landholder paid him a fixed proportion of the produce of the soil. The balútás also received presents for exercising their particular callings at marriages and other rites and ceremonies. The grant or vatón pátra sometimes had the seal and signature of the deshmukh and deshpánde or hereditary district revenue officers, and a copy ought to be lodged with the deshpánde. The expenses to a baluta on his appointment amounted to £5 or £6 (Rs. 50 or Rs. 60) in perquisites and presents.² The particular duties of the balútás were:

1. **Carpenter.**
   - The Carpenter made and kept in repair all wooden field tools, the wood being supplied by the landholder. He was paid 200 sheaves of corn and about 48 pounds (24 shers) of grain for every 22½ acres (30 bighás) under tillage, and his dinner or a few pounds of grain a day so long as he was engaged in mending field tools. He furnished the marriage chaurang or stool on which the bride and bridegroom were bathed. He supplied travellers with pegs for their tents, and for picketing their horses. During two or three days in the year, in return for a dinner, Government, the deshmukh or hereditary revenue superintendent, and the deshpánde or hereditary revenue accountant were entitled to his services.

2. **Blacksmith.**
   - The Ironsmith or Blacksmith made and kept in repair all iron field tools. He made the sickles, the hoes, and other field tools, and the simple lock and chain which fastened their doors, the villagers finding the iron and the charcoal. For tiring cart wheels, as this was troublesome, he received a money present. He performed the bagād or hook-fastening into the back of devotees who swung before Bahiru and Hanumán. He shoed the horses of villagers and travellers, but he was not a good farrier. He every year furnished a set of horse shoes and twenty-four nails to Government who supplied him with iron. He was paid about thirty-six pounds (18 shers) of grain on every 22½ acres (30 bighás) or one-fourth less than the carpenter.

3. **Washerman.**
   - The Washerman washed the clothes of male villagers; the women generally washed their own clothes. He spread cloths for the bride and bridegroom to walk on at one of the marriage processions, and for parties to sit on at marriages and other festivals. For this he received special presents. He washed the clothes of travellers, and expected a present for his trouble.

4. **Barber.**
   - The Barber shaved the villagers and cut their nails on a lucky day once every fortnight. He kneaded the muscles and cracked

¹ Mr. Elphinstone, 1819, Ed. 1872, 15, and East India Papers IV. 158.
POONA.

Chapter VIII.

Land.

Twelve Servants, 1820.

Barber.

Potter.

Silversmith.

Idol-dresser.

Water-carrier.

The joints of the headman and village clerk on holidays, and of all travellers of distinction who came to the village. He was the village surgeon, and played on the pipe and tambour at weddings and on other occasions. He did not act as a torch-bearer, as he did in some other parts of the country. When the headman went abroad, the barber went with him, and carried and cleaned his copper vessels; and, on village festivals, with the water-carrier and potter, he acted as cook, and, before and after eating, handed the party water to wash. When the bridegroom arrived at the village to take away the bride, the barber led his horse to the bride’s house and received the present of a turban. He trimmed the tails of the oxen at the sowing festival and received a present of grain.

The Potter supplied the villagers with the baked earthen vessels they used for cooking, for storing spices salt and grain, and for carrying and holding water. He also furnished travellers with such vessels as they wanted. He beat the dánka a kind of drum, and at marriages repeated verses in honour of Jámi an incarnation of Bhavây. At the harvest homes or davra he prepared the barbat or stewed mutton. He made tiles and bricks, and received a special payment for them. Near Poona potters were freed from the balut sára or village servants’ rent because they had been of great service in tiling Bálájí Vishvanáth’s house.

The Potdár or Treasurer was always a silversmith. He examined the coins when the taxes were paid; and on satisfying himself they were good, stamped his mark on them, and kept them in his treasury, until enough was received to send to the sub-divisional treasury under charge of an escort of Mhár’s. When employed as a silversmith he was paid ¾d. to 2s. (Re. ¾-1) the rupee weight according to the workmanship.

The Gurav was the village god-dresser and ministrant. He every morning poured water over the village Hanumán, Bahíru, and Mahádev, marked the brows of Bahíru and Hanumán with sandalwood and oil, and dressed them with flowers. He swept the temples, smeared them with cowdung once every eight days, and every night lighted a lamp in each. At the new-moon he anointed the idol of Hanumán with cinnabar and oil, and Bahíru every Sunday with oil only. Each family in the village gave him daily a small quantity of flour which he made into cakes, and offered at noon to the idols, and afterwards took to his family. During the nine eves or navrátra that end in Dasra in September-October he gave each family a handful of flowers to make garlands which were offered to Bhaváni. He daily supplied the village clerk with Indian fig leaf platters joined with skewers or patrávalis, and on festivals he made leaf-plates for all the villagers.

The Water-carrier, who was of the Pánbhari division of Kolis, kept vessels constantly filled with water at the village office for the use of all Hindus. If as was usual a beggar lived in the building, the water was left under his charge that it might not be defiled. The water-carrier supplied water to travellers, and for marriages and festivals. He brought food for the persons who were fed by the village, from those whose turn it was to supply it. He lighted
the lamps every night at the village office, swept it, and every eight days smeared it with cowdung. When the village was on the bank of a river the water-carrier pointed out the ford to travellers; and when the river was not fordable he took people across on a float buoyed by gourds or inverted earthen pots.

The Shoemaker or Chámbhár kept in repair the shoes of the villagers, and every year supplied the kulkarni, pátil, chaughula, deshmukh, and deshpánde with a pair of new shoes. The other villagers paid him about a rupee a year for making their shoes and supplying leather. He made water-bags, and supplied the cart and plough drivers with leather thongs for their whips or asod. He mended shoes, bridles, and other articles belonging to travellers, but expected a present. The skins of all sheep killed in the village were his perquisites. He did not eat beef or carrión, and was allowed to live within the village. His wages were the same as the carpenter’s.

The Mángs made hemp ropes for the use of the husbandmen, and a strong raw hide rope used in yoking oxen. The husbandmen supplied him with the materials. He castrated bulls in their fourth year. He made the muzzle or muski worn by oxen when weeding or treading corn. On Póla or Ox Day, that is the October or Aśhwin new moon, the Mángs hung mango leaves on a grass rope across the village gate, the village office or chávdî, and the doors of the chief inhabitants. This was supposed to ensure good luck to the village during the year. The Mángs were considered cruel and revengeful. They acted as executioners, and, it was said, might be hired as assassins. They lived outside of the village, and were not allowed to enter the house even of a Mhár.

The Watchman, who was of the caste known as Mhár Dhed or Parvári, although held outcaste, and not allowed to have a house within the village or to enter the house of any of the villagers, had great weight, and was an important member of the community. The number of Mhár families belonging to each township was from five to fifty according to its size. They lived in a hamlet or mhár-váda on the east side and within call of the village. The Mhárs’ duties were various. The most important were to prevent encroachments on the village boundaries of which they were supposed to have an accurate hereditary knowledge. In boundary disputes their evidence was generally considered conclusive. They gave their evidence by walking round the disputed boundary under an oath, in a solemn and formal manner accompanied by the headman and villagers, who marked their track

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1 The bull was thrown down, and a string tied rather tight round the spermatic cord. The glands were then well rubbed with butter and turmeric, and beaten with a tent-peg. Swelling and absorption of the gland soon followed, and the animal was fit for work in a few days. Dr. Coates, 1820, Trans. Bom. Lit. Soc. III, 200-201.

2 The Póla or Ox Day varies in different parts of the Deccan.

3 The Mhár did everything and had no special calling. He ran errands, kept a current account in his head of the distribution of the village land, and settled boundary disputes for four or five generations preserving particulars of old boundary fights. Capt. Robertson, 10th Oct. 1821, in East India Papers, IV. 582.
as they went. They were the bearers of all letters on the business of the township, and generally of all messages. They carried the village rent instalment to the sub-divisional head-quarters. They were present at all councils or pancháits involving any hereditary right of the community and their evidence carried great weight. They furnished wood at marriage-feasts, which entitled them to a present of clothes from the bride. They supplied the village headman and his deputy and the village clerk with firewood on Holi in February-March and on Dasra and Diváli in September-October and in November. They carried the fuel required for burning the dead, and, as a perquisite, were given the winding sheet in which some money was always tied. They carried to the next village the baggage of travellers, except the cooking vessels, clothes, and entables, which would be defiled and were therefore carried by Kunbis. During their stay at the village they supplied travellers with firewood, cleaned their horses, and watched them during the night. They furnished all guides or vátáde. They had charge of the village flag and gates if the village had them, and opened and shut the gates morning and evening. Besides, a beadle that is vasékar or yesékar of this tribe was always in waiting at the village office or chándi, and reported to the headman the arrival of all strangers, and all remarkable occurrences. He was told to keep troublesome visitors from the headman and clerk, by saying they were from home or sick; and to protect the village generally from annoyance, by any subterfuge his ingenuity might suggest. He was the official medium of communication between the headman and the villagers. He was responsible that none of the villagers were called on to act as porters out of their turn. He kept an account of the Kunbi families whose turn it was to supply beggars, Government servants, and others, with their dinners. He attended all travellers during their stay at the village; and all their wants were supplied and paid for through him. The beadle was relieved at stated periods, generally every week. While on duty, he received daily from the pátíl half a cake, and from each of the cultivators one-fourth of a cake at noon, and every evening a helping of porridge or ghdtá from each family; which was generally more than enough to supply himself and his family with food. The Government and revenue officers, in return for his food, had a claim on the services of a Mhár for a certain number of days in the year; the Government for three months; the deshmukh for one month; the deshpánde for fifteen days; and the sar-pátíl for eight days. During this period they were employed to bring wood and grass, and to look after horses. The service was termed vápta (râbta?), and was sometimes commuted into a money payment. In each township the Mhárs had a plot of freehold land assigned them near their hamlet; this was called hádki or the place of bones where all dead cattle were brought and cut up. They also held another plot of land called hádola which paid a small quit-rent. Each of the hereditary families got forty sheaves of corn in the straw, and about eight pounds or four shers of winnowed grain for every saigáni or thirty bigádas that is about 22½ acres of corn land. The skin and carcasses of all dead animals, which it was their duty to remove, belonged to them.
Chapter VIII.

Land.

The British.

1830-21.

The Muhammadan Mulla or priest killed the sheep at sacrifices and festivals; he received allowances of grain and straw, and when there was a Muhammadan place of worship in the village, some land was usually attached to it, of which he had the profits.

Of these village officers and servants the only two, besides the headman and the accountant, who had Government duties were the silversmith assayer or potdär and the messenger or Mhär. The payments to the village staff were a heavy burden on the people, representing, according to Captain Robertson’s calculations, about sixteen per cent of the whole produce. The leading officers, the headman, his assistant, and clerk, besides their rent-free lands and many complimentary offerings, were paid an allowance or ghugri which averaged about seven per cent on the assessment and was divided among the headman, the assistant, and the clerk. This cess and other offerings were always paid by casual holders but in many villages the hereditary holders were exempt. Besides the amounts which were paid to them direct headmen used considerable sums out of village expenses. These which in former times had varied from six to twenty per cent, under British management had been reduced to 4½ per cent. The next officers to whom the villagers had to make payments were the hereditary revenue officers of larger or smaller groups of villages or tarafs and some of districts or subhás. They were superintendents or deshmukhs and accountants or deshpándes and some districts had a desá besides the deshmukh. The higher hereditary officers in cities and towns were styled shets and kulkarnis. The offices of deshmukh and deshpände were hereditary and saleable. Except for offences against the state these officers were never set aside or deprived of their emoluments. The Marátha government had sometimes appointed them to do the work of mámlatídárs but such appointments were only for a definite time and as a special case. They were properly mediums between the collectors of the government revenue and the headmen of the villages. One of the chief duties for which they were originally appointed was to keep a record of former payments by each village under their charge. In consequence of the farming system few of them had these documents at least in anything like a perfect form. Their chief duty was to sit in the Collector’s office or kacherí and act as umpires between the members of the Collector’s establishment and the heads of their villages. They were the representatives of the people and in Captain Robertson’s opinion were very useful in moderating the demands of the Collector’s establishment and in influencing the

1 Mr. Elphinstone, 25th Oct. 1819, Ed, 1872, 15, East India Papers IV. 158.
2 Capt. Robertson, 10th Oct. 1821, East India Papers IV. 578. He thought that the payments to the village officers were baneful and harassing to the villagers. It was difficult to estimate how heavy a burden they were. He thought them the heaviest drawback to improvement with which the people were burdened. East India Papers, IV. 582.
3 East India Papers, IV. 582.
4 Capt. Robertson, 10th Oct. 1821, East India Papers IV. 581.
5 East India Papers, III. 791 ; and IV. 408.
6 East India Papers, IV. 582-583.
headmen to admit rightful demands. The mass of the people looked to them with respect. The position of deshmukh was the highest position to which a Maratha could rise. The great Maratha chiefs, Sindia Holkar and the Raja of Satara, even Bajirav Peshwa himself, valued the title and the local position and power of a deshmukh. Though in no way bound to military service, if a deshmukh or deshpande joined the army, his sovereign made much of him and gave him good pay and a large establishment. The people's respect for these officers showed no signs of declining. Their claims or haks, which were in addition to the Government demand on the village, were large. They were taken in kind and they sometimes allowed them to remain eight or nine years in arrears. In 1820 their claims represented about 4•83 per cent of the whole demand. Besides their claims on the villages, deshmukhs and deshpandes in return for special services were occasionally given rent-free villages which were termed izafat. Captain Robertson thought them useful so long as they were not allowed to acquire power as Government agents.

In addition to what they had to pay to the village craftsmen in return for their services, to the heads of the village under village expenses, and to the hereditary district officers in liquidation of their claims, the villagers had to meet the demands of Government. According to Captain Robertson's calculations the Government demands varied from thirteen per cent of the outturn in good land to seventeen per cent in middling land. In his opinion, of the whole amount of the Government demand, about nine-tenths belonged to the regular assessment and one-tenth came under the head of cesses. Except in some villages where each class of land had a separate rate, which was supposed to have been fixed by Malik Ambar (1600-1626), hereditary holders paid a uniform rate or dar which was adjusted by varying the size of the bigha in accordance with the quality of the land. In some villages the land was divided into parcels or munds each of which paid a fixed rent and some villages had a thika or tika that is a detailed mund settlement where each field in the larger plot had a fixed rent. In the hilly west the rent had been fixed from a glance measurement of the produce or paahani, and the Government share was commuted for a money payment according to the crop cultivated. In lands which grew upland or varkas crops the Government share was estimated at a half to one-third of the crop which was commuted into a money payment. Some parts of the Paun and Andhar Malvals had traces of a village-rent or khot system which had been in force before the introduction of the revenue farming under Bajirav. The highest assessment on a

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1 East India Papers, IV. 587.
2 Capt. Robertson, 10th Oct. 1821, East India Papers IV. 582-583. Bom. Gov. Rev. Rec. 698 of 1836, 85-86. At least in some parts of the country the hereditary district officers were afterwards (1835) believed to have falsified the village records. Bom. Gov. Rev. Rec. 698 of 1836, 85-86.
3 East India Papers, IV. 578.
4 East India Papers, IV. 576.
5 Extract Revenue Letter from Bombay, 5th Nov. 1823, East India Papers III. 805.
bigha\(^1\) of dry-crop land was 7s. 6d. (Rs. 3\(\frac{3}{4}\)) and the lowest was 3d. (2 as.). In garden lands the rates varied from 2s. (Re. 1) to £1 10s. (Rs. 15)\(^2\). According to Captain Robertson's calculations the cesses or **pattis** represented about 1\(\frac{1}{4}\) per cent of the produce of the district.\(^3\) They were levied both from hereditary and from casual holders. The most unjust or harmful were abolished and besides the house-tax and the tax on callings about twenty-four were kept.\(^4\) In Poona the people who paid the **mohtarfa**\(^5\) or house and trade tax were classified and assessed according to a very arbitrary estimate of their wealth and trade. The highest class of bankers paid £4 (Rs. 40) and the highest class of moneychangers £3 18s. (Rs. 39); grocers paid £5 (Rs. 50), grain dealers £3 to 6s. (Rs. 30-3), and roadside money-changers and fruit and vegetable sellers paid about a half-penny or 4 anna a day. Except this tax on the shopless hawkers, the rates were light. One serious objection to the tax was that many wealthy traders were free from all charge. The taxes on professions were very unequal, varying from 2s. to £3 (Rs. 1-30).\(^6\) Of the twenty-four other cesses which were continued, some were levied on the land, some on the village, and some on the individual holder.\(^7\)

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1 Great diversity was noticed in the land measures in use, but in the former measurements of which there was (1823) any record the bigha equaled about three-fourths of an acre. Some partial new surveys had been made by the Maratha with a shorter rod by which the traces of the old survey had been nearly lost. In Poona the use of the bigha had been superseded by other measures, multiples of it; and in some places large pieces of land were assessed in the lump at a given sum. These measures were: 20 mabs equal to a khandi; one khandi equal to 20, 30, or 35 bighads; one vakka equal to 48 bighads; one rukka equal to 5, 8, or 10 bighads; one pakka bigha equal to 3, 4, 8, and even 15 ordinary bighads. East India Papers, III. 803. Mr. Chaplin, 20th Aug. 1822, Ed. 1877, 22. Capt. Robertson (10th Oct. 1821) gives the following as the general standard of the land measure: Five cubits or huds and five mutums or fists of five different persons made a rod or kothi of about 9 feet; 20 square rods one penda; 20 pendas one bigha; 5 bighads one rukka; 24 rukdas or 120 bighads one chakur or taka; and six rukdas one khandi. East India Papers III. 805; IV. 572, 573.

2 Capt. Robertson, 10th Oct. 1821, East India Papers IV. 584. See East India Papers, III. 807.

3 Capt. Robertson, 10th Oct. 1821, East India Papers IV. 576, 578.

4 East India Papers. III. 805-806, 810; IV. 622-623.

5 Mohtarfa comprised house and shop taxes, loom taxes, taxes on traders, taxes on professions, and a house tax from a few landholders. East India Papers, III. 810.

6 Bombay Rev. Letter, 5th Nov. 1823, East India Papers III. 810.

7 In 1821 the greater part of the following twenty-four cesses were found in most villages of the Poona plain country: A Grain Cess, gulla patti, originally to supply grain for forts and for the government stock, changed to money; A Butter Cess, tap patti, changed to money; A Straw Cess, kadha patti, changed to money; Two Rope Cesses; ambadi and gut pattis changed to money; A Grass Cess, gavai patti, changed to money; A Money Cess, khachir patti; A Firewood Cess, karrai patti, changed to money; A Goat Cess, Dasara bakra, its price taken; A Shoe Cess, charmi jada, their value taken; New Year's Sesamum, til sankrant, levied in cash; Skins, charai, taken in cash; Exchange, bozir batta; Servant Cess, nukkar mdne, changed to money; Saddles Stuffing, lokar, taken in cash; Horse Blanket, jhul, levied in cash; Contingent Charges, sadhldr patti; small Extra Cess, bakhak patti; Messenger Cess, shwe patti, lump sum taken; Curds Cess, dahti patti, levied in cash; Oil Cess, tel patti, value taken; Watchman Cess, hawalddari, taken in money; Clerks' Cess, kdrkuni, taken in cash; A Mirads Cess levied once in three years on hereditary holders. Of these twenty-four cesses ten were found in the hilly west, straw, grass, money, shoe, new year's sesamum, firewood, skins, rope, contingent charges, and mirads cess. Twenty other cesses were also collected in this part of the district. A Sidi's Cess or Habshi cess said to he keep the Konkan Abyssinians from entering the Deccan; a Beggar's Cess gosari patti; a Ramosh's Cess; an Extra Cess known as abhi patti; a Mango Cess.
There was no city in the district except Poona. But there were eleven towns of respectable size and trade, Chákan, Ghera, Jejuri, Kendur, Khed, Náválaík Umbra, Pábal, Paud, Sásavád, Talegaon Dáabhádá, and Talegaon Dhamdhere. The houses in these towns were comfortable buildings of stone and mud, covered with tiles; some of them were two storeys high. The chief inhabitants were traders, bankers, and Bráhmans both of the Deccan and of the Konkan. In all a good deal of trade centred. The chief manufactures were coarse woollen and cotton cloths, and Poona-made gold and silk cloths which vied in richness with the silks of Paithan. 1 Poona had suffered from the change of government. The general peace all over India took from the bankers their favourite war investments, and all classes of the townspeople suffered from the stopping of the great and lavish expenditure at Bàjiráv’s court. 2

In 1821 the year’s revenue was about £135,200 (Rs. 13,51,422) or about 7s. (Rs. 3 $) a head of the population. Of the whole amount about £109,000 (Rs. 10,89,254) were derived from land 3 and sáyar or miscellaneous sources; £23,600 (Rs. 236,237) from customs; and £2600 (Rs. 25,931) from farms and town taxes. The cost of collecting the revenue was about £9370 (Rs. 93,666) or about seven per cent on the collections; magisterial and judicial charges were about £10,300 (Rs. 1,03,168); the Collector’s and assistants’ salaries £5100 (Rs. 51,000), and the outlay on militia was £7450 (Rs. 74,418). That is a total expenditure of £32,220 (Rs. 3,22,252) or about 20 per cent of the revenue. 4

Under the English system the management of the land revenue centered in the Collector. The Collector was also magistrate and judge of circuit, 5 but his chief duties were, as head revenue officer, to travel over his district, to fix the rental to be paid by each village, as far as possible to take precautions that in each village the whole amount was fairly shared among the landholders, to detect and punish frauds against Government and oppression of the villagers, and by the grant of leases and other privileges to induce the people to bring the arable waste under tillage. At the beginning of a new year, that is in August, the village headmen and clerks prepared returns showing the state of cultivation

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1 Capt. Robertson, 1st May 1820, East India Papers IV. 405; Bombay Revenue Letter 27th Nov. 1822, East India Papers III. 793-794.
2 Capt. Robertson, 10th Oct. 1821, East India Papers IV. 588.
3 East India Papers, IV. 525. Of about £125,400 (Rs. 12,83,399) the total or gross settlement or jambandi of 1820-21 about £19,400 (Rs. 1,94,145) were deducted probably chiefly on account of remissions and claims. This left as net revenue £109,000 (Rs. 10,89,254).
4 Capt. Robertson, 10th Oct. 1821; East India Papers IV. 525.
5 Heber’s Narrative, III. 120.
in the village, the whole amount due to Government, and the share due from each landholder.¹

When the Collector came to the village or to its neighbourhood, under his immediate superintendence, or, if he was not on the spot, under his orders, his establishment examined the village clerk’s statement of the current year and compared it with the settlement of the year before, and, with the help of the district hereditary officers, settled the lump sum which the village was to pay. After 1819-20, when, in addition to the settlement with the head of the village, papers were passed showing what each landholder had to pay and that he was willing to pay it, the Collector’s establishment were unable to complete the detailed village settlement. This duty was left to the mámlatdár.² Besides carrying out the detailed or individual village settlement the mámlatdár superintended the collection of the revenue, managed the police, received civil complaints, and referred the complainants to juries or pancháits, and heard criminal complaints and sent the complainants to the Collector. He had a secretary or shirastedár to keep his records, an accountant, and some other assistants. The mámlatdár’s powers were limited, and, at least in principle, the system of fixed pay and no perquisites was introduced. The mámlatdár’s pay was fixed at £7 to £15 (Rs. 70-150) a month, and the pay of his secretary at £3 10s. to £5 (Rs. 35-50).³ In carrying out the detailed village settlement the chief duties of the mámlatdár and his staff were to detect frauds in the village returns, and see that the statements corresponded to the actual condition of the village; to discover hidden sources of revenue; to assign to each landholder his proper share of the village rental, and to ascertain that the village officers made no extra levies; to make certain that the villages paid their instalments when they fell due, and that all the revenue was regularly forwarded to and accounted for by the head-quarter office.

As mediators between the Collector’s establishment and the village headmen who together fixed the amount of the village settlement, there came the district hereditary officers, who, when the amount of the village rental was being discussed, sat in the Collector’s office or kacheri and acted as umpires moderating the demands of the Collector’s establishment and persuading the headmen to agree to rightful demands.⁴ In the early years of British rule one of the chief objects of the revenue officers was to introduce a system which should prevent the village officers or the mámlatdár

¹ When the English system was fairly introduced, the village clerk or kulkarni was bound to prepare the six following returns: (1) The jāmin jhāda or land register that is a record of all village holdings and fields and of their holders; (2) the jāmin patrāk or village statement showing the amount due by each holder to Government; (3) the tohāl or receipt book showing daily payments by the landholders; (4) the botkhat or list of accounts showing the receipts from each holder and what had been done with the receipts; (5) the jhādi or balance sheet which was a statement for the village receipts and payments drawn up at the close of the year; and (6) the mohtarfa yād or a memorandum of dues on account of house and other taxes. Besides these the village clerk kept memoranda and registers of leases. East India Papers, IV. 587-588.

² East India Papers, III, 794; IV, 579, 591.
³ Mr. Elphinstone, 1819, Ed. 1872, 30-31, East India Papers IV. 168-169.
⁴ Captain Robertson, East India Papers IV. 582-583,
from taking more than his right share of the village rental from each landholder. As has been noticed in 1818 and 1819 the settlement continued to be made with the headman for the whole village or mauzevár. But in 1819-20 a beginning of an individual or rayatvár settlement was made by the members of the Collector’s establishment ascertaining that each holder knew at what amount the headman had assessed him and admitted that this amount was fair. In 1820-21 the Collector’s establishment inquired how much fresh land was taken for tillage; how much land under tillage was kept hid; and whether there were any cesses which had escaped notice in the former year. After these inquiries, on the basis of the last year’s settlement, in consultation with the village and hereditary officers, the Collector’s staff determined what each village should pay; and the mámlatdár inquired into and fixed the share of the whole village demand which should be recovered from each holder.  

1 This system was faulty as there was no check on the mámlatdár and no test to prevent collusion between him and the headman in unfairly distributing the individual payments. Accordingly in the next year (1821-22) a system was completed under which each holder received a deed or patta of what he was asked to pay and passed an agreement or kabuláyat to pay the amount fixed.  

The issue of these individual agreements greatly reduced the power and the emoluments of the village officers who much against their will were relieved of many of their duties.  

3 Under this new system the settlement was introduced into a village in one of two ways. Either the whole sum due by the village might be ascertained and his share allotted to each landholder; or the shares due to the different holders might be determined and the village rental be found by adding all the shares together. Unless, which was seldom the case, authentic details of the quality and quantity of land in each man’s holding were available, it was extremely difficult to fix each man’s share. The whole amount paid by the village through a series of years was generally known, and, as a rule, it was best to fix the whole amount in the first instance and from this to allot his share to each holder. The sum fixed as the village rental included all cesses, claims, and village expenses. After fixing the whole amount due from the village, the Collector’s staff were expected to allot the shares to the different holders. But this part of the work they seldom able to complete. It was entrusted to the mámlatdár and his staff under strict injunctions not to leave it to be done by the district or village officers. In making the individual settlement the mámlatdár was chiefly guided by the village land statement or jamin jháda. This professed to show the state of cultivation of each plot of land in the village. But the statement was generally full of mistakes and frauds; it could not be trusted until it had been checked by the shekhdárs or mámlatdár’s clerks who made separate returns, by special or personal inquiries on the part

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1 East India Papers, IV, 591.
2 Bombay Revenue Letter 27th Nov, 1822, East India Papers III, 794.
3 East India Papers, IV, 582.
of the māmlatdār, by direct examination of the villagers, and by taking advantage of rivalry and jealousy among the families of the headman or village clerk. After the main land assessment was fixed a minute inquiry was necessary into the cesses or patti. In all these inquiries the Collectors were enjoined to use and to enforce the utmost caution in keeping the assessment moderate. They were warned that in assessing villages it was better to be below than to be above the proper scale, and that the excessive demand of one year could seldom be retrieved by three years of moderation and indulgence. Great care was required in preparing the landholder’s paper or patta which was drawn up in a very detailed and elaborate form. The people were told when the instalments would fall due and care was taken not to levy any part of the rental until after the crop from which the instalment was to be paid was reaped. No security was required except the general security of making the villagers responsible for each other which was known as chain or mutual security, janjir jāmin, and which was liable to be enforced by a second settlement. The passing of receipts for all collections, especially for the collection of the villagers’ instalments by the village officers was insisted on, and an entry showing the coins received and the date of payment was required. The coins paid were sent to the treasury with lists made by the māmlatdārs in sealed bags attested by the shirasteddārs. Each person through whose hands the money passed gave a receipt, the last being the Collector’s receipt to the māmlatdar. Copies of the Collector’s receipts were kept at head-quarters. In the first years of British management the revenue was collected without difficulty. Distraint was almost unknown. It was not allowed when the person who had failed to pay was known to be poor. In October 1821 only £646 (Rs.6460) were outstanding of which £61 (Rs.610) belonged to 1818-19 and £585 (Rs.5850) to 1819-20. Under the Marātha government advances had been made to husbandmen at 12 per cent a year. Under the British in the first years the amount of advances was increased and no interest was charged.

1 The following were among the frauds which were commonly practised by village headmen and clerks. The names of people paying the house-tax were left out; quit-rents leviable from alienated lands were not shown; in other lands something less than the full rental was shown; lands under tilage were entered as waste or as fallow; and garden lands were entered as dry lands. Bombay. Gov. Rev. Rec. 16 of 1821, 705-729; Appendix to Mr. Chaplin’s Report, 20th August 1822, Ed. 1877, 129.

2 Mr. Chaplin, Appendix to Report of 20th August 1822, gives an example of the deed or patta passed to the landholder. Râmj Marātha of Loni in Haveli in Poona for the Fasli year 1230 (A.D. 1820-21), you have to pay fifty-six rupees; Of this for three fields of dry land of 25 bighâs, Rs. 24; for three bighâs of garden land, Rs. 24; a straw cress Rs. 14; a buffalo cress Rs. 2; and a house cress Rs. 4; total Rs. 56. This you must pay at the regular instalments and you must not give the patti or kulkarni any more than this. You have agreed to be security for the payments of the other villagers and any arrears might be recovered by a second assessment, 10th December 1820. In some villages the clause regarding the second assessment was left out.

3 Captain Robertson, 10th October 1821, East India Papers, IV. 580.

4 Appendix to Mr. Chaplin’s Report of 20th August 1822, Ed. 1877, 134; Captain Robertson, 1821, East India Papers, IV. 537.

5 Captain Robertson, 10th October 1821, East India Papers IV. 581.

6 Captain Robertson, 10th October 1821, East India Papers IV 526.

7 East India Papers, IV. 526.

8 Captain Robertson, 10th October 1821, East India Papers IV, 584.
The season of 1820-21 was favourable. Cultivation spread and there were no complaints of over-assessment. The only difficulty which occurred was that the headmen of a group of villages in Pábál, finding the individual settlement reduce their power of private taxation, incited the people to refuse to take their deeds or pattás. Before the close of the year the distress which the general establishment of peace caused to the military section of the people of Poona, became more marked, and large numbers who had remained idle in the hope of some more suitable employment, were at last forced to take to husbandry. From this cause the increase of tillage in 1821-22 was greater than in the previous years. The crops were again good and the average rupee price of grain fell from about 32 to 56 pounds (4-7 pátíls). The settlement was again made with the individual holders. The fall in the price of grain caused discontent among several sections of the husbandmen. The chief difficulty was in the case of certain villages which had formerly paid a khareḍī gālla a commutation of the money cess into grain for the supply of Marātha posts and forts. In 1820-21 it had been settled that they should pay in cash on the basis of about 32 pounds (4 pátíls) the rupee. As the price had in some places gone down to one-half of this or about 54 pounds (8 pátíls), the alternative was given them of paying in kind but as they objected to grain payments the former rates were continued. So serious a difficulty did the people find in disposing of their grain that the Collector found it necessary to postpone the date for paying the instalment.

£1404 (Rs.14,040) were remitted. The land rent including cesses and miscellaneous revenue amounted to £160,100 (Rs.16,01,000) against £158,635 (Rs. 15,36,350) in the preceding year. After deducting claims or haks and village expenses, the net revenue for collection amounted to £139,058 (Rs.13,90,580) against £134,447 (Rs.13,44,470); the collections amounted to £133,515 (Rs. 13,35,150) against £132,520 (Rs. 13,25,200); and the outstanding were £5543 (Rs. 55,430) against £1926 (Rs. 19,260).

In spite of the cheapness of grain up to September 1822, except in Indápur where a number of the people had returned to their old homes in the Nizám's country, there seemed to be no signs of over-assessment. The value of land was rising and disputes connected with landed property and shares of estates, that had lain asleep for years, had become common and keen. In the two previous years the tillage area had increased by about 80,000 bighás yielding a yearly revenue of about £8000 (Rs. 80,000). In spite of the partial failure of some of the crops the harvest of 1822-23 was again abundant. Grain fell to about 110 pounds (13-14 pátíls)

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2 The rupee prices were, 1819-20, 22 and 3 pátíls; 1820-21, 4 pátíls; and 1821-22, 6 and 8 pátíls. Bom. Gov. Rev. Rec. 117 of 1825, 517-518.
5 Mr. Chaplin, 29th September 1823, Bom. Gov. Rev. Rec. 72 of 1823, 36.
6 Captain Robertson, 20th September 1822, Rev. Rec. 72 of 1823, 224-226.
the rupee in the remote parts of the district and to about 80 pounds (10 pāyālis) near Poona.1 There was no mention and no record of such low prices. The fall caused much distress; even those who had reaped good harvests could hardly find a market for their grain. Headed by the pātīls of Pábal, many of whose indirect gains had been stopped by the individual settlement, the people came in crowds and mobbed the Governor in Poona. The cry of over-assessment was raised by some of the English officials, but Captain Robertson contended strongly that the only causes of distress were the fall of grain prices and the want of employment and expenditure at Poona. The commutation rate of khandā galla or grain that used to be taken in kind was lowered from about 32 to 64 pounds (4-8 pāyālis). In 1822-23 the realization showed a decline amounting altogether to about one-seventh of the whole revenue. One-fourth of the entire loss was in Indāpur from which numbers had moved to the Nizām's country.2

The next year (1823-24) was a season of scanty rain and of distress. The early harvest in about half of the district was fair, in the other half of the district the crops were either chiefly or entirely failures. The late or cold weather harvest was a complete failure. The garden and watered crops were blighted by the east wind. The cattle suffered so severely from want of fodder and want of water that the Collector sent a number of the people to the Nizām's country to stay there till June 1824. Large numbers of the landholders also of their own accord left Poona to take up lands in the Nizām's country and in Ahmadnagar.3 What added to the difficulties of the people was that in spite of the failure of crops grain continued extremely cheap.4 The Collector and the Commissioner agreed in recommending the greatest moderation in levying the revenue, and their views met with the full approval of Government. Remissions were granted varying from 25 to 75 per cent and in some cases the whole demand was foregone.5 The distress continued in 1824. The usual May showers failed and there was very little rain either in June or in July. Grain which throughout the cold season had kept wonderfully cheap, now rose from about 80 to 32 pounds (10-4 pāyālis) and then to about 20 pounds (2½ pāyālis).6 In 1823-24 the total revenue for collection amounted to £91,556 (Rs. 9,15,560) against £120,827 (Rs. 12,08,270) in 1822-23; the collections amounted to £73,091 (Rs. 7,30,910) against £103,788 (Rs. 10,37,880), and the outstanding amounted to £18,465 (Rs. 1,84,650) against

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1 Bom. Gov. Rev. Rec. 117 of 1825, 522. In 1820-21, the price was 4 pāyālis and in 1821-22 it was 6-8 pāyālis.
POONA.

£17,039 (Rs. 1,70,390) in 1822-23. In 1823-24 the very large sum of £40,747 (Rs. 4,07,470) was remitted. At the close of the hot weather of 1824 large sums were granted in advances. The people met the efforts of Government to lighten their distress by showing the greatest industry and emulation in preparing and sowing their fields in June 1824. But again the rain failed except in the west where the harvest was good. In the centre and east the early harvest came to nothing, the late crops which were green and promising till November dried from want of rain and dew and yielded almost no return. Before February of 1825 the people had deserted the country. Their cattle were almost all dead and in many villages the great drought had left no drinking water. Still the spirit of the people was not broken. The rainfall had been so slight that even the weeds had died and the fields were ploughed and clean ready to be sown when the rains of 1825 came. The people were reduced to the greatest distress. Most of their cattle were dead. Grain had risen to high rates, and in sowing the early and late crops of 1824, both of which had failed, they had incurred heavy expenses. Except from the west in 1824-25 little or no revenue was realised.

During these years of failure of crops and distress a somewhat hot correspondence passed between the Collector and the Commissioner as to whether the distress was to any considerable extent due to over-assessment. At first Captain Robertson stoutly protested against the view that any of the depression was the result of over-assessment. But as troubles increased, in February 1825 he admitted that the demands might have been greater than the people could well meet. He fully agreed with the Commissioner that to help the people to rise from the low state into which they had fallen, would require most generous and tender treatment. At the same time he thought that besides the failure of rain one chief cause of distress was what has already been noticed, the change in Poona; the stopping of the old flow of expenditure and the closing of the large numbers of openings connected with the court and with the army and the decline in the old demand for the produce of the city craftsmen.

Towards the end of June 1825 Bishop Heber travelled from the Konkan by the Bor pass to Poona. He noticed an excellent bridge of thirteen arches which had just been finished over swampy ground near Kárli, simple but extremely solid and judicious. In the west the cottages were small and mean with steep thatched roofs and very low side-walls of loosestones and there was a general appearance of poverty in the dress and the field tools. Still the cattle were larger and better bred than those of Bengal and these in better ease

8 Heber's Narrative, III, 114.
than might have been expected after the long drought which in the eastern districts had amounted to famine with its dreadful attendant evils of pestilence and the weakening of moral ties.\(^1\) Making due allowance for the drought and scarcity of several years Poona in 1825 seemed to thrive under its present system of government. The burdens of the peasants were decidedly less in amount and were collected in a less oppressive manner than under the old monarchy. The English name was popular with all but those who were inevitably losers by their coming, the courtiers of the Peshwa, such traders as lived by the splendour of his court, and, though this does not appear, the Brāhmans. The body of the people were very peaceable and simple, of frugal habits and gentle disposition. Perhaps in no part of India was crime so rare.\(^2\) The share of the produce taken by Government was said to be high, at least one-fifth. Government wished to introduce a permanent settlement but said that until they had a fuller knowledge of the country they should run the risk of doing greater injustice and occasionally greater evils by the change than any they could apprehend from the present system.\(^3\)

In November 1825 bājri was selling at about 26 pounds (13 shers) and júāri at about 32 pounds (16 shers) the rupee.\(^4\) Compared with the famine year of 1824-25 the realizable land revenue for 1825-26 showed an increase from £29,203 (Rs. 2,92,030) to £70,132 (Rs. 7,01,320), and the total realizable revenue including miscellaneous customs and other items, from £56,623 (Rs. 5,66,230) to £101,911 (Rs.10,19,110). Of £70,132 (Rs. 7,01,320) the land revenue for 1825-26, £60,860 (Rs. 6,08,600) were collected and £9272 (Rs. 92,720) left outstanding. Of the total revenue for collection £90,065 (Rs. 9,00,650) were collected and £11846 (Rs. 1,18,460) left outstanding.\(^5\) In August 1827 Government authorized the Collector to grant remissions in his district for 1825-26 to the amount of £5987 (Rs. 59,870) and to write off £14,762 (Rs. 1,47,620) as an irrecoverable balance in 1825-24 and £7414 (Rs. 74,140) as an irrecoverable balance in 1824-25.\(^6\)

In November 1826 the Collector wrote, ‘For two more years the people will continue to be crippled by their losses in 1823-24 and 1824-25. Government must submit to grant them liberal consideration for some time to come. The scarcity of cattle is still considerable, and those who require cattle have not money enough to buy them at the present high rates. Time and indulgence can alone remedy these misfortunes.’\(^7\)

The rains of 1826 were moderate and partial. In some places the fall was favourable, and the outturn large; in other places one sowing and in a few instances two sowings failed. The early harvest was fair, but the late crops which promised well were greatly injured by

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1 Heber’s Narrative, III. 110, 121.
2 Heber’s Narrative, III. 121-122.
3 Heber’s Narrative, III. 122-123.
a blight.\(^1\) Still the season was on the whole above the average.  
\(Bajr\)\(^2\) fell to about 52 pounds (26 shers) and \(jedri\) to about 64 pounds (32 shers) the rupee,\(^3\) and the state of the people was greatly improved. They had replaced the bulk of their cattle and in the rains of 1827 were able to undertake their field labours briskly and with confidence. Aware of the efforts the people were making to stock their farms, the Collector granted liberal remissions wherever there had been a failure of crops.\(^4\) Compared with 1825-26 the land revenue for collection for 1826-27 showed a decrease from £115,472 (Rs. 11,54,720) to £111,019 (Rs. 11,10,190), and the total revenue for collection including miscellaneous customs and other items a decrease from £156,697 to £153,039 (Rs. 15,66,970 - Rs. 15,30,390).\(^5\)

The season of 1827 began favourably. Writing in August the Collector says, 'Another season such as this promises to be will restore the people to the state of comparative well being which they enjoyed before the bad years of 1823 and 1824.'\(^6\) Later on the prospects of the year became overcast. The season on the whole was bad. In many sub-divisions there was little rain and in many others promising crops were ruined by excessive moisture. Compared with 1826-27 the land revenue settlement for 1827-28 showed a decrease from £131,185 (Rs. 13,11,850) to £125,562 (Rs. 12,55,620), and remissions showed an increase from £20,166 (Rs. 2,01,660) to £37,971 (Rs. 3,79,710).\(^5\) The failure of crops and distress were specially great in Indapur. Many of the people in despair had left their homes. In spite of the liberal terms offered by Government there seemed no improvement. Everywhere in Indapur were signs of desolation. In other parts of the district as well as in Indapur the bulk of the husbandmen were completely in the hands of the moneylenders or \(sávkárs\), who, and not the people, reaped any profit which accompanied high grain prices in bad seasons.\(^7\)

The year 1828-29 was a season of partial failure chiefly in Bhimthadi and Purandhar.\(^8\)

Of the system of settling the revenue which was in use in 1828 the Collector Mr. Blair has recorded the following detailed account.\(^9\) Early in the season (October and before November 15th) the māmlatdārs start on tour round their sub-divisions to ascertain what land in each village is under tillage. When the māmlatdār reaches a village, he summons the landholders, and, in the presence of the village officers, inquires and records the area which each holder has taken for the early tillage or agrees to take for the late harvest. If in consequence of disputes the tillage of any village

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4. These figures include the four sub-divisions of Sholapur, Mohol, Iidi, and Muddebhill, Bom. Gov. Rev. Rec. 174 of 1827, 403, 409-411.
9. Mr. Blair, Collector, 643 of 9th December 1828.
Chapter VIII.

Land.

The British Revenue System, 1828-29.

is declining, the mámlatdár settles the disputes, and, if the cause of the decline is the poverty of the people, he gives advances. In November when the early harvest is ripening the mámlatdár makes a second tour round his charge to see the condition of the crops and ascertain whether the actual area under tillage is more or less than the holders engaged to take. The Collector generally receives the mámlatdárs' reports in December when the early crops are being reaped and the late crops are well advanced. When all the mámlatdárs' reports have been received, the Collector and his establishment or huzur kacheri start through the district. On reaching a sub-division the Collector calls the landholders to appear before him at two or three convenient places according to the size of the sub-division. The first business is to ascertain how far the cultivation and the state of the crops correspond with the mámlatdár's accounts. This is ascertained by comparing the accounts of the mámlatdár's clerk or shekhdár with the reports of the village officers and villagers and every here and there by an actual examination of crops. If the cultivation is the same as in the last year and no failure has occurred among the landholders, rents remain unchanged. In case of an increase or a decrease the amount is either added to or taken from the former total. When the area of land under tillage and the whole rent due by the village have been ascertained, a mauzévdr patta or village deed is given to each headman and registered by the village clerk, showing the full amount of rent to be paid by the village. When in this way every village in a sub-division has been settled, the kulvár or personal settlement with the individual landholder is begun. This individual settlement is carried out by the Collector and his establishment with the help of the mámlatdár who calls together the landholders of four or five of the nearest villages, ascertains the area of land held by each man and its rent and gives each landholder a deed or patta signed by the Collector. In this deed every field which each man holds and its rent for the year is entered. In many villages the greater part of the people hold the same fields for several years; as a rule in not more than one-fifth of the cases is a change required. When the Collector has finished the first four or five villages, he moves a few miles, summons the landholders, and settles their rents; and goes on moving from place to place till he has finished the sub-division. The practice of first fixing the whole sum due by each village greatly reduced the labours of making the individual settlement. The village officers knowing that a certain sum was to be levied from their village, except perhaps in the case of a few of their own relations, gave every assistance to make a fair distribution among the landholders, and, for the same reason, the people agreed without much difficulty to their shares. As the discovery of every case in which land was fraudulently held rent-free, reduced the share of all other holders, a regard for their own interests encouraged the people to give information of many frauds. It was also of advantage to fix the individual assessment as late in the year as possible as the actual outturn of each man's crops could then be known. Mr. Blair ends his account with the remark that the system undoubtedly acted as
a tax on industry as each man had to pay according to the character of his crops. The only remedy seemed to be to introduce a survey under which each man would pay according to the quantity and quality of his land and not according to the outturn of his crop. In the individual settlement much was left to the agency of native servants. This agency could not be dispensed with. When properly controlled, no serious evil resulted from its employment, and the minute process that was gone through every year made the most trifling abuse liable to detection.  

About 1825 Mr. Pringle the assistant collector of Poona was appointed to survey the district and revise the assessment. Mr. Pringle finished the survey and assessment of Shivner or Junnar, Pábal, and Indápur, and reported the result to Government in September 1828. In the principle he adopted for framing his assessment, in one material respect Mr. Pringle departed from the principle followed by Sir Thomas Munro in the ceded districts of Madras, and, so far as Mr. Pringle was aware, from most other settlements hitherto undertaken either under Native or European Governments. From time immemorial the foundation of the land tax in India had been a share of the gross produce of the soil. The proportion varied at different times and under different rulers, but the principle was always the same. In Mr. Pringle's opinion the proportion of the gross produce which could be exacted without absorbing the whole of the rent, varied with the numbers, wealth, and skill of the people. Mr. Pringle thought that it was not unlikely that at the time when Sir Thomas Munro wrote, two-thirds of the produce may have been a sufficiently large share to leave to the landholders of the ceded districts as rent. At the same time Mr. Pringle thought that it could hardly have escaped Sir Thomas Munro's attention that while an assessment of one-third of the gross produce might leave a sufficiency to the holder of land whose net produce equaled half of its gross produce, it must exclude from cultivation soil whose net produce is only a fifth of its gross produce. In Mr. Pringle's opinion the surplus which remained from the gross produce after deducting all tillage expenses, was the only fair measure of the power of land to pay an assessment. At the same time, as the relation of the surplus to the whole produce varies in different soils, any tax proportioned to the gross produce would vary with the quantity and quality of the soil.

1 Mr. Blair, Collector, 643 of 9th December 1828.
3 Mr. Pringle's Report (Lithographed) dated 6th September 1828, about Junnar Pábal and Indápur.
4 The principle of a share in the gross produce is found in the institutes of Manu and in the precepts of the Hédaya, and in the theory if not in the practice of every government which has attempted to methodize the assessment by fixed rules. It was the principle professed by Akbar's minister Todar Mal in Hindústán (1560-1600) and by Malik Ambár (1600-1626) and it was that also adopted in the ceded districts of Madras where it was the declared opinion of Sir Thomas Munro, an opinion in which he has been followed by almost all succeeding revenue authorities, that the exaction of one-third of the gross produce by government would be sufficiently moderate to enable every landholder to derive a rent from the land he cultivated. Mr. Pringle, 6th September 1828 para 5.
produce must be unequal to the extent of the variation between
the net produce and the whole produce, and this inequality by
creating an artificial monopoly in favour of the best soils, would
tend to check production and to take more from the whole body
of the people than it brought into the treasury. He thought that
by proportioning the assessment to the net produce, and keeping
that proportion moderate, the productive powers of the country
would be preserved intact and land would become valuable.¹ On
these considerations Mr. Pringle held that in every case his
assessment should rest on the net produce of the land, and that,
whatever might be the difficulties, all his inquiries should be
directed to find out the amount of the net produce. He accordingly
made it his first object to class all soils as nearly as possible
according to their net produce, that is the portion of the money
value of the average gross produce which remains after deducting
the whole cost of tillage and other accompanying charges. To
determine the amount of the net produce Mr. Pringle appointed
assessors and took the evidence of intelligent landholders. The
lands were first arranged according to their quality in classes,
varying in number with the varieties of soil in each village, but
seldom exceeding nine in dry land and three or four in garden and
rice land. When more than one variety of soil occurred in the
same field, the field was classed according to its average quality.
The lands were classed under the advice and with the help of the
landholders themselves whose local knowledge made them the
best judges of the relative powers of the different fields in their
own village. At the same time the assessor availed himself of the
opposite interests of the holders, and the experience derived from
other villages, to prevent unfairness or partiality. When the
classing was completed, the assessor proceeded to observe and
record the distinguishing characteristic of each class. Next, from
the evidence of the most experienced and intelligent landholders,
he ascertained what crops were usually grown in each field, the
most approved rotation of crops, the average amount of produce
in ordinary years, and the several items of expense incurred
according to the system of cultivation usually adopted by
landholders in middling circumstances. In tracing each item of
expense no point, however small, was omitted which might
appear likely to contribute to the accuracy of the result. When
circumstances admitted it, the evidence in regard to the amount of
produce was verified by cutting crops in different soils and
comparing their outturn with the alleged produce of land in similar
villages. In all estimates either of produce or of cost where grain
was turned into money, the change was made at the average
price of grain during a series of twenty years taken from the
books of the village Vāni. If accounts for twenty years were not
available, the average for the whole period was fixed on the
proportion which the prices in the years for which they were
procurable, bore to the prices during the same years in the nearest

¹ Mr. Pringle, 6th September 1828 paras 7, 40.
market village. In the few villages where there was no Váni the
prices were taken from the nearest village where there was a Váni,
and if the distance was considerable, an allowance was made for
the cost of transport and duty. In fixing the average prices care
was taken to avoid relative inaccuracies in the prices of different
villages by making all the extracts for the same years and months
and by examining and comparing the local weights and measures.
In computing the cost of cultivation the number of bullocks required
to till each kind of soil was ascertained by an estimate of their daily
work, and the yearly acre charge was calculated with reference to
their food, their ordinary price in the neighbouring markets, the
interest on their original cost, the number of years for which they
usually lasted, and the cost of insurance against casualties. The
acre cost of manual labour was in like manner fixed with reference
to the number of hands required to cultivate a given quantity of
land, and their wages in money and necessaries at the current rate
of hire in the village. The same minuteness was observed in
calculating the cost of seed, of manure, of field tools, of craftsmen's
and other village fees, of the usual sacrifices and offerings, in short
of every item of labour or stock which could form a charge on the
produce before it was brought to market. Interest at the current
rate exacted on fair security was calculated on all advances which
did not yield an immediate return and in all cases of risk a fair
allowance was made for insurance. All these items, together with
the reasons and authorities on which the estimate rested were
ascertained and recorded by the assessor in the fullest detail in
each class of soil in every village. The difference between the
money value of the gross produce and the cost of cultivation in each
class formed a standard by which its power of paying assessment
was brought into comparison with the rent-paying power of any
other part of the country. When the measure of relative assessment
was determined, the next process was to fix the actual assessment.
This actual assessment was fixed on the basis of past collections.
The assessor secured the revenue accounts of the village for as
many years as possible and ascertained the area of assessable land
in bighás or other local measure, which was cultivated in each year,
and the amount of money collected on it. As the local measures
varied in area in almost every field, the next step was to turn
them into acres. The local measures were easily turned to acres
where the accounts had been kept in detail, as the names of the
fields actually in cultivation in each year were given and their
size could be known from the present survey. Where as was much
often the case the old accounts did not give the names of the
fields, only an approximate estimate of the area could be made.
To make this approximate estimate of area it was assumed that in
cultivation preference was generally given to the better classes of
land, and the average number of bighás to each acre in each class
having been ascertained from the survey, the number of bighás
cultivated in any particular year was converted into acres at that
proportion, beginning with the highest class, and descending
through the other classes until the whole recorded cultivation was
accounted for. In applying the recorded amount of assessment
to the area of cultivated land, all cesses and payments of every description, excepting fees to village craftsmen which were already deducted in the charges, were included in the rental or jama. No allowance was made for remissions on account of individual poverty nor were detached cases of leasehold or kauli land and its assessment taken into account, because these had reference to temporary and partial considerations which ought not to influence the general conclusions. When the number of acres cultivated in each year and the amount of assessment were ascertained before any final inference could be deduced, the quality of the land under tillage had to be ascertained. In former assessments the necessity of ascertaining the quality of the land had been overlooked. Formerly the average of past collections from cultivated land had without limitation been taken as a guide for the future, though it was obvious that the rate levied from the cultivated portion which was generally the best in the village, if applied indiscriminately to the whole land, must often be more than it was capable of paying. In order to avoid this mistake the cultivated land in each year was arranged in the classes fixed by the survey either where that was possible by ascertaining the fields actually cultivated or, if the actual fields could not be ascertained, by assuming that a preference had been given to each class of land in proportion to its inherent value. When the whole land was so arranged, it was reduced to the standard of the first class by allowing a deduction in the nominal number of acres in each class in proportion to the amount by which its qualities fell short of the qualities of the best class. Thus where there were twenty acres of the second class cultivated and the proportion of the net acre produce in the class was about half of the first class, the twenty acres were rated in the estimate as ten acres. The number of acres cultivated in each year being thus estimated in land of the best quality, their sum, divided by the recorded amount of collections, gave the acre rate in such land for that year, and the average rate for the whole series of years was the rate of assessment on the best land of the village as fixed from past collections. When this rate was adjusted to each of the inferior classes of land in the proportion of its net produce, it accurately showed the rates for those classes with reference to the same data. When the assessor had gone through all of these calculations and the result was fully recorded along with the authorities on which the result was based, his share in fixing the rates was completed.

It only remained for him to arrange and prepare the general registers of tenures and land divisions which were required for the full development of the system in detail. The effect of the assessor’s operations was, in proportion to their net produce, to distribute over the whole lands of each village the average amount of its former payments. The work then passed to the head assessor whose business was to examine and check the operations of the assessor and to compare and combine them with those of other assessors in other villages. With this view the classification was inspected and the complaints of the landholders, if there were any complaints, were heard and investigated. A close scrutiny was
instituted into the detailed estimates of gross produce and cost of tillage, and also into the rates of assessment drawn from past collections with all the reasons, records, evidences, and authorities, on which each estimate was based. This inquiry was carried on with particular care in cases where the proportion of the rate of past collections to the net produce compared with the proportion in other villages and with the actual condition of the village itself gave reasons to suspect inaccuracies. When the proportions did not agree, the apparent error had to be traced to its source and the inconsistency either explained or rectified. When the work of the assessor had been examined and found satisfactory, it was confirmed by the head assessor. As soon as the accounts of all the villages in one or more groups were completed, the head assessors proceeded to combine and generalize the results with the object of equalizing the rates of assessment in different villages, which, as they had hitherto been calculated independently in each village from its past payments and these were liable to be affected by a variety of accidents, were frequently very unequal. In the operation of equalizing the rates the head assessor performed for the villages of a group what the assessor had performed for the fields of each village. He distributed among them in the proportion of their net produce the total average amount ascertained to have been realized from the whole. This was effected by calculating the amount of net produce and assessment of all the land in the group at the rates fixed for each village by the assessors. The amount of net produce divided by the assessment gave the average proportion of the assessment to the net produce in the whole group. This being applied to each class of land in every village, determined the accurate rate of assessment for that class, with reference to the rest of the land in the same group and to the past payments of the whole. All proceedings of the assessors and head assessors were revised in Mr. Pringle’s office with as much care and attention as the minuteness of detail and the variety of matter allowed. The mode in which the general principles had been followed was inquired into. The information collected and the facts observed and recorded under similar circumstances were compared. The value of the evidence, the authenticity of the accounts and the reasons for the several operations were weighed and considered. The complaints of the holders were heard and investigated, and, where necessary, the fields were inspected. If in the course of these inquiries any important error was detected, it was corrected. When the accounts had undergone this final revision, Mr. Pringle compared the proportion of the rate of assessment to the net produce with that in other groups. He invited the opinions of the hereditary district officers and of others who were either acquainted with the past and present revenue administration or whose opinion was worthy of respect from their general information and intelligence. Mr. Pringle procured such information as he could in regard to the former history and present resources of the group or pargana, and, on a consideration of these points and of the general changes in the country, he determined to confirm the settlement of the head assessors or to raise or to lower it as circumstances suggested. If
the assessors' rates were either raised or lowered, the change was made by the increase or deduction of a uniform proportion of all the rates.

The available sub-divisional details of this survey and assessment are given below. The settlement was introduced in Shivner now Junnar, Pábal, Indápur, Bhimthadi, Purandhar, and Khed in 1829-30, and in Haveli and Mával in 1830-31. It caused a reduction of 11\(\frac{1}{2}\) per cent in Junnar and Pábal, and 25\(\frac{1}{4}\) per cent in Khed; and an increase of 76\(\frac{1}{2}\) per cent in Indápur, 13\(\frac{1}{4}\) per cent in Bhimthadi, and 27\(\frac{1}{2}\) per cent in Purandhar. No information is available regarding the effect of Mr. Pringle's survey in Haveli and in Mával.

The Shivner or Junnar sub-division was the most northern in the district. It stretched from the Sahyádris about forty miles east with an average breadth of about fifteen miles. The west was hilly and rugged, crossed by valleys running between the east-stretching hills. Towards the east and south the country became more level, and, in the Ala and Bela groups, opened into broad plains. Along the north a range of hills ran inland, and beyond the hills the limits of the sub-division spread over a rough and bushy country, till it joined the Ahmadnagar Collectorate in the valley of the Mula. Junnar contained 178 Government and thirteen alienated villages. Exclusive of hills and rivers the measured area of the Government villages was 336,408 acres. The soil was in general good and well tilled. In the valleys near the Sahyádris, where the supply of rain was abundant, rice, náchni, khurásni, sáva, and other hill grains were grown, and in the eastern plains good millet and hulga crops were raised in the lighter soils mixed with pulse as rotation crops in the best land. The most valuable produce was wheat and gram of which very fine fields were grown especially near Umraz and Otur where the soil was perhaps about the best in the Deccan. The land was usually worked with a four or a six bullock plough, which in the best soil was used only once in two or three years, the harrow being employed in the intermediate seasons. The inferior soils were ploughed every year. Manure was applied liberally to the best but not to the poor lands. 1473 acres of garden crops were watered from wells. In general the profit from garden tillage was not high and from want of capital some of the gardens had fallen to ruin. Near the town of Junnar were some valuable plantain and vegetable gardens whose produce found a ready sale in the Junnar market. These Junnar gardens had hitherto paid an acre rent of £4 (Rs. 40), the highest rent Mr. Pringle knew of in the Deccan. But they had been rather over-assessed. No land was watered from ponds in Junnar and none of any consequence from rivers except in Nárayangaon where a fine lately repaired dam watered 415 acres of the best garden land. In the western valleys the rice depended on the rainfall which was generally certain and plentiful. The acre outturn was large compared with the produce of the dry lands but the cost of tillage was heavy as the work was chiefly done by hired labour. In the open villages near the west in ordinary seasons the supply of rain was sufficient, but in the eastern plain the supply was precarious and the villages were less
flourishing. There were no large towns. Junnar, Náráyangaon, and Otur were the places of most note, but none of them had over 8000 people. The local demand for produce was trifling, the greater part of the harvest went to Poona or occasionally to Bombay. The village records showed in Government villages 6457 landholders, but the actual number of holders was greater as fields were sometimes held jointly. Of the whole number entered in the accounts, 4846 were hereditary holders or mirásdárs and 1611 were casual holders or ūpras. In no part of the Deccan were the rights attending the hereditary tenure or mirás more distinctly recognized. Almost every village had deeds of sale and mortgage, generally of old date, and when the land was valuable it was occasionally the subject of contest. ¹ In the open east the husbandmen were chiefly Maráthás Kunbis, and in the west Kolis. The Kunbis were the more intelligent, but their hardy, simple habits fitted the Kolis for the work of tilling the hilly and rainy west. In the richer villages land was sometimes held on mortgage by Bráhmans and traders who tilled them either by hired labour or by arranging to have a Kunbi as managing partner. Of late years such speculations had become less frequent, it was said, because profits had decreased.

The Pábal subdivision lay close to the south of Junnar. Its lands did not pass so far west as the Sahyádris, where, and to the south it was bounded by Khed and to the east by Ahmadnagar. In produce, style of tillage, water, markets, people, and tenures Pábal closely resembled the open parts of Junnar. The chief points of difference were that the land was not so rich and that the proportion of late or rabi crops was smaller. The richest villages were to the north-west in the Mhálunga group. To the south-east also the land was good but the supply of rain was uncertain, and much distress had been suffered and much land had fallen waste in the recent unfavourable seasons. There were fifty-four Government and eleven alienated villages. The Government villages included 184,396 acres with 3249 landholders of whom 2397 were hereditary and 852 were casual.

Except parts of the hilly west Shivner and Pábal had formerly been included in the district or subha of Junnar, which, from its cession by the Moghals in 1720 until the latter years of Bájiráv's government (1817), was for long periods entrusted to the same managers or subhédárs. One of these officers Hari Dámodar had remained in charge for forty-five years. The subordinate managers of village groups or tarafs were also appointed under head-quarter deeds or huzzur sanads and were continued during good behaviour. Their local knowledge and experience made them so useful both to the government and to the people that they were rarely removed, and at one time had almost the character of hereditary officers. West Shivner was later of coming to the Maráthás. It formed what was termed the táluka of Shivner most of whose revenues were assigned for the maintenance of the local hill-forts and garrisons. Like the more eastern parts these vilUages had been

¹ Mr. Pringle, 1828, para. 50. In the three subdivisions Junnar Pábal and Khed the greater proportion of the landholders were mirásdárs attached to the soil. The Collector, 4th Sept. 1830, Bom. Gov. Rev. Rec. 352 of 1831, 125.
managed by the same officers during long periods. Under the Maráthás before the time of Bájiráí, subordinate agents called haváldárs or men in charge, agreed to pay the head manager or subhedá or a lump sum for a group of villages and made a detailed settlement either with the heads of villages or with individual holders. Hereditary holders or mítrásdárs paid full or sosti rates, and casual holders or upríás paid short or ukti rates. When the settlement was made in a lump sum with the village head, what fell short on the lands of the casual holders was made good by an extra levy on the lands of the hereditary holders. As they were seldom closely examined, the group manager or haváldár was generally able to protect himself by showing in his returns something less than the actual area of full rent or sosti land. Though under this system much of what was taken from the people never reached government, the country was on the whole well tilled and the people were much more flourishing than at later periods when the assessment was more moderate. The long terms during which men remained in charge of districts and of village groups, made them interested in the prosperity of their villages. They occasionally united the character of banker with that of revenue manager and were liberal in their advances and loans, and, on the credit of their long-continued position as managers, in bad seasons they were able to raise funds to meet the demands of the district manager or subhedá or without pressing the landholders. In this way by working together with the landholders and by keeping their accounts open for a series of years, the group managers were able to make good their advances at the time when extra payments were least burdensome to the people. This system continued with little change until the accession of Bájiráí in 1796. Under Bájiráí the old managers were removed on the slightest ground and other evil changes were introduced. Then followed in 1802 the irruption of Yashvantráv Holkar which caused desolation in Junnar, though the ruin was not so complete as in some other parts of the Deccan. After the restoration of Bájiráí by the treaty of Bassein, attempts were made to return to a better plan of government, but these attempts were soon abandoned for the ruinous system of revenue contracting.

When the British assumed the management of the country Junnar and Pábal were at first included in Ahmadnagar. Pábal was soon transferred to Poona, but till 1821 Junnar remained in Nagar. In Junnar as in most of Ahmadnagar an important change was made in the rent settlement or jamábandí of 1819. The whole of the land which had hitherto been reckoned in local measures, differing in name and extent in almost every village, was nominally turned into bighás and arranged in classes on hasty and inaccurate information. Without much inquiry as to how far it had been actually realized, the full or kamál rental was adopted as the maximum of assessment in each village, and apportioned among the different classes at rates apparently not less arbitrary than the classification. When the increase in the total amount was considerable, it was imposed gradually by progressive or istáwa enhancements. The results of this settlement were far from uniform. But under the loose way in which it was carried out, the people in many cases were able to
procure land under easy terms; and the new rates seemed to have been paid without much difficulty. In Pábal and the other sub-divisions which were attached to Poona soon after the British acquisition, the full or sosti rates and the short or ukti rates of the former government remained undisturbed. The only changes were that greater indulgence was sometimes shown in allowing hereditary holders to pay short or ukti rates. On the other hand the assessment of waste land was occasionally enforced with more rigour than formerly. Though it was not without objections, this system probably worked better than any crude attempt at reform would have worked.¹

In settling Junnar and Pábal, their neighbourhood and their similar circumstances induced Mr. Pringle to regulate the assessment by the same general standard. The principles on which the assessment was framed have been explained. As it was the first attempt to apply those principles, the settlement was interrupted by many doubts, difficulties, and errors; many groups had to be revised twice or even three times. The share of the net produce which it was decided should be taken by Government was 61.75 per cent. When the assessment was completed the people were called and the result was explained to them. It was found that in some villages the new rates exceeded and in others fell short of former payments. The same happened in the case of individuals. Where the result was an increase the parties were naturally dissatisfied. They were asked to state their objections, and a reference to the detailed accounts and to the opinion of their neighbours was made to show them that their rents had been raised because their land was found to be of greater extent or of better quality than had been supposed. If they refused to admit the justice of the enhancement they were called on to point out any other holder whose fields they considered as good as their own and who had obtained more favourable terms. If they pointed out a more favourable case, a fresh investigation was made on the spot with the help of the headmen of neighbouring villages. These inquiries sometimes led to a reduction of the estimate of net produce, but they more frequently confirmed the assessor’s work.

On comparing the details of the new and of the former assessment Mr. Pringle found that a frequent, though not a uniform, effect had been the reduction of the rent of the more fertile fields and villages and the increase of those of inferior quality. This, which to Mr. Pringle must have been an unexpected and disappointing result, was he thought due to the working of full rates or sosti and short rates or ukti, as in many cases under that system, while the best lands paid very highly, the poorer lands paid little more than quit-rents. When the landholders’ complaints had been heard, and the settlement of the head assessors had as far as possible been equalised, it remained to confirm raise or lower their settlement in such uniform proportion as appeared advisable. Before fixing how

¹ Mr. Pringle, 6th September 1828 para 61.
far to change the assessor's settlement Mr. Pringle had to consider a case which in his opinion constituted a special exception to the general principle. The case was this. The western valley or the khore of Madh was held chiefly by Kolis, a simple rude and hardy people with few ties to bind them to the soil, at the prompting of pique or of disgust always ready to take to their favourite pastime of freebooting. Probably to keep the Kolis settled their lands had been held on very favourable terms. The general effect of the new assessment would in some cases have more than doubled the Kolis' rates. This was no more than the fertility of the soil justified, and as most of the Kolis were casual holders or upris they had no claim of right to any special indulgence; still Mr. Pringle considered that in the case of men of this class the recovery of the full rental was less important than keeping them settled and quiet. Accordingly, in the villages where the increase would have been heavy and in one or two similar villages in neighbouring valleys, Mr. Pringle made a reduction of twenty per cent on the survey rental before bringing them into comparison with the rest of the country.

The amount of land assessment in Junnar and Pābal fixed by the head assessors on the basis of past collections was £47,980 (Rs. 4,79,800). As the accounts of former management had been found very complete and as they went back to some of the best periods of Marātha government, general considerations, connected with the altered circumstances of the country, induced Mr. Pringle to consider this amount greater than could be easily realized, consistently with a liberal regard for the welfare of the people. He accordingly made a general reduction which together with the special reduction in the Koli lands, and, with revisions in some cases where the calculations of the net produce had been excessive, amounted to a reduction of 14.012 per cent on the assessor's total rental. This brought the final assessment to £41,257 (Rs. 4,12,570) and the proportion on the net produce to 54.03 per cent. Of 2460 wells in both sub-divisions only 237 were capable of yielding rent and of these the assessment on the principles laid down in Government letter dated 12th October 1826 amounted to £265 (Rs. 2650). But the whole of this did not fall due until the periods of exemption had expired. The details are: 1

<table>
<thead>
<tr>
<th>Land</th>
<th>Tilled</th>
<th>Waste</th>
<th>Wells</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area</td>
<td>Rent</td>
<td>Area</td>
</tr>
<tr>
<td>Government</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acres</td>
<td>Rs.</td>
<td>Acres</td>
</tr>
<tr>
<td></td>
<td>250,645</td>
<td>2,70,829</td>
<td>159,148</td>
</tr>
<tr>
<td>Allotted</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acres</td>
<td>Rs.</td>
<td></td>
</tr>
</tbody>
</table>

1 Mr. Pringle, 6th September 1828 para 72. There were 119,820 acres of unarable land and 2223 wells paying no rent. Though entered under tilled, the alienated acres and their rental are totals whose detail as to tilled and untilled is not given in Mr. Pringle's report. The rupees shown in the statement are ankushi rupees one of which was equal to 0.953 of a British rupee. See Bom. Gov. Sel. LXXI, 12.
Under this settlement the assessment of Government land exceeded Malik Ambar’s total or tankha by £5843 (Rs. 58,430) and was £6119 (Rs. 61,190) less than the average of past collections. In each village the tillage area was entered for the year in which the village was surveyed. These amounted in the Government land to 230,645 acres of which the survey assessment was £27,083 (Rs. 2,70,830) which was £3564 (Rs. 35,640) less than the existing or actual rent-settlement or jamābandā. An increase in the well receipts reduced the deficiency to £3343 (Rs. 33,430).  

Indápur lay between the Nira and Bhima which met at its south-east corner. It contained eighty-six villages of which ten were wholly alienated and were not surveyed. The seventy-six villages which were either entirely or partially in the possession of Government, covered 306,767 acres exclusive of hills. The soil in the river-bank villages was in general deep and rich. The uplands between the rivers were barren and stony. The chief produce was white 

Indápur, 1828.

jowari. The proportion of waste was not very great, but the cultivated area bore marks of the landholder’s poverty and want of capital. The heavy eight-bullock plough was used every year in the deep soils. Manure was seldom given except to watered lands. It was its proverbially scanty supply of rain that made Indápur the most unproductive sub-division of Poona. The only watering from wells, and the area watered from wells was small.

During Marātha rule Indápur is said to have flourished most under the management of Mādhavrāv (1761-1772) and of Nāna Fadnavis (1774-1796). At that time most of the sub-division was assigned for the support of pdgekaris that is commandants of horse and shiledārs that is self-horsed troopers of whom considerable bodies were stationed in all the chief villages, probably to guard the Nizám’s frontier. The few records which remained showed that, at that time, compared with what it afterwards became, the area under tillage was great, the rates were high, and there was a much larger body of hereditary holders. The decline of Indápur dated from 1794. A succession of bad seasons and misgovernment reduced its resources and its ruin was completed in 1802 by the ravages of a detachment of Holkar’s army under Fatesing Māne. The ruin caused by this army was followed by the failure of the late rains of 1808 and a famine so grievous that the whole of the people left their villages. For six years the land remained empty. It was then granted on a favourable lease to one Malhār Mukund. The lease lasted for nine years, and, at the end of the nine years, the demand was limited to Malik Ambar’s very moderate assessment. At the beginning of British management its state was comparatively prosperous, except that the hereditary holders who had fled in the time of desolation, had never come back to claim their lands. From the almost total destruction of village records about 1803 and the irregular system that had since prevailed, little information was available regarding the principles on which the assessment was regulated in the best times. Such accounts as were forthcoming

1 Mr. Pringle, 6th September 1828 para 73.
seemed to show that the land had been held on full or \textit{sosti} and on short or \textit{uktii} rates in much the same way as in Shivner and Pabal.

When Indápur came under British management, it was at first placed under the Collector of Ahmadnagar. The rent settlement of 1819 was made by his establishment on the plan adopted in Junnar. In Indápur the full Marátha settlement or \textit{kmál} which was introduced as the maximum to which by gradual enhancements the Government demand was to rise, was so greatly in excess of the usual collections that it could not have been continued. For three years as the rates were moderate, crops good, and prices high, Indápur flourished. But low grain prices in 1822 and 1823, and an almost complete failure of rain in 1823 and 1824 reduced the people to the extremest poverty. In 1826 the Collector of Poona endeavoured to restore cultivation by granting village leases for five years on rents rising to twenty-five per cent over Malik Ambar’s assessment or \textit{tankha}. The terms were moderate. But such was the scarcity both of people and of capital that few men were found willing to undertake the risk, and of those who took leases, in consequence of the want of rain in 1826-27, the greater number failed to pay even the moderate sums required. The system of leases was abandoned and the lands were given to people on such short or \textit{uktii} rents as they were willing to pay.\textsuperscript{1} Indápur was the largest town in the sub-division. It had once been a place of importance. But in 1828 its trade was inconsiderable and its only manufacture was the weaving of coarse cloth for the use of the neighbouring villagers. The grain went chiefly to Phaltan and Bárámati and from there to the Konkan and Poona. Of the husbandmen only a very small proportion were hereditary holders and these were chiefly of headmen’s families. Few others had survived the wars and famines which had laid Indápur waste. The casual holders or \textit{upris} for the most part belonged to the neighbouring territories of the Nizám and the Rája of Sátára, or they had come from higher assessed British lands attracted by low rates but without any permanent interest in the soil. The villages were ruinous, and, when Mr. Pringle visited them, had become half empty or entirely deserted in consequence of a recent (1827) failure of rain.\textsuperscript{2}

As the assessing of Indápur was begun later than the assessing of Junnar and Pábal, Mr. Pringle’s experience enabled him to clear many of the assessors’ doubts and to correct many of their errors. Still several delays occurred and there was much to put in order and to correct, which required the constant supervision of Mr. Pringle and his establishment. The materials for the assessment were more scanty than they had been in Junnar and Pábal. The old records were less complete; many of the holders were absent, and, of those who attended, many were new-comers or casual residents who took little interest in the survey. While the work was in

\textsuperscript{1} Mr. Pringle, 6th September 1828 paras 79-80. Mr. Gibe, Collector, 4th September 1830, Bom. Gov. Rev. Rec. 392 of 1831, 115-119.

\textsuperscript{2} Mr. Pringle, 6th September 1828 para 74.
progress, Mr. Pringle visited almost every village in the sub-division unaccompanied by any of his establishment and encouraged the people to give him their opinion regarding the survey. Some of the more intelligent seemed sensible of the justice of the views with which it was undertaken, and in general were satisfied with the means which had been used to apportion the rates on the different fields. By far the greater number showed an apathy very different from the jealous anxiety of the hereditary holders of Junnar. A series of bad seasons had taken the heart out of the Indápur husbandmen. Provided they obtained present relief, they were willing to trust the future to the mercy and moderation of Government, aware that if Government asked more than they could pay, they could with little inconvenience move to some other part of the country where rents were lower. The assessors fixed twenty-five per cent of the net produce as the average of past collections. The extreme lowness of this rate was due to the fact that the papers from which it was calculated belonged to the years that followed the ruin of 1803 and included many years of specially light leases or kauls. It would have been impolitic to make a rate obtained under such circumstances permanent. Mr. Pringle had no hesitation in increasing it, but, as he thought that in estimating the gross produce the assessors had not made sufficient allowance for the precarious rainfall and as Indápur was much more impoverished than Junnar or Pábal, he judged it inadvisable to raise the Indápur assessment to the Junnar standard. Under these circumstances he determined to increase the head assessor’s settlement by 12½ per cent, a change which raised the Government demand to about 28½ per cent of the net produce.

A due allowance for the uncertainty of the rain supply would probably raise the share to about 45 per cent or nine per cent less than the proportion finally fixed in Junnar and Pábal. When the head assessors had equalized and completed the assessment as in Junnar and Pábal, it was found to raise the payments of some holders and of some villages and to lower the payments of others. In this respect as in Junnar the new rates were found most often favourable to the best lands. Most of the villages on the Nira had their rates raised, while in the Bhima villages the rates were relatively reduced. This result appeared to be due to the fact that the area of land had hitherto been estimated much lower in the Nira than in the Bhima villages, though there was no corresponding difference in the quality of the soil. The results when explained to the holders were considered good or bad according as their effect was to lower or to raise their individual payments. The doubts of all the villages which objected were, with a single exception, either removed or silenced by an explanation of the causes of the change or by a reference to the accounts and a comparison with the details of other villages. In the case of the single village which refused to accept the new rates, accompanied by the hereditary district officers and by the headmen of other villages, clerks from the Collector’s office were sent to inspect the land. The inquiry confirmed the correctness of the assessors’ rates. The total rental fixed by the head assessors on Government and alienated lands was £17,532 (Rs. 1,75,320) and the increase which
Mr. Pringle imposed raised it to £19,723 (Rs. 1,97,230). The well-tax yielded an additional sum of £413 (Rs. 4130) that is a total of £20,136 (Rs. 2,01,360). The details are:

**INDÁPUR SETTLEMENT, 1828.**

<table>
<thead>
<tr>
<th>LAND</th>
<th>TILLED</th>
<th>WASTED</th>
<th>WELLS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area</td>
<td>Rent</td>
<td>Area</td>
</tr>
<tr>
<td>Government</td>
<td>166,765</td>
<td>142,156</td>
<td>63,474</td>
</tr>
<tr>
<td>Alienated</td>
<td>14,376</td>
<td>11,565</td>
<td>...</td>
</tr>
</tbody>
</table>

The total settlement of £18,564 (Rs. 1,85,640) on Government land was £5987 (Rs. 59,870) above Malik Ambar's total or tankha and £5049 (Rs. 50,490) below the Maratha total or kamál, and £2068 (Rs. 20,680) more than that calculated from the average of past collections. The survey assessment of cultivated Government land exceeded the existing or actual settlement or jamábandi by £6168 (Rs. 61,680) or an increase of 76½ per cent. But, as Mr. Pringle says, this was of no importance when the circumstances under which the land was let at the time of survey were taken into consideration.

In Bhimthadi the new survey and assessment raised the rates on cultivated land 13½ per cent over the former settlement.

In Purandhar the new survey and assessment rates on Government land exceeded past collections by £6860 (Rs. 68,600) or 33½ per cent. The increase in the assessment on cultivated land was £3904 (Rs. 39,040) or 27½ per cent, being less in proportion than on the whole rental as the greater increase fell on the waste land. The increase of the new rates over the settlement (Rs. 88,460) of 1828-29 was £2086 (Rs. 20,860) or about 24 per cent.

In Khed the new survey rates were fixed at 55 per cent on the net produce, a result which averaged about 27½ per cent less than former collections. The fall in the assessment of cultivated land compared with the existing settlement was £3191 (Rs. 31,910) or 25½ per cent.

Mr. Pringle's assessment was introduced between 1829 and 1831. During 1829-30 it came into force in Bhimthadi, Purandhar, Indápur.
In 1829-30 there was another failure of rain. In Indapur, Bhimthadi, and part of Purandhar, at the end of September 1829, not a blade of grass was to be seen. The crops failed completely; they were dried up before they came into ear. In the east no collections were made except at spots where moisture gathered. Early in the year the people took their cattle with them and left in great numbers. In addition to remissions of about £38,400 (Rs. 3,84,000), or about £22,100 (Rs. 2,21,000) more than the sum granted in 1828-29, land assessed at £7772 (Rs. 77,720) was thrown up as its holders were too poor to stay and had left. The outstandings were large. Compared with 1828-29 the land revenue settlement for 1829-30 showed a fall from £111,711 to £45,409 (Rs. 11,17,110 - Rs. 4,54,090). This fall was partly due to the transfer of three large sub-divisions, Sholapur to Ahmadnagar and Indi and Muddebihal to Dhárwrá, yielding about £43,400 (Rs. 4,34,000) of revenue.²

The Bhimthadi sub-division was the first in which the Collector Mr. Giberne introduced Mr. Pringle’s new settlement. About £2600 (Rs. 26,000) were outstanding from former years. The year 1828-29 was one of partial failure and remissions were required, but owing to changes in the staff of the local officers none were granted.³ In 1829-30, according to Mr. Pringle’s rates, the settlement amounted to £5946 (Rs. 59,460). Of this only about £2000 (Rs. 20,000) could be collected, as the want of rain completely ruined the crops and wasted the greater part of this sub-division. Since 1827-28, when Mr. Pringle’s surveyors had measured the country, 27,312 acres had fallen out of tillage. In 1827-28 the new rates showed an increase of 13½ per cent on the rental but the settlement was made according to the old system; £4627 (Rs. 46,270) were remitted, and of the £1531 (Rs. 15,310) which remained over, £605 (Rs. 6050) were outstanding at the close of the year. Compared with 1822-23 the settlement of Bhimthadi in 1828-29 showed a fall from £10,930 (Rs. 1,09,300) to £6600 (Rs. 66,000) or about forty per cent. When managed by the Tulsibág family Bhimthadi is said to have enjoyed considerable prosperity. Of this prosperity few traces were left. The villages looked poor and distressed and there seemed little chance of recovering the increased revenue which according to Mr. Pringle’s survey might be recovered without hardship to the landholders.⁴

In Purandhar the new survey assessment exceeded past collections by £6860 (Rs. 68,600) or 33½ per cent. The increase in the

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³ The whole rental was brought to account. In September 1830 the Collector reported that about £500 (Rs. 5000) would have to be written off. Bom. Gov. Rev. Rec. 352 of 1831, 102-103, 113.
assessment on cultivated land was £3004 (Rs. 39,040) or 27\% per cent, being less in proportion than on the whole rental as the increase chiefly fell on the waste land. The new rates showed an increase of £2086 (Rs. 20,860) over the settlement £8846 (Rs. 88,460) of 1828-29. The year 1828-29 was one of partial failure and remissions were required, but they were not granted owing to a change of officers as stated in Bhimthadi.\(^1\) The cultivation in this sub-division varied little. The net settlement amounted to £10,448 (Rs. 1,04,480). The year 1829-30 was one of almost total failure and required the large sum of £6094 (Rs. 60,940) of remissions leaving £4354 (Rs. 43,540) to be collected. Compared with 1822-23 before which remissions had not been granted, the settlement of 1828-29 showed a decrease from £11,007 (Rs. 1,10,070) to £8846 (Rs. 88,460) that is a fall of at least one-fifth in the revenues in six years.\(^2\) For the three years ending 1828-29 outstanding balances in Purandhar amounted to £4800 (Rs. 48,000). In September 1830 the Collector feared that the season of 1829-30 would add to the outstanding balance. The people were particularly backward in paying the revenue and it was difficult to distinguish the deserving poor from the quarrelsome and cavilling holders who could afford to pay.\(^3\)

Indāpur was a more peculiar sub-division than either Bhimthadi or Purandhar. The rainfall was scanty and its revenue was doubtful. Few of the people were bound to the land; most of them were strangers. The new survey raised the Government demand by 76\% per cent. In April 1830 Mr. Giberne the Collector showed what evils would result from any attempt to enforce these higher rates. In June 1830 in order to bring back people who had left, he had been allowed to keep to the old rates showing the difference sacrificed as a temporary reduction. The settlement of 1829-30 by Mr. Pringle’s rates represented £9157 (Rs. 91,570), but in September 1830 the Collector wrote that the crops had failed so completely that only a mere trifle could be realised. So entirely did the rain fail that immediately after the close of the rains not a blade of grass was to be seen. Early in the season, probably about July, the people left as water had failed. The returns showed a decrease of cultivation representing a loss of £1021 (Rs. 10,210) of revenue.\(^4\) In the Collector’s opinion some change of system was required. Under the existing system if a plot of land was thrown up it would be let to the first bidder and as there was no scarcity of waste the highest bid would be far below the sum paid by the last holder. Such a practice tempted the steady farmer and hereditary tenant to throw up his paternal land for a more favourable tenure and made the whole body of husbandmen unsettled and careless. Under Mr. Pringle’s new settlement this evil had been checked. In time the people would see the advantages of keeping to and improving

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\(^1\) The whole rental was brought to account. In September 1830 the Collector reported that about £2000 (Rs. 20,000) would have to be written off. Bom. Gov. Rev. Rec. 352 of 1831, 102, 103, 113.


the lands they held. Mr. Giberne was doubtful whether in some cases the new rates had not been fixed too high. He had hoped that a revenue survey would have tended to a reduction of rates and that the necessity of remissions would have ceased. Unfortunately the failure of the 1829-30 crops had been so general and so complete that the amount settled by the new assessment could never have been realised. The state of the people was very depressed. They were well known to live from hand to mouth. They began to eat their crops before they were ripe and daily plucked unripe grain to give them a meal. If the season was favourable the price of grain fell so low as to make the produce of little value and remissions were required. Even if the season was bad the price did not rise because there was many years' supply on hand and remissions had again to be given. As the rates introduced by the new settlement were considered to be such as the people were able to pay and such as Government were entitled to levy, the Collector did not grant remissions in the old way but held over for future recovery the amount by which the collections fell short of the settlement. The Collector told the people their only chance of getting the balance remitted was by seeing that in future there were no balances. At the same time he was certain that the balance could never be recovered. He had hoped that the new settlement would have reduced the rates so greatly that the revenue would have been easily paid instead of being drawn forth with the greatest labour. He was greatly disappointed that this had not been the result. In other respects, in the arrangement of the accounts, the distinction of fields, and the other details the new settlement could not be improved. Everything was simplified to the utmost. Only the revenue would be as difficult to collect as it had ever been. Before 1822-23 the revenue was collected with the greatest ease; no remissions were ever thought of. This was partly owing to the high price of grain, and the ease with which produce was disposed of. It was also insured by the character of the people, and their fears of delaying the payment arising from the mode formerly in use of compelling payment by a variety of cruel methods, burning fingers or tying up the delinquent with heavy stones fastened to his chest or head. Though under the English these punishments were not practised, from their recent enforcement they were still dreaded. Even after the beginning of British management a stone sent round to the backward villages summoned payments, a practice which was never thought of in 1830. In 1830 a landholder had nothing to fear from delaying to pay. The severest punishments were a gain to him. The only course open to the Collector was to enforce the regulations regarding the appointment of watchmen over the crops until a settlement was made for payment. This rule would be in force during the current year; it had never been enforced before.

4 Mr. Giberne, Collector, 4th September 1830, Rev. Rec, 352 of 1831, 138-139.
In Bhimthadi, Purandhar, and Indápur the new survey settlement had increased the rates. Even under the former low rates, large remissions were required and every year large balances remained outstanding. The Collector saw no reason to suppose that the new settlement would reduce these evils. The principles of the new survey were to fix a rate which the landholders could and ought to pay and Government ought to receive. The survey superintendent Mr. Pringle said that Collectors should have the power of imposing the increase so gradually that the pressure of the new rates would be less felt. If this was acted on, the result would be to lower rates fixed on the principle of the survey, proved by the superintendent to be those which the holder could and ought to pay. If the Collector were to take on himself the reduction of these rates, in theory he had no good reason to offer why the full rates should not be levied. But he knew that as a matter of fact the new rates could not be collected. If he took less than the rate fixed by the settlement, because he could not obtain it, he set aside the principle on which the settlement was based.\(^1\) In Indápur from sheer necessity the full rates were not levied. If the new rates were enforced the Collector feared that the greater part of the subdivision would become waste. His fear was grounded on the fact that the greater part of the people had left from want of water and afterwards refused to return to till the land at higher rates.\(^2\) In Purandhar the Collector made arrangements for introducing the increase by degrees. Where the rates had been doubled he directed five-eighths (10 as. in the rupee) of the full amount to be levied in the first instance and an addition of \(\frac{3}{8}\) lands (1 ½ as. in the rupee) to be made every year so that five years would pass before the full amount was levied. Even this concession failed to satisfy the people. So great was the distress that in 1830 the lands of the large town of Sásavad were almost all neglected.\(^3\)

The failure of the 1829 rains was followed by a second year of scanty supply. In the east in Bhimthadi, Indápur, Mohol now in Sholápur, and in part of Purandhar the crops completely failed. An early and plentiful fall of rain raised the cultivators’ hopes, but the after-failure of rain withered the plants when they were only a few inches above ground. At harvest time the country was a miserable waste, and the people were suffering and full of complaints. Still the actual collections for 1830-31 were more favourable than those of former years. Territorial changes prevented any exact comparison. In 1830-31 Sholápur and Bársi were transferred from Ahmadnagar to Poona. In spite of the local

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2 Regarding Indápur, on the 26th of March 1835, the Rev. Comr. Mr. Williamson wrote, "Before the new survey rates were introduced at Indápur the Collector expressed great fears of their success. The first year he estimated the survey assessment at about £9159 (Rs. 91,590) while he seemed to think he could not realise more than £4280 (Rs. 42,300) being less than one-half the assessed amount. The crops were very bad. No remissions were sanctioned. A large sum was kept suspended and the actual realisations fell greatly short even of the Collector’s estimate." Bom. Gov. Rev. Rec. 666 of 1835, 8.
failure of rain produce prices continued very low from thirty-three to fifty per cent below the average of prices during the twenty years before the beginning of British management.\(^1\) Large remissions were again necessary.\(^2\) The land revenue settlement of 1830-31 showed an increase from £67,185 (Rs. 6,71,850) in 1829-30 to £67,185 (Rs. 6,71,850). Compared with former years the actual collections were favourable.\(^3\) In 1831-32 compared with 1830-31 the land revenue settlement showed an increase from £67,185 (Rs. 6,71,850) to £68,073 (Rs. 6,80,730); and outstandings were comparatively small.\(^4\) In this year the Commissioner Mr. Dunlop directed the attention of the Collectors to the ruined state of the village walls and of the necessity of having them repaired.\(^5\)

In 1833 the rains again failed. The scarcity began about sixteen miles east of Poona and extended to the extreme east and south of the district. The loss of revenue was most marked in Sholapur, Mohol, Bársí, Índápur, Bhinthadi, and Purandhar. In Índápur the net rental was £7403 (Rs. 74,030), and of this the whole except £806 (Rs. 8060) had to be remitted. To the west of a line about sixteen miles east of Poona the early rain was abundant. About the middle of the season the supply failed and the half-grown fields of grain being left without moisture yielded either no crops at all or a very poor outturn. The after-rains were so slight that the late crops were either never sown or died soon after they sprang up. The land revenue settlement showed a fall from £68,073 (Rs. 6,80,730) in 1831-32 to £38,715 (Rs. 3,87,150).\(^6\)

On the 18th of July 1831 Mr. Pringle proposed to grant a uniform reduction of thirty-three per cent upon the settlement made by him.\(^7\) On the 7th of October 1831 Government asked the Revenue

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\(^1\) The details are: *Poona District, Produce Rupee Prices, 1797-1831.*


\(^3\) Rom. Gov. Rev. Rec. 407 of 1832, 290. Regarding Índápur, on the 26th March 1835 the Revenue Comr. Mr. Williamson wrote, "In 1830-31 the mánâldâr reported that the landholders refused to cultivate the land according to the survey rates. A correspondence followed between the Collector and the mánâldâr which ended in an order to the mánâldâr not to demand increases which added more than 25 per cent to the former assessment. Where the new rates were lower than the old, the new rates only were to be collected. Even this reduced assessment did not stand. The crops were again bad and remissions were granted." *Rom. Gov. Rev. Rec. 666 of 1835, 8-9.*


\(^7\) Rom. Gov. Rev. Rec. 426 and 427 of 1832.
Chapter VIII.

Land.

Chapter VIII.

Land.

The British.

Mr. Pringle's Survey.

1832-33.

Mr. Reid the Acting Revenue Commissioner referred the matter to the Collector and asked for a figured statement. This was furnished on the 10th of August 1832,¹ and on the 15th of February 1833 the Revenue Commissioner Mr. Williamson in submitting his report² to Government remarked that Mr. Pringle's estimates of the average price of field produce were framed when produce was much more valuable than it had since become. Mr. Williamson thought, that if there was reason to suppose the great fall in produce prices would last, Mr. Pringle's suggestion to reduce his rates by thirty-three per cent would be a suitable measure. But, since Mr. Pringle had made the proposal for reducing his rates, in consequence of the failure of crops in 1832, prices were higher than they had been even in the years on which Mr. Pringle's original estimates were based. The food stocks were also so low that Mr. Williamson thought even a good year would fail to bring grain down to its former low level.³ Mr. Williamson doubted whether the system on which Mr. Pringle's rates had been fixed was so good that the simple plan of reducing the rates all round would make the settlement successful. Mr. Williamson's experience satisfied him that Mr. Pringle's assessment was too light on the good lands and too heavy on the poor lands. Government lost in both ways. The good land paid less than it ought, and the poor land fell waste.⁴ Finally Mr. Williamson feared that the work of Mr. Pringle's subordinates was not trustworthy. Complaints of the dishonesty of some of the under-servants were loud. He thought that an officer should be appointed under the Revenue Commissioner and deputed to go in detail through a certain number of villages and compare the result of his examination with the details recorded in Mr. Pringle's survey. Government would then be in a position to judge how far Mr. Pringle's assessment might be accepted as accurate. Government agreed with the Revenue Commissioner that further information regarding

¹ Bom. Gov. Rev. Rec. 517 of 1833, 38, 47. The total amount of loss on the gross settlement of the year 1831-32 (Fasli 1241) was estimated at £22,249 (Rs. 2,22,430). The details are:

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>Gross Settlement</th>
<th>Amount at 33 per cent</th>
<th>Remissions</th>
<th>Sub-Division</th>
<th>Gross Settlement</th>
<th>Amount at 33 per cent</th>
<th>Remissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shivner</td>
<td>1,22,672</td>
<td>50,828</td>
<td>50,724</td>
<td>Haveli</td>
<td>76,850</td>
<td>25,554</td>
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<td>Indapur</td>
<td>69,288</td>
<td>22,603</td>
<td>23,628</td>
<td>Maval</td>
<td>51,927</td>
<td>17,199</td>
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<td>Khed</td>
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<td>28,463</td>
<td>27,163</td>
<td>Poona City</td>
<td>28,833</td>
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<td>786</td>
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<tr>
<td>Pabal</td>
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<td>20,415</td>
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<td>Parandhar</td>
<td>94,705</td>
<td>31,512</td>
<td>36,918</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bhimgadhi</td>
<td>61,990</td>
<td>20,440</td>
<td>20,415</td>
<td>Total</td>
<td>6,74,208</td>
<td>2,22,488</td>
<td>2,38,400</td>
</tr>
</tbody>
</table>


³ At Indapur jiwri rupee prices were in April 1829 about 160 pounds (40 shers), in April 1830 about 92 pounds (46 shers), in May 1831 about 80 pounds (40 shers), in February 1832 about 120 pounds (60 shers), in February 1833 about 46 pounds (3 shers), in February 1834 about 92 pounds (46 shers), in February 1835 about 96 pounds (48 shers), and in February 1836 about 76 pounds (38 shers). Bom. Gov. Sel. CVII. 119.

the trustworthiness of Mr. Pringle’s assessment was required. In March 1833 they appointed Captain Dowell of the Ratnagiri survey to make inquiries into the survey assessment lately completed by Mr. Pringle.1 Shortly after his appointment Captain Dowell fell sick and the inquiry had to be put off.2 In November 1833 Government ordered that the survey rates should be continued, but that the Collector might make inquiries and introduce amended rates in a few villages.3

In 1833-34, the famous πικ σάλ or crop-year, the rainfall was sufficient and timely. Out of a land revenue of £96,461 (Rs. 9,64,610) all but £3856 (Rs. 38,560) were collected by November 1834.4 The changes which had to be introduced in Mr. Pringle’s settlement rates in consequence of the succession of bad years, caused great confusion in the revenue accounts. This confusion opened a door for fraud, and the native officials seem to have fallen into a state of grave corruption. They appropriated a great part of the liberal remissions to their own use, and introduced a system of secret exactions which in some cases produced more than double the Government revenue. The Revenue Commissioner believed that not one-half of the remissions had reached the people and not one-half of the collections had reached the Government.5 In June 1834 Mr. Baber the Collector of Poona wrote to the māmlatdār to try and recover more of the outstandings in his charge, and told him that his promotion would depend on the vigour he showed in recovering the outstandings. Soon after this it was discovered that the people had been tortured to make them pay the revenue. Twenty persons including the māmlatdār and several hereditary officers were convicted of torturing or of abetting torture and were imprisoned for periods varying from one to seven years.6

In 1834 (January 30th) Major Robertson forwarded the results of his inquiries into the details of Mr. Pringle’s settlement. He considered the work so full of inaccuracies and frauds that it could not safely be made the basis of fresh assessments.7 In this opinion Mr. Williamson the Revenue Commissioner (27th April 1834) agreed.8 In Mr. Williamson’s opinion one of the chief reasons why Mr. Pringle’s work had ended in failure, was the unfitness of the staff. They were ignorant of the work at starting, and they were employed only for a time, and so were tempted to carelessness and dishonesty. There was no sufficient supervision and Mr. Pringle had to leave much to his headman who had since

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6 Details are given in Bom. Gov. Sel. CVII, 17-19.
been convicted by the Sessions Judge of fraud and cheating. Besides the unsuitableness of the staff for the difficult and important details of field work there had been no provision for supervision. The only case where special inquiry was made was when some landholder complained of the new rates. There was no protection to Government against the fraud of an assessor charging land unduly low rates. Major Robertson detected several cases in which rice and garden land was entered as dry crop, and in some instances whole villages were rated at a fraction of similar and neighbouring villages. Many fraudulent changes to the loss of Government had been made in Mr. Pringle's head-quarter office. Alienate or inánm land had been increased and temple allowances had been raised as much as 37½ per cent. Under these circumstances Mr. Williamson thought that without further inquiry it was unsafe to base any settlement on Mr. Pringle's survey. He suggested that an officer should be appointed to resume the inquiry which had, been begun by Captain Dowell. In July 1834 Government ordered that the temple allowances should be reduced to the former amount. In August 1834 they appointed Lieutenant Shortrede to resume the inquiry formerly entrusted to Captain Dowell.

In 1834 the rainfall must again have been sufficient though less favourable. The land revenue showed a fall from £96,461 (Rs. 9,64,610) in 1833-34 to £92,720 (Rs. 9,27,200), but by the end of October 1835, all but £5817 (Rs. 58,170) were collected. About this time an important and useful change was made in the revenue management by appointing mahâlkaris or petty division officers subordinate to mánâlatdârs. This change at first seemed to work well. It was afterwards found that the mahâlkarí's staff had been fixed at too low a strength. Their strength was increased, and in 1838 Mr. Williamson was satisfied with their working. In his opinion no measure had done more to improve the revenue management of the Deccan than the excellent system of subordinate divisions or mahâls.

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1 The details of the establishment were: Head assessors 8, assessors' kârkâns 183, examiners of survey 55, surveyors 359, peons 325, total 1164. Bombay Gov. Rev. Rec. 595 of 1834, 2-3.
2 Bombay Gov. Rev. Rec. 595 of 1834, 8, 9, 63, 66-73. Of the errors noted by Major Robertson there was around Sinhgad the omission of 55 and in the village of Kalyân close under Sinhgad the omission of 76 fields. Assessable land was left out of the records of seven or eight other villages. In the village of Mâle in Paud Khore lands belonging to a deshmukh had been correctly rated by the assessor but were marked as excessively assessed by the head assessor and unduly reduced. In Khand the village of Chinchuli was found rated at about one-third of the rates levied in neighbouring and similar villages. In another village a field of 116 acres whose proper assessment was £16 8s. (Rs. 164) was entered at 41 acres with a rental of £3 9s. (Rs. 34). This field had been examined by the head-quarter staff. Bombay Gov. Rev. Rec. 595 of 1834, 62-63, 87-94.
6 Bombay Gov. Rev. Rec. 694 of 1836, 244-248.
8 Mr. Williamson, Rev. Comr. 26th April 1836, Bombay Gov. Rev. Rec. 694 of 1836, 228, and 2610 of 23rd November 1838.
During 1834-35 Lieutenant Shortrede inquired into the details of Mr. Pringle's survey in Indapur. Of its eighty-four villages he examined the lands of about twenty. He measured a number of fields in several villages, and with two exceptions found them remarkably correct. On the other hand the classing of the soil was remarkably incorrect; the classification seemed to have no connection with the colour or qualities of the soil. Deep rich black soil, acknowledged by the people to be of the best quality, was entered as second black or red, and poor waste or gatkul land was entered as of the first sort. In the rates there were many instances of unfairness; villages whose land was good were assessed at lower rates than villages with inferior soil, and lands held by village and district officers were assessed at unduly low rates. In many villages the survey rates could not be realized. Most of the lands were held at ukti or reduced rates, varying from one-half to three-fourths of the assessment. Though in practice a dead letter, Mr. Pringle's survey rates remained the nominal rental. The reductions from this nominal rental offered the district officers excellent chances of fraud of which they were not slow to take advantage. So far as related to Indapur Lieutenant Shortrede could not recommend the continuance of the survey assessment. He saw no permanent system of management by which the survey assessment could be immediately superseded. The country was exhausted and deserted. So far as he could see, no official data of any value were forthcoming on which a permanent settlement of the revenue could be founded. A yearly settlement left open many avenues to mismanagement on the part of the native authorities which Lieutenant Shortrede believed the European authorities, however vigilant and active, would never be able to close. Under these circumstances Lieutenant Shortrede held that the first year of settlement should be experimental, and that the terms of the settlement should be favourable to the landholders to enable them to enter with substance and safety on a permanent settlement in the following year. The report of favourable terms would bring back most of the absent landholders. Meanwhile an active and able assistant might, during the year, gain knowledge enough to enable him to make a ten years' settlement. The settlement which Lieutenant Shortrede proposed for the first year was to let the best land at £6 (Rs. 60) a Cháhur or 120 bighás and the poorer lands at £5 to £4 10s. (Rs. 50-45) the Cháhur. He believed the people would willingly take lands on these terms. They did not differ much from the old Muhammadan or tankha rates, and good indám lands were let at £5 to £7 (Rs. 50-70) the Cháhur. These rates were low; in Lieutenant Shortrede's opinion they were less than a fair rental. Still the system of remissions was in practice so evil and corrupt that it

3 The bighá varied in size according to the soil. In good land it was a half to three-quarters of an acre; in poor lands three-quarters of an acre to one acre. The proposed rates were equal to acre rates varying from 1s. 4d. to 2s. (10½ as. - Rs. 1) on good land, and from 9d. to 1s. 1½d. (6-9 as.) on poor land.

' 1837-51
should cease even at a great sacrifice. After the first experimental year he suggested that the lands should be let on a ten years' lease at much the same rates as those levied in the experimental year. A lease at a fixed rent would help the people to look forward and force them to lay by for bad years. 1

The Revenue Commissioner Mr. Williamson submitted this report on the 26th of March 1835. 2 The inquiries Mr. Williamson had made in Indapur two years before and the information he had lately collected satisfied him that a change in its management was necessary. Its rich soil and most uncertain rainfall, tempting them back and driving them away, made the people unsettled. In bad seasons they wandered to the Nizam's country. 3 So far the British management was a failure. There had been no fixed system. At first a yearly settlement was made and then leases on rising rents were introduced, and again yearly settlements which of late years had been in great measure left to the village clerks and headmen. The seasons had been uncertain and bad. There was a mass of outstanding balances, and large remissions, much of which the native officers stopped on their way to the people, completed the confusion. 4 Mr. Williamson, while admitting that the survey was not the cause of all the evils from which Indapur suffered, agreed with Lieutenant Shortrede that the survey assessment should not be continued. 5 Mr. Williamson thought Lieutenant Shortrede's scheme of an experimental year followed by a ten years' lease was well devised. He thought it could be carried out with no material obstacle. The system was simple and the rent moderate. The people would at once understand it and take to it. Mr. Williamson approved of the châhur as the unit of assessment. Until they had been puzzled and paralysed by survey rates, reductions, suspensions, and remissions, the landholders had always spoken of their holdings as fractions of a châhur. The area of the châhur varied with the soil from 90 to 120 bighâs. The châhur was not a completely accurate unit, but where irregularities existed they

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4 Bom. Gov. Rev. Rec. 666 of 1835, 7. Mr. Williamson believed that not one-half of the remissions had reached the landholders and not one-half of the collections had reached the Government. The frauds took place during the third year (1831-32) of the operation of the survey rates and were exposed during the fourth year (1832-33). The Rev. Commissioner's reports on the subject are dated 24th October 1832 and 19th August 1833. Mr. Williamson says in March 1833, 'Of the extent of the peculations of the district and village officers some conception may be formed from the exposure of their corruption which followed my last visit to the pargana and from the judicial inquiries which terminated in the conviction and punishment of the mâmâltâdär and several of the local officers who had shared in the village spoils.' In some places the unauthorized collections actually exceeded the authorized. In one case the unauthorized collections amounted to Rs. 357 against a Government demand of Rs. 137; in another case the unauthorized collections amounted to Rs. 759 against a Government demand of Rs. 255; in a third case the unauthorized collections amounted to Rs. 321 against a Government demand of Rs. 133; in a fourth case 'while the receipts of Government amounted to Rs. 303, Government were defrauded of Rs. 368.' Mr. Williamson, Rev. Comr. 26th March 1835, Rev. Rec. 666 of 1835, 11-12.
might, he thought, be removed at the settlement. Mr. Williamson thought the châhur rates proposed by Lieutenant Shortrede, £6 (Rs. 60) on the best lands and £5 or £4 10s. (Rs. 50 or Rs. 45) on inferior lands, low but not too low considering the impoverished state of Indâpur, the uncertain rainfall, the want of people, and the urgency of stopping yearly remissions. Simplicity was a great merit in any settlement. As the soil of Indâpur was unusually uniform, he thought two rates would be enough. At the same time he thought that the settlement officer should have power to meet local peculiarities by special rates. He approved of Lieutenant Shortrede's proposal to grant ten-year leases and dwelt on the importance of limiting the area leased to each holder. If the holder took up more land than he was able to till, a slight misfortune might overset his plans and make him fail in his engagements. The lease should have some provision to ensure an abatement of the demand in a year of failure of crops. He objected to the grant of leases in the form of kauls with rising rentals. Remissions of this kind were occasionally necessary, but the practise on any large scale was evil. It led men to leave their old fields, take rent-free land, and again throw it up as soon as the rent had increased to a moderate amount. He was opposed to any grants of village leases. As a body the Deccan headmen had been proved to be corrupt, robbing the people on the one hand and Government on the other. With village leases the people would be in the hands of men who were unfit for any position of trust. In June 1835 Government sanctioned the proposed experimental settlement for one year.

In June 1835, on receiving the Government sanction and the Revenue Commissioner's instructions, the Principal Collector Mr. Mills directed his assistant Mr. Goldsmid, who since February 1835 had been in special charge of Indâpur, to take steps to carry the plan into effect.

Mr. Goldsmid, while thoroughly approving of the proposed system, suggested certain changes. He was satisfied of the necessity of reassessing Indâpur. After spending nearly four months in the subdivision (February-June 1835) he was certain that no scheme could be devised better calculated to injure the interests of both Government and its subjects than the existing system. On two points he desired the instructions of the Revenue Commissioner, the term for which the settlement was to be made, and the unit of measurement. As the expense would be the same for one or ten years, on the score of economy he recommended a ten years' settlement. Another

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and still stronger reason for the settlement being made at once for ten years was that if the land was given out on the liberal terms proposed by the Revenue Commissioner, so that in years of partial failure no remissions might be requisite, the loss to Government would be comparatively speaking immense unless the settlement were followed by a large increase of cultivation. The resident landholders were not numerous enough to ensure the requisite increase of cultivation, and outsiders could not be expected to come and build dwellings and clear waste merely because the land was assessed low for one year. As regards the unit of measurement Mr. Goldsmid was not in favour of the chákur or 120 bighás. The chákur was not a definite measure of quantity. It would therefore be necessary to have a number of different chákur rates to equalize the difference in area. If acre rates were introduced in dry-crop land three rates would generally be sufficient. In the absence of trustworthy evidence, it was necessary in assessing the land to visit every field and examine its soil and position. Mr. Goldsmid proposed to engage four native clerks unconnected with the district. Every morning and evening these clerks would prepare statements of the quality quantity and situation of the land. Mr. Goldsmid would himself revise the returns so closely as to make fraud impossible. During the heat of the day, with the aid of fresh clerks, Mr. Goldsmid would prepare from the revised returns detailed statements of the class to which each field belonged, the number of bighás it contained, and the rate at which it should be assessed. He proposed to arrange the jiráyat or dry-crop land into three classes, and to assess them according to either of two scales, two, three, and four acres the rupee or three, four, and five acres the rupee. He preferred the lower scale, as with the higher scale in Indápur where rain was so scarce, remissions would be often required. To enable Government to form a just opinion regarding the relative merits of the two scales, before entering into engagements with the landholders, he promised to submit the result of the settlement of ten villages. On completing his arrangements in every ten villages he proposed to give the landholders written agreements to the effect that they were to be allowed to reap the whole advantages of any improvements they might make in their holdings and keep them at a fixed rate for ten years. He would also, where procurable, enter a neighbouring number or two which the landholders should be allowed to take for tillage within a certain period of years at rates determined according to the proposed scale. Regarding the area of land to be put aside and the term within which the exclusive power of claiming it should remain with the landholder, Mr. Goldsmid asked to be allowed to exercise his discretion. It would, he said, be impossible to follow any one fixed and uniform scheme even in a single village. He would give effect to the liberal orders of Government directing that landholders be permitted to take up land without paying a fee or nazarína. At the same time he feared that by giving

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1 Bom, Gov, Rev. Rec, 666 of 1885, 113-114.
out land at the low rates proposed, there might be risk that casual or upri landholders would take up more waste or gatkul land than they could afford to till and keep out more deserving tenants. To prevent this he proposed that, unless a holder took up the land within one to four years, his claim to it should cease. Mr. Goldsmid found the rates in garden or watered land ridiculously low. The sacrifice of the Government share had not even the effect of enriching the landholder. The bulk of the profits passed to some moneylending Bráhman who agreed to pay the Government dues if he got half of the crop and sometimes persuaded the holder to take an advance to grow some rich crop. When the soil was exhausted by this heavy crop the Bráhman would withdraw from the arrangement. Mr. Goldsmid thought Government revenue was being needlessly sacrificed. He proposed that the garden land of Indápur should be assessed at 4s. (Rs. 2) an acre. If higher rates were fixed remissions might be necessary. He thought that channel-rates might be higher than well-rates. He was anxious to introduce the new well-rates at once. The dry-crop rates could not be brought into force till 1836-37 (Fasti 1246).

In forwarding Mr. Goldsmid's letter to Government Mr. Williamson (24th July 1835) agreed that, considering Mr. Goldsmid's special knowledge of the villages, it would be safe at once 'to introduce a ten years' lease. He also withdrew his objection to the use of the acre as the unit of measurement. As regards rates Mr. Williamson thought it would be advisable to introduce a fourth or lower rate for specially poor soils. He did not agree with Mr. Goldsmid that there was much risk that landholders would take land they were not able to till. He thought that a man should be left free to take land if he chose. In 1832 when Government had taken off the well-cess they stated that it might afterwards be found advisable to raise the rates levied on garden land. He agreed with Mr. Goldsmid that the rates should now be increased. The enhanced rates should be light, but he would leave it to Mr. Goldsmid, acting under the Principal Collector's superintendence, to fix its amount. He thought that where a village was deserted or was much decayed Mr. Goldsmid might be allowed to grant the village in lease. But, except perhaps on inferior lands, the rates should be fixed before the village was leased. On the 7th of September 1835 Government approved and sanctioned the ten years' settlement and adopted the acre as the unit of measurement. Government agreed that the fixing of the rates of assessment should be left to Mr. Goldsmid. They did not approve of the proposal to levy an additional cess on garden land. They also thought the proposal to reserve for each landholder a portion bordering on his holding unnecessary. If carried out, there

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was the risk that some of the richest land in the village might remain waste. They thought that with such low rates it might be necessary to guard against villagers taking up more land than they could afford to till. The village officers were in every case to inform the settlement officer of the condition of men anxious to take land. They agreed that Mr. Goldsmid should inquire into village claimants and expenses and into temple allowances, and that where he thought it advisable he should grant decayed villages in lease to headmen.¹

In August 1835 Mr. Goldsmid had Mohol, now in Sholapur, added to his charge. He brought to light a system of fraud which Government (24th November 1835) described as a discredit to British rule.² Under these frauds the people were suffering so severely that Mr. Goldsmid believed that numbers would have left had they not taken heart at the sight of a European officer come to live among them.³ Mr. Williamson recommended that an engineer officer should be placed under Mr. Goldsmid to conduct surveys and to relieve Mr. Goldsmid from the labour of checking measurements.⁴ Government appointed Mr. Blakiston assistant to Mr. Goldsmid, and said that as soon as another writer, that is civilian, was available he would be appointed. They also approved of Mr. Williamson’s plan of placing an engineer officer under Mr. Goldsmid’s orders for survey purposes. Lieutenant Wingate was appointed to this special duty.⁵ In October 1835 Lieutenant Shortrede⁶ made proposals for a revised assessment in Purandhar where the rates of Mr. Pringle’s survey had been found so unsuitable that since 1830 they had been given up and the old or mámul rates adopted.⁷ There were two difficulties in fixing the assessment of Purandhar, the village papers had been falsified and eight or nine land measures were in use. Of the land measures the chief were the bigha and the chákur of 120 bighas.⁸ The rates of assessment under Náná Fadnavis when the country flourished were not uniform in every village nor in every year. In villages where the soil was of ordinary quality the rates seemed to have varied from £6 to £9 (Rs. 60-90) the chákur; villages whose lands were generally of good quality were assessed at £9 to £12 or £13 (Rs. 90 to 120 or 130); and a few villages whose lands were of inferior quality were assessed at £3 12s. to £6 (Rs. 36-60).

⁴ Mr. Goldsmid in charge of Indápur and Mohol, 22nd August 1835; Mr. Williamson, 1541 of 22nd September 1835, Bom. Gov. Rev. Rec. 666 of 1835, 201-204.
⁶ His reports are dated 1st October and 10th November 1835, Bom. Gov. Rev. Rec. 698 of 1836, 75, 95.
⁸ Their names were bigha, chákur, rubka, takka, partan, paika, dori, khandi, and the acre introduced under Mr. Pringle’s survey (1825-30). The káthí or rod used in measuring a bigha was of 119¼ inches or 4½ of an inch short of ten feet. By this measure about 37 bighás went to 36 ares. But, in fact, the land was large or small according as the land was bad or good though the variety in area due to the quality of the soil was not uniform. The bigha was the only unit besides the acre which professed to be a measured quantity of land. Bom. Gov. Rev. Rec. 698 of 1836, 83-84.
For some years after the great famine of 1792 assessment was low probably on account of the exhausted state of the country. It increased till the famine of 1803 when it again fell to about one-fourth of the full rate. Under Bājirāv it rose in a few years to the full rate and continued at or beyond the full rate till the country came into the possession of the British. The hereditary village officers took advantage of the ignorance of British officials to falsify the village records. This in Lieutenant Shortrede's opinion was a principal cause of the bad management from which the country had since suffered. The want of honest documents and the interested and corrupted statements which had taken their place had caused the disorder which the revenue survey was meant to cure. Mr. Pringle's survey rates had been judged unsuited for Purandhar and were in force for only one year (1829-30). Under these circumstances Lieutenant Shortrede thought (1st October 1835) that nothing more than a temporary settlement could be proposed. Even for a temporary settlement the means available were deficient. Full half of the lands were lying waste (1835). In his opinion the documents of the British Government were chiefly useful as showing by what means the country had been brought to so miserable a state. Lieutenant Shortrede thought that as an immediate settlement was wanted, the only plan was to use Nāna Fadnavis' documents as the basis of the settlement, and to apply the results of neighbouring and similar villages to villages which had none of Nāna Fadnavis' records. In Nāna's times there were few cesses or bābtis. Many were introduced under Bājirāv. In 1830 when the original or māmul rates were ordered to be enforced, Bājirāv's cesses were included. Lieutenant Shortrede thought this a mistake and that all or almost all cesses should be remitted. He also recommended that the village claimants or hākdārs should be paid by Government and not by the villagers, as these payments were a cause of grievous extortion. He thought also that serious frauds were committed by the headmen and clerks appropriating to their own uses a large share of the funds which they levied from the people as village expenses or gaon kharch. In forwarding this report Mr. Williamson stated that it had never been intended that the cesses should be included in the original or māmul rates which were substituted for the survey rates. He thought that all except perhaps one or two cesses should be given up. He approved of Lieutenant Shortrede's proposal to go back to the rates under which the country had prospered under Nāna Fadnavis. But care must be taken to reduce these rates in

1 Closely connected with the bābt and hākā was the hatta or exchange on the rupees current in the Purandhar sub-division in order to make up the deficiency in their value. It seemed to be a general practice for the kulkarini and pātīl to take from the people double of the authorized exchange and the people complained much of the hardship to which they were subject from the variety of coins current throughout the country, though they did not seem aware of the particular fraud thus practised with impunity on them by the pātīl and the kulkarini, Bom. Gov. Rev. Rec. 698 of 1836, 91-92.
proportion to the fall in produce prices. The fall was roughly about one-half which would reduce the rental of Nána's best land from £12 (Rs. 120) the chákur to £5 (Rs. 60). This arrangement he did not suggest as permanent. It was to have effect till trained officers were available to introduce a correct survey. Any unauthorised increase that could be proved in the village expenses since the beginning of British rule should be reduced. In January 1836 Government sanctioned the proposed revision.

The rains of 1835 were far from favourable. In many subdivisions they were late of setting in; in many places the crops withered for want of moisture and in others they failed altogether. On the other hand in some parts of the district the fall was so heavy as to injure the early crops and to keep back the sowing of the late crops. Locusts appeared in some subdivisions and caused damage, and in the beginning of January 1836 severe cold injured the crops. Under all these disadvantages the land revenue showed a fall of about £6890 (Rs. 68,900). Of this decrease part was owing to a decline in the tillage area and part to an increase in remissions which it was found necessary to grant in consequence of the extensive failure of the crops. About 1835 measures were taken to improve towns and establish markets throughout the Deccan. In October 1835 Lieutenant Shortrede submitted a report on Mr. Pringle's survey. In measuring, Lieutenant Shortrede found errors representing an average of about 16½ per cent. As regards classing Mr. Pringle divided the dry-crop land into three classes, black or káli, red or támúdi, and gravelly or bardi. In Indapur and Purandhar each class was divided into three grades, first second and third, and in Mohol, Bársi, and Sholapur the black káli and the gravelly bardi had each four grades, and every field throughout the country was entered as belonging to one of these classes and grades. Lieutenant Shortrede inclined to agree with Mr. Pringle that, if the work had been honest, three grades of each class of soil would have been enough for a fair assessment. The first step towards fixing the assessment was to class the land; the next step was to find the net produce. To find the net produce about sixty acres of each class, or as much land as might be cultivated by one eight-bullock plough was taken, the whole value of the produce was estimated, and the necessary and customary charges of tillage and bringing to market were deducted. Of the net produce thus determined fifty-five per cent was taken as the revenue to be paid to Government. Lieutenant Shortrede thought this system excellent in principle. After making

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5 Details are given in Bom. Gov. Rev. Rec. 666 of 1835.
8 Bom. Gov. Rev. Rec. 698 of 1836, 416. The distinguishing feature of Mr. Pringle's settlement was the principle of assessing at a certain proportion of the net produce. Lieutenant Shortrede and the Rev. Comr. Mr. Williamson did not object
every allowance for the chance of mistake through carelessness or error, Lieutenant Shortrede came to the conclusion that so many and such striking errors as he found could be the result only of intentional dishonesty and fraud. So great was the amount of fraud in the portions of the work he had tested that Lieutenant Shortrede came to the conclusion, that, except in its measurements, the results of Mr. Pringle’s survey could never be used as the basis of any revised assessment. In forwarding Lieutenant Shortrede’s report Mr. Williamson (16th May 1836) agreed with Lieutenant Shortrede that nothing short of intentional deceit could explain the grievous mistakes which he had brought to light. In forty-five out of fifty villages the errors were beyond all moderate bounds. Neither the

to the principle while Lieutenants Wingate and Nash and the Principal Collector Mr. Mills held that the principle was unfair. In their opinion the result of assessing at a certain proportion of the net produce was unfair. Under it the cultivator was remunerated not according to his labour but in proportion to the value of the field on which he laboured. On the same capital, rich soil yielded a much greater profit than poor soil. Lieutenant Wingate gives (Bom. Gov. Sel. CVII. 14, 129) the following statement to show the inequality of Mr. Pringle’s survey rates in consequence of being a percentage of the net produce, and shows how the rates might have been fixed so as to render the profit of cultivating every description of land the same:

### Rental on Net Produce, How Faulty.

<table>
<thead>
<tr>
<th>Soil</th>
<th>Acres capable of being cultivated at a yearly expense of Rs. 100.</th>
<th>Value of net produce per acre</th>
<th>Mr. Pringle’s Survey Rates</th>
<th>Proposed Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>55 per cent of net produce or acent.</td>
<td>Total rental on the acres in the second column.</td>
</tr>
<tr>
<td>1st Black</td>
<td>28.36</td>
<td>Rs. 0.86</td>
<td>Rs. 28.36</td>
<td>Rs. 28.36</td>
</tr>
<tr>
<td>2nd Black</td>
<td>30.15</td>
<td>Rs. 1.53</td>
<td>Rs. 30.15</td>
<td>Rs. 30.15</td>
</tr>
<tr>
<td>3rd Black</td>
<td>32.25</td>
<td>Rs. 2.00</td>
<td>Rs. 32.25</td>
<td>Rs. 32.25</td>
</tr>
<tr>
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<td>30.11</td>
<td>Rs. 3.50</td>
<td>Rs. 30.11</td>
<td>Rs. 30.11</td>
</tr>
<tr>
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<td>32.36</td>
<td>Rs. 4.00</td>
<td>Rs. 32.36</td>
<td>Rs. 32.36</td>
</tr>
<tr>
<td>1st Gravelly</td>
<td>34.44</td>
<td>Rs. 2.00</td>
<td>Rs. 34.44</td>
<td>Rs. 34.44</td>
</tr>
<tr>
<td>2nd Gravelly</td>
<td>42.33</td>
<td>Rs. 2.00</td>
<td>Rs. 42.33</td>
<td>Rs. 42.33</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>236.72</td>
<td>194.05</td>
</tr>
</tbody>
</table>

On the other hand Mr. Williamson contended (2297 of 12th October 1838, Bom. Gov. Sel. CVII. 151-152) that if, as Lieutenant Nash argued, Government were the universal landlord and the cultivators its servants, it would undoubtedly be unjust to leave one man a greater proportionate share of the fruits of his labour than another. But if the object of an assessment was to impose a land-tax, the plan of taking a certain share of the net produce was the only one by which that tax could be fairly fixed, and it was the only means by which any interest could be created in the land stronger than that local attachment which the Kunbi had for his fields; nor was the comparatively higher assessment of inferior soils, which was caused by such a system, to be deprecated. According to Mr. Williamson, it is perfectly natural and most profitable for the cultivator that the best soils should be the first cultivated as those which in proportion to the capital and labour employed on them yield the best return, and, when the fiscal arrangements of Government invert this natural order of things, it is a clear proof that there is something radically wrong in the system. Government (4759, 31st December 1838, Bom. Gov. Sel. CVII. 157-158) observed that Mr. Williamson’s principle carried to extremity would seem to end in the abolition of all difference of rate or classification, and the settlement of one uniform rate for land of all qualities. Bom. Gov. Sel. CVII.

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classification nor the rate of assessment had any connection with the colour or qualities of the soil. In several cases the assessment was glaringly unjust. In one place, fields, on which no grain could be raised except after rains so excessive as to make the black soil almost useless, were entered as of the best soil. Soils were found wrongly classed in almost every village.\(^1\) The errors ran through whole holdings or \textit{thals}; they were not occasional or accidental but continual and systematic. The holders of alienated or private lands were greatly favoured. The partial manner in which they had been assessed was shown by cases which Lieut. Shortrede had carefully examined and well set forth. A great part of these favoured lands were held by the hereditary village officers. The assessable lands held by the hereditary officers were also recorded in a lower class than they properly belonged to. In several villages Lieutenant Shortrede found that the best land was scarcely ever entered in the best class. In several instances he found that the class at first assigned by the assessor was fairly correct and had been falsified by the head assessor. In almost every case these deductions had been made in fields belonging to the village officers and rich landholders.\(^2\) Another common error in the survey was the over-assessment of poor lands. These errors were so glaring that they seemed to be wilful. Twenty to a hundred cases of fraud might be produced from any village taken at random.\(^3\) In practice, Lieutenant Shortrede said, the system of fixing what rent a field could bear by the net produce it yielded, failed because of the difficulty of collecting trustworthy information about net produce.\(^4\) On these reports Government unwillingly came to the conclusion that Mr. Pringle’s survey and assessment, a work of great labour and enormous expense, which was originally looked to with sanguine expectation, must finally be set aside. Government acquiesced in the Revenue Commissioner’s opinion and were satisfied that the survey and assessment were unfit to be made the basis of any revision.\(^5\) A fresh revision of the assessment was urgently called for. Considering the miseries which the people suffered from heavy and unequal assessment, every day and every hour of delay was an evil. In regard to the mode of effecting the revision the only general rule which Government could lay down was, that a patient searching and accurate inquiry must be made into the individual nature and capabilities of every

\(^4\) Lieutenant Shortrede (24th October 1835) says, ‘Instead of endeavouring to ascertain by a detailed calculation in every village the exact value of the net produce of each variety of soil, I should have preferred an assessment founded on a proportion of the gross-produce decreasing from the rich to the poor soil.’ Bom. Gov. Rev. Rec. 698 of 1836, 459-462.
 acre of soil which the survey included. In such a case no abstract or general principle could be applied. Government hoped that under the management of the Revenue Commissioner Mr. Williamson, the present revision would be successful. Besides the talents and information that could now be brought to the work, the agents had learned much from past errors. Every step they took would be founded on experiment and must lead to improvement. Government determined that under the general superintendence and direction of the Revenue Commissioner the work of survey and assessment should in each subdivision or tālūka be carried on by the Collector or the assistant collector who might be in charge of it aided either by an engineer officer or any other competent military officer. In the Poona collectorate the military officers were to be distributed according to the following arrangement. Lieutenant Wingate was to survey Mohol and Mādha under Mr. Goldsmid; Lieutenant Nash was to survey Indāpur under Mr. Goldsmid according to the system introduced by Mr. Goldsmid and Lieutenant Wingate; Lieutenant Shortrede was to have charge of Bhimthadi in addition to Purandhar and was to have Lieutenant Gaisford as an assistant; Lieutenant Calland was to survey Khed and Māval; Ensign Diggle was to survey Junnar and Pābal; Lieutenant Hart was to survey Sholāpur; and two other officers were nominated to survey Bārsī and Havelī.1 To render the proposed arrangement for surveying and revising the assessment fully available and beneficial, Government impressed on all officers concerned the necessity of harmony in work and of unity in system.2

Except in Junnar the 1836 rainfall seems on the whole to have been favourable. Of the total remissions of £16,503 (Rs. 1,65,030), £13,110 (Rs. 1,31,100) were granted on account of bad crops and £3393 (Rs. 33,930) for other causes.3 Of the total land revenue £119,452 (Rs. 11,94,520) were granted and £6954 (Rs. 69,540) were left outstanding by the end of August 1837. In the nine Poona sub-divisions eight new wells were built and twenty-eight old wells were repaired. Markets were established in several villages.4 In April 1837 the Collector Mr. Mills drew attention to the great loss and hardship caused by the levy of customs and transit duties. He was of opinion that the abolition of the transit duties would give much relief to the agricultural and manufacturing classes. Transit duties caused great trouble and annoyance to trade and many difficulties to husbandmen in disposing of their produce. They were one cause of their poverty and of the decline of the land revenue. Mr. Mills recommended that these duties should be abolished. So

1 Of the sub-divisions named in the text, Mohol, Mādha, Sholāpur, and Bārsī are now (1884) in Sholāpur; and Indāpur, Bhimthadi, Purandhar, Khed, Māval, Junnar, Pābal, and Havelī in Poona.
3 The details of remissions on account of bad crops are: Sholāpur and Bārsī Rs. 260, Mohol and Mādha Rs. 1300, Havelī and Bhimthadi Rs. 24,170, Khed and Māval Rs. 17,120, Shīnvar or Junnar and Pābal Rs. 78,900, Purandhar Rs. 6950, Indāpur Rs. 2450, and Poona City Rs. 40, total Rs. 1,31,100.
4 The Collector Mr. Mills, 12th January 1838, Poona Collector’s Compilation, Jamābandi Reports, 1836-38.
long as they existed, neither trade, manufactures, nor agriculture could flourish. This opinion of Mr. Mills had the support of Lieutenant, afterwards Sir George Wingate, who held that the transit duties were one of the chief causes of the husbandmen's poverty. The holders of land would hail the abolition of transit duties as one of the greatest boons.\(^1\) Transit duties were abolished in September 1837.\(^2\)

The chief measure connected with the administration of the land in 1836-37 was the introduction of the thirty years' revenue survey settlement into the Kalas petty division of Indápur. Apart from the ruinous element of fraud in Mr. Pringle's survey in Indápur, the general failure of the 1829 harvest had altered the character of his settlement and filled the revenue accounts with confusion and uncertainty.\(^3\) Between 1829 and 1834 the Indápur husbandmen suffered grievously from the frauds of the village officers and under Government servants. The stoppage of or at least the great reduction in these abuses in 1834 and a change for the better in the seasons improved the condition of Indápur. The revenue returns for the three years ending 1835-36 show average receipts amounting to \(₹6145\) (Rs. 61,450) or an increase of \(₹4450\) (Rs. 44,500) on the corresponding receipts in the three years before 1833-34.\(^4\)

It was under these comparatively favourable circumstances that, with the assistance of Lieutenant Wingate, Mr. Goldsmid introduced a revised survey and assessment in the Kalas petty division of Indápur in 1836.\(^5\) Mr. Goldsmid proposed that every field should be examined and the quality of its soil and the advantages or disadvantages of its situation determined. Government were anxious that the measurements of Mr. Pringle's survey should form

\(^1\) Mr. Mills, Principal Collector, 25th April 1837, Bom. Gov. Rev. Rec. 772 of 1837, 32-34.
\(^2\) Lieutenant Evans in Purandhar Survey Report, 13 of 18th Febry, 1847 para. 10. In consequence of most elaborate and vigorous protests from Mr. Davies in 1836, transit duties were abolished in Thana. Bombay Gazetteer, XIII. 581.
\(^4\) The details are:

<table>
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<th>YEAR</th>
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<th>Collections</th>
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</thead>
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<td>75,197</td>
<td>12,610</td>
<td>3175</td>
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<tr>
<td>1837-38</td>
<td>68,594</td>
<td>41,947</td>
<td>4372</td>
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<td>74,988</td>
<td>232</td>
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<tr>
<td>1842-43</td>
<td>75,502</td>
<td>57,288</td>
<td>71</td>
<td>17,152</td>
</tr>
<tr>
<td>1843-44</td>
<td>83,379</td>
<td>29,609</td>
<td>21,498</td>
<td>61,060</td>
</tr>
<tr>
<td>1844-45</td>
<td>70,062</td>
<td>6257</td>
<td>2643</td>
<td>61,062</td>
</tr>
<tr>
<td>1845-46</td>
<td>74,590</td>
<td>12,163</td>
<td>201</td>
<td>62,197</td>
</tr>
</tbody>
</table>

In February 1837 (Bom. Gov. Sel. CVII. 21 or CLI. 18) Colonel Francis wrote that Mr. Goldsmid introduced his Indápur settlement when the revenue of the subdivision was falling and cultivation decreasing and when there were heavy outstanding balances. This does not agree with the above statement of the Indápur revenues which Colonel Francis gives in para 30 of the same report. The statement shows that Indápur began to mend from 1833-34 not from 1836-37.

\(^5\) Bom. Gov. Sel. CVII. and CLI.
the basis of the new settlement. The former measurements were accordingly in each case tested. Where the error was less than ten per cent the old measurements were kept and if necessary corrected; where the errors were so great as to be likely to vitiate the assessment the whole village was re-measured. As regards the classing of soil Mr. Goldsmid proposed to arrange the dry-crop or jiráyat lands under the three heads of good or uttam, middle or madhyam, and bad or kanishth. It was in his rules for classing the soil that Mr. Goldsmid's system showed itself most superior to Mr. Pringle's system. Under Mr. Pringle's system so many considerations were left to the decision of the classer, the quality of the soil, its position, and its advantages, that it was impossible to have any uniformity in the classing of soils and it was impossible to test the care or the honesty of the classer. Mr. Goldsmid rejected the whole of the former classing. The attention of the classers was directed entirely to the quality of the soil of each field. The classer had nothing to do with any other considerations. All other considerations belonged to the question of the assessment not to the question of the class of land. Even after confining the classer's attention to the quality of the soil it turned out in practical working that to determine the quality of the soil of a field required a much more elaborate arrangement than the original rough grouping into good, middle, and bad. To meet this difficulty Mr. Goldsmid and Lieutenant Wingate devised a plan of arranging the soil under three main groups according to colour, black red and yellow, and of dividing each of the three main groups into three grades or classes, that is into nine grades in all. A value was assigned to each of the nine grades, twelve annas or $\frac{2}{3}$ths being the highest and two annas or one-eighth being the lowest. As regards the dry-crop rates Mr. Goldsmid suggested an alternative scale, for good lands either two or three acres to the rupee of assessment; for middle lands either three or four acres; and for poor lands either four or five acres. He was strongly in favour of the lower scale of rates. If the higher scale was adopted he thought that in a tract which suffered so greatly from uncertain rainfall frequent remissions would continue necessary. It was at first proposed that the settlement should last for ten years instead of for one year and the period was afterwards lengthened from ten to thirty years. Of the seventy-three and a half Government villages of Indapur, the villages forming the Kalas group were settled in 1836-37 and the rest in 1837-38. The following statement shows the tillage and revenue of the Indapur sub-division between 1818-19 and 1836-37:

---

5 There were besides two and a half villages which were settled in 1845. Bom. Gov. Sel. CVII. 29.
## Chapter VIII.

### Land.

#### THE BRITISH.

**Bombay Gazetteer, 1836-1838.**

**Districts.**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Tillage</th>
<th>Ain Jama</th>
<th>Sàgar Jama</th>
<th>Total</th>
<th>Remissions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bighás</td>
<td>Acres</td>
<td>Rs.</td>
<td>Rs.</td>
<td>Rs.</td>
</tr>
<tr>
<td>1836-37</td>
<td>215,911</td>
<td>1,50,782</td>
<td>1533</td>
<td>1,25,315</td>
<td></td>
</tr>
<tr>
<td>1837-38</td>
<td>216,932</td>
<td>1,50,101</td>
<td>1600</td>
<td>1,24,491</td>
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<tr>
<td>1838-39</td>
<td>206,446</td>
<td>1,38,888</td>
<td>1019</td>
<td>1,06,133</td>
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</tr>
<tr>
<td>1839-40</td>
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<td>5485</td>
<td>60,544</td>
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<tr>
<td>1847-48</td>
<td>136,671</td>
<td>71,770</td>
<td>4837</td>
<td>63,682</td>
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<tr>
<td>1848-49</td>
<td>134,564</td>
<td>74,035</td>
<td>5685</td>
<td>79,523</td>
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</tr>
<tr>
<td>1849-50</td>
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<td>81,007</td>
<td>6801</td>
<td>87,543</td>
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<tr>
<td>1850-51</td>
<td>136,310</td>
<td>65,601</td>
<td>6040</td>
<td>75,841</td>
<td></td>
</tr>
<tr>
<td>1851-52</td>
<td>131,707</td>
<td>78,144</td>
<td>8103</td>
<td>81,247</td>
<td></td>
</tr>
<tr>
<td>1852-53</td>
<td>159,900</td>
<td>73,212</td>
<td>7078</td>
<td>80,590</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Claims</th>
<th>For Collection</th>
<th>Outstandings</th>
<th>Collected</th>
<th>Rupee Prices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rs.</td>
<td>Rs.</td>
<td>Rs.</td>
<td>Rs.</td>
<td>Shers.</td>
</tr>
<tr>
<td>1815-16</td>
<td>22,176</td>
<td>1,16,197</td>
<td>11,249</td>
<td>98,888</td>
<td>17</td>
</tr>
<tr>
<td>1816-17</td>
<td>34,664</td>
<td>1,32,457</td>
<td>6854</td>
<td>21,583</td>
<td>194</td>
</tr>
<tr>
<td>1817-18</td>
<td>21,901</td>
<td>1,23,728</td>
<td>4619</td>
<td>19,471</td>
<td>9230</td>
</tr>
<tr>
<td>1818-19</td>
<td>24,354</td>
<td>1,35,830</td>
<td>4563</td>
<td>19,859</td>
<td>9632</td>
</tr>
<tr>
<td>1819-20</td>
<td>27,180</td>
<td>1,08,718</td>
<td>71,753</td>
<td>36,905</td>
<td>324</td>
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<td>1820-21</td>
<td>26,584</td>
<td>1,52,581</td>
<td>18,049</td>
<td>19,322</td>
<td>3630</td>
</tr>
<tr>
<td>1821-22</td>
<td>29,204</td>
<td>86,146</td>
<td>9771</td>
<td>73,949</td>
<td>132</td>
</tr>
<tr>
<td>1822-23</td>
<td>17,785</td>
<td>49,887</td>
<td>4969</td>
<td>38,957</td>
<td>44</td>
</tr>
<tr>
<td>1823-24</td>
<td>19,659</td>
<td>65,554</td>
<td>3824</td>
<td>64700</td>
<td>64</td>
</tr>
<tr>
<td>1824-25</td>
<td>15,346</td>
<td>14,900</td>
<td>6154</td>
<td>56700</td>
<td>1520</td>
</tr>
<tr>
<td>1825-26</td>
<td>15,947</td>
<td>60,015</td>
<td>16,653</td>
<td>43,362</td>
<td>80</td>
</tr>
<tr>
<td>1826-27</td>
<td>17,445</td>
<td>92,378</td>
<td>44,556</td>
<td>48,020</td>
<td>46</td>
</tr>
<tr>
<td>1827-28</td>
<td>17,910</td>
<td>51,377</td>
<td>43,796</td>
<td>75311</td>
<td>2091</td>
</tr>
<tr>
<td>1828-29</td>
<td>11,637</td>
<td>11,902</td>
<td>558</td>
<td>11,344</td>
<td>65</td>
</tr>
<tr>
<td>1829-30</td>
<td>9,686</td>
<td>16,604</td>
<td>997</td>
<td>9657</td>
<td>33</td>
</tr>
<tr>
<td>1830-31</td>
<td>17,085</td>
<td>55,508</td>
<td>23,339</td>
<td>32,165</td>
<td>48</td>
</tr>
<tr>
<td>1831-32</td>
<td>22,034</td>
<td>46,607</td>
<td>4555</td>
<td>41,652</td>
<td>48</td>
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<tr>
<td>1832-33</td>
<td>21,884</td>
<td>46,505</td>
<td>1327</td>
<td>45,478</td>
<td>39</td>
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<tr>
<td>1833-34</td>
<td>22,932</td>
<td>50,603</td>
<td>492</td>
<td>50,159</td>
<td>66</td>
</tr>
</tbody>
</table>

The effect of the rates introduced by Mr. Goldsmid and Lieutenant Wingate was to reduce the jamábandí or rent settlement from £9903 (Rs. 99,030) in 1836-37 to £7279 (Rs. 72,790) in 1837-38 or 26 per cent. This rental of 1837-38 was not much lower than the average settlement £7545 (Rs. 75,450) in the five years before 1836-37.

This survey and settlement of Indápur has the special interest of being the first application of the union of wise principles and ingenious practical devices, which has since become so well known and so widely adopted under the name of the Bombay Revenue Survey system. The new settlement was gradually introduced after group into all the villages of the Poona district, the work ending with the settlement of the Mávals in 1853-54.

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1 The Indápur shér is larger than the Poona shér; the Poona shér is more than double the Bombay shér (Lient. Nath, 1838): 216,000 bighás nearly equal 182,000 acres. Bom. Gov. Sel. CVII. 118, 120, 121; CLI. 96.
Deccan J.

POONA.

The following statement gives the survey rates introduced into the different groups between 1836 and 1854:

**Poona Highest Dry-crop Survey Acre Rates, 1836-1854.**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Black.</th>
<th>Res.</th>
<th>Gatagy or Dhesi and Rental.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indapur</td>
<td>300</td>
<td>240</td>
<td>170</td>
</tr>
<tr>
<td>Kalas</td>
<td>300</td>
<td>240</td>
<td>170</td>
</tr>
<tr>
<td>Hāramati</td>
<td>300</td>
<td>240</td>
<td>170</td>
</tr>
<tr>
<td>Bhūmbtādi</td>
<td>300</td>
<td>240</td>
<td>170</td>
</tr>
<tr>
<td>Kurkum</td>
<td>300</td>
<td>240</td>
<td>170</td>
</tr>
<tr>
<td>Pāiñ</td>
<td>400</td>
<td>300</td>
<td>270</td>
</tr>
<tr>
<td>Aumari</td>
<td>400</td>
<td>300</td>
<td>270</td>
</tr>
<tr>
<td>Hāveli</td>
<td>400</td>
<td>300</td>
<td>270</td>
</tr>
<tr>
<td>Donja</td>
<td>400</td>
<td>300</td>
<td>270</td>
</tr>
<tr>
<td>Purandhar</td>
<td>400</td>
<td>300</td>
<td>270</td>
</tr>
<tr>
<td>Supa</td>
<td>400</td>
<td>300</td>
<td>270</td>
</tr>
<tr>
<td>Bori</td>
<td>400</td>
<td>300</td>
<td>270</td>
</tr>
<tr>
<td>Brāhmānāvādi</td>
<td>400</td>
<td>300</td>
<td>270</td>
</tr>
</tbody>
</table>

The following statement shows that in the seventeen years ending 1854 during which the revenue survey system was being introduced into the Poona district the tillage area spread from 895,438 acres in 1837-38 to 1,366,430 acres in 1853-54 and the collections rose from £63,612 (Rs. 6,36,120) in 1837-38 to £72,476 (Rs. 7,24,760) in 1853-54. The details are:

**Poona Tillage and Revenue, 1837-1854.**

<table>
<thead>
<tr>
<th>Year</th>
<th>Indaiṭur Millet Rupee Prices</th>
<th>Villages</th>
<th>Tillage</th>
<th>Remissions</th>
<th>Outstanding</th>
<th>Collections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sherā, Sherā</td>
<td>Acres</td>
<td>Rs.</td>
<td>Rs.</td>
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</tr>
<tr>
<td>1837-38</td>
<td>36</td>
<td>882</td>
<td>75,430</td>
<td>6,36,124</td>
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<td></td>
</tr>
<tr>
<td>1838-39</td>
<td>37</td>
<td>883</td>
<td>76,283</td>
<td>6,48,311</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1839-40</td>
<td>38</td>
<td>884</td>
<td>77,137</td>
<td>6,60,505</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1840-41</td>
<td>39</td>
<td>885</td>
<td>78,091</td>
<td>6,72,702</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1841-42</td>
<td>40</td>
<td>886</td>
<td>79,046</td>
<td>6,84,901</td>
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<td></td>
</tr>
<tr>
<td>1842-43</td>
<td>41</td>
<td>887</td>
<td>80,002</td>
<td>6,97,102</td>
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</tr>
<tr>
<td>1843-44</td>
<td>42</td>
<td>888</td>
<td>80,959</td>
<td>7,09,302</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1844-45</td>
<td>43</td>
<td>889</td>
<td>81,916</td>
<td>7,21,502</td>
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<tr>
<td>1845-46</td>
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<td>82,873</td>
<td>7,33,702</td>
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<td></td>
</tr>
<tr>
<td>1846-47</td>
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<td>83,831</td>
<td>7,45,902</td>
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<td></td>
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<tr>
<td>1847-48</td>
<td>46</td>
<td>892</td>
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<td>7,58,102</td>
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<tr>
<td>1848-49</td>
<td>47</td>
<td>893</td>
<td>85,747</td>
<td>7,70,302</td>
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<td></td>
</tr>
<tr>
<td>1849-50</td>
<td>48</td>
<td>894</td>
<td>86,705</td>
<td>7,82,502</td>
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<td></td>
</tr>
<tr>
<td>1850-51</td>
<td>49</td>
<td>895</td>
<td>87,664</td>
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<tr>
<td>1851-52</td>
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<td>88,622</td>
<td>8,07,902</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1852-53</td>
<td>51</td>
<td>897</td>
<td>89,580</td>
<td>8,20,102</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1853-54</td>
<td>52</td>
<td>898</td>
<td>90,539</td>
<td>8,32,302</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Bom. Gov. Sel. LXX. 88. Four hundred res make a rupee or two shillings. The highest dry-crop survey acre rates in Khed were Rs. 1, Rs. 1, Rs. 1, Rs. 1, and Rs. 1, and in Māva Rs. 1, Rs. 1, Rs. 1, and Rs. 1. Bom. Gov. Sel. LXX, 4; Bom. Gov. Rev. Rec. 172 of 1853, 107.
Chapter VIII.

Land.

The British. 1835-1844.

Of other measures which combined with the revenue survey to improve the district during this period, the introduction of petty divisional officers or mahálkaris between 1835 and 1838, and the abolition of transit dues in 1837 have been noticed. The repeal of cesses under Act XIX. of 1844, and the spread of public works also did much to improve the state of the district. The appointment of mahálkaris\(^1\) or petty division officers subordinate to mámlatdárs or sub-division officers in Poona and other Deccan districts about 1835 was the work of the Revenue Commissioner Mr. Williamson. The repeal of cesses under Act XIX. of 1844 had the evil effect of freeing from taxation large classes of traders who profited more than any section of the community by the English maxims of government, and who were among the best able to pay of the whole population. At the same time it no doubt proved a relief and caused an increase of wealth. The introduction of public works especially of roads greatly enriched the district. It gave much-wanted employment to husbandmen when field work was slack; it opened markets for field produce, and by cheapening the cost of carriage added to the value of exports and lowered the price of imports.

The season of 1837 was very unfavourable. In November 1837 throughout the district a heavy and untimely fall of rain caused serious damage both to the standing crops and to the stacked corn. At Indápur the rupee price of Indian millet or ḫudrī rose from about 86 to 72 pounds (43-36 shers). In the whole district £12,566 (Rs. 1,25,660) or 13 per cent of the land revenue were remitted and about eleven per cent left outstanding.\(^2\) The net revenue showed a fall of £13,050 (Rs. 1,30,500). This decrease was chiefly due to the abolition of town and transit duties, the discontinuance or modification of objectionable taxes, and a fall in the amount of judicial receipts.\(^3\) In January 1838 Mr. Mills, the Collector, observed that the general poverty of the landholders was well known to Government. He hoped that the introduction of superior products, the revision of the assessment, and the abolition of transit duties and other taxes which fettered the energies of the landholders, would soon enable them to better their circumstances.\(^4\) The introduction of the thirty years' revenue survey settlement into Indápur,

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\(^1\) For details see Bom. Gov. Rev. Rec. 665 of 1835.


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1837-38.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Shivner</td>
<td>4632</td>
<td>65,448</td>
</tr>
<tr>
<td>Indápur</td>
<td>4416</td>
<td>6156</td>
</tr>
<tr>
<td>Kher</td>
<td>13,142</td>
<td>17,434</td>
</tr>
<tr>
<td>Pábal</td>
<td>14,072</td>
<td>25,018</td>
</tr>
<tr>
<td>Purandhar</td>
<td>3070</td>
<td>6894</td>
</tr>
<tr>
<td>Bhímthadi</td>
<td>15,599</td>
<td>16,473</td>
</tr>
<tr>
<td>Haveli</td>
<td>12,119</td>
<td>10,967</td>
</tr>
<tr>
<td>Maval</td>
<td>6451</td>
<td>6932</td>
</tr>
</tbody>
</table>

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\(^4\) Poona Collector's Compilation, Jamábandi Reports, 1836-38, 26.
which was begun in 1836, was finished in 1837-38. The first year (1837-38) of the new rates showed satisfactory results. The area under tillage had increased in two years (1836-37) by 66,900 acres;¹ the revenue was collected punctually and with ease; there were no outstandings, and fewer remissions. That this improvement was in great measure due to the new settlement was shown by the fact that no similar improvement had occurred in other parts of Poona.²

The season of 1838-39 was again very unfavourable. In some parts of the district rain almost entirely failed. At the same time the rupee price of Indian millet fell at Indápur from about 72 to 134 pounds (36-67 shers). In the whole district £18,626 (Rs.1,86,260) or about 244½ per cent of the land revenue were remitted.³ The collections amounting to £54,811 (Rs.5,48,110) showed a fall of £8800 (Rs.88,000) or about fourteen per cent. The outstandings amounted to £1920 (Rs.19,200). In Indápur, since the introduction

¹ According to another account, the tillage area in Indápur showed an increase from 131,707 acres in 1835-36 to 162,019 acres in 1836-37 and to 189,088 acres in 1837-38. Bom. Gov. Sel. CVII. 120. According to a third statement (Bom. Gov. Res. Rec. 17 of 1846, 63-66) there was an increase in Indápur in 1836-37 in tillage of 20,073 acres and in revenue of Rs.5335 and in 1837-38 in tillage of 33,370 acres and in revenue of Rs.11,402.
² Mr. Mansfield, assistant collector, 27th November 1838, Bom. Gov. Rev. Rec. 974 of 1839, 188-190. Mr. Mansfield who had charge of Bhimthadi and Indápur and whose opinion as regards the result of the survey settlement in Indápur has been given in the same report (about 1837-38): 'The late heavy rain that fell in November was the source of much distress to the landholders of the subha or mülaltdär's division of Bhimthadi in which early or khari crops alone are cultivated while in the Kurkumb petty division where rabi is the chief product, there were better crops than have been known for several years. The distress above alluded to entailed the necessity of making large remissions which though smaller than those granted the year before (1836-37), were larger than ought ever to be given if the sub-division were lightly and equitably assessed. But as this is very far from being the case in this sub-division in which the villages even in proximity to Poona, which it would have been supposed would have been very flourishing, are half-uncultivated and the cultivators most wretchedly poor, the remissions were made liberally on the ground that it is better to remit than to allow a balance to remain which may not be paid for years, and perhaps not at all. The decrease in land cultivation, notwithstanding the assistance afforded by Government in advances or toqät, the abolition of the transit duties and other vexatious and oppressive taxes, is a forcible example of over-assessment. The mülaltdår of Bhimthadi represented that unless some immediate relief were afforded by reducing the assessment, a further decrease would take place. As there was no establishment capable of making an inquiry into the inequality of assessment, and Lieutenant Nash had begun the survey in the Kurkumb petty division, I issued an order that those who wished to take up fresh land should be assessed only at 12½ as or three-fourths of the survey rates, which measure has been attended by the beneficial result of 15,000 acres of fresh cultivation. The same rain that caused so much distress in Bhimthadi proved of signal benefit in Indápur, and notwithstanding the entire failure of the khari crops the remissions granted are of less amount than they ever have been. This however might have been expected as the result of the introduction of the new survey. But I bring it prominently to notice as the obviating the necessity of granting remissions was one of the reasons specified for lightening the assessment; it is also pleasing to be able to record that that object has been partly attained.' Mr. Mansfield, assistant collector, 29th November 1838, Bom. Gov. Rev. Rec. 974 of 1839, 178-182, 187-188.
of the 1836 survey, about 68,000 acres had been brought under tillage.¹ In November 1838 the Revenue Commissioner Mr. Williamson noticed that the introduction into Poona of the mahálkari system, and the separation of the Sholápur sub-collectorate had done much to improve the revenue management of Poona. The great want now was the revision of the survey. Though much remained to be done village accounts had greatly improved. The remission of town duties and advances to build shops and repair wells and village offices had done much to improve Supa, Kalas, Móhol, and Sholápur, and the city of Poona had benefited by the remission of taxes and the repair of roads.²

In this year 1838-39 the thirty years’ revenue survey settlement was introduced into the Kurkumb petty division of Bhimthadi.³ Bhimthadi was a long narrow belt, chiefly on the left bank of the Bhima, stretching from near Poona to the borders of Indápur. It included two divisions which differed greatly in climate. In the west the Pimpalgaon division, under the màmladár, enjoyed a much more certain and abundant supply of rain than the eastern division under the mahálkari of Kurkumb. The climate, soil, and productions of Kurkumb were in every respect similar to those of Indápur. The chief feature of its climate was scanty uncertain rainfall, and its chief produce was Indian millet or jvári. Pimpalgaon enjoyed a considerable rainfall, yielded bájír, and was near Poona the chief grain mart in the country. Survey rates were introduced into Kurkumb in 1838-39 and into Pimpalgaon in 1839-40. The horror of Holkar’s wasting march in 1802 and the failure of rain and famine of 1803 had wiped out the memory of all older sufferings. The country had scarcely recovered when it passed to the British. Soon after, and probably in the mind of the people because of the Peshwa’s overthrow, a plague of cholera swept away a large proportion of the people. During the three years after the Peshwa had been driven from Poona, in the village of Kurkumb out of 1000 people 460 died. Then came the ruinous fall in the price of grain from the spread of tillage, the decline in capital, and the fall in the numbers of the local non-agricultural classes. The failure of rain in 1823, 1824, 1827, 1829, 1830, and 1832 had combined to reduce Kurkumb to a deplorable state. The earliest year for which local information was available was 1832-33. In that year, as in Indápur, a succession of bad years joined with cheap grain had reduced the people to wretchedness and made large remissions necessary, the allotting of which had to be left in great measure to low clerks with little supervision. From a nominal or kacha rental of £7187 (Rs. 71,870) of the whole Bhimthadi subdivision, £5482 (Rs. 54,820) had to be taken because of remissions, and £462 (Rs. 4,620) because of village expenses, leaving to Government only £1243 (Rs. 12,430).

² Mr. Williamson, Rev. Com. 2610 of 23rd November 1838.
³ Bom. Gov. Sel. CJLI. 228.
The land seems to have been very unequally assessed; the average acre rate for dry-crop was 1s. 6d. (12\frac{1}{2} as.) and for garden Rs. (Rs. 4) besides the dry-crop rate. The people had come to look on remissions as their right. In 1838-39 Lieutenant Nash the survey officer was at a loss how to convey an impression of the poverty of the Bhimthadi villages; more than half the arable land was waste, the villages were ruined, constant remissions were required, and outstandings accumulated. Of a total of 191,000 arable acres 106,000 or more than one-half were waste. A portion of this waste was covered with thick thorny bushes, which it would be difficult to clear. The village walls were crumbling and falling, and for one inhabited house two were empty and of many only the open sites remained. The conditions of the Kurkumb group, the soil, climate, style of tillage, and price of grain so closely resembled Indapur that Lieutenant Nash proposed to introduce the same rates. On account of their greater nearness to Poona Lieutenant Wingate suggested an increase of ten per cent and these revised rates were approved and introduced.

In February 1840 Mr. Stewart the Collector remarked that where the new survey rates had been introduced, nearly all the land had been taken up. In many instances the landholders continued to take up land they were unable to cultivate and used it for grazing rather than risk being deprived of it by others. Where the old rates prevailed, much good land was still waste. This could be brought under tillage only by a reduction in the assessment. In 1839-40 the latter rains almost entirely failed and the late crops suffered severely. At Indapur the rupee price of Indian millet or jwari rose from about 134 to 88 pounds (67\frac{1}{4} shers). In the Kurkumb division of Bhimthadi there was an increase of 14,537 acres which was carried out by the landholders with their own capital. In the whole district the area under tillage was 895,438 acres; and though £10,640 (Rs. 1,06,400) or about 13\frac{1}{2} per cent of the land revenue were remitted, the collections were £12,280 (Rs. 1,22,800) higher than in the previous year.

2 Bom. Gov. Sel. CLI. 199, 233. At the same time as in Indapur the statement (Sel. CLI. 203) of revenues for forty-eight villages of the Bhimthadi subdivision shows a considerable improvement since the year 1833-34. The average collections during the three years before 1833-34 were Rs. 16,360 and in the six years after 1833-34 Rs. 31,570, and in the three last of those six years Rs. 34,350.
6 Mr. Stewart, Collector, 19th November 1840, Bom. Gov. Rev. Rec. 1241 of 1841, 68, 69. In Indapur tillage increased by 5625 acres, and revenue by Rs. 1526; in Bhimthadi the increase was 17,490 acres under tillage and Rs. 7455 under revenue. Bom. Gov. Rev. Rec. 17 of 1846, 63-66.
7 In the surveyed and settled subdivisions of Indapur and Bhimthadi the remissions amounted to 4\frac{1}{2} and 6\frac{1}{2} per cent, while in the unsettled subdivisions they ranged from 6 to 20 per cent (Bom. Gov. Rev. Rec. 1241 of 1841, 41). On the 9th of October 1840 Mr. Mansfield, the assistant collector, wrote, 'I am afraid that for long some remissions must be made whenever there is a want of rain. The landholders as a rule are so extremely poor, in consequence of over-assessment and low produce prices, that in a bad year they have not capital enough to enable them to pay the full assessment.' Bom. Gov. Rev. Rec. 1241 of 1841, 39, 177.
In 1839-40 the survey settlement was introduced into the remaining villages of Bhimthadi. They constituted the charge of the mamlatdar at Pimpalgaon. This group was the western division of Bhimthadi. It had passed through the same trials as the eastern or Kurkumb group which was settled in the previous year, and the condition of its villages and people was very little better. On the other hand there was a notable difference in the rainfall, the staple products, and the character of the soil. Pimpalgaon enjoyed a considerable rainfall, yielded bajri, and was near Poona the chief grain market in the country. As regards rainfall in the Pimpalgaon group the early south-west rains were more plentiful, certain, and regular than in Kurkurb or Indapur; but the north-east October and November rains were slighter and less certain. As regards crops, in consequence of the difference of rainfall, the chief harvest of the Pimpalgaon group was the early or kharif millet or bajri and not as in Indapur the late or rabi Indian millet or jwári. Millet was a more costly crop to grow than Indian millet. It wanted manure and weeding, did not flourish without rain, and gave a less outturn. On the other hand millet was the food of the richer classes, and in Yevat the chief mart of Pimpalgaon was generally twenty per cent dearer than Indian millet.

The details of millet prices are:

<table>
<thead>
<tr>
<th>Rupee Price of Bajri and Jwári in Shers, 1830-1839.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOWNS</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Indapur</td>
</tr>
<tr>
<td>Kurkumb</td>
</tr>
<tr>
<td>Yevat</td>
</tr>
<tr>
<td>Poona</td>
</tr>
</tbody>
</table>

Apart from the fact that its staple millet was a higher priced grain

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1 Bom. Gov. Sel. CLI. 239.
2 During the ten years ending 1839-40 in a group of forty-eight Bhimthadi villages which were afterwards brought under revision in 1871, the remissions averaged £1357 (Rs. 13,570) and the collections £2686 (Rs. 26,860). The details (Bom. Gov. Sel. CLI. 202-203) including extra cesses or ságar bába were:

<table>
<thead>
<tr>
<th><strong>Bhimthadi Revenue, 1830-1840.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YEAR.</strong></td>
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<tr>
<td></td>
</tr>
<tr>
<td>1830-31</td>
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<td>1831-32</td>
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</tr>
<tr>
<td>1838-39</td>
</tr>
<tr>
<td>1839-40</td>
</tr>
<tr>
<td><strong>AVERAGE.</strong></td>
</tr>
</tbody>
</table>

than Indian millet, its nearness to grain markets gave the Pimpalgaon group a considerable advantage over Indāpur. During the seven years ending 1837 the average price of Indian millet at Yevat in Pimpalgaon was 27 per cent above the average price of Indian millet in Indāpur. As regards soil the greater certainty of the rain joined perhaps to some property of the millet plant made the varieties of soil less marked than in Indāpur. There was less difference in the outturn of bad and good soils in Pimpalgaon than in Indāpur. In Pimpalgaon the best lands were waste and the worst lands were under tillage, partly because the good lands were harder to work but also from some fault in assessment. In fixing the amount by which the Pimpalgaon rates should differ from the Indāpur rates no change was required under the heads of condition of the people or cost of tillage. The chief grounds of variation were the better rainfall in the Pimpalgaon group, the greater nearness of the Pimpalgaon group to better markets, and the less difference between the outturn of the different classes of soil in Pimpalgaon than in Indāpur. These considerations led Lieutenant Nash to propose for the Pimpalgaon group rates which in the aggregate were thirty-two per cent higher than the rates introduced into Indāpur. In the Pimpalgaon group there were 128,000 acres. The proposed rates averaged 11s. 10d. (7½ as.) the acre, and the new assessment was expected to vary from £5700 to £6300 (Rs. 57,000 - Rs. 63,000). The old assessment was £11,600 (Rs. 1,16,000) and the Government receipts for the two years before the revision of the survey were £3300 (Rs. 33,000) and £2900 (Rs. 29,000). If the reduction of rates caused the same spread of tillage as in Indāpur, an increase of 47,000 acres in tillage and of at least £1000 (Rs. 10,000) in collections was expected.

On the ground that the difference of produce prices between Indāpur and Pimpalgaon was twenty-five per cent in favour of Pimpalgaon, Lieutenant Wingate raised Lieutenant Nash’s proposed rates by between four and five per cent. Lieutenant Wingate’s acre rates were first black 1s. 10½d. (15 as.), second black 1s. 6d. (12 as.), and third black 1s. 1¾d. (9 as. 2½ ps.); first red 1s. 3¾d. (10 as. 4½ ps.), second red 10½d. (7 as. 2½ ps.), and third red 8½d. (6 as. 9½ ps.); first brown 9½d. (6 as. 7½ ps.), second brown 6d. (4 as.), and third brown 8½d. (2 as. 4½ ps.). These rates were sanctioned by Government.

Considering the effect of the new rates of assessment Lieutenant Nash

2 The Pimpalgaon acre rates were: Black land, 14 as. 4½ ps., 11 as. 7½ ps., and 8 as. 9½ ps.; red land, 10 as., 7 as., and 5 as. 7½ ps.; brown land, 6 as. 4½ ps., 4 as., and 2 as. 4½ ps. The corresponding Indāpur rates were: Black land, 12 as., 9 as. 7½ ps., and 7 as.; red land, 8 as., 5 as. 2½ ps., and 3 as. 7½ ps.; brown land, 4 as., 2 as. 4½ ps., and 1 as. 4½ ps. Bom. Gov. Sel. CLI. 151, 244.
3 Bom. Gov. Sel. CLI. 245-246. In the kurkumb group there were 98,764 acres. Their old assessment was £7055 (Rs. 70,550) and their new assessment £3700 (Rs. 37,000) representing an average acre rate of 9½d. (6¼ as.). Indāpur contained 220,000 acres; its old assessment was £20,300 (Rs. 2,03,000) and for many years the average revenue had been only £2300 (Rs. 23,000). The average acre rate imposed by Mr. Goldsmith was 8½d. (5¼ as.); this reduced the assessment to £8400 (Rs. 84,000); while an extension of cultivation consequent on the reduction of assessment increased the revenue to about £5000 (Rs. 50,000), only about one-seventh of the land remaining out of cultivation. Bom. Gov. Sel. CLI. 245.
anticipated that they would shortly cause an increase of not less than £1000 (Rs. 10,000) a year in the Government revenue, and Lieutenant Wingate thought that the gain to the people by the introduction of the new rates would be still greater.¹

In 1840-41 of a revenue of about £80,000 (Rs. 8,00,000) about £10,000 (Rs. 1,00,000) were remitted. In the open country away from the Sahyadris the crops were generally bad. About £9200 (Rs. 92,000) were remitted in the plain parts of Pabal, Purandhar, Junnar, and Haveli. In Indapur and Bhimthadi the revision of the assessment had lessened the necessity for remissions though the season was not more favourable than in the other eastern sub-divisions.² At Indapur the rupee price of Indian millet or jowar fell from about 88 to 128 pounds (44-64 shers). In the whole district the tillage area increased from 895,438 to 947,840 acres, remissions fell from £10,640 to £9926 (Rs. 1,06,400 - Rs. 99,260), and collections rose from £67,979 to £68,279 (Rs. 6,70,970 - Rs. 6,82,790). Outstandings amounted to £1750 (Rs. 17,500).³ In reviewing the year’s report Government observed with satisfaction that the revenue was on the increase, the collections were made more punctually, and the outstanding balances were being settled.⁴

In 1841 the assistant collector Mr. Hart, writing on the 9th of November spoke highly of the progress made in Indapur and Bhimthadi. Within the last few years population had increased, tillage had spread, the Government revenue had risen, and remissions fallen, and the social and pecuniary condition of the people had perceptibly improved. Mr. Hart considered that this change was in great measure due to the new settlement rates.⁵

¹ Lieutenant Wingate, 11th December 1839, Bom. Gov. Sel. CLL 282.
² The details of remissions are: Maival 3'15 per cent and Khed 1'72, both unrevised western sub-divisions; Junnar 7'87 an unrevised sub-division partly western partly open, the season unfavourable in the open parts; Pabal 30'02 an unrevised sub-division in the open country, the season unfavourable; Haveli 5'58 and Purandhar 38'66, both unrevised sub-divisions partly near the hills partly open, the season unfavourable in the open parts; Bhimthadi 2'50 and Indapur 3'69 both revised sub-divisions in the open country, the season unfavourable as in the unrevised open parts. To illustrate the good results of the revised survey settlement still more strikingly, Mr. Vibart the Revenue Commissioner gives the percentage of remissions in the neighbouring sub-divisions of other districts; Korti 36'61 an unrevised sub-division of Ahmadnagar, and Karmal 43'71, an unrevised sub-division of Sholapur. They lay to the north and north-east of Bhimthadi and Indapur the revised sub-divisions of Poona. Bom. Gov. Rev. Rec. 1344 of 1842, 5-6.
³ Of the two revised sub-divisions in Indapur tillage showed an increase of 2194 acres and revenue of Rs. 655, and in Bhimthadi tillage of 21,347 acres and revenue of Rs. 8347. Bom. Gov. Rev. Rec. 17 of 1846, 63-66. Of the total outstandings of Rs. 17,503, Rs. 6262 were in Khed, Rs. 3918 in Indapur, Rs. 2427 in Purandhar, Rs. 2162 in Junnar, Rs. 1825 in Haveli, Rs. 667 in Pabal, Rs. 183 in Poona City, and Rs. 59 in Bhimthadi. There were no outstandings in Maival.
⁵ Bom. Gov. Rev. Rec. 1344 of 1842, 54, 129. Bom. Gov. Sel. CLL 202. In 1840-41 in Indapur the waste area was reduced to 5160 acres. Bom. Gov. Sel. CJIL 36. About Kurkumb in Bhimthadi the assistant collector Mr. Mansfield wrote about 1841: 'The increase in the land under cultivation in the Kurkumb division, amounting to 14,537 acres assessed at Rs. 5000, is a proof of the great relief afforded to the landholders by the revised rates of assessment; and it is worthy of remark that the whole of this land has been brought into cultivation by the holders on their own means, unassisted by advances and under a clear understanding that no remission would be made on account of a failure of crops.' Bom. Gov. Sel. CLL 202.
circumstance which added to the prosperity of the people in 1841 was the abundant supply of cattle. This was probably partly at least due to the change from pack-bullocks to carts which must have set free a large number of bullocks. On the 23rd of December 1841 the Collector Mr. Stewart wrote: 'Bullocks are brought in large droves from the neighbouring states every year to these districts, and cattle markets are held weekly in many large towns. The supply is amply sufficient for the demand. Landholders are never forced to go any distance to buy cattle, nor is any inducement required to persuade the owners of bullocks to bring them for sale in these districts.' In 1840-41 Mr. Hart proposed that remission should be granted to any one who would plant the edges of his field with trees. Mr. Stewart the Collector said it was no use trying to tempt the people as they thought trees spoiled their crops and harboured birds.

A subject which at this time received much attention from revenue officers was the best means of helping landholders by the grant of advances. In 1842 (February 8th) the Revenue Commissioner Mr. Vibart wrote, 'The account of the Government agricultural advances or the tagáí is on the whole satisfactory. Where the advance is made to effect permanent improvements such as sinking wells, the more that can be advanced the better, provided the improvement proposed is real and permanent and the character and means of the landholder hold out a fair prospect of the undertaking succeeding. Advances to buy bullocks might do good. Still in lightly assessed parts advances for bullocks were open to the objection of tempting landholders to bring more land under tillage than they could cultivate properly. He thought that in lightly assessed districts the grant of advances to buy cattle should be discouraged except after an epidemic of cattle disease or after a famine year.' In a letter dated the 16th of May 1842, Government approved of Mr. Vibart's proposals. They said 'In tracts or village groups where the assessment is ill-regulated and the landholders are poor and depressed, it is impossible to resist the call for advances to help in providing seed and stock. As a tract improves, the need of advances for seed or for stock becomes less urgent. In such cases advances should be confined to landholders who are anxious to improve their land. Government considered that the sums of money which had been advanced to landholders to enable them to improve their carts was most judicious. Advances to improve irrigation were also always well spent. In the present state of the public resources it was impossible to sanction any considerable outlay, and endeavours must be confined to preventing the decay of works already in existence.' Considering his peculiar qualifications and intimate knowledge of the country, Government sanctioned the annual disbursement by Dr. Gibson the Superintendent of the botanical garden at Hivra of £300 (Rs. 3000) in advances to landholders desirous of undertaking works of irrigation. One

form of advances which in the opinion of Government should be
scrupulously restricted was the demand of advances with the object
of forcing ordinary cultivation.¹

In 1836 the great loss which the people suffered from the want
of a market for their grain impressed on the district officers the
necessity of introducing measures to cheapen the cost of carriage.
Roads were being made, and the new road (1830) down the Bor
pass made it possible to send produce to the Konkan and Bombay
in carts. There were very few carts in the district. Those which
were in use were for carrying great weights for short distance and
had solid stone wheels. A new style of cart was introduced by
Lieutenant Gaisford in 1836, and a cart factory was started by him
at Tembhurni in Sholapur.² The people took great interest in the
carts which were light weighing only 160 pounds, cheap costing
about £4 (Rs. 40), and roomy enough to carry about three quarters
of a ton. Many of the richer landholders bought carts. It was
found that the bulk of the people were keen to buy but could not
spare the money. Advances were made aggregating about £760
(Rs. 7600) and in the four years ending 1840 it was estimated that
3722 carts had been made and were in use. In his report for 1839-40
the Collector Mr. Stewart wrote (19th Nov. 1840): 'The improved
description of carts is highly approved by all classes. The model
has been generally adopted and several people make them for sale
on speculation, in the city of Poona.' To introduce cart-making
into the leading country towns Mr. Stewart proposed that at each
máumlátádár's station two workshops should be formed, which the
children of the village carpenters and blacksmiths of the pargana
should be allowed to attend to be taught cart-making. Where the
means of learning their trade was thus within the reach of each
carpenter and blacksmith of a village, Government might insist on
a certain degree of skill to entitle him to the inám or perquisites
attending his right to work for his village. As a further encourage-
ment to the attainment of greater skill, a promise of employment
under Government in the public works and ordnance might be held
out to those who were considered fit for such situations.³ Government
did not favour Mr. Stewart's suggestions. In their opinion if
cart-making paid, cartmakers would soon spring up.⁴

The season of 1841-42 was peculiarly unfavourable. The early
rains fell in some sub-divisions so abundantly and incessantly as to
destroy a large proportion of the early crops. The late harvest
failed because the latter rains were too long of beginning. In some
sub-divisions the standing crops were destroyed by locusts. The
remissions amounted to 15-31 per cent.⁵ At Indápur the rupee
price of Indian millet or j̱váIr rose from about 128 to 112 pounds

⁵ Jannar 21-47, Indápur 10-96, Khed 14-72, Páhal 12-79, Purandhar 33-35, Bhím-
1453 of 1843, 41-42.
Deccan.

POONA.

425

(64-56 shers). The area under tillage\(^1\) in the whole district rose from 947,840 to 982,600 acres, and collections fell from Rs. 68,279 to Rs. 64,296 (Rs. 6,82,790-Rs. 6,42,960).\(^2\) Outstandings amounted to £2441 (Rs. 24,410).\(^3\) Since 1838 considerable progress had been made in clearing off the heavy balances which had for years been accumulating. The total of £69,016 (Rs. 6,90,160) in 1838 was reduced to £36,544 (Rs. 3,65,440) in 1841.\(^4\)

The low rates introduced into Indapur and Bhimthadi had led to a rapid spread of tillage.\(^5\) The tillage was superficial. As shown in the following statement the increase in the stock of cattle did not nearly keep up with the increase in the tillage area. The details\(^6\) are:

**Bhimthadi-Indapur Tillage and Working Cattle, 1840-1842.**

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>Last Year of Mr. Pocock's Survey</th>
<th>1840-41</th>
<th>1841-42</th>
<th>1841</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tillage, Oxen</td>
<td>Acres</td>
<td>Acres</td>
<td>Acres</td>
</tr>
<tr>
<td>Bhimthadi, Mânbadâr's Division</td>
<td>49,576</td>
<td>3,631</td>
<td>40,468</td>
<td>10,411</td>
</tr>
<tr>
<td>Mahâlârkâr's division</td>
<td>36,400</td>
<td>3,459</td>
<td>75,127</td>
<td>7,945</td>
</tr>
<tr>
<td>Indápur, Mânbadâr's Division</td>
<td>76,975</td>
<td>4,905</td>
<td>115,164</td>
<td>7,875</td>
</tr>
<tr>
<td>Mahâlârkâr's division</td>
<td>40,012</td>
<td>4,003</td>
<td>105,988</td>
<td>8,776</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>206,425</td>
<td>25,635</td>
<td>372,765</td>
<td>30,607</td>
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</table>

\(^1\) The details are:

**Poona Tillage, 1833-1842.**

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>1833-35</th>
<th>1839-40</th>
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<th>1841-42</th>
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<tbody>
<tr>
<td></td>
<td>Acres</td>
<td>Acres</td>
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</tr>
<tr>
<td>Indápur</td>
<td>212,407</td>
<td>218,306</td>
<td>224,695</td>
<td>227,584</td>
</tr>
<tr>
<td>Pábal</td>
<td>...</td>
<td>...</td>
<td>118,200</td>
<td>121,309</td>
</tr>
<tr>
<td>Purandhar</td>
<td>...</td>
<td>...</td>
<td>106,048</td>
<td>106,729</td>
</tr>
<tr>
<td>Bhimthadi</td>
<td>...</td>
<td>...</td>
<td>154,351</td>
<td>159,624</td>
</tr>
<tr>
<td>Haveli</td>
<td>...</td>
<td>...</td>
<td>60,467</td>
<td>53,142</td>
</tr>
<tr>
<td>Khed</td>
<td>105,312</td>
<td>102,438</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Mâval</td>
<td>...</td>
<td>...</td>
<td>32,738</td>
<td>31,538</td>
</tr>
<tr>
<td>Poona City</td>
<td>...</td>
<td>...</td>
<td>2246</td>
<td>2279</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>895,438</td>
<td>947,840</td>
<td>982,600</td>
<td>982,600</td>
</tr>
</tbody>
</table>

Bom. Gov. Rev. Rec. 1344 of 1842, 32, and 1453 of 1843, 34, 35, 37. In 1842 there were 6148 acres of waste in Indápur and 43,705 in Bhimthadi. Rev. Rec. 1453 of 1843, 35. According to another statement there was in 1841-42 a decrease of 749 acres in tillage and of Rs. 226 in revenue in Indápur, and an increase of 5418 acres and Rs. 2368 in Bhimthadi. In Haveli and Pábal into which the survey settlement was introduced in 1841-42, there was an increase of 6382 acres in tillage and of Rs. 3438 in revenue in Haveli, and of 2093 acres and Rs. 1093 in Pábal. Bom. Gov. Rev. Rec. 17 of 1846, 63-66.

\(^2\) Of the decrease in revenue about £1800 (Rs. 18,000) were due to the introduction of survey rates into Pábal and Haveli. Bom. Gov. Rev. Rec. 1453 of 1843, 29.

\(^3\) The details are: Shivner Rs. 57, Indápur Rs. 3598, Khed Rs. 393, Pábal Rs. 3159, Purandhar Rs. 10,528, Bhimthadi Rs. 2994, Haveli Rs. 3237, Mâval Rs. 2, and Poona City Rs. 505. Bom. Gov. Rev. Rec. 1453 of 1843, 125.

\(^4\) Mr. Vibart, Rev. Comr. 311 of 24th Feb. 1842.

\(^5\) The figures were, for Indápur 212,407 acres in 1838-39; 218,306 in 1839-40; 224,695 in 1840-41; and 227,584 in 1841-42; and those for Bhimthadi 108,069 acres in 1839-39; 131,204 in 1839-40; 154,351 in 1840-41; and 159,624 in 1841-42. Bom. Gov. Rev. Rec. 1453 of 1843, 35. According to another statement there was in 1841-42 a decrease of 749 acres in tillage and of Rs. 226 in revenue in Indápur, and an increase of 5418 acres and Rs. 2368 in Bhimthadi. Bom. Gov. Rev. Rec. 17 of 1846, 63-66.

\(^6\) Bom. Gov. Rev. Rec. 1344 of 1842, 135-139. The figures in this statement and in the statement in footnote 1 do not quite agree.
In spite of the badness of the season the opening of cart tracks and the making of carts had caused a marked increase in traffic. In 1841 the chief exports were field produce, chiefly júári, bájri, tur, gram, wheat, oil, and miscellaneous articles. Coarse cotton cloth chiefly for local use was woven in Indápur, Jejuri, Talegaon Dábháde, and some other villages. Returns prepared at Khandála on the Bombay-Poona road and on the other main lines of traffic showed an increase in the estimated value of the traffic from £110,528 (Rs. 11,05,280) in 1840-41 to £131,758 (Rs. 13,17,580) in 1841-42 or an increase of £21,230 (Rs. 2,12,300). The value of the articles on which import or thal-mod that is local-emptying duties were levied in the city of Poona and in the town of Junnar, rose from £39,738 (Rs. 3,97,380) in 1840-41 to £41,623 (Rs. 4,16,230) in 1841-42, and the export or thal-bharit that is local-filling goods were estimated to have fallen in value from £8880 (Rs. 88,800) to £6849 (Rs. 68,490).

In this year the thirty years’ revenue survey settlement was introduced into the Pábal and Haveli sub-divisions. Pábal was a narrow slip of land lying nearly north and south. It included a northern group with Ansari as its head-quarters which formed the mahálkari’s charge and a southern group with Pábal as its head-quarters which formed the mámlátádár’s charge. As all parts of the sub-division were about the same distance from the Sahyádris there was little variety of climate. In the north-west corner a few villages were hemmed in by considerable hills which caused a specially heavy rainfall while some villages on the eastern boundary received a scanty supply. The landholders though depressed were not so badly off as those of Indápur and Bhimthadi. The large proportion of hereditary or mirás holders, 1850 out of 2442 in the Pábal group and 2719 out of 3262 in the Ansari group, showed that this sub-division had never suffered so severely as the east of the district. At the same time Pábal was depressed by over-assessment. Many of the villages were ruined and tillage had remained nearly stationary at 105,000 acres in the twelve years ending 1841 during which Mr. Pringle’s settlement was nominally in force. During those twelve years more than 50,000 acres or about a third of the Government arable land had lain waste. Of the total dry-crop or kamál jíráyat assessment fixed in 1829 for the whole Government arable land at £15,500 (Rs. 1,55,000) an average of only £7200 (Rs. 72,000) or less than one-half was realized. During the first nine years (1820-1829) of British rule the average rental including sáyar or miscellaneous revenue was £13,788 (Rs.1,37,880), and the average collections were £12,516 (Rs.1,25,180). In the next twelve years (1829-1841) when the rent settlement was nominally made according to the assessment fixed at the 1829 survey, the average revenue for collection was £10,769 (Rs.1,07,690) and the collections £8785 (Rs.87,850). The large average rental and collections during the first period (1820-1829) were due to the comparatively enormous revenue drawn from the land in the first few years of

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British rule. For the first three years (1820-23) the actual receipts on account of land revenue averaged upwards of £16,000 (Rs.1,60,000) a year; in 1824 they fell to £10,800 (Rs.1,08,000); and in every succeeding year they were less than in 1824. Lieutenant Wingate thought that in the early years the capabilities of the Deccan had been overtaxed and that this drain of capital was in great measure the cause of the future poverty and distress. Of the two survey groups into which Pábal was divided the Pábal or mãnilatâr’s group in the south contained 113,054 acres distributed among twenty-eight villages. Measuring and classing were begun in 1839 and finished in 1840. The measurements of the 1829 survey generally proved correct and were kept by the 1839 survey. Except a few villages in the east where the rainfall was somewhat scanty, the climate of the Pábal group was uniform. The people, though poor in house gear clothing and farm stock, were some shades better off than the people in the east. There were 188 shops. Still many of the villages and village walls were ruined, and manufactures did not flourish. Of 2442 landholders, 1850 were hereditary holders, 492 were casual holders, and 100 were ovândkaris or ovândekaris that is strangers. There were 1225 ploughs, 7521 bullocks, and 430 carts. Since the introduction of the 1829 survey the tillage area had varied little, the average of the three years ending 1841 showing an increase over the three years ending 1832 of about 4000 acres. This south or Pábal group did not come under British management until 1820. In that year the land revenue was £8332 (Rs.83,320) and the other taxes yielded £418 (Rs.4180) or a total revenue of £8750 (Rs.87,500). In 1828 the year before Mr. Pringle’s survey, the land revenue was £4796 (Rs.47,960) or nearly one-half what it was nine years before and the taxes £328 (Rs.3280) or one-third less. The survey rates yielded a revenue of £5398 (Rs.53,980) that is an increase of £600 (Rs.6000), but in the following year the rental sank to about its former level. Since 1835-36 it had been gradually diminishing at the rate of £100 (Rs.1000) a year and in 1838-39 was £5157 (Rs.51,570) or £3175 (Rs.31,750) less than when the country came into the hands of the British, while the taxes were £190 or £230 (Rs.1900 or Rs.2300) less. During the first nine years (1820-1829) remissions to the amount of £6764 (Rs.67,640) were given, and during the last ten years under the 1829 survey the sum of £7629 (Rs.76,290) was remitted, so that in the space of nineteen years the remissions amounted to the enormous sum of £14,393 (Rs.1,43,930) that is nearly three years’ rental.

There was a large area of garden tillage. There were many water channels or pâts, 739 wells of which 203

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2 It means the holder and cultivator of land which lies without the tract subject to the village in which he lives.
3 The various land measures in use, the pokka-bigāha, kachcha-bigāha, chādar, rukka, and khendi made it impossible to tell the area under tillage in the years before 1829. Bom. Gov. Sel. CLI. 329.
4 Bom. Gov. Sel. CLI. 330. In the entire Pábal sub-division that is in both the Pábal and Ausari survey groups, taking land rent or aïn jama and cesses or sayyar together, the average yearly remissions during 1820-29 were Rs. 11,800 and outstanding Rs. 845, and during 1829-41 average remissions Rs. 17,141 and outstanding Rs. 2,699. Ditto, 338.
were out of repair, and 69 water-lifts or budkis of which 44 were
out of repair. Lieutenant Robertson suggested that the rates san
tioned for the Pimpalgaon group of Bhimthadi which were thirty-
three per cent higher than those of Indapur, should be adopted for
this Pabal group, as the two groups did not differ in climate, pro-
ductiveness, nearness to Poona, or in means of sending produce to
markets. The garden lands might he thought be assessed on the
system adopted in Indapur.

The Ausari or northern group contained 74,662 acres distributed
over thirty-four villages of which thirty-one were Government and
three were damala or reversionary. The measuring and classing were
begun and finished in 1839-40. As the measurements of the 1829
survey proved incorrect in sixteen villages they were remeasured
throughout. The error on the arable land of one village was found
as high as 52 per cent, and in the other fifteen villages it varied
from 17 to 30 per cent. The mistakes were almost entirely in favour
of Government. In the remaining fifteen villages as the amount of
error was within ten per cent the former measurement was retained.
As it was nearer to the hills the Ausari group was better off for rain
than the eastern Pabal villages. Consequently the difference in
fertility between the better and the poorer soils was not so marked.
The climate was much the same throughout, except in a few villages
in the north-west which were surrounded by hills and in consequence
had a specially large and certain supply of rain. The group was
crossed by the Mina and the Ghod and nearly all of the villages were
on the banks of these rivers. The soil of the tract drained by the
Mina was poor, chiefly red or tambdi and stony or bardi, with few
trees and much of it waste. The Ghod, from as far as Pimpalgaon,
ran through better land, fairly wooded with mangoes and nearly
all under tillage. The chief dry grains were for the early harvest
bajri and jvara and for the late or rabi harvest wheat, gram, and
safflower or kardai. There were 806 wells and 64 water-lifts or budkis
in good repair. The wells were chiefly used in growing vegetables
wheat and gram, and in a few villages small patches of sugarcane
plantain and mulberry trees. A dam across the Mina river at Naray sangao about ten miles south-east of Junnar, when in thorough
repair, watered 362 acres of land. According to the 1829 survey the
Ausari group contained 75,177 arable acres, of which in 1840, 55,970
acres were under tillage and 19,207 were waste; of 3262 land-
holders 2719 were hereditary holders, 426 casual holders, and 117
strangers or ouandkaris. There were 1433 ploughs, 368 carts, and
9436 bullocks. In fifteen villages there were good chavdis or village
offices, in ten villages the village offices were badly out of repair, and
in seven villages they were in ruins. Besides serving as village
offices, the chavdis were useful and convenient as a resting-place for
native travellers. Ten villages had Marathi schools with a total
attendance of 244 boys. At Narayangao the master was paid by
Government; in the other villages the pay of the master varied

1 Bom. Gov. Sel. CLI. 310-311.
according to the number of boys and ranged from 6s. to 12s. (Rs. 3-6) a month, each boy paying 3d. to 6d. (2-4 as.) a month according to the progress he made. The boys were all very young as the parents did not like paying for them and soon took them away. The only manufactures were the weaving of coarse cotton cloth and of <i>kamblis</i> or blankets for local use. Several villages had a weekly market at which vegetables and small quantities of grain and coarse cloth were offered for sale. The amount of traffic was small. The surplus grain, tobacco, and other produce went either to Poona, Panvel, or Bhivandi. Large droves of bullocks loaded with cotton from Umrvati in Berar passed through Korti and Pabal on their way to Bombay. In 1820 when the Ausari villages came under British management the rental on the land under tillage was £8026 (Rs. 80,260). By 1828 it had fallen to £5653 (Rs. 56,530), and Mr. Pringle’s survey in 1829 reduced it to £4662 (Rs. 46,620). Since 1829 the tillage area had varied little, but the amount of remissions and balances had been much larger since the 1829 survey than before. At the time Ausari passed to the British (1820) the amount collected from the land was £8026 (Rs. 80,260) being the full assessment without any remission. The year before the survey (1828) it had fallen to £4487 (Rs. 44,870) and on the introduction of the survey in 1829 it fell to £3254 (Rs. 32,540); in 1831 it fell to £2553 (Rs. 25,530); the following year it was more favourable, and in 1833 and the two following years nearly the whole assessment was collected; in 1836 it again fell to £3527 (Rs. 35,270), and since then it fluctuated between £3500 and £4000 (Rs. 35,000 and Rs. 40,000) which is less than half the amount collected when the British first took possession of the petty division in 1820.

Of the entire Pabal sub-division in a group of fifty-six villages the changes in revenue between 1836 and 1841, that is during the five years before the thirty years survey settlement, are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Villages</th>
<th>Total Rental</th>
<th>Unoccupied</th>
<th>Occupied</th>
<th>Remissions</th>
<th>Collections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1836-37</td>
<td>58</td>
<td>1,32,578</td>
<td>45,618</td>
<td>87,469</td>
<td>15,764</td>
<td>98,794</td>
</tr>
<tr>
<td>1837-38</td>
<td>58</td>
<td>1,30,961</td>
<td>44,480</td>
<td>86,421</td>
<td>15,501</td>
<td>70,880</td>
</tr>
<tr>
<td>1838-39</td>
<td>56</td>
<td>1,31,069</td>
<td>45,162</td>
<td>85,907</td>
<td>34,443</td>
<td>59,443</td>
</tr>
<tr>
<td>1839-40</td>
<td>56</td>
<td>1,32,791</td>
<td>43,234</td>
<td>89,457</td>
<td>16,580</td>
<td>73,577</td>
</tr>
<tr>
<td>1840-41</td>
<td>56</td>
<td>1,30,101</td>
<td>33,185</td>
<td>86,916</td>
<td>36,043</td>
<td>60,873</td>
</tr>
</tbody>
</table>

The survey rates proposed by the assistant superintendent Captain Landon gave for the whole sub-division an acre average of 1s. 1½d. (9 as.) and a maximum dry-crop assessment on the arable land, of

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1 Between 1820 and 1829 remissions and balances amounted to £4332 (Rs. 43,320) and between 1829 and 1839 they amounted to £9260 (Rs. 92,600). Bom. Gov. Sel. CLI. 332.
4 Captain Landon thought that the Pabal sub-division could easily bear an increase of 35 per cent on the rates fixed for Sholapur that is 68-3 per cent higher than those of Indapur, and 10 per cent additional on the inferior soils on account of their greater fertility. He also suggested that a few villages on the north-west might bear an additional 20 per cent on account of a more certain supply of rain, and a few on the eastern border be lowered 20 per cent on account of less certain rainfall. Bom. Gov. Sel. CLI. 311.
£9281 (Rs. 92,810). This in addition to the garden or bâgâyat rental of £1550 (Rs. 15,500) gave a total survey rental of £10,881 (Rs. 1,08,310). Compared with the average collections of the previous ten years this total rental showed an increase of £2631 (Rs. 26,310). The immediate sacrifice on the part of Government was estimated at £52 (Rs. 520). For garden land, of which a considerable area was watered from channels, the assistant superintendent recommended an acre rate of 6s. (Rs. 3). There was also a small area of the rich alluvial soil called dheli. Some of this land which had been put to auction in the previous year was rented at 16s. (Rs. 8) the acre. As the area of this alluvial land depended on the river, the assistant superintendent recommended that the existing system of disposing of it by yearly sale should be continued. As the garden land at Nârâyangon was watered from a dam across the Mina river which cost Government a large sum to keep in repair,1 and, as the rates had been revised by the Revenue Commissioner in 1838, the assistant superintendent advised that the present rates should be continued with an acre reduction of 2s. (Rs. 1) in the first class and 1s. 8 as.) in the other classes. The rates he proposed were £1 6s., 17s., 7s., and 5s. (Rs. 13, Rs. 8½, Rs. 3½, and Rs. 2½). Lieutenant Wingate thought the proposed dry-crop rates too high. If the whole arable area was brought under tillage they would cause an increase of 38 per cent. To place the two Pâbal groups on the same favourable position as the Indâpur and Bhimthadi groups he would reduce the proposed rates by ten per cent. The watered lands amounted to about 6000 acres of which 3900 were watered from wells, 950 from channels, and 1150 from wells and channels. Well-watered or mota sthal lands were not subjected to any extra taxation before the 1840 survey. Lieutenant Wingate recommended that well-watered land should be assessed on the plan adopted for the eastern sub-divisions. For channel watered land an acre rate of 6s. (Rs. 3) to 2s. (Rs. 1) in excess of highest dry-crop rate was proposed. Land watered from both channels and wells was to be assessed by a combination of the two rates. The settlement as modified by Lieutenant Wingate would, when the whole arable land was brought under tillage, represent an increase of £2000 (Rs. 20,000) or twenty-six per cent on the average collections of £7700 (Rs. 77,000) during the twelve years ending 1841.2 Lieutenant Wingate's rates were approved and sanctioned.3

1 Rebuilding about one-third of the dam cost about Rs. 37,000. Captain Landon, 25th August 1840, Bom. Gov. Sel. CLII 335. In 1838 the Revenue Commissioner reduced the rates from Rs. 17, Rs. 12½, Rs. 6, and Rs. 3 to Rs. 14, Rs. 9, Rs. 4 and Rs. 3. Bom. Gov. Sel. CLII 336.
2 According to Lt. Wingate's rates the dry-crop rental amounted to £8,350 (Rs. 88,500) and the garden rental to £1350 (Rs. 13,500) or a total of £9700 (Rs. 97,000). Bom. Gov. Sel. CLII 342.
3 Gov. Letter 3679 of 3rd Dec. 1841. Bom. Gov. Sel. CLII 348, 349. At the survey settlement a mirâd patti or hereditary holders' cess yielding about £50 (Rs. 500) levied every third year from a few villages was abolished. Another cess of the same name and yielding nearly £200 (Rs. 2000) had been levied every third year from the members of the village staff or balutedârs. This was changed into a yearly cess of one-third of the former amount. Bom. Gov. Sel. CLII 341.
POONA.

The survey settlement was introduced into the Haveli subdivision in 1841. As Haveli lay to the west of Bhimthadi it enjoyed a larger share of the south-west rains. Bajri was the staple grain and varied in good soils with early jwari and with late wheat and gram. Near the hills a few patches of rice were grown. Near Poona the grazing land was very valuable. In one village upwards of 100 fields were kept in grass. In the villages round Poona, except in the lands of the rich where it was used as manure, the cow dung was stored and carried as fuel to the city. In the city there was a constant demand for grass, vegetables, and fruit, and the average price of grain was twenty to twenty-five per cent higher than in Bhimthadi. According to the 1829 survey, exclusive of inams the Haveli subdivision contained 96,383 acres of arable land assessed by Mr. Pringle at £11,920 (Rs. 1,19,200). The following statement shows the rental and collections for the twenty-two years ending 1840:

### Haveli Revenue, 1818-1840.

<table>
<thead>
<tr>
<th>Year</th>
<th>Rental Land</th>
<th>Cessar</th>
<th>Total</th>
<th>Remissions</th>
<th>Balances</th>
<th>Collections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1818-1840</td>
<td>Rs. 70,042</td>
<td>Rs. 24,768</td>
<td>Rs. 94,810</td>
<td>Rs. 14,468</td>
<td>Rs. 21,084</td>
<td>Rs. 21,084</td>
</tr>
<tr>
<td>1818-1830</td>
<td>Rs. 80,631</td>
<td>Rs. 34,072</td>
<td>Rs. 114,703</td>
<td>Rs. 1,22,662</td>
<td>Rs. 21,444</td>
<td>Rs. 21,444</td>
</tr>
<tr>
<td>1830-1840</td>
<td>Rs. 77,135</td>
<td>Rs. 20,678</td>
<td>Rs. 97,813</td>
<td>Rs. 1,04,654</td>
<td>Rs. 16,139</td>
<td>Rs. 16,139</td>
</tr>
</tbody>
</table>

In a group of eighty-one villages the collections during the five years ending 1840-41 averaged £645 (Rs. 6,450). The details are:

### Haveli Revenue, 1835-1841.

<table>
<thead>
<tr>
<th>Year</th>
<th>Villages</th>
<th>Total Rental</th>
<th>Unoccupied Land</th>
<th>Occupied Land</th>
<th>Remissions</th>
<th>Collections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1835-37</td>
<td>81</td>
<td>Rs. 1,25,500</td>
<td>Rs. 44,948</td>
<td>Rs. 90,118</td>
<td>Rs. 19,699</td>
<td>Rs. 112,298</td>
</tr>
<tr>
<td>1837-38</td>
<td>81</td>
<td>Rs. 1,26,938</td>
<td>Rs. 38,017</td>
<td>Rs. 80,976</td>
<td>Rs. 36,687</td>
<td>Rs. 112,667</td>
</tr>
<tr>
<td>1838-39</td>
<td>81</td>
<td>Rs. 1,25,533</td>
<td>Rs. 36,908</td>
<td>Rs. 95,513</td>
<td>Rs. 36,687</td>
<td>Rs. 112,667</td>
</tr>
<tr>
<td>1839-40</td>
<td>81</td>
<td>Rs. 1,26,211</td>
<td>Rs. 35,944</td>
<td>Rs. 90,543</td>
<td>Rs. 27,877</td>
<td>Rs. 112,413</td>
</tr>
<tr>
<td>1840-41</td>
<td>81</td>
<td>Rs. 1,26,103</td>
<td>Rs. 36,938</td>
<td>Rs. 89,814</td>
<td>Rs. 25,281</td>
<td>Rs. 111,533</td>
</tr>
</tbody>
</table>

Of 119,720 acres assessed at £15,255 (Rs. 1,52,550), 23,377 acres were alienated. Had the whole of the remaining 96,383 acres assessed at £11,920 (Rs. 1,19,200) been cultivated during the previous twenty-two years, the land assessment alone for that period would have amounted to £262,240 (Rs. 26,22,400). The sum of £2000 (Rs. 20,000) a year or £44,000 (Rs. 4,40,000) for the whole period under cess revenue, raises the total to £306,240 (Rs. 30,62,400). Of these £300,000 (Rs. 30 lakhs), only about £200,000 (Rs. 20 lakhs) were realized between 1818 and 1840. Of the remaining £100,000 (Rs. 10 lakhs) Lieutenant Wingate assigned £48,500 (Rs. 4,85,000) to loss on account of remissions, £9300 (Rs. 93,000) to outstanding balances, and the rest to the want of tillage. On comparing the twelve years before and the ten years after the 1830 survey it appears that remissions and balances slightly increased and

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1 Bom. Gov. Sel. CLI. 428.
the revenue considerably diminished. In the first twelve years the average *jamābandi* was £12,500 (Rs. 1,25,000); in the last ten years it was only £10,776 (Rs. 1,07,760). The collections had fallen considerably. In the first twelve years the Government receipts averaged £7,400 (Rs. 74,000) a year; in the last ten they averaged only £5,800 (Rs. 58,000).¹ According to Lieutenant Nash the improvement since 1833 was due to the grant of rising leases or *istāvā kaunds*. In spite of these concessions, in 1841 Haveli was suffering from a high nominal assessment with constant remissions and balances. In fifty villages visited by Lieutenant Nash (1841) he found a want of energy and enterprise and slovenly cultivation; still there were no large tracts of waste black soil nor any ruinous villages. In fact almost all the good soil was under tillage. Close to Poona, land was eagerly sought for, and the villages had a greater air of comfort than elsewhere. Haveli had never suffered so severely from war or famine as the eastern tracts. The country had never been emptied of its people. There were more hereditary holders; the people were more attached to their villages, less ready to change their homes, and more fitted to cope with loss.²

The acre rates proposed by Lieutenant Nash were in black land 2s. 9d., 2s. 3d., 1s. 9d., and 1s. 3d. (Rs. 1½, Rs. 1¼, 14 as., and 10 as.); in red land 2s. 4½d., 1s. 10½d., 1s. 4½d., and 10½d. (Rs. 1½, 15 as., 11 as., and 7 as.); and in brown or *barad* land 1s. 2½d., 8½d. and 3½d. (9 as. 7½ ps., 5 as. 7½ ps., and 2 as. 4½ ps.).³ These rates were calculated to give an average acre rate of 1s. 6d. (12 as.) against the Bhimthadi average of 1s. (8 as.). An extra assessment not exceeding 6s. (Rs. 3) the acre was proposed for the small area of rice land. On garden lands in addition to the highest dry-crop rate, acre rates varying from 2s. (Rs. 1) to 6s. (Rs. 3) were proposed. These proposals were sanctioned by Government in December 1841.⁴

Except in Purandhar where the rainfall was short and the crops were injured by insects and caterpillars, the season of 1842 was on the whole very favourable. Remissions fell from

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¹ Bom. Gov. Sel. CLI. 435-436. These averages differ from those given in the statement on page 431.
³ The details are:
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15.27 per cent to 3.34 per cent. Of £2694 (Rs. 26,940) the whole amount remitted, £1426 (Rs. 14,260) were granted in Purandhar. At Indapur the rupee price of Indian millet or *juvari* fell from about 112 to 136 pounds (56-68 shers). Over the whole district the tillage area rose from 982,600 to 1,000,881 acres and the collections from £64,296 to £76,958 (Rs. 6,42,960 - Rs. 7,69,580); £964 (Rs. 9,640) were left outstanding. The prosperous character of the season of 1842-43 was shown by a marked increase in the town duties of the city of Poona and Junnar, the amounts being £6051 (Rs. 60,510) in 1841-42 and £6699 (Rs. 66,990) in 1842-43.

Compared with 1841-42 the returns for 1842-43 showed an increase in the estimated number apparently of bullock-loads that passed through the district from 376,171 to 619,257.

---


**Poona Tillage and Revenue, 1841-1843.**

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>Villages</th>
<th>Tillage</th>
<th>Remissions</th>
<th>Outstanding</th>
<th>Collections</th>
<th>Villages</th>
<th>Tillage</th>
<th>Remissions</th>
<th>Outstanding</th>
<th>Collections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shivner ......</td>
<td>176</td>
<td>144,768</td>
<td>34,198</td>
<td>67</td>
<td>1,519</td>
<td>176</td>
<td>150,386</td>
<td>4666</td>
<td>475</td>
<td>164,543</td>
</tr>
<tr>
<td>Indapur ......</td>
<td>774</td>
<td>267,564</td>
<td>87,939</td>
<td>2628</td>
<td>67,374</td>
<td>89</td>
<td>236,651</td>
<td>....</td>
<td>60</td>
<td>211,112</td>
</tr>
<tr>
<td>Khed ..........</td>
<td>182</td>
<td>102,485</td>
<td>16,332</td>
<td>993</td>
<td>88,432</td>
<td>182</td>
<td>99,288</td>
<td>2500</td>
<td>205</td>
<td>102,487</td>
</tr>
<tr>
<td>Pébal ..........</td>
<td>56</td>
<td>124,309</td>
<td>12,917</td>
<td>3159</td>
<td>85,692</td>
<td>56</td>
<td>154,977</td>
<td>3379</td>
<td>4361</td>
<td>191,306</td>
</tr>
<tr>
<td>Purandhar ......</td>
<td>696</td>
<td>109,730</td>
<td>35,916</td>
<td>10,621</td>
<td>61,354</td>
<td>69</td>
<td>111,704</td>
<td>14,200</td>
<td>1074</td>
<td>99,903</td>
</tr>
<tr>
<td>Bhimthadi ......</td>
<td>69</td>
<td>169,624</td>
<td>2170</td>
<td>2954</td>
<td>72,577</td>
<td>69</td>
<td>152,284</td>
<td>....</td>
<td>718</td>
<td>81,903</td>
</tr>
<tr>
<td>Haveli ........</td>
<td>82</td>
<td>80,142</td>
<td>6554</td>
<td>2237</td>
<td>74,926</td>
<td>83</td>
<td>88,173</td>
<td>1767</td>
<td>2555</td>
<td>83,611</td>
</tr>
<tr>
<td>Mavála ........</td>
<td>175</td>
<td>81,638</td>
<td>4219</td>
<td>2</td>
<td>55,870</td>
<td>175</td>
<td>82,746</td>
<td>455</td>
<td>135</td>
<td>60,344</td>
</tr>
<tr>
<td>Poona City ......</td>
<td>2</td>
<td>2279</td>
<td>290</td>
<td>605</td>
<td>7435</td>
<td>2</td>
<td>2320</td>
<td>200</td>
<td>32</td>
<td>7818</td>
</tr>
<tr>
<td>Sheep-grazing ...</td>
<td>....</td>
<td>....</td>
<td>....</td>
<td>1530</td>
<td>....</td>
<td>....</td>
<td>....</td>
<td>....</td>
<td>1090</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong> ......</td>
<td>889</td>
<td>983,000</td>
<td>1,30,314</td>
<td>24,408</td>
<td>6,42,901</td>
<td>892</td>
<td>1,000,881</td>
<td>25,937</td>
<td>9835</td>
<td>7,69,580</td>
</tr>
</tbody>
</table>

According to another statement, in 1842-43 of the four revised sub-divisions Indapur showed a decrease in tillage of 6691 acres and in revenue of Rs. 2599; Bhimthadi showed a decrease in tillage of 6619 acres and in revenue of Rs. 3380; Pabá showed a decrease in tillage of 806 acres and in revenue of Rs. 1216; Haveli showed a decrease in tillage of 3193 acres and in revenue of Rs. 1214.


3. The details are:

**Poona Transit Trade, 1841-1843.**

<table>
<thead>
<tr>
<th>Division</th>
<th>1841-42</th>
<th>1842-43</th>
<th>Increase</th>
<th>Division</th>
<th>1841-42</th>
<th>1842-43</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shivner</td>
<td>Rs. 31,439</td>
<td>Rs. 33,983</td>
<td>Rs. 2444</td>
<td>Indapur</td>
<td>Rs. 23,965</td>
<td>Rs. 25,213</td>
<td>Rs. 753</td>
</tr>
<tr>
<td>Pabá</td>
<td>Rs. 40,062</td>
<td>Rs. 62,201</td>
<td>Rs. 21,139</td>
<td>Poona City</td>
<td>Rs. 37,559</td>
<td>Rs. 36,376</td>
<td>Rs. 783</td>
</tr>
<tr>
<td>Purandhar</td>
<td>Rs. 61,574</td>
<td>Rs. 94,330</td>
<td>Rs. 32,756</td>
<td>Total</td>
<td>Rs. 376,171</td>
<td>Rs. 619,257</td>
<td>Rs. 243,086</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Division</th>
<th>1841-42</th>
<th>1842-43</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shivner</td>
<td>Rs. 31,439</td>
<td>Rs. 33,983</td>
<td>Rs. 2444</td>
</tr>
<tr>
<td>Pabá</td>
<td>Rs. 40,062</td>
<td>Rs. 62,201</td>
<td>Rs. 21,139</td>
</tr>
<tr>
<td>Purandhar</td>
<td>Rs. 61,574</td>
<td>Rs. 94,330</td>
<td>Rs. 32,756</td>
</tr>
<tr>
<td>Bhimthadi</td>
<td>Rs. 185,852</td>
<td>Rs. 305,709</td>
<td>Rs. 119,857</td>
</tr>
</tbody>
</table>


*Rds* means head of cattle, total. It is not clear from the original reports what these figures represent. The Collector of Poona (4767 of 19th June 1884) thinks they denote the number of bullock-loads,
The returns also showed an increase in exports from 42,433 to 64,599 bullock-loads and in imports from 392,603 to 429,301. The Maval imports showed an increase of 1847 bullock-loads and the exports a decrease of 621, and the transit trade a decrease of 2200 bullock-loads. This carrying trade was from and to the coast through the Nâne Mâval by the Bor pass. The exports were cotton, grain, vegetable oils, native cloth, tobacco, betel leaves, hides, and potatoes; the imports comprised salt, European cloths, and groceries. The decrease in the transit trade was due to the opening of the Kusur pass where the traffic had risen by 26,826 bullock-loads. In Khed imports showed an increase of 2920 bullock-loads, exports a fall of 523, and the transit trade a fall of 135,121 bullock-loads. The decrease in the transit trade was chiefly on the Indrâvani and Navalâkh-Umbra roads. The made road that passed through the Khed sub-division showed an increase of 1843 bullock-loads. In 1843 in Mâval and Khed where roads had been made, a good type of cart was fast taking the place of pack bullocks. In December 1843 Mr. Stewart the Collector dwelt on the great advantage to trade which would result from carrying on the Bombay-Poona made road to Sholâpur. Local inquiry had satisfied him that the outlay would be met from tolls.

In 1839 an inquiry was begun into the outstanding balances some of which had remained without examination since 1819. The inquiry lasted till 1843 when it was almost completed and large sums were realized. In December 1843 the Collector Mr. Stewart described the district as prosperous. Large amounts of outstandings had been recovered, the Government revenue was punctually paid; tillage was spreading, the people were gradually becoming more prosperous, and improvements were keeping pace with the increase of capital expended either by Government or private individuals.

1 The details are:

<table>
<thead>
<tr>
<th>SCALE SUB-DIVISION</th>
<th>EXPORTS</th>
<th>EXPORTS</th>
<th>IMPORTS</th>
<th>IMPORTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1841-42</td>
<td>1842-43</td>
<td>Increase</td>
<td>1841-42</td>
</tr>
<tr>
<td>Shrivner ...</td>
<td>20,613</td>
<td>21,636</td>
<td>913</td>
<td>15,697</td>
</tr>
<tr>
<td>Indapur ...</td>
<td>8563</td>
<td>25,569</td>
<td>16,777</td>
<td>16,360</td>
</tr>
<tr>
<td>Pôhâl</td>
<td>2986</td>
<td>5285</td>
<td>696</td>
<td>4309</td>
</tr>
<tr>
<td>Bhimbhadi ...</td>
<td>3210</td>
<td>5925</td>
<td>2615</td>
<td>4312</td>
</tr>
<tr>
<td>Poona City ...</td>
<td>7385</td>
<td>8700</td>
<td>1315</td>
<td>388178</td>
</tr>
<tr>
<td>Purandhar ...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>13,267</td>
</tr>
<tr>
<td>Total ...</td>
<td>42,433</td>
<td>64,599</td>
<td>21,740</td>
<td>392,603</td>
</tr>
</tbody>
</table>

5 Mr. Stewart, Collector, 1881 of 28th December 1843, Bom. Gov. Rev. Rec. 1568 of 1844, 115; Mr. Inverarity, October 1843, Ditto 134-135.
6 Mr. Stewart, Collector, 26th Dec. 1843, Rev. Rec. 1568 of 1844, 119-120.
Advances were continued in this year chiefly with the object of building or repairing village offices and of improving the water supply.¹

To any one who knew the place a few years before, in 1843 the increased population and improved market of Indápur were notable, and the number and increased comfort of the villagers were equally striking. Most of the people considered the change the result of the 1836 survey.²

In 1843-44 the rainfall was sufficient. It was untimely in the west where the early crops on low-lying land suffered greatly, and the late harvest was injured by a failure of the latter November rain; £4292 (Rs. 42,920) or 5-42 per cent were remitted.³ At Indápur the rupee price of Indian millet or āvári fell from about 136 to 144 pounds (65-72 shers). Over the whole district the tillage area rose from 1,000,881 to 1,055,282 acres and the collections fell from £76,958 (Rs. 7,69,580) to £74,442 (Rs. 7,44,420); £450 (Rs. 4,500) were left outstanding.³ In 1843-44 there was a further increase in the transit trade. There were no local manufactures fit for export. The

1 The details were: 26 wells made, 18 wells repaired, 4 water-lifts made, and one cistern made; 23 village offices built and 12 repaired. Besides these the people had at their own expense sunk seventeen wells, and repaired three, and made three water-lifts. Mr. Stewart, Collector, 28th Dec. 1843, Bom. Gov. Rev. Rec. 1668 of 1844, 74-75.
3 The details were: Shivner 13-77 per cent, Indápur 0-21, Khed 5-13, Pábal 0-51, Purandhar (Sásvad division) 22-12 and (Supa division) 1-20, Bhimthadi 0-06, Haveli revised villages 0-0013 and unrevised villages 5-62, Mával 1-01, and Poona City 2-13. Bom. Gov. Rev. Rec. 17 of 1846, 50-59.

Poona Tillage and Revenue, 1843-1844.

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>1843-43</th>
<th>1844-44</th>
</tr>
</thead>
<tbody>
<tr>
<td>Villages</td>
<td>Acres</td>
<td>Rs.</td>
</tr>
<tr>
<td>Shivner</td>
<td>176</td>
<td>150,388</td>
</tr>
<tr>
<td>Indápur</td>
<td>100</td>
<td>229,551</td>
</tr>
<tr>
<td>Khed</td>
<td>182</td>
<td>99,288</td>
</tr>
<tr>
<td>Pábal</td>
<td>56</td>
<td>134,977</td>
</tr>
<tr>
<td>Purandhar</td>
<td>69</td>
<td>111,704</td>
</tr>
<tr>
<td>Bhimthadi</td>
<td>69</td>
<td>155,284</td>
</tr>
<tr>
<td>Haveli</td>
<td>83</td>
<td>85,175</td>
</tr>
<tr>
<td>Mával</td>
<td>175</td>
<td>32,746</td>
</tr>
<tr>
<td>Poona City</td>
<td>2</td>
<td>2220</td>
</tr>
<tr>
<td>Grazing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>892</td>
<td>1,000,831</td>
</tr>
</tbody>
</table>

According to another statement, in 1843-44, of the four revised sub-divisions Indápur showed a decrease of 5468 acres in tillage and of Rs. 2317 in revenue; Bhimthadi showed a decrease of 2468 acres in tillage and of Rs. 1419 in revenue; Haveli showed an increase of 3098 acres in tillage and of Rs. 1402 in revenue; Pábal showed an increase of 5731 acres in tillage and a decrease of Rs. 280 in revenue. Bom. Gov. Rev. Rec. 17 of 1846, 63-66.
Chapter VIII.
Land.

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common grains were the chief exports to the coast; the chief return traffic was in European goods and salt. Mr. Inverarity the Collector, writing on the 31st of December 1844, repeated Mr. Stewart's views on the advantage of opening a made road between Poona and Sholapur. Along this line came all the exports from the east and south-east. The trade was hampered by the Bāpdev pass which was impracticable for heavy ordnance or for laden carts. How highly the people valued carts was shown by the fact that with the help of Government and by the aid of local contributions the people of the market town of Ghode in Khed had made roads with side-drains through their town where before no cart could pass. Of late years the north of the district had greatly benefited by the introduction of potato growing. In 1844 a large part of the Bombay market was supplied from Junnar. The culture of the Mauritius sugarcane had also increased from 388 to 547½ acres. In spite of the spread of tillage in Indapur and Bhimthadi the people were still poor. About one-third of the wells had been allowed to fall into disrepair. Though 1842-43 and 1843-44 were favourable years and the advance under the generally improved conditions continued in other parts of the district, there was a decline in Indapur and Bhimthadi. This was believed to be due to the fact that the low rates of Mr. Goldsmid's settlement had unduly stimulated tillage and that the increased supply had affected prices and the lands ceased to pay the cost of tillage. On the 31st of December 1844 Mr. Inverarity noticed that the decline in the tillage area in Indapur and Bhimthadi was necessary. He thought it was due to the fall in the price of grain in those sub-divisions. Tillage might be expected to go on decreasing until the more needy landholders sank to be labourers and the eventual contraction of produce enabled the substantial farmer to command better prices.

In Supa also there was a decline. The survey measurement had made a nominal addition to the extent of lands under cultivation in the Supa group of villages. In reality there had been a decrease to the extent of 5619 acres assessed at £370 (Rs. 3700). The decline which had taken place in Indapur and Bhimthadi did not extend to Haveli and Pábal. The reason was that Poona was a certain market and that there were more means of raising watered crops. Under Act XIX. of 1844 all taxes on trades and occupations were repealed. Of this sweeping and ill-considered measure the Collector Mr. Courtney complained with justice that it pressed hardly on the rural people. The people of towns were now

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4 Mr. Inverarity, Bom. Gov. Rev. Rec. 17 of 1846, 63 - 64.
6 Acres 10,587 were thrown out of cultivation and 4768 were brought under the plough; the net decrease was 5619 acres. Bom. Gov. Rev. Rec. 17 of 1846, 66.
relieved from almost all taxation and ceased to contribute their share to the revenues of the state.1

In 1843-44 the thirty years’ revenue survey settlement was introduced into the Supa petty division of Purandhar.2 Of the 39 Supa villages twenty-five were remeasured, twelve were tested, and the rest which had lapsed to Government were measured for the first time. Supa was bounded on the north by Bhimthadi, on the east by Indápur, on the south by the Nira river, and on the west by the Sásyad division of Purandhar. The country along the Karha and Nira was flat and seamed with stream beds. The northern and two or three of the western and central villages were hilly. In common with Indápur and still more with the Kurkumb group in east Bhimthadi, Supa suffered from uncertain rain.3 The only road for loaded carts from Supa to Poona was by Khed. The chief markets were Sásyad, Wái, Bhor, and Sátára. The jvpári was inferior to that grown towards Mándha and did not meet with a ready sale at Sátára, but was sold at a profit at Wái, Bhor, and Sásyad from which it went to Mahád in the Konkan. Bájí found a ready market. There were few carts in Supa except carts with solid stone wheels. The first survey settlement introduced in this group was by Mr. Pringle in 1829-30. About 1835, when these villages were in a state of depression, Captain Shortrede reduced Mr. Pringle’s rental from £12,270 to £8898 (Rs. 1,22,700 - Rs. 88,930) or 27½ per cent. But owing to the defective manner in which the revision was effected, the levy of Captain Shortrede’s modified assessment was found to be impracticable and concessions had to be made under the form of short rates or ukti and of leases or kauls.4 The following statement5 shows the remissions and land revenue collections in the Supa group of villages during the twenty-three years ending 1841-42:

### Supa Revenue, 1819-1842.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Remissions</th>
<th>Collections</th>
<th>YEAR</th>
<th>Remissions</th>
<th>Collections</th>
<th>YEAR</th>
<th>Remissions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rs.</td>
<td>Rs.</td>
<td></td>
<td>Rs.</td>
<td>Rs.</td>
<td></td>
<td>Rs.</td>
</tr>
<tr>
<td>1819-20</td>
<td>...</td>
<td>43,519</td>
<td>1825-29</td>
<td>...</td>
<td>27,223</td>
<td>1837-38</td>
<td>...</td>
</tr>
<tr>
<td>1820-21</td>
<td>30</td>
<td>47,362</td>
<td>1829-30</td>
<td>30</td>
<td>26,362</td>
<td>1839-39</td>
<td>30</td>
</tr>
<tr>
<td>1821-22</td>
<td>40</td>
<td>22,156</td>
<td>1830-31</td>
<td>30</td>
<td>29,233</td>
<td>1839-40</td>
<td>30</td>
</tr>
<tr>
<td>1822-23</td>
<td>30</td>
<td>46,238</td>
<td>1831-32</td>
<td>60</td>
<td>29,194</td>
<td>1840-41</td>
<td>30</td>
</tr>
<tr>
<td>1823-24</td>
<td>654</td>
<td>7826</td>
<td>1832-33</td>
<td>30</td>
<td>22,867</td>
<td>1841-42</td>
<td>30</td>
</tr>
<tr>
<td>1824-25</td>
<td>158</td>
<td>7478</td>
<td>1833-34</td>
<td>60</td>
<td>47,794</td>
<td>1844-45</td>
<td>30</td>
</tr>
<tr>
<td>1825-26</td>
<td>158</td>
<td>27,148</td>
<td>1834-35</td>
<td>30</td>
<td>40,170</td>
<td>1845-46</td>
<td>30</td>
</tr>
<tr>
<td>1826-27</td>
<td>10,351</td>
<td>1835-36</td>
<td>30</td>
<td>22,367</td>
<td>1846-47</td>
<td>30</td>
<td>28,367</td>
</tr>
<tr>
<td>1827-28</td>
<td>10,351</td>
<td>1836-37</td>
<td>30</td>
<td>25,922</td>
<td>1847-48</td>
<td>30</td>
<td>28,367</td>
</tr>
</tbody>
</table>

2 Bombay Gov. Sel. CLI. 521-545.
3 According to a local tradition the want of rain in the country between Jejuri and Bárámati was due to a curse. Lieut. E. Evans, assistant superintendent of survey, 33 of 8th July 1843, Bom. Gov. Sel. CLI. 539.
4 Bombay Gov. Sel. CLI. 540-541. From this statement it appears that during the six years (1829-1835) of Mr. Pringle’s settlement the average collections amounted to Rs. 29,220, and during the seven years of Lieut. Shortrede’s settlement (1835-1842) they amounted to Rs. 28,269.
5 Bombay Gov. Sel. CLI. 540-541.
During this period at Supa the rupee price of millet fell from about 38 to 128 pounds (19-64 shers) for jvārī and from about 36 to 80 pounds (18-40 shers) for bājīrī.¹

Under the new survey for the Supa group the Kurkumb dry-crop rates which were ten per cent higher than those introduced into Indāpur were proposed. The total new dry-crop rental amounted to £5820 (Rs. 58,200) of which the land (111,768 acres) under cultivation yielded £4700 (Rs. 47,000) or an increase of 34 per cent. For garden lands the sum of 4s. (Rs. 2) the acre in excess of dry-crop rates was fixed. The new rental of garden lands amounted to £300 (Rs. 3000).²

In 1844-45 near the Sahyādris the rainfall was enough for the early crops, in the east the late crops generally failed, and scarcity of fodder caused such distress that most of the labouring cattle had to leave the district. At Indāpur the rupee price of Indian millet or jvārī rose from about 144 to 120 pounds (72-60 shers). The tillage area in the whole district rose from 1,055,282 to 1,063,127 acres and the collections fell from £74,442 to £66,489 (Rs. 7,44,420 to Rs. 6,64,890); £8125 (Rs. 81,250) were remitted.

¹ Bom. Gov. Sel. CLI. 539. The details are:

<table>
<thead>
<tr>
<th>YEAR</th>
<th>INDIAPUR</th>
<th>PĀṬEB</th>
<th>SUPA</th>
</tr>
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<tr>
<td></td>
<td>jvārī</td>
<td>Bājīrī</td>
<td>jvārī</td>
</tr>
<tr>
<td></td>
<td>Shers</td>
<td>Shers</td>
<td>Shers</td>
</tr>
<tr>
<td>1815-17</td>
<td>14</td>
<td>6</td>
<td>14</td>
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<tr>
<td>1819-20</td>
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<tr>
<td>1821-22</td>
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<tr>
<td>1822-23</td>
<td>20</td>
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<td>20</td>
</tr>
<tr>
<td>1826-27</td>
<td>27</td>
<td>29</td>
<td>27</td>
</tr>
<tr>
<td>1824-25</td>
<td>13</td>
<td>15</td>
<td>13</td>
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<tr>
<td>1825-26</td>
<td>35</td>
<td>36</td>
<td>35</td>
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<td>27</td>
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<tr>
<td>1827-28</td>
<td>52</td>
<td>53</td>
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</tr>
<tr>
<td>1828-29</td>
<td>60</td>
<td>53</td>
<td>60</td>
</tr>
<tr>
<td>1829-30</td>
<td>92</td>
<td>83</td>
<td>92</td>
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<td>39</td>
<td>40</td>
</tr>
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<td>1831-32</td>
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<td>1832-33</td>
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<td>1833-34</td>
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<td>40</td>
</tr>
<tr>
<td>1834-35</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>1835-36</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>1836-37</td>
<td>35</td>
<td>34</td>
<td>35</td>
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<td>1837-38</td>
<td>52</td>
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<tr>
<td>1838-39</td>
<td>50</td>
<td>53</td>
<td>50</td>
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<tr>
<td>1839-40</td>
<td>36</td>
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<td>36</td>
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<td>50</td>
<td>48</td>
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<tr>
<td>1841-42</td>
<td>35</td>
<td>53</td>
<td>35</td>
</tr>
<tr>
<td>1842-43</td>
<td>30</td>
<td>43</td>
<td>30</td>
</tr>
</tbody>
</table>

Total 10063 10063 404 840 840 779
Add 1367 103 404 391 924 76

Pouna Shers 1234 889 1079 856
Yearly average 1234 27 1115 289 1079 856

² Bom. Gov. Sel. CLI. 513, 521-545.
and £3126 (Rs. 31,260) left outstanding. The people of Bhimthadi and Indápur were suffering and miserable. Of £5125 (Rs. 81,250) or 10½ per cent remissions, £7499 (Rs. 74,990) or 92 per cent were given in the late-crop sub-divisions of Junnar, Indápur, and Bhimthadi. The good soil and abundant irrigation in Purandhar prevented the necessity of remissions. The failure of rain showed that the great increase in tillage which especially in Indápur and Bhimthadi in the east had followed the introduction of Mr. Goldsmid’s settlement was by no means an unmixed improvement. In February 1846 Mr. Inverarity remarked that the main causes of the fall in tillage were the poverty of the landholders and the exhaustion of soil from constant cropping. The more highly assessed lands had fallen waste because the unthrifty habits of the people led them to till for a few seasons the poorer waste fields rather than spend time and labour in renewing by artificial means the exhausted powers of the more valuable lands. A succession of bad seasons had caused a decline in tillage, increased remissions, and increased advances. Many of the people had lost heart and mortgaged fields with standing crops to village Vánis. As a mortgage of land in most cases ended in complete transfer of the proprietary right, a body of landholders possessing capital might in time be formed.

In 1845-46 matters were worse even than in 1844-45. Want of rain especially in the east destroyed the late crops. It was only by

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1 Bom. Gov. Rev. Rec. 17 of 1847, 77, 82, 122, 150. The details are:

**POONA Tillage and Revenue, 1843-1845.**

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>1843-44</th>
<th>1844-45</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Villages</td>
<td>Acres</td>
</tr>
<tr>
<td>Shivner</td>
<td>176</td>
<td>150,350</td>
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<tr>
<td>Indápur</td>
<td>80</td>
<td>225,515</td>
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<tr>
<td>Váth</td>
<td>184</td>
<td>104,063</td>
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<td>Pábal</td>
<td>57</td>
<td>147,084</td>
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<tr>
<td>Purandhar</td>
<td>69½</td>
<td>147,083</td>
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<tr>
<td>Bhimthadi</td>
<td>69</td>
<td>160,356</td>
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<tr>
<td>Haveli</td>
<td>83</td>
<td>97,115</td>
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<tr>
<td>Maváj</td>
<td>186</td>
<td>32,709</td>
</tr>
<tr>
<td>Poona City</td>
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<td>2220</td>
</tr>
<tr>
<td>Grazing</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>900½</td>
<td>1,055,299</td>
</tr>
</tbody>
</table>

In the surveyed villages of Haveli tillage showed a decrease from 87,310 to 87,021 acres, and, in the unsurveyed villages, an increase from 12,026 to 12,274 acres.

2 Mr. Inverarity, 27th February 1846, Bom. Gov. Rev. Rec. 17 of 1847, 86.


a sudden rise in the price of grain that landholders were saved from ruinous loss. At Indáipur the rupee price of Indian millet or *jowar* rose from about 120 to 72 pounds (60-36 shers). Over the whole district collections fell from £68,940 to £68,517 (Rs. 6,89,400 to Rs. 6,85,170); £10,546 (Rs. 1,05,460) or 12-88 per cent were remitted and £2776 (Rs. 27,760) left outstanding. Of the whole remissions 85 per cent were granted in Indápur and Bhimthadi. The people were so impoverished that the rule against remissions in finally surveyed villages had to be broken. The scale on which remissions were granted was, if the crop was half a failure a quarter of the rent was remitted; if nine-sixteenths a failure six-sixteenths were remitted, if ten-sixteenths half was remitted, if eleven-sixteenths ten-sixteenths were remitted, if twelve-sixteenths eleven-sixteenths were remitted, and if more than twelve-sixteenths had failed the whole rent was remitted. In Bhimthadi and Indápur about 15,000 acres passed out of tillage. Large numbers of people on the verge of starvation were employed in making a road from Pátás to Indápur.

The season of 1846-47 was favourable. The early rain was somewhat scanty, but especially in the east the late harvest was excellent. At Indápur the rupee price of Indian millet or *jowar* rose from about 72 to 30 pounds (36-15 shers). Over the whole district the tillage area rose from 1,102,088 to 1,148,755 acres and the collections from £68,517 to £81,561 (Rs. 6,85,170 to Rs. 8,15,610);

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<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>1844-45.</th>
<th>1845-46.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Villages</td>
<td>Tillage</td>
</tr>
<tr>
<td></td>
<td>Acres</td>
<td>Rs.</td>
</tr>
<tr>
<td>Shivner....</td>
<td>176</td>
<td>144,682</td>
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<tr>
<td>Indápur....</td>
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<td>227,300</td>
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<tr>
<td>Khed....</td>
<td>1841</td>
<td>1,05,133</td>
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<tr>
<td>Fábal....</td>
<td>37</td>
<td>145,097</td>
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<tr>
<td>Purnadhar...</td>
<td>604</td>
<td>185,350</td>
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<tr>
<td>Bhimthadi...</td>
<td>69</td>
<td>149,565</td>
</tr>
<tr>
<td>Havell...</td>
<td>85</td>
<td>96,296</td>
</tr>
<tr>
<td>Móval...</td>
<td>180</td>
<td>32,726</td>
</tr>
<tr>
<td>Grazing...</td>
<td>133</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>901</td>
<td>1,063,127</td>
</tr>
</tbody>
</table>

1 Bom. Gov. Rev. Rec. 15 of 1848, 10, 11, 60-63, 72, 100, 134, Rev. Rec. 23 of 1849, 80. The details are:

Poona Tillage and Revenue, 1844-1846.


3 Mr. Courtney, Collector, 10th December 1846, Bom. Gov. Rev. Rec. 15 of 1848, 74; Rev. Rec. 23 of 1849, 18-19.
£1928 (Rs. 19,280) or 2½ per cent were remitted and £2247 (Rs. 22,470) left outstanding. Remissions fell from twelve to 2½ per cent and about 40,900 acres of land assessed at £3450 (Rs. 34,500) were taken for tillage. Remissions were still necessary. Writing on the 21st of December 1847 Mr. Courtney the Collector expressed the opinion that in bad seasons remissions would continue necessary. The landholders were notoriously improvident, few had any capital. Instead of saving any surplus which remained after a plentiful season, they squandered it on some religious or family ceremony. The new settlement had been introduced into the Supa petty division of Purandhar in 1844. It proved so successful that notwithstanding that the Government demand was so much lowered and the two last seasons (1844 and 1845) were indifferent, the increase of revenue had more than repaid the cost of the settlement. For the three years before the survey the actual collections on account of the land tax were £9909 (Rs. 99,090) and for the three years after the survey the corresponding amount was £12,484 (Rs. 12,484) that is an increase of 24 per cent.

In 1847-48 the rains were not so good as in the preceding year. At Indápur the rupee price of Indian millet or jüdri fell from about 30 to 96 pounds (15-48 shers). Over the whole district the tillage area rose from 1,148,755 to 1,228,304 acres and

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1 Bom. Gov. Rev. Rec. 23 of 1849, 80, 171, 178. The details are:

**Poona Tillage and Revenue, 1845-1847.**

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>1845-46</th>
<th>1846-47</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shivner</td>
<td>176</td>
<td>£147,214</td>
</tr>
<tr>
<td>Indápur</td>
<td>101</td>
<td>252,302</td>
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<tr>
<td>Khed</td>
<td>1845</td>
<td>104,765</td>
</tr>
<tr>
<td>Pital</td>
<td>57</td>
<td>149,523</td>
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<td>Purandhar</td>
<td>761</td>
<td>109,600</td>
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<tr>
<td>Bhimthadi</td>
<td>71</td>
<td>146,442</td>
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<tr>
<td>Haswali</td>
<td>86</td>
<td>98,429</td>
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<tr>
<td>Malval</td>
<td>180</td>
<td>32,954</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>932</td>
<td>1,102,986</td>
</tr>
</tbody>
</table>

There were besides in 1846-47, 979 Government hamlets or vaddis and 249 alienated villages and 58 alienated hamlets or vaddis.


4 Lieut. Evans, assistant superintendent of survey, 13 of 18th Febry, 1847 para 2.

5 Bom. Gov. Sel. CVII. 71. Writing on the 21st of December 1847 (Bom. Gov. Rev. Rec. 23 of 1849, 173-174) Mr. Courtney the Collector said, 'The great cheapness of grain is likely in the present season to occasion some difficulty in realizing the revenue from the cultivating classes. The price of all descriptions of agricultural produce is now full 25 or 30 per cent lower than it was at this time last year, and as the landholder must look to the sale of his crop alone for the money with which to pay his revenue, a season of excessive cheapness is not by any means so favourable to him as to the rest of the community.'
collections from £81,561 to £81,845 (Rs. 8,15,610 - Rs. 8,18,450); £2462 (Rs. 24,620) or 2.8 per cent were remitted, and £718 (Rs. 7180) left outstanding.¹

In 1847 the thirty years revenue survey settlement was introduced into the Sāsvad mámlatdār’s division of Purandhar. The survey was begun in 1843 and finished in 1847. This group contained thirty-seven Government villages. Of these one was at the foot of the Purandhar fort and therefore dwindled after the garrison was reduced. It had no lands attached to it; those belonging to the fort were not measured at the former survey. Six of these villages had lately lapsed to Government. Bājri and jvārī were the chief grains. In the south-west villages bājri alternated with monsoon jvārī, wheat, and gram; and gram was not unfrequently grown as a cold-weather crop on land from which bājri had been reaped. There were a few patches of rice in the hill villages near the fort of Purandhar, and a small quantity of land was watered by the Karha river, and in one or two villages from perennial streams. A line of hills, an offshoot from the Purandhar range, divided Purandhar from the settled sub-divisions of Poona, Haveli, and Bhimthadi. The town of Sāsvad sixteen miles from Poona, was on the made road between Poona and Sātārā by the Bāpdev pass. This pass was very steep, and, as its ascent required an additional pair of bullocks, it was but little used by carts. The chief portion of the surplus produce of this group was conveyed to the Poona market by pack-bullocks. The Purandhar mámlatdār’s station was at Sāsvad where a market was held every Monday. Those of the landholders who could afford it, preferred taking their grain to Poona. Lieutenant Evans the assistant superintendent of survey writing on the 18th of February 1847, inclined to think that not much was sold locally. The small quantity of rice that was grown was sold and used on the spot, chiefly at Purincha and Sāsvad. At Sāsvad millet rupee prices had risen for bājri from about 54 pounds (27 shers) in 1837-38 to about 35½ pounds (17½ shers) in 1845-46.

¹ Bom. Gov. Rev. Rec. 16 of 1850, 42, 43, 76. The details are:

Poona Tillage and Revenue, 1846-1848.

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>Villages</th>
<th>Tillage</th>
<th>Remissions</th>
<th>Outstandings</th>
<th>Collections</th>
<th>Villages</th>
<th>Tillage</th>
<th>Remissions</th>
<th>Outstandings</th>
<th>Collections</th>
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<td>1846-47</td>
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<td>1847-48</td>
<td></td>
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<tr>
<td>Shivner</td>
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<td>160,468</td>
<td>2946</td>
<td>42</td>
<td>1,734,483</td>
<td>176</td>
<td>168,448</td>
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<td>129</td>
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<td>3077</td>
<td>7828</td>
<td>9,564</td>
<td>101</td>
<td>256,375</td>
<td>6197</td>
<td>3748</td>
<td>1,10,950</td>
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<td>2930</td>
<td>172</td>
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<td>1844</td>
<td>112,065</td>
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<td>317</td>
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<td>57</td>
<td>154,888</td>
<td>998</td>
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<td>1976</td>
<td>1,07,971</td>
<td>774</td>
<td>212,382</td>
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<td>1657</td>
<td>57,474</td>
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<td>4921</td>
<td>6501</td>
<td>71,175</td>
<td>71</td>
<td>144,408</td>
<td>540</td>
<td>1090</td>
<td>50,467</td>
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<td>17</td>
<td>5310</td>
<td>93,820</td>
<td>59</td>
<td>104,486</td>
<td>60</td>
<td>576</td>
<td>54,792</td>
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<td>84,635</td>
<td>16</td>
<td>457</td>
<td>65,262</td>
<td>181</td>
<td>86,170</td>
<td>465</td>
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<td>64,587</td>
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<td>Total</td>
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<td>1,145,755</td>
<td>19,283</td>
<td>22,473</td>
<td>8,15,006</td>
<td>937</td>
<td>1,228,304</td>
<td>24,822</td>
<td>7176</td>
<td>8,18,451</td>
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<td>1857</td>
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<td>2172</td>
<td>930</td>
<td>7977</td>
</tr>
<tr>
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<td>...</td>
<td>21,245</td>
<td>24,330</td>
<td>8,21,965</td>
<td>951</td>
<td>...</td>
<td>26,704</td>
<td>8106</td>
<td>8,28,388</td>
</tr>
</tbody>
</table>
and for 

\[ \text{jvārī} \] from about 82 pounds (41 \text{ shers}) to about 31\frac{1}{2} pounds (15\frac{1}{4} \text{ shers}).^1

In fifteen villages of this survey group, during the ten years ending 1846-47, the tillage area rose from 13,473 acres assessed at £1772 (Rs. 17,720) in 1837-38 to 16,882 acres assessed at £2112 (Rs. 21,120); remissions fell from £207 (Rs. 2070) to £19 (Rs. 190), and collections rose from £1565 (Rs. 15,650) to £2093 (Rs. 20,930). The details are:

**Purandhar Tillage and Revenue, 1837-1847.**

<table>
<thead>
<tr>
<th>Year</th>
<th>Tillage</th>
<th>Rental</th>
<th>Re-</th>
<th>Collections</th>
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<td>17,719</td>
<td>2071</td>
<td>15,847</td>
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<td>17,624</td>
<td>2016</td>
<td>15,306</td>
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<td>18,796</td>
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</tr>
<tr>
<td>1841-42</td>
<td>15,239</td>
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<td>3194</td>
<td>14,251</td>
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<tr>
<td>1842-43</td>
<td>15,839</td>
<td>19,882</td>
<td>8075</td>
<td>19,090</td>
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<tr>
<td>1843-44</td>
<td>15,856</td>
<td>19,810</td>
<td>8044</td>
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<tr>
<td>1844-45</td>
<td>15,688</td>
<td>19,042</td>
<td>6555</td>
<td>19,280</td>
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</tbody>
</table>

To assess their dry-crop lands the thirty-six villages were arranged into four classes. In the first class were placed ten villages and they were charged acre rates of 2s. 5d. (Rs. 1\frac{1}{2}), 1s. 10\frac{1}{2}d. (15 \text{ as.}), and 1s. 3\frac{1}{4}d. (10\frac{1}{2} \text{ as.}) for black lands; 1s. 6\frac{1}{2}d. (12\frac{1}{2} \text{ as.}), 1s. 11\frac{1}{2}d. (9\frac{1}{2} \text{ as.}), and 9\frac{1}{2}d. (6\frac{1}{2} \text{ as.}) for red lands; and 11\frac{1}{2}d. (7\frac{1}{2} \text{ as.}), 7\frac{1}{2}d. (4\frac{1}{2} \text{ as.}) and 4\frac{1}{2}d. (3\frac{1}{2} \text{ as.}) for brown or barad lands. In the second class were placed fifteen villages with acre rates of 1s. 11\frac{1}{2}d. (15\frac{1}{2} \text{ as.}), 1s. 7\frac{1}{2}d. (13 \text{ as.}), and 1s. 1\frac{1}{4}d. (9\frac{1}{2} \text{ as.}) for black lands; 1s. 4\frac{1}{2}d. (11 \text{ as.}), 1s. (8 \text{ as.}) and 3\frac{1}{2}d. (5\frac{3}{4} \text{ as.}) for red lands; and 10\frac{1}{2}d. (6\frac{1}{2} \text{ as.}), 6\frac{1}{2}d. (4\frac{1}{2} \text{ as.}), and 4\frac{1}{2}d. (3\frac{1}{2} \text{ as.}) for brown or barad lands. In the third class were placed nine villages with acre rates of 1s. 9\frac{1}{2}d. (14\frac{1}{2} \text{ as.}), 1s. 5\frac{1}{2}d. (11\frac{1}{2} \text{ as.}), and 1s. 4\frac{1}{2}d. (8\frac{1}{2} \text{ as.}) for black lands; 1s. 2\frac{1}{2}d. (9\frac{1}{2} \text{ as.}), 10\frac{1}{2}d. (7\frac{1}{2} \text{ as.}), and 7\frac{1}{2}d. (5 \text{ as.}) for red lands; 9\frac{1}{2}d. (6\frac{1}{2} \text{ as.}), 5\frac{1}{2}d. (3\frac{1}{2} \text{ as.}), and 3\frac{1}{2}d. (2\frac{1}{2} \text{ as.}) for brown or barad lands. The two remaining villages were assessed at the Suparates. The rice lands were of trifling extent. The rates proposed by Lieutenant Evans the assistant superintendent were 6s. (Rs. 3), 4s. 6d. (Rs. 2\frac{1}{4}), and 3s. (Rs. 1\frac{1}{2}). These rice rates, compared with the dry-crop rates, were, in the opinion of Captain Wingate, rather high than low. Having no experience of the rice cultivation of this district he however could not give any decided opinion as to their fitness. Government authorized the Collector to make any reductions in the proposed rates which he and Lieutenant Evans the assistant superintendent of survey might deem necessary at the time of introducing them. Grass lands unfit

---

^1 The details are:

<table>
<thead>
<tr>
<th>Year</th>
<th>Būjri</th>
<th>Jvārī</th>
</tr>
</thead>
<tbody>
<tr>
<td>1837-38</td>
<td>27</td>
<td>41</td>
</tr>
<tr>
<td>1838-39</td>
<td>31</td>
<td>35</td>
</tr>
<tr>
<td>1839-40</td>
<td>21</td>
<td>35</td>
</tr>
<tr>
<td>1840-41</td>
<td>27</td>
<td>36</td>
</tr>
<tr>
<td>1841-42</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td>1842-43</td>
<td>30</td>
<td>42</td>
</tr>
<tr>
<td>1843-44</td>
<td>26</td>
<td>45</td>
</tr>
<tr>
<td>1844-45</td>
<td>31</td>
<td>42</td>
</tr>
</tbody>
</table>
for grain found within the limits of a landholder's field were assessed at acre rates of \(1\frac{4}{4} d\) and \(2\frac{3}{4} d\) (10\(\frac{3}{4}\) as. and 1\(\frac{5}{4}\) as.). As the extent and value of hill lands were but trifling, Government authorized the Collector to continue the existing mode of assessing them unless he could introduce some other system whose working could be more easily and efficiently superintended by the district officers without being distasteful to the cultivators.\(^1\) The effect of the dry-crop or *jirayat* settlement was to reduce the revenue of the tillage area from £4906 (Rs. 49,060) in 1846-47 to £3390 (Rs. 33,900) in 1847-48 or 30 per cent.\(^2\)

In 1847-48 the survey settlement was introduced into twenty villages of the Bārmāti group in Indāpur. These villages lapsed in 1844-45. The tillage area in twenty-one villages rose from 44,937 bighās in 1837-38 to 48,214 bighās in 1842-43 and fell to 42,544 bighās in 1845-46. Collections including cesses rose from £1538 (Rs. 15,380) in 1837-38 to £1933 (Rs. 19,330) in 1845-46. The details are:

### Bārmāti Tillage and Revenue, 1837-1848.

<table>
<thead>
<tr>
<th>Year</th>
<th>Village</th>
<th>Full Rate or Sotl.</th>
<th>Short Rate or Utt.</th>
<th>Leased or Kaut.</th>
<th>Garden</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area</td>
<td>Rental</td>
<td>Area</td>
<td>Rental</td>
<td>Area</td>
</tr>
<tr>
<td>1837-38</td>
<td>21</td>
<td>4969</td>
<td>4046</td>
<td>25,352</td>
<td>11,915</td>
</tr>
<tr>
<td>1842-43</td>
<td>21</td>
<td>6217</td>
<td>7402</td>
<td>20,920</td>
<td>8302</td>
</tr>
<tr>
<td>1844-44</td>
<td>21</td>
<td>4816</td>
<td>4784</td>
<td>24,596</td>
<td>11,817</td>
</tr>
<tr>
<td>1844-45</td>
<td>21</td>
<td>4651</td>
<td>4861</td>
<td>25,558</td>
<td>12,036</td>
</tr>
<tr>
<td>1845-46</td>
<td>21</td>
<td>5553</td>
<td>5535</td>
<td>25,440</td>
<td>12,049</td>
</tr>
<tr>
<td>1846-47</td>
<td>20</td>
<td>6881</td>
<td>9209</td>
<td>22,907</td>
<td>15,037</td>
</tr>
<tr>
<td>1847-48</td>
<td>20</td>
<td>56,174</td>
<td>27,496</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

The new acre rates were for black lands 1s. 7\(\frac{3}{4}\)d. (13\(\frac{1}{4}\) as.), 1s. 4d. (10\(\frac{3}{4}\) as.), and 11\(\frac{1}{4}\)d. (7\(\frac{3}{4}\) as.); for red lands 1s. 11\(\frac{3}{4}\)d. (9\(\frac{3}{4}\) as.), 8\(\frac{3}{4}\)d. (5\(\frac{3}{4}\) as.) and 5d. (3\(\frac{1}{4}\) as.), and for barad or rocky lands 6\(\frac{3}{4}\)d. (4\(\frac{3}{4}\) as.), 4d. (2\(\frac{3}{4}\) as.), and 2\(\frac{1}{4}\)d. (1\(\frac{3}{4}\) as.). *Ukti* or short rates were in use until the new assessment was introduced in 1847-48 when both the *uktis* or short and the *sosti* or full rate tenures ceased. About 1730 acres were allowed to be held on *istāwa kaut* or rising leases either till the lease expired or till the amount was as high as the survey

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1 Lieutenant Evans, assistant superintendent, 13 of 18th February 1847; Captain Wingate, Superintendent of Survey, 128 of 5th October 1847; Government Letter 544 of 26th January 1848.

2 Mr. Reeves, Collector, 2842 of 1st Oct. 1849.

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POONA. 445

assessments.\(^1\) Compared with £2108 (Rs. 21,080) the average collections of the five years ending 1846-47, £2896 (Rs. 28,960) the survey rental on the area under tillage showed a rise of 37 per cent. There were 11,693 acres of waste assessed at £479 (Rs. 4,790).\(^2\)

In October 1849, in submitting the settlement report to Government, the Revenue Commissioner Mr. Townsend remarked that to a certain extent every new assessment must be viewed as an experiment, the success of which could be estimated only by the experience of some years. He pressed upon Government the necessity of opening more roads. In this group of villages no improvement could be expected unless a good road was made to Báramati. Government had done much to lessen their demands. Unless trade was encouraged by the opening of roads, after a few years a further reduction in the Government demand would be necessary.\(^3\) Government approved of the settlement. At the same time they observed, apparently in reference to the increase of 37 per cent in this survey group, that both the Revenue Commissioner and the Collector should watch with care the working of the new rates. Government had sanctioned the preliminary arrangements made under the late Lieutenant Nash's superintendence with no feeling of confidence. It should be considered as a standing rule that when rates submitted for approval are compared with the rates obtaining in districts where the assessment had been for some time revised, the manner in which that revised assessment has worked should be fully shown.\(^4\)

1848-49 was an average season. Untimely and scanty rain injured the early crops, but the late harvest was more favourable. Remissions rose from 2-8 to 4-9 per cent. At Indapur the rupee price of Indian millet or \textit{javí} fell from about 96 to 144 pounds (48-72 shers). Over the whole district the tillage area fell from 1,228,804 to 1,227,898, acres and the collections from £81,845 (Rs. 8,18,450) to £77,535 (Rs. 7,75,350); £4061 (Rs. 40,610) or 4-9 per cent were remitted and £1184 (Rs. 11,840) left outstanding.\(^5\)

\(^5\) Bom. Gov. Rev. Rec. 24 of 1851, 7, 13, 47, 62. The details are:

\begin{center}
\textbf{Poona Tillage and Revenue, 1847-1849.}
\end{center}

\begin{tabular}{|c|c|c|c|c|c|c|}
\hline
\textbf{Sub-Division} & \multicolumn{3}{c|}{1847-48} & \multicolumn{3}{c|}{1848-49} \\
\hline & Villages. & Tillage. & Remis. & Outstanding. & Collections. & Villages. & Remis. & Outstanding. & Collections. \\
\hline Shivner & 170 & 198,448 & 13,570 & 139 & 1,70,697 & 176 & 168,270 & 21,068 & 832 & 1,39,343 \\
Indapur & 101 & 286,387 & 5107 & 24 & 1,06,588 & 101 & 281,165 & 37 & 1,04,695 & 22 & 1,01,110 \\
Khed & 154 & 112,035 & 2394 & 24 & 1,08,478 & 154 & 112,733 & 18,918 & 29 & 94,056 \\
Pabal & 65 & 164,932 & 952 & 22 & 1,04,695 & 55 & 167,047 & 321 & 72 & 1,08,585 \\
Purandhar & 774 & 212,883 & 907 & 1057 & 97,497 & 774 & 210,738 & 42 & 938 & 97,738 \\
Bhimgadh & 72 & 14,405 & 597 & 1220 & 15,467 & 72 & 14,405 & 13 & 1053 & 66,178 \\
Haveli & 88 & 100,486 & 50 & 765 & 96,590 & 88 & 101,708 & 50 & 315 & 98,389 \\
Maval & 192 & 26,170 & 456 & 64,837 & 456 & 182 & 26,508 & 95 & 7 & 64,905 \\
\hline Total & 939 & 1,228,304 & 24,622 & 7176 & 8,18,451 & 940 & 1,237,536 & 40,610 & 11,888 & 7,75,355 \\
Sequestrated & 19 & 2172 & 930 & 7937 & 16 & 4,550 & 1333 & 8,025 \\
Total & 958 & 26,794 & 8106 & 8,18,828 & 955 & 45,140 & 15,231 & 7,83,817 \\
\hline
\end{tabular}
In 1848-49 Bhimthadi was far from prosperous. Mr. Reid the assistant collector wrote on the 25th of February 1850, 'I do not see how Bhimthadi will ever be a paying district. Its population is scanty, the rains are variable, and its assessment compared with that of the neighbouring districts of Supa and Indapur is heavy.'

In 1848 the survey settlement was introduced into the Bori petty division of Junnar. The survey of this group was begun in 1842, but with the object of completing the survey of Mangoli in Sholapur survey operations in Bori remained at stand from 1842 to 1845. Work was begun in 1845 and was finished in 1846. Bori was bounded on the north by the range of hills of the Brahmanvadi petty division of Junnar, on the east by the Nagar district, on the south by Pabál, and on the west by the Haveli villages of Junnar. Of the thirty villages included in this survey group one village was annexed in 1836. The climate of Bori was almost the same as the climate of north Pabál. From the point westward where Bori adjoined the Junnar-Haveli group the supply of rain became gradually more uncertain and less plentiful, till, at the point where Bori joined the Ahmadnagar district, the fall was very uncertain. The chief grains were millets, wheat, and gram. There were 1304 ploughs, 338 carts, and 7950 bullocks. Of 2455 landholders 2044 were mirdsiárs or hereditary holders, 293 were upris or casual holders, and 118 were ovandkaris or strangers. According to Mr. Pringle's survey there were 74,865 acres of Government arable land and 5093 acres of alienated land or a total of 79,958 acres assessed at £7363 (Rs. 78,630) that is an average acre rate of 1s. 11½d. (15½ as.). Of the Government arable area 24,813 acres were waste, and 50,052 acres were under tillage. The rental on the tillage area was £5110 (Rs. 51,100) or 2s. ⅓d. (Re.1 as. ⅓) the acre. The area held for tillage increased from 46,420 in 1829 to 50,052 acres in 1846. Remissions during the sixteen years ending 1845 averaged £1035 (Rs. 10,350), and during the five years ending 1846 averaged £741 (Rs. 7410). Bori being a long slip of land lying in a line parallel with Pabál, and the climate and market prices in both being much the same, the Pabál rates with a slight increase on the red land were proposed for Bori. The details are:

**Bori Survey Rates, 1846.**

<table>
<thead>
<tr>
<th>Soil</th>
<th>Class I 8 Villages</th>
<th>Class II 16 Villages</th>
<th>Class III 8 Villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd do.</td>
<td>470</td>
<td>290</td>
<td>310</td>
</tr>
<tr>
<td>3rd do.</td>
<td>330</td>
<td>270</td>
<td>220</td>
</tr>
</tbody>
</table>

* Four hundred res equal one rupee or two shillings.

**Poona Waste, 1848-49.**

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>Arable</th>
<th>Waste</th>
<th>Sub-Division</th>
<th>Arable</th>
<th>Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acres.</td>
<td>Area.</td>
<td>PerCent</td>
<td>Acres.</td>
<td>Area.</td>
</tr>
<tr>
<td>Shivner</td>
<td>228,018</td>
<td>59,747</td>
<td>26.9</td>
<td>28,920</td>
<td>7,829</td>
</tr>
<tr>
<td>Indapur</td>
<td>313,539</td>
<td>24,375</td>
<td>7.52</td>
<td>28,410</td>
<td>5,300</td>
</tr>
<tr>
<td>Khed</td>
<td>170,790</td>
<td>58,088</td>
<td>35.95</td>
<td>21,020</td>
<td>7,310</td>
</tr>
<tr>
<td>Pabál</td>
<td>192,051</td>
<td>15,013</td>
<td>8.22</td>
<td>23,030</td>
<td>9,820</td>
</tr>
<tr>
<td>Purandhar</td>
<td>227,977</td>
<td>17,179</td>
<td>7.93</td>
<td>Total</td>
<td>581,566</td>
</tr>
</tbody>
</table>

The area of watered land was considerable. Of 657 wells twenty-nine were in alienated land; there were also numerous small channels. From both sources a total area of 4100 acres were watered. Many of these channels were used only in seasons of more than average rainfall. In seasons of moderate rain many of them were without water. It was proposed that the rental on these channels should not be demanded except when they were used. Under the former survey the acre rate on the garden land was 6s. (Rs. 3), but only a small portion (48 acres) of the watered land was included under this head. It was proposed to impose the Pábal garden land rate of 4s. (Rs. 2) in Bori. According to the new survey the garden area amounted to 4100 acres and the rental to £472 (Rs. 4720) or an average acre rate of a little more than 2s. (Rs. 1). 1 The details are:

Bori Settlement, 1846.

<table>
<thead>
<tr>
<th>VILLAGES</th>
<th>FORMER.</th>
<th>SURVEY.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rental</td>
<td>Occupied.</td>
</tr>
<tr>
<td>50</td>
<td>Rs. 54,643</td>
<td>95,514</td>
</tr>
</tbody>
</table>

During the preceding five years the average remissions were about £740 (Rs. 7400). Deducting this sum from the former rental on the tillage area and comparing the balance with the survey rental on the occupied area there appears a reduction of about 4½ per cent. The proposed settlement was sanctioned in September 1848. 2

1849-50 seems to have been a less favourable year than 1848-49. There was a fall in the tillage area of 31,179 acres. At the same time remissions declined from 4·9 to 3·9 per cent. At Indápur the rupee price of Indian millet or jvári was the same as in the previous year, about 144 pounds (72 shers). Over the whole district the tillage area fell from 1,227,898 to 1,196,719 acres and the

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1 As the supply of water was not enough to cover the whole garden area at the same time, each holder watered part of his land in turns so that the actual amount of land watered at one time was far less than 4100 acres.

DISTRICTS.

Bom.

Junnar.

In 1844-45, there

£3148 (Rs. 31,480) or 3°9 per cent were remitted, and £1076

(Rs. 10,760) left outstanding.¹

In 1849 the survey settlement was introduced into a group of

twenty-six villages of the Brâhmanvâdi petty division of Junnar.

The remaining nine hill villages which contained chiefly occasional

hill crop and rice land were left until the survey of this class of land

was undertaken. Brâhmanvâdi was bounded on the north and east

by the Ahmadnagar district, on the south by Bori another petty

division of Junnar, and on the west by Madh Khore and Harish-

chandra hill. The hill or dâng villages lay on the west side of the

Brâhmanvâdi petty division between it and the Harishchandra hill.

Brâhmanvâdi was separated from Bori by a line of hills steep on

the south or Bori side and sloping and broken on the north or Brâhman-

vâdi side. In this survey group there were two streams the Kas and

the Mul. The Kas was generally dry in January, it had a very deep

bed with numerous deep ravines running at right angles from it

on either side. The Mul stopped running by February, but had

numerous pools which held water all the year. Brâhmanvâdi was

on the high road from Poona to Nasik about a quarter of a mile from

the top of the Brâhmanvâdi pass. The Brâhmanvâdi villages were

badly off for roads. There was a made-road forty miles from Poona

to Nârâyangaon. From Nârâyangaon, though not made, the road

was fair for fourteen miles to the foot of the Brâhmanvâdi pass.

The ascent of this pass was difficult. The pathway was blocked

with boulders or crossed by sloping sheet-rock very dangerous for

laden animals. From 10,000 to 15,000 head of cattle yearly crossed

this pass loaded with grain chiefly bâjîrî which they carried to Junnar

and Poona and returned laden with salt. There was another road

leading out of the Brâhmanvâdi petty division by âle where, some

years before, part of the road over the âle pass had been made.

At Utr a village in this survey group the rupee price of bâjîrî was

about 62 pounds (31 shers) in 1842-43, about 72 pounds (36 shers)
in 1843-44, about 62 pounds (31 shers) in 1844-45, and about 38

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¹ Bom. Gov. Rev. Rec. 24 of 1851, 211, 220, 270. The details are :

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>1848-49</th>
<th>1849-50</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Villages</td>
<td>Tillage</td>
</tr>
<tr>
<td>Shiven ...</td>
<td>176</td>
<td>185,470</td>
</tr>
<tr>
<td>Indapur ...</td>
<td>104</td>
<td>291,185</td>
</tr>
<tr>
<td>Khed ...</td>
<td>1356</td>
<td>112,733</td>
</tr>
<tr>
<td>Pâthal ...</td>
<td>56</td>
<td>167,037</td>
</tr>
<tr>
<td>Purnândhar ...</td>
<td>772</td>
<td>210,735</td>
</tr>
<tr>
<td>Bâmâbâdi ...</td>
<td>72</td>
<td>149,438</td>
</tr>
<tr>
<td>Haveli ...</td>
<td>88</td>
<td>101,708</td>
</tr>
<tr>
<td>Mâval ...</td>
<td>132</td>
<td>38,860</td>
</tr>
<tr>
<td>Total ...</td>
<td>940</td>
<td>1,237,998</td>
</tr>
<tr>
<td>Sequestrated</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Total ...</td>
<td>955</td>
<td></td>
</tr>
</tbody>
</table>
pounds (19 shers) in 1845-46. The following statement shows the tillage and revenue during the fifteen years ending 1846-47:

**Brāhmaṇavādi Tillage and Revenue, 1832-1847.**

<table>
<thead>
<tr>
<th>Year</th>
<th>Tillage</th>
<th>Rental</th>
<th>Remissions</th>
<th>Collections</th>
<th>Year</th>
<th>Tillage</th>
<th>Rental</th>
<th>Remissions</th>
<th>Collections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1832-33...</td>
<td>30,140</td>
<td>32,772</td>
<td>15,882</td>
<td>16,909</td>
<td>1840-41...</td>
<td>37,608</td>
<td>35,259</td>
<td>1213</td>
<td>37,016</td>
</tr>
<tr>
<td>1833-34...</td>
<td>33,802</td>
<td>35,525</td>
<td>247</td>
<td>35,278</td>
<td>1841-42...</td>
<td>37,315</td>
<td>35,102</td>
<td>9124</td>
<td>39,505</td>
</tr>
<tr>
<td>1834-35...</td>
<td>35,012</td>
<td>35,805</td>
<td>775</td>
<td>34,217</td>
<td>1842-43...</td>
<td>37,673</td>
<td>38,410</td>
<td>659</td>
<td>37,751</td>
</tr>
<tr>
<td>1835-36...</td>
<td>35,515</td>
<td>35,349</td>
<td>1648</td>
<td>34,101</td>
<td>1843-44...</td>
<td>37,583</td>
<td>36,855</td>
<td>587</td>
<td>32,778</td>
</tr>
<tr>
<td>1836-37...</td>
<td>33,841</td>
<td>35,951</td>
<td>20,191</td>
<td>15,170</td>
<td>1844-45...</td>
<td>36,557</td>
<td>36,141</td>
<td>6928</td>
<td>32,515</td>
</tr>
<tr>
<td>1837-38...</td>
<td>35,119</td>
<td>36,427</td>
<td>1115</td>
<td>35,223</td>
<td>1845-46...</td>
<td>37,123</td>
<td>35,417</td>
<td>1530</td>
<td>36,397</td>
</tr>
<tr>
<td>1838-39...</td>
<td>35,860</td>
<td>37,704</td>
<td>15,857</td>
<td>19,247</td>
<td>1846-47...</td>
<td>39,597</td>
<td>40,377</td>
<td>190</td>
<td>40,187</td>
</tr>
</tbody>
</table>

During the fifteen years ending 1846-47, of the average tillage area of 35,711 acres assessed at £3703 (Rs. 37,030), part was granted on short or uketi rates or on lease or kauli rates. The average remissions were £570 (Rs. 5700) and the collections £3133 (Rs. 31,330) from 35,711 acres that is a nominal average acre rate of 1s. 9d. (14 as.). The correct acre rate was much lower as revised measurement showed that the number of assessable acres was much greater than those entered in the former survey record. Captain Landon the survey officer attributed the increase in the number of arable acres to the fact that land bordering on fields, which had not been assessed because it was thought too poor for tillage, had been brought under cultivation and improved. This Captain Landon thought might also account for the irregular shape of many fields and for the absence of boundary marks. The new survey left no land unmeasured, field adjoined field, and where there was a space between two fields, it was included in one or other field if it was of small extent and not fit for tillage. If it yielded grass it was assessed as grass land. Patches of bare rock were deducted from the number of assessable acres. In the best soil the former measurement was found generally correct and the shape of the field more regular. This was probably because the whole of such land had been measured.

The twenty-six villages were arranged in four classes with highest dry-crop acre rates 150 to 30 per cent higher than Indāpur. The details are:

**Brāhmaṇavādi Survey Rates, 1849-50.**

<table>
<thead>
<tr>
<th>Soil</th>
<th>Indāpur Rates</th>
<th>150 per cent higher 1 Village</th>
<th>100 per cent higher 1 Village</th>
<th>60 per cent higher 13 Villages</th>
<th>30 per cent higher 11 Villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Black</td>
<td>Res. 750</td>
<td>Res. 600</td>
<td>Res. 450</td>
<td>Res. 300</td>
<td>Res. 210</td>
</tr>
<tr>
<td>2nd do.</td>
<td>Res. 700</td>
<td>Res. 650</td>
<td>Res. 430</td>
<td>Res. 350</td>
<td>Res. 240</td>
</tr>
<tr>
<td>3rd do.</td>
<td>Res. 720</td>
<td>Res. 630</td>
<td>Res. 410</td>
<td>Res. 320</td>
<td>Res. 225</td>
</tr>
<tr>
<td>4th do.</td>
<td>Res. 800</td>
<td>Res. 700</td>
<td>Res. 500</td>
<td>Res. 370</td>
<td>Res. 270</td>
</tr>
<tr>
<td>5th do.</td>
<td>Res. 850</td>
<td>Res. 750</td>
<td>Res. 550</td>
<td>Res. 420</td>
<td>Res. 325</td>
</tr>
<tr>
<td>6th do.</td>
<td>Res. 900</td>
<td>Res. 800</td>
<td>Res. 600</td>
<td>Res. 470</td>
<td>Res. 340</td>
</tr>
<tr>
<td>7th do.</td>
<td>Res. 950</td>
<td>Res. 850</td>
<td>Res. 650</td>
<td>Res. 520</td>
<td>Res. 360</td>
</tr>
<tr>
<td>8th do.</td>
<td>Res. 1000</td>
<td>Res. 900</td>
<td>Res. 700</td>
<td>Res. 570</td>
<td>Res. 380</td>
</tr>
<tr>
<td>9th do.</td>
<td>Res. 1050</td>
<td>Res. 950</td>
<td>Res. 750</td>
<td>Res. 620</td>
<td>Res. 400</td>
</tr>
<tr>
<td>10th do.</td>
<td>Res. 1100</td>
<td>Res. 1000</td>
<td>Res. 800</td>
<td>Res. 670</td>
<td>Res. 420</td>
</tr>
<tr>
<td>11th do.</td>
<td>Res. 1150</td>
<td>Res. 1050</td>
<td>Res. 850</td>
<td>Res. 720</td>
<td>Res. 440</td>
</tr>
<tr>
<td>12th do.</td>
<td>Res. 1200</td>
<td>Res. 1100</td>
<td>Res. 900</td>
<td>Res. 770</td>
<td>Res. 460</td>
</tr>
<tr>
<td>13th do.</td>
<td>Res. 1250</td>
<td>Res. 1150</td>
<td>Res. 950</td>
<td>Res. 820</td>
<td>Res. 480</td>
</tr>
<tr>
<td>14th do.</td>
<td>Res. 1300</td>
<td>Res. 1200</td>
<td>Res. 1000</td>
<td>Res. 870</td>
<td>Res. 500</td>
</tr>
<tr>
<td>15th do.</td>
<td>Res. 1350</td>
<td>Res. 1250</td>
<td>Res. 1050</td>
<td>Res. 920</td>
<td>Res. 520</td>
</tr>
<tr>
<td>16th do.</td>
<td>Res. 1400</td>
<td>Res. 1300</td>
<td>Res. 1100</td>
<td>Res. 970</td>
<td>Res. 540</td>
</tr>
<tr>
<td>17th do.</td>
<td>Res. 1450</td>
<td>Res. 1350</td>
<td>Res. 1150</td>
<td>Res. 1020</td>
<td>Res. 560</td>
</tr>
<tr>
<td>18th do.</td>
<td>Res. 1500</td>
<td>Res. 1400</td>
<td>Res. 1200</td>
<td>Res. 1070</td>
<td>Res. 580</td>
</tr>
<tr>
<td>19th do.</td>
<td>Res. 1550</td>
<td>Res. 1450</td>
<td>Res. 1250</td>
<td>Res. 1120</td>
<td>Res. 600</td>
</tr>
<tr>
<td>20th do.</td>
<td>Res. 1600</td>
<td>Res. 1500</td>
<td>Res. 1300</td>
<td>Res. 1170</td>
<td>Res. 620</td>
</tr>
<tr>
<td>21st do.</td>
<td>Res. 1650</td>
<td>Res. 1550</td>
<td>Res. 1350</td>
<td>Res. 1220</td>
<td>Res. 640</td>
</tr>
<tr>
<td>22nd do.</td>
<td>Res. 1700</td>
<td>Res. 1600</td>
<td>Res. 1400</td>
<td>Res. 1270</td>
<td>Res. 660</td>
</tr>
<tr>
<td>23rd do.</td>
<td>Res. 1750</td>
<td>Res. 1650</td>
<td>Res. 1450</td>
<td>Res. 1320</td>
<td>Res. 680</td>
</tr>
<tr>
<td>24th do.</td>
<td>Res. 1800</td>
<td>Res. 1700</td>
<td>Res. 1500</td>
<td>Res. 1370</td>
<td>Res. 700</td>
</tr>
<tr>
<td>25th do.</td>
<td>Res. 1850</td>
<td>Res. 1750</td>
<td>Res. 1550</td>
<td>Res. 1420</td>
<td>Res. 720</td>
</tr>
<tr>
<td>26th do.</td>
<td>Res. 1900</td>
<td>Res. 1800</td>
<td>Res. 1600</td>
<td>Res. 1470</td>
<td>Res. 740</td>
</tr>
</tbody>
</table>

1. Four hundred res equal one rupee or two shillings.

2. Captain Landon, 171 of 29th September 1848, paras 15, 19, and statement 2. These averages do not quite agree with the figures in the statement.
For the small quantity of grass growing on the edges and rocky parts of the cultivated fields an acre rate of 1½d. (1 a.) was proposed. It was proposed to rate a few acres of rather rich river alluvial or dheli soil at 3d. (2 as.) and 6d. (4 as.) higher than the first black. Of rice land there were about twenty-six acres for which acre rates of 6s. (Rs. 3), 4s. 6d. (Rs. 2½), and 5s. (Rs. 1½) were proposed. For garden land an acre rate of 4s. (Rs. 2) for well-watered, and of 6s. (Rs. 3) to 2s. (Re. 1) for channel-watered land was proposed. The average rate of the existing settlement on land held for tillage was, according to the former measurement, 2s. 3d. (Rs. 1½), and according to the new measurement 1s. 6½d. (12 ½ as.). The average acre rate according to the proposed assessment was 1s. 1½d. (8 ¾ as.). According to Mr. Pringle’s settlement in the twenty-six villages there were 51,938 arable acres assessed at £4862 (Rs. 48,620) or an average acre rate of 1s. 10½d. (14 ½ as.). According to the revised measurement the arable area was 70,756 acres which gave an average acre rate of 1s. 4½d. (10½ as.). There were besides 21,544 acres of grass land on the hills not measured by Mr. Pringle’s survey. It was proposed to let them by auction or makta as was done in the case of grass lands or kurans.

The following statement shows that the survey settlement reduced the Government demand from £3336 (Rs. 33,360) the average collections of the ten years ending 1846-47 to £2856 (Rs. 28,560) the survey rental on the dry-crop and garden tillage area, that is a reduction of 14 per cent. The details are:

<table>
<thead>
<tr>
<th>VILLAGERS</th>
<th>FORMER</th>
<th>1837-1847</th>
<th>SURVEY</th>
<th>1850-51</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Rental</td>
<td>Remis.</td>
<td>Collections</td>
</tr>
<tr>
<td>26</td>
<td>Rs. 45,622</td>
<td>Rs. 38,016</td>
<td>Rs. 652</td>
<td>Rs. 53,964</td>
</tr>
</tbody>
</table>

The proposed rates were sanctioned with the modification that the first black rate for Utur in the first class should be reduced from 3s. 9d. to 3s. 3d. (750 to 650 res); this change reduced the total survey rental by about £130 (Rs. 1300).¹

The season of 1850 was on the whole unfavourable. Partial and irregular falls of rain injured both the early and the late crops. The parts of the district which suffered most were Bhimthadi and the east or plain parts of Junnar, Khed, Pábal, and Mával. Remissions amounted to about 29 per cent in Bhimthadi, 11 in Khed, 8 in Purandhar, 3 in Indápur, and ¼ to ½ in other sub-divisions. Over the whole district the remissions showed an increase from 3½ to 6½ per cent. At Indápur the rupee price of Indian millet or jétá̃ri rose from about 144 to 76 pounds (72-35 shers). Over the whole

¹The assistant superintendent Captain Landon, 171 of 29th September 1848; Captain Wingeate, 256 of 22nd December 1848; Mr. Townend, Rev. Comr. 485 of 29th January 1849; Gov. Letter 1368 of 24th February 1849.
district the tillage area rose from 1,196,719 to 1,215,015 acres, and the collections fell from £76,243 (Rs. 7,62,430) to £73,032 (Rs. 7,30,320); £5196 (Rs. 51,960) or 6·6 per cent were remitted, and £417 (Rs. 4170) left outstanding.\footnote{Bom. Gov. Rev. Rec. 18 of 1852, 5, 6, 10, 14, 19, 82. The details are: Poona Tillage and Revenue, 1849-1851.}

In 1850-51 the thirty years' revenue survey settlement was introduced into 109 villages of Junnar.\footnote{Bom. Gov. Sel. LXX. 67.} For revenue and magisterial purposes the Shivner or Junnar subdivision included three divisions, one in charge of a mamlatdār and two in charge of mahālkaris. The mamlatdār was stationed at Junnar and the mahālkaris at Brāhmanvādi and Bori. The survey settlement was introduced into the thirty villages of the Bori group in 1848, into the twenty-six villages of the Brāhmanvādi group in 1849, and into the 109 villages of the Junnar group in 1850-51. The Junnar group was bounded on the north by the Brāhmanvādi petty division and part of the Akola sub-division in Ahmadnagar, on the east by the Bori petty division, on the south by Pābal and Khed, and on the west by the Sahyādri hills. Numerous distinct spurs stretched east and southeast from the Sahyādris gradually falling into the plain. The extreme west was very rugged, and so broken by ravines that bullock and plough tillage was generally impossible. Its place was taken by a hand tillage known as dali. Further east the valleys broadened and the usual form of tillage became general. From the town of Junnar on the west to the Bori petty division on the east was a tract known as the Haveli group. A happy combination of favourable
Chapter VIII.

Land.

Survey.

Junnar, 1850-51.

Rainfall and fertile soil made this one of the richest spots in the Deccan. Nowhere else in Poona was the fall of rain so genial and so certain; nowhere else did wheat and other grains yield such abundant crops. In the rainy west rice was the staple product, the only dry-crops being nāchāni, āvā, khurāsmi, and other upland grains. So greatly did the excess of moisture deteriorate and exhaust the soil that after yielding for three or four years the land required three or four years of rest. From this wet western tract eastwards rice gradually disappeared as the wheat gram and millet lands of the Haveli group were approached. The western villages had often not more than a scanty population of hardy and simple hillmen. The houses were generally small roofed sheds. Their wants were few, and especially during the rains they were often left without craftsmen or traders. In the Haveli group the houses were comparatively well built, and the village communities had the usual staff of craftsmen. The chief and the most central local market was Junnar; the other leading market towns were Utur and Nārāyangaon. The rates fixed on the survey and assessment of Junnar carried out under Mr. Pringle were introduced in 1829-30, and till 1850 continued to be the basis of the British revenue collections. During the three years after Mr. Pringle’s settlement tillage was stationary; during the fourth year it slightly increased. Each of these four years (1829-1833) was marked by a yearly fall in revenue. The years 1833-34 and 1834-35 are remarkable as almost the full assessment on the cultivated land was realized. 1836 was evidently a bad season, but, as liberal remissions were given, in the following year the revenue reached its former standard. 1838 was a year of short rain and the remissions amounted to about 45 per cent of the assessment. The effects of this unfavourable season appear to have been felt for the succeeding three years from which time there is nothing remarkable till 1846. In 1848 probably because of the favourable character of the two previous years, the area of land under tillage was greater than in any preceding year of the whole period. The unfavourable season of 1849 caused a decline in tillage. During the twenty-one years ending 1849-50 the tillage area varied from 47,000 acres in 1829-30 to 58,000 acres in 1848-49; the collections varied from £3500 (Rs. 35,000) in 1838-39 to £6500 (Rs. 65,000) in 1842-43, and averaged £5466 (Rs. 54,660) or 2s. 3d. (Re. 1 as. 3d.) the acre. In the ten years ending 1849-50 the collections averaged £5835 (Rs. 58,350) or 2s. 3d. (Re. 1 as. 3d.) the acre. In 1850 the

---

2 The details are:

<table>
<thead>
<tr>
<th>Year</th>
<th>Tilage</th>
<th>Remissions</th>
<th>Collections</th>
<th>Year</th>
<th>Tilage</th>
<th>Remissions</th>
<th>Collections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1829-30</td>
<td>47,000</td>
<td>1000</td>
<td>58,000</td>
<td>1838-39</td>
<td>42,000</td>
<td>1000</td>
<td>58,000</td>
</tr>
<tr>
<td>1830-31</td>
<td>47,000</td>
<td>10,000</td>
<td>58,000</td>
<td>1839-40</td>
<td>42,000</td>
<td>10,000</td>
<td>58,000</td>
</tr>
<tr>
<td>1831-32</td>
<td>47,000</td>
<td>15,000</td>
<td>58,000</td>
<td>1840-41</td>
<td>42,000</td>
<td>15,000</td>
<td>58,000</td>
</tr>
<tr>
<td>1832-33</td>
<td>52,000</td>
<td>30,000</td>
<td>58,000</td>
<td>1841-42</td>
<td>42,000</td>
<td>30,000</td>
<td>58,000</td>
</tr>
<tr>
<td>1833-34</td>
<td>55,000</td>
<td>200</td>
<td>58,000</td>
<td>1842-43</td>
<td>42,000</td>
<td>200</td>
<td>58,000</td>
</tr>
<tr>
<td>1834-35</td>
<td>50,000</td>
<td>10,000</td>
<td>58,000</td>
<td>1843-44</td>
<td>42,000</td>
<td>10,000</td>
<td>58,000</td>
</tr>
<tr>
<td>1835-36</td>
<td>55,000</td>
<td>400</td>
<td>58,000</td>
<td>1844-45</td>
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<td>400</td>
<td>58,000</td>
</tr>
<tr>
<td></td>
<td>63,000</td>
<td></td>
<td></td>
<td>1845-46</td>
<td>42,000</td>
<td>63,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>63,000</td>
<td></td>
<td></td>
<td>1846-47</td>
<td>42,000</td>
<td>63,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>63,000</td>
<td></td>
<td></td>
<td>1847-48</td>
<td>42,000</td>
<td>63,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>63,000</td>
<td></td>
<td></td>
<td>1848-49</td>
<td>42,000</td>
<td>63,000</td>
<td></td>
</tr>
</tbody>
</table>

These figures are given from the survey diagram for 109 Junnar villages. The old
people of Junnar were badly off. The bulk of them appeared to be deep in the moneylenders' books, almost literally living from hand to mouth. The few exceptions seemed to be people who held their lands on favourable terms owing to some inequality in the existing assessment. A great reduction in the Government demand seemed called for. To ensure this reduction rates were proposed, which on the land under tillage in 1850 reduced the Government demand 34 per cent. The 109 villages were arranged into five classes whose highest dry-crop acre rates varied from 3s. 6d. (Rs. 1½) in the first class to 1s. 6d. (12 as.) in the fifth class. The first class included twenty-two villages in the east of the Haveli group and in the valley of the Kukdi river, extending to the town of Junnar, the tract which has been described as one of the most fertile spots in the Deccan. They were charged a highest dry crop acre rate of 3s. 6d. (Rs. 1½). The second class included twenty-four villages lying generally to the west of the first class and was charged a highest dry-crop acre rate of 3s. (Rs. 1). In this group though the fall of rain was larger, the soil was much less rich. The third class included nineteen villages with a highest dry crop acre rate of 2s. 6d. (Rs. 1¼), and the fourth class contained thirty-four villages with a corresponding rate of 2s. (Re. 1). The division between the third and fourth classes was the change of products and cultivation from wheat and bajji to hill grains. The fifth class contained ten villages charged at a rate of 1s. 6d. (12 as.) ; they were on the tops and slopes of the Sahyadris. As rice tillage was entirely dependent on the rainfall two sets of acre rates, 6s. (Rs. 3) and 5s. (Rs. 2½), were introduced, according as the land lay within or on the skirts of the belt of heavy rainfall. The watered land was either channel-watered or well-watered. The Superintendent proposed for well-watered land an acre rate of 4s. (Rs. 2) in excess of the highest dry-crop rates except in the specially rich gardens to the east of Junnar for which he proposed a rate of 8s. (Rs. 4). For channel watered or pátasihal land the Superintendent proposed acre rates varying from 2s. (Re. 1) to 6s. (Rs. 3) in excess of the highest dry-crop acre rates. A special acre rate of 12s. (Rs. 6) was proposed for the Hásiz garden about two miles to the east of Junnar which had an unfailing supply of water. In the hilly lands in the west, which were known as the cutting forest or dái rán, the Superintendent proposed to continue the former system of the billhook or koyta cess. Instead of the uniform koyta rate of 1s. 6d. (12 as.) the Superintendent recommended three rates, 1s. 3d. (10 as.) for the villages of the fifth class, 1s. 6d. (12 as.) for the villages of the fourth class, and 2s. (Re. 1) for small patches of billhook tillage in the second and third classes. The total survey rental, including dry-crop, garden, rice, hill-side, and grazing, amounted to £5536 (Rs. 55,360). Compared with £5667 (Rs. 56,670) the average collections of the previous twenty-one years (1829-1850), the total survey rental showed a reduction of £131 (Rs. 1310) or 2·31 per cent. The following statement shows the effect of the survey:

"kamāl or total arable area of this group was 75,000 acres and the old kamāl or total rental was £5800 (Rs. 83,000)."
Chapter VIII.

Land.

Survey.

Junnar Settlement, 1850-51.

<table>
<thead>
<tr>
<th>Class</th>
<th>Former 1839-1850</th>
<th>Survey 1849-50</th>
<th>Dry-Crop</th>
<th>Rice</th>
<th>Garden</th>
<th>Well and Channel watered</th>
<th>Grazing and Dau Lands</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dry-Crop and Garden</td>
<td>Grazing and Dau Lands</td>
<td>Total</td>
<td>Area</td>
<td>Rent.</td>
<td>Area</td>
<td>Rent.</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>Rs.</td>
<td>Rs.</td>
<td>Rs.</td>
<td>Acres</td>
<td>Rs.</td>
<td>Rs.</td>
<td>Rs.</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>22,400</td>
<td>184</td>
<td>22,584</td>
<td>29,059</td>
<td>28,739</td>
<td>...</td>
<td>2173</td>
<td>25,989</td>
</tr>
<tr>
<td>II</td>
<td>14,313</td>
<td>21</td>
<td>151</td>
<td>14,455</td>
<td>14,547</td>
<td>23,425</td>
<td>23,396</td>
<td>24</td>
</tr>
<tr>
<td>III</td>
<td>4615</td>
<td>205</td>
<td>220</td>
<td>5147</td>
<td>4692</td>
<td>13,364</td>
<td>4925</td>
<td>313</td>
</tr>
<tr>
<td>IV</td>
<td>4378</td>
<td>213</td>
<td>238</td>
<td>6924</td>
<td>5676</td>
<td>17,602</td>
<td>6442</td>
<td>1710</td>
</tr>
<tr>
<td>V</td>
<td>580</td>
<td>66</td>
<td>64</td>
<td>533</td>
<td>1917</td>
<td>6017</td>
<td>1001</td>
<td>840</td>
</tr>
<tr>
<td>Total</td>
<td>32,260</td>
<td>3197</td>
<td>1215</td>
<td>56,072</td>
<td>55,159</td>
<td>87,557</td>
<td>47,670</td>
<td>2097</td>
</tr>
</tbody>
</table>

The Superintendent's proposals were approved and sanctioned by Government in April 1851. The only exceptions were that the settlement of the garden lands was not approved; that the old uniform billhook rate was preferred to the proposed three classes; and that in the case of lands which required fallows the rates should be taken every year and not only when crops were grown.²

The season of 1851 was again unfavourable. An abundant early rainfall was followed by a failure of the late rain and great loss of crops. At Indapur the rupee price of Indian millet or jowār fell from about 76 to 80 pounds (38-40 shers). Over the whole district the tillage area rose from 12,15,015 to 12,73,394 acres, and the collections from Rs.73,032 to Rs.80,462 (Rs.7,30,320 - Rs.8,04,620, £2835 (Rs.28,350) or 3-3 per cent were remitted, and £326 (Rs.3260) left outstanding.²

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² Bom. Gov. Rev. Rec. 15 of 1855, 74, 90, 118-120, 148. The details are:

Poona Tillage and Revenue, 1850-1852.

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Remissions in Khed and Havelli alone were in excess of the previous year, and these were only granted in unsurveyed villages where the old system of petitions and inspection of individual losses was in force; and where considerable damage had been sustained owing to the want of rain. In the surveyed villages of the northern sub-divisions no remissions were given on account of failure of rain. Of the remissions shown against Junnar about Rs.900 were nominal being the difference between the highest and kasal rental and the actual amount of settlement of one alienated village under attachment. The large amount of remissions for failure in the southern sub-divisions was rendered necessary by the general unproductiveness of the season.
In 1851-52 the survey settlement was introduced into the Ambe- 
gaon petty division of Khed.\(^1\) This group formed a narrow belt of 
country stretching from the Sabyádris on the west to the borders of 
Pábal on the east; it had Junnar on the north and the remaining 
portion of Khed on the south. It comprised the petty divisions of 
Ghode, Ambeagao, and Málunga, and contained fifty-eight villages 
one of which, Sál, had lapsed the previous year. The mävals or 
western portions of Ambeagao and Junnar were much alike. There 
was perhaps a smaller extent of comparatively level country in the 
mävals of Ambeagao than in those of Junnar. The products of 
Ambeagao and Junnar were likewise very similar, but in the plain or 
desh portion of Ambeagao cultivation was almost entirely confined to 
early crops of millets both bájri and jvári. The proportion of late 
crop was perhaps less than one-sixteenth of the whole. Wheat and 
grain were grown as second crops where there was irrigation from 
wells and channels. The potato was considered one of the ordinary 
products of the plain villages though it was not so much grown, nor, 
extcept in Ghode town, was the country so suited to its growth as 
in the neighbouring villages of the Ausari petty division of Pábal. 
Two potato crops were raised in the year. The first was planted 
in the early part of the monsoon; the after-crop was planted in 
December, but it was only where irrigation was available that it 
could be raised at this season. The potato seemed to be a favourite 
crop with the landholders chiefly on account of the ready sale the 
produce met with, to dealers who made a practice of visiting this 
part of the Deccan to buy for the Bombay and Poona markets. 
The other products of the Ambeagao group were sold by the land- 
holders to the Vánis of Ghode, Senolí, and Ambeagao. At each of 
these three places there was a market. Ambeagao was a great 
store for rice, and Ghode was the chief market for other grains. 
Senolí was a small and unimportant market. Mr. Pringle’s survey 
settlement was introduced into the Ambeagao group in 1829-30. 
During the twenty-two years ending 1850-51 the survey diagram 
showed that tillage fell from 25,000 acres in 1829-30 to 21,250 
in 1831-32, and again rose to 26,000 in 1836-37. In the next three 
years it fell to 25,800 in 1839-40 and again rose to 27,500 in 
1840-41. In the next three years it fell to 24,500 in 1843-44 and 
during the remaining seven years, with a rise in one and a fall in 
another year, it varied between 25,000 in 1845-46 and 26,250 in 
1846-47, 1848-49, and 1850-51. Remissions were Rs. 3000 in 1829-30 
and 1830-31, Rs. 1700 in 1831-32 and 1832-33, Rs. 2500 in 1836-37, 
Rs. 1250 in 1837-38, Rs. 2500 in 1838-39 and 1839-40, and Rs. 1300 
in 1843-44, 1844-45, and 1850-51; in other years they were less than 
Rs. 600. The collections fell from Rs. 14,500 in 1829-30 to Rs. 12,500

but only in Indápur were remissions granted in surveyed villages, the sum shown 
against Purandhar being for Rástia’s villages which were under temporary management. 
The amount against Bhimthadi is that of a recently lapsed village, whose landholders 
were unable to pay the sosti or full rates of assessment. Bom. Gov. Rev. Rec. 15 
of 1855, 118-120.

Letter 1624 of 9th March 1852 to the Rev. Comr. S. D.
in 1830-31, and steadily rose to Rs. 17,000 in 1835-36. In the
next four years, except 1837-38 when they were Rs. 17,000, they
stood at Rs. 15,000, and rose to Rs. 18,000 in 1840-41. They fell
to Rs. 15,500 in 1841-42, rose to Rs. 17,500 in 1842-43, and again fell
to Rs. 16,250 in 1843-44. After that they steadily rose to Rs. 18,000
in 1846-47 and fell to Rs. 17,000 in 1850-51. According to the
Survey Superintendent Lieutenant Francis, during this whole period,
the remissions were very small showing an abatement of only $3/4
per cent. In December 1851 he remarked, ‘If it can be shown that under
an assessment that has been in operation for so considerable a period,
the resources of the group have not been impaired, that cultivation
has extended accompanied with a corresponding increase of revenue,
a reduction proportionate to the extent of remissions would seem all
that is now required.’ Lient. Francis had passed through the group
in 1850 and had also visited it during December 1851. He was
satisfied that the bulk of the landholders were in fair circum-
stances. In the hilly west or mável part of the group the holdings
were small, and the landholders’ means were generally very
limited; still, as far as he could learn, few of them were in the
habit of leaving their villages to seek employment in Bombay or
elsewhere, being able to support themselves on the produce of their
fields. Considering the superior climate of this group he was of
opinion that a new assessment equal to the amount of former
collections would effect all the reduction called for. The rates
he proposed were 3s., 23/4s., 21/2s., and 2s. (Rs. 1/2, Rs. 1/2, Rs. 1/2,
and Re. 1) for dry-crop lands. For rice lands one uniform rate of 6s.
(Rs. 3) was proposed. 1063 acres were under rice and their assess-
ment at the revised rates amounted to £133 (Rs. 1330) or an
average acre rate of 2s. 6d. (Rs. 1/2). For garden lands, 6s. (Rs. 3)
for channels and 4s. (Rs. 2) for wells were proposed. The total
garden rental amounted to £49 (Rs. 490). Compared with the
previous year’s collections (Rs. 16,915) in fifty-seven villages the
survey rental on the tillage area (Rs. 15,936)1 showed a reduction of
53/4 per cent. Including waste and the lapsed village of Sál the survey
total amounted to £1951 (Rs. 19,510). Lient. Francis observed that
because of the rather scanty population of some of the villages
near the Sahyádris, as well as on account of the nature of the soil
which required a periodical fallow, the whole of the waste would not
be brought under tillage at one time. There was a large extent of
hill-land suited only for dali bush-clearing tillage. It had not been
divided into numbers, but was left in large tracts for the purpose
of being brought under the koyta or billhook system of assessment.
It was proposed to continue the old rate of 1s. 6d. (12 as.) the koyta.
The following statement shows the effect of the survey:

1 In para 12 of his report the Survey Superintendent compares the revenue at
existing rates, Rs. 18,215 including Rs. 1300 of remissions in fifty-seven villages, with
the survey rental on the tillage Rs. 16,436 and shows the reduction to be 8½ per
cent. In para 20 he adds that Rs. 500 should be deducted on account of remissions
for fields increased by new rates and compares the collections Rs. 16,915 with the
survey rental Rs. 15,936 and shows the reduction to be 8½ per cent. According
to the tabular statements Rs. 15,936 should be Rs. 16,436, a change which gives a
reduction of 8½ per cent.
The proposed rates were sanctioned by Government in March 1852.

In the same year the assessments of garden lands in thirty villages and of dry-crop and rice-lands in four villages in the Purandhar subdivision were revised. The former highest rate of assessment on watered land was 10s. (Rs. 5) the bigha3 or about 13s. 4d. (Rs. $6\frac{3}{4}$) the acre. Under the revision survey twenty-seven villages contained 977 acres of cultivated well-watered garden land which were assessed at an average acre rate of 3s. 3½d. (Rs. 1 as 10\(\frac{7}{10}\)) or a total of £162 10s. (Rs. 1625). and twenty-one villages contained 1153 acres of cultivated channel-watered land which were assessed at an average acre rate of 4s. 6\(\frac{3}{4}\)d. (Rs. 2 as \(\frac{4}{3}\)) or a total of £263 4s. (Rs. 2632). In the four villages the cultivated dry-crop Government land amounted to 4546 acres which were assessed at £86 16s. (Rs. 868) or an average acre rate of 4\(\frac{1}{2}\)d. (3 as.) ; and the cultivated rice-land amounted to 181 acres which were assessed at £27 16s. (Rs. 278) or an average acre rate of 3s. 3½d. (Rs. 1 as \(\frac{8}{10}\)). Along with the above proposals Lieutenant Francis the Survey Superintendent proposed to reduce the rice rates introduced in 1848 in the mámlatdár's division of Purandhar from 6s. (Rs. 3), 4s. 6d. (Rs. 2\(\frac{1}{2}\)), and 3s. (Rs. 1\(\frac{1}{2}\)) to 4s. 6d. (Rs. 2\(\frac{1}{2}\)), 3s. 6d. (Rs. 1\(\frac{1}{2}\)), and 2s. 6d. (Rs. 1\(\frac{1}{4}\)). In confirming the settlement Government ordered the revision of assessment on the rice-lands as proposed by Lieutenant Francis and Captain Wingate.3

The season 3 of 1852 was most favourable. It was one of unusual success to all engaged in agriculture. At Indápur the rupee price of Indian millet or jóvári fell from about 80 to 112 pounds (40-56 shers). Over the whole district the tillage area rose from 1,273,394 acres to 1,316,767 acres; the remissions fell from £2835 (Rs. 28,350) to £728 (Rs. 7280); and the outstanding from £326 (Rs. 3260) to £45 (Rs. 450); the land revenue collections showed a

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1 The Collector Mr. Reeves, 2842 of 1st October 1849 para 13.
2 Lieut. Francis, Survey Superintendent, 1368 of 30th June 1852, 155 of 21st July 1852, and 193 of 3rd September 1852; Mr. Courtney, Revenue Commissioner, 3109 of 21st December 1852; Government Letter 196 of 1853.
3 Poona Collector’s Compilation of 1853, 143, 355.

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<table>
<thead>
<tr>
<th>Class</th>
<th>Villages</th>
<th>Former Revenue</th>
<th>Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1829-1831</td>
<td>1850-51</td>
</tr>
<tr>
<td>I</td>
<td>7</td>
<td>Rs. 828</td>
<td>Rs. 870</td>
</tr>
<tr>
<td>II</td>
<td>11</td>
<td>1384</td>
<td>4555</td>
</tr>
<tr>
<td>III</td>
<td>17</td>
<td>2651</td>
<td>2585</td>
</tr>
<tr>
<td>IV</td>
<td>22</td>
<td>2308</td>
<td>1959</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>17,908</td>
<td>19,699</td>
</tr>
</tbody>
</table>

Chapter VIII

Land Survey.

Purandhar, 1851-52
Chapter VIII.

Land.

THE BRITISH.

1852-53.

DISTRICTS.

fall from £80,462 (Rs. 8,04,620) to £80,072 (Rs. 8,00,720). In addition to repairs to five wells, one reservoir, nine village offices, and one rest-house, the new works authorized in the Collectorate during the year were two wells, six village offices, one rest-house, and one road. The amount sanctioned for such works during the year ending the 30th of April 1853, under the standing orders of the 4th of September 1835, was £204 (Rs. 2040).

The following statement shows the working of the 1841 survey rates in eleven villages of the Haveli sub-division between 1841 and 1853:

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Tillage Acre</th>
<th>Rental Rs.</th>
<th>Remissions Rs.</th>
<th>Collections Rs.</th>
<th>Waste Acre</th>
<th>Rental Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1841-42</td>
<td>7019</td>
<td>5299</td>
<td>219</td>
<td>5500</td>
<td>2513</td>
<td>1114</td>
</tr>
<tr>
<td>1842-43</td>
<td>8550</td>
<td>5305</td>
<td>5865</td>
<td>1338</td>
<td>531</td>
<td></td>
</tr>
<tr>
<td>1843-44</td>
<td>8846</td>
<td>6002</td>
<td>6002</td>
<td>743</td>
<td>361</td>
<td></td>
</tr>
<tr>
<td>1844-45</td>
<td>8228</td>
<td>5837</td>
<td>5837</td>
<td>1297</td>
<td>588</td>
<td></td>
</tr>
<tr>
<td>1845-46</td>
<td>8361</td>
<td>5846</td>
<td>5846</td>
<td>1383</td>
<td>577</td>
<td></td>
</tr>
<tr>
<td>1846-47</td>
<td>8810</td>
<td>5927</td>
<td>5927</td>
<td>1070</td>
<td>460</td>
<td></td>
</tr>
<tr>
<td>1847-48</td>
<td>8455</td>
<td>5991</td>
<td>5991</td>
<td>923</td>
<td>395</td>
<td></td>
</tr>
<tr>
<td>1848-49</td>
<td>9657</td>
<td>6082</td>
<td>6082</td>
<td>746</td>
<td>324</td>
<td></td>
</tr>
<tr>
<td>1849-50</td>
<td>8971</td>
<td>6273</td>
<td>6273</td>
<td>704</td>
<td>360</td>
<td></td>
</tr>
<tr>
<td>1850-51</td>
<td>9016</td>
<td>6315</td>
<td>6315</td>
<td>686</td>
<td>296</td>
<td></td>
</tr>
<tr>
<td>1851-52</td>
<td>9148</td>
<td>6367</td>
<td>6367</td>
<td>531</td>
<td>214</td>
<td></td>
</tr>
<tr>
<td>1852-53</td>
<td>9230</td>
<td>6283</td>
<td>6283</td>
<td>445</td>
<td>138</td>
<td></td>
</tr>
</tbody>
</table>

In 1852 the thirty years' revenue survey settlement was introduced into the Khed sub-division. Khed was one of the largest subdivisions of Poona. It had two petty divisions Ambegaon and Kuda subordinate to the Khed māṃlātār. The survey settlement was

1 The details are:

Poona Tillage and Revenue, 1851-1853.

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>Villages.</th>
<th>Tillage Acres.</th>
<th>Remissions Rs.</th>
<th>Outstanding Rs.</th>
<th>Collections Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shivner ...</td>
<td>179</td>
<td>1074</td>
<td>57</td>
<td>1,32,069</td>
<td>176</td>
</tr>
<tr>
<td>Indapur ...</td>
<td>99</td>
<td>1603</td>
<td>62</td>
<td>1,08,461</td>
<td>99</td>
</tr>
<tr>
<td>Khed ...</td>
<td>1574</td>
<td>15,422</td>
<td>520</td>
<td>1,05,919</td>
<td>1974</td>
</tr>
<tr>
<td>Pāhal ...</td>
<td>58</td>
<td>4</td>
<td>17</td>
<td>1,00,260</td>
<td>58</td>
</tr>
<tr>
<td>Purandhar ...</td>
<td>774</td>
<td>4687</td>
<td>348</td>
<td>1,07,853</td>
<td>774</td>
</tr>
<tr>
<td>Bhimthadi ...</td>
<td>73</td>
<td>2303</td>
<td>88</td>
<td>80,936</td>
<td>73</td>
</tr>
<tr>
<td>Haveli ...</td>
<td>89</td>
<td>2759</td>
<td>2166</td>
<td>1,00,260</td>
<td>89</td>
</tr>
<tr>
<td>Māval ...</td>
<td>162</td>
<td>768</td>
<td>182</td>
<td>72,823</td>
<td>182</td>
</tr>
<tr>
<td>Total ...</td>
<td>942</td>
<td>1,273,304</td>
<td>28,382</td>
<td>80,461</td>
<td>942</td>
</tr>
</tbody>
</table>

The remissions in the whole district amounted to 0-9 per cent. In Khed, where the new survey settlement was introduced this year, they amounted to 4-23, in Bhimthadi to 1-86, in Purandhar to 0-92, in Haveli to 0-27, in Indapur to 0-12, in Shivner or Junnar to 0-01, in Pāhal and Māval there were no remissions. Māval was an unsurveyed subdivision and in it all the revenue was collected without difficulty. Poona Collector’s Compilation of 1853, 26, 301. According to early or kharif and late or rabi crops there were two divisions of instamals for the collection of revenue, 16th of Dec. 1852, 1st of Feb. 1853, 15th of March 1853, and 1st of May 1853, for early crops; and 15th of Jan., 1st of March, 15th of April, and 1st of June, for late crops. Poona Collector’s Compilation of 1853, 370.

introduced into the Ambegaon group of fifty-eight villages in 1851-52.\textsuperscript{1} For the remaining 129 villages, forty-seven under the Khed máumlátádár which stretched further east into the plain country and eighty-two under the Kuda mahálkari, survey rates were proposed in December 1852 and sanctioned in May 1853.\textsuperscript{2} The lands included in these 129 villages stretched about forty miles from west to east with a breadth of twelve to eighteen miles. It was bounded on the north by Ambegaon lying south of Junnar, on the east by Pábal, on the south by Haveli and Mával, and on the west by the Sahyádris. It was separated by a wide chain of hills from Ambegaon on the north and by a second chain of hills from Mával on the south; and besides, two other ranges of hills which passed through its centre, divided it into the three separate valleys of the Bhima and its two feeders the Indráyani and Bám.\textsuperscript{3} The Kuda group lay close to the Sahyádris and contained a considerable area of rice. The máumlátádár's group lay further east where the climate was not moist enough for rice, but was well suited for dry crops. The climate of the máumlátádár's villages was fully equal to that of Poona-Haveli; it was better than that of Pábal, and was not quite so good as that of the Junnar valley. In respect of markets Khed was not so well placed as Haveli but was better off than either Pábal or Junnar. The husbandry was good for the Deccan, and the people were better off than elsewhere. The better condition of the people was perhaps partly due to the fact that Mr. Pringle's assessment in the villages near the Sahyádris was more liberal than his assessment of the east; it was chiefly because the country seldom suffered from a failure of rain.\textsuperscript{4}  

From the survey diagram for 127 villages of this Khed group it appears that the area under tillage was 76,000 acres in 1829-30 and 66,000 in 1830-31 and 1831-32. It rose to 73,000 in 1833-34 and with a slight fall in the next year continually increased till it reached 84,000 acres in 1837-38. With a slight fall in the next year it rose to 86,000 in 1839-40. After 1839-40 it continued to shrink until it reached 79,000 in 1844-45 and 1845-46. During the next five years (1846-1851) it stood at about 85,000 acres, and rose to 88,000 acres in 1851-52. That is during the twenty-three years before the introduction of the revenue survey there was an increase in the area under tillage of 12,000 acres or 15 per cent. During the same twenty-three years (1829-1852) remissions varied considerably. In the first four years they rose from £1200 (Rs. 12,000) in 1829-30 to £1700 (Rs. 17,000) in 1832-33. In the next three years they were £300 (Rs. 3000). In the next four years they rose from £1200 (Rs. 12,000) in 1836-37 to £2500 (Rs. 25,000) in 1838-39 and again fell to £100 (Rs. 1000) in 1839-40. Between 1840 and 1848, except in 1841-42 when they were £1500 (Rs. 15,000),

\textsuperscript{1} Gov. Letter 1624 of 9th March 1852, Comp. 48 of 1852; Lieut. J. Francis, Survey Superintendant, 299 of 24th December 1852; Rev. Rec. 172 of 1853, 95.  
\textsuperscript{2} Gov. Res. 2543 of 3rd May 1853, Poona Collector's Compilation of 1853, 37.  
they varied from £200 to £500 (Rs. 2000 - 5000). In the remaining four years (1848-1852) they fell from £1800 (Rs. 18,000) in 1848-49 to £1100 (Rs. 11,000) in 1851-52. In the first four years collections fell from £5500 (Rs. 55,000) in 1829-30 to £4800 (Rs. 48,000) in 1832-33. In the next six years they fell from £6500 (Rs. 65,000) in 1833-34 to £5500 (Rs. 55,000) in 1838-39. In the next nine years, except 1841-42 when they were a little below £6500 (Rs. 65,000), they rose from £7000 (Rs. 70,000) in 1839-40 to £7700 (Rs. 77,000) in 1847-48. In 1848-49 they fell to £6300 (Rs. 63,000) and from that rose to £7200 (Rs. 72,000) in 1851-52.\textsuperscript{1}

Under the revenue survey settlement the 129 villages of this Khed group were arranged in five classes with highest dry-crop acre rates varying from 3s. 3d. (Rs. 1) in the first class to 2s. (Re. 1) in the fifth class. The highest rate was applied to a group of villages lying along the Poona-Junnar road. These villages possessed superior advantages for the carriage of produce to Poona and also enjoyed a climate favourable to dry crops. The lower rates were for groups lying east of the Poona-Junnar road where the climate became drier and to the west where the moisture was excessive; the lowest rates were for the Sahyadri villages where juāri and bājri could not grow. The highest acre rates for rice land were fixed at 8s. (Rs. 4) in the villages near the Sahyadris, 7s. (Rs. 3½) for the next group, and 6s. (Rs. 3) for the group further east where the fall of rain was hardly enough for rice. There were 4425 acres of rice with an assessment of £720 (Rs. 7200), that is an average acre rate of 3s. 3d. (Rs. 1½). The area of garden tillage was small. The highest rates fixed for garden land were, 6s. (Rs. 3) for channel-watered or pātasthal and 4s. (Rs. 2) for well-watered or mōtasthal. 851 acres of channel-watered land were assessed at £112 (Rs. 1120) and 676 acres of well-watered land at £123 (Rs. 1230). No change was made in the management of hill lands inaccessible to the plough. They continued to be let for cultivation on the billhook or koyta system. The following statement shows the effect of the survey:

<table>
<thead>
<tr>
<th>CLASS</th>
<th>VILLAGES</th>
<th>1829-1832</th>
<th>TOTAL</th>
<th>1851-52</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dry-Crop and Rice</td>
<td>Dal and Grass</td>
<td></td>
<td>Dry-Crop and Rice</td>
<td>Dal and Grass</td>
</tr>
<tr>
<td></td>
<td>Rs.</td>
<td>Rs.</td>
<td></td>
<td>Rs.</td>
<td>Rs.</td>
</tr>
<tr>
<td>I</td>
<td>7</td>
<td>17,342</td>
<td>741</td>
<td>18,083</td>
<td>20,823</td>
</tr>
<tr>
<td>II</td>
<td>2*</td>
<td>4004</td>
<td>125</td>
<td>4129</td>
<td>4467</td>
</tr>
<tr>
<td>III</td>
<td>18</td>
<td>26,075</td>
<td>1556</td>
<td>27,630</td>
<td>33,602</td>
</tr>
<tr>
<td>IV</td>
<td>18</td>
<td>9180</td>
<td>649</td>
<td>9829</td>
<td>11,850</td>
</tr>
<tr>
<td>V</td>
<td>49</td>
<td>11,885</td>
<td>1054</td>
<td>12,939</td>
<td>13,887</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>2270</td>
<td>521</td>
<td>2791</td>
<td>3550</td>
</tr>
<tr>
<td></td>
<td>129</td>
<td>70,688</td>
<td>4445</td>
<td>75,133</td>
<td>87,159</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70,688</td>
<td>4445</td>
<td>75,133</td>
<td>87,159</td>
</tr>
</tbody>
</table>

* Of these one lapsed in 1844-45 and the other in 1848-49. Rev. Rec. 172 of 1853, 109.

\textsuperscript{1} Bom. Gov. Rev. Rec. 172 of 1853, 169.
### Chapter VIII

#### Land

**Survey.**

**Khed, 1853-54.**

---

1853-54 was an unusually bad season. The south-west monsoon began with excessive rain followed by drought, relieved in some places by a few showers. Large sums had to be remitted. At Indápur the rupee price of Indian millet or *jóðrí* was the same as in the last year, about 112 pounds (56 *sherás*). Over the whole district the tillage area rose from 1,316,767 to 1,368,430 acres and the collections fell from £80,072 (Rs. 8,007,210) to £72,476 (Rs. 7,24,760); £8294 (Rs. 82,940) or 10-2 per cent were remitted and £250 (Rs. 2500) left outstanding.¹

In 1853-54 the survey settlement was introduced into the 180 Government villages of the Mavá sub-division in the south-west corner of the district.² Mavá was bounded on the west by Thána, on the north by Khed, on the east by Haveli, and on the south by Bhor. The sub-division contained a main group of 102 villages called Mavá, and to the south of the main group a minor group of 78 villages called Mulshi. In general features Mavá was like the Sahyádri sub-divisions which had been settled before. Except the range which was strengthened by the forts of Lohogad and Visápur the Mavá hill ranges were not so large as those further north, and, except in the western Mulshi villages, the valleys were more open, broader, and leveller. Close to the Sahyádris the rainfall was very much heavier than in any other part of the sub-division. The chief products of the dry-crop or *jiráyát* lands were náchní, sáva, and...

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1 Bom. Gov. Rev. Rec. 17 of 1858, 10, 167, 200, 238. The details are:

Poona Village and Revenue, 1852-1855.

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#### Deccan]

POONA.

**Khed Settlement, 1852-53—continued.**

<table>
<thead>
<tr>
<th>CLASS</th>
<th>Dry-Crop and Garden</th>
<th>Rice</th>
<th>Total</th>
<th>Dúti and Grass Lands</th>
<th>Total</th>
<th>Highest Dry-crop Acre Rate</th>
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<tbody>
<tr>
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<td>16,944</td>
<td>1</td>
<td>21,824</td>
<td>16,945</td>
<td>992</td>
</tr>
<tr>
<td>II</td>
<td>5277</td>
<td>3411</td>
<td>...</td>
<td>5277</td>
<td>3411</td>
<td>163</td>
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<td>III</td>
<td>23,197</td>
<td>21,105</td>
<td>135</td>
<td>23,332</td>
<td>21,240</td>
<td>1244</td>
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<tr>
<td>IV</td>
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<td>11,165</td>
<td>599</td>
<td>24,778</td>
<td>12,436</td>
<td>629</td>
</tr>
<tr>
<td>V</td>
<td>12,745</td>
<td>2206</td>
<td>1142</td>
<td>13,887</td>
<td>4039</td>
<td>836</td>
</tr>
<tr>
<td>Total</td>
<td>1,55,638</td>
<td>77,444</td>
<td>4425</td>
<td>7198</td>
<td>1,60,109</td>
<td>84,942</td>
</tr>
</tbody>
</table>

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2 Capt. Francis, Surv. Supt. 33 of 31st January 1854; Bom. Gov. Sel. LXX.
for the early harvest, and wheat and gram for the late harvest. Small areas of bajri and jwari were grown in a few of the eastern villages. The black soil lands were suited only for late crops. Rice was the crop from which the landholders paid their revenue. Most of the rice went to Poona, a little went below the Sahyadris, and a still smaller share was kept for local retail sale at Varangaon, Khanddla, and other chief halting places along the Bombay-Poona road. The only manure was wood and grass ashes with which the rice nursery beds were covered. Mr. Pringle's settlement of the Maval villages had been a success. During the twenty-three years it had been in force not more than five per cent of remissions had been required. In the ten years ending 1852 the spread of tillage had been steady, and in 1852 it was rapid. As in several other parts of the Presidency, where light rates were in force, the light assessment had brought with it a plague of Marwari Vanis, keen calculators, who did not make advances to the people unless they knew that they could make money out of the land if it was thrown on their hands. The villages along the Bombay road were filled with Marwari who had managed to get the great body of the people deep in their books. The people were more oppressed with debt in that part of the mamlatdar's division than in any other sub-division of the collectorate. A Marwari or a Marwari's agent generally lurked about the landholder's stackyard when any thrashing was going on, ready to step in and carry off the bulk of the produce. Some change in the relations between the landholders and the moneylenders was urgently wanted. In the Mulshi group though the rates were higher, there were no Marwaris and the

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Dry-Crop Tillage and Revenue, 1830-1853</th>
<th>Rice Tillage and Revenue, 1830-1853</th>
<th>Total Tillage and Revenue, 1830-1853</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tillage, Acres</td>
<td>Remissions, Rs.</td>
<td>Collections, Rs.</td>
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<tr>
<td>1830-31</td>
<td>25,000</td>
<td>2000</td>
<td>15,500</td>
</tr>
<tr>
<td>1831-32</td>
<td>21,000</td>
<td>500</td>
<td>15,000</td>
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<tr>
<td>1832-33</td>
<td>21,000</td>
<td>3000</td>
<td>11,000</td>
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<td>1833-34</td>
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<td>1837-38</td>
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<td>15,000</td>
</tr>
<tr>
<td>1841-42</td>
<td>25,000</td>
<td>2000</td>
<td>15,000</td>
</tr>
<tr>
<td>1842-43</td>
<td>23,500</td>
<td>600</td>
<td>15,000</td>
</tr>
<tr>
<td>1843-44</td>
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<td>1845-46</td>
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<td>15,000</td>
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<td>1846-47</td>
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<td>1847-48</td>
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<td>1848-49</td>
<td>24,500</td>
<td>2000</td>
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<td>17,000</td>
</tr>
<tr>
<td>1851-52</td>
<td>28,000</td>
<td>2000</td>
<td>20,000</td>
</tr>
<tr>
<td>1852-53</td>
<td>33,000</td>
<td>100</td>
<td>20,500</td>
</tr>
</tbody>
</table>

1 The survey diagram for 178 Maval villages gives the following details for the twenty-three years since Mr. Pringle's settlement in 1830-31:
people were much better off. Government did not agree with Captain Francis in explaining the impoverished state of the Maval landholders by the excessive exactions of moneylending Márwáris. In the west the rainfall was too heavy for dry-crops; the best dry-crops were grown in the eastern villages. Captain Francis proposed four classes of dry-crop land. The first class with an acre rate of 3s. (Rs. 1½) included the villages in the extreme east of the Maval group touching on Khed; the second class rate of 2s. 9d. (Rs. 1¾) was applied to the group of villages lying immediately west of the first class villages; the third class rate of 2s. 6d. (Rs.1½) was applied to a group west of the second class villages; and the fourth class rate of 2s. (Rs. 1) was applied to the villages lying along the crest of the Sahyádris and on the sides of the hills. The villages along and at a short distance from the Bombay-Poona road made considerable profits from their uplands or mulási by selling grass to the numerous cart and pack bullocks that were daily halting at the different stages on the road. For this reason Khandála and some other villages near the Sahyádris were brought into the third instead of the fourth class.

As abundant rainfall is one of the most important elements in successful rice growing, it might be supposed that rice lands would be valuable in proportion to their nearness to the Sahyádris. Local inquiry showed that this was not the case. The best rice lands were not in the Sahyádri villages, nor were the least productive rice lands in the most easterly villages. Both in the main Maval group and in the smaller Mulshi group the best rice lands were near the middle of the tract. In classing the rice lands, with Captain Wingate's approval, Captain Francis adopted the system introduced by Mr. Fraser Tytler into the Násik and Ahmadnagar hilly rice lands. The chief change introduced was in basing the valuation on the kind of rice grown and not on the character of the embankment. Under these principles the rice lands were arranged under four classes with acre rates of 9s. 8s. 7s. and 6s. (Rs. 4½, Rs. 4, Rs. 3¼, and Rs. 3). In distributing these rates the rate of 9s. (Rs. 4½) was applied to some villages of the Mulshi group whose dry-crop lands belonged to the first and second classes. The rates of 8s. and 7s. (Rs. 4 and Rs. 3½) were applied to the Mulshi villages whose dry-crop lands brought them into the third and fourth classes and to all villages of the main Maval group whose dry-crop lands brought them into the first second and third classes. The rate of 6s. (Rs. 3) was applied to all the fourth class dry-crop villages in the main Maval group.

Compared with the twenty-three years ending 1852-53 the survey rental of the land held for tillage at the time of the survey showed a rise from £4832 (Rs. 48,920) to £5289 (Rs. 52,890); compared with the ten years ending 1852-53 it showed a rise from £5191 (Rs. 51,910) to £5289 (Rs. 52,890); and compared with the year 1852-53

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3 Capt. Francis afterwards (246, 10th July 1854) did away this first class by lowering the rate to 2s. 9d. (Rs. 1¾). Bom. Gov. Sel. LXX. 55-56.
5 Bom. Gov. Sel. LXX. 3; Násik Statistical Account, XVI. 233-234.
Chapter VIII.

Land.

Survey:

Mával, 1853-54.

DISTRICTS.

it showed a fall from £5823 (Rs. 58,230) to £5289 (Rs. 52,890). The survey rental on the entire arable land amounted to £7056 (Rs. 70,560). There was therefore a considerable margin of waste from the cultivation of which the survey reduction might be made good. The following statement gives the details of this settlement:

Mával Settlement, 1853-54.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
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<td>Mámilkádár’s division</td>
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<td>1134</td>
</tr>
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<td></td>
<td>51</td>
<td>II</td>
<td>27,296</td>
<td>14,999</td>
<td>4163</td>
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<td>III</td>
<td>10,924</td>
<td>3707</td>
<td>2187</td>
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<td></td>
<td>32</td>
<td>IV</td>
<td>10,920</td>
<td>1290</td>
<td>1176</td>
</tr>
<tr>
<td>Mulshi petty division</td>
<td>4</td>
<td>I</td>
<td>3946</td>
<td>1848</td>
<td>755</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>II</td>
<td>4266</td>
<td>1758</td>
<td>1696</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>III</td>
<td>3666</td>
<td>1137</td>
<td>2683</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>IV</td>
<td>10,836</td>
<td>1927</td>
<td>1503</td>
</tr>
<tr>
<td>Total</td>
<td>178</td>
<td></td>
<td>75,906</td>
<td>31,331</td>
<td>15,302</td>
</tr>
</tbody>
</table>

The effect of lowering the first class dry-crop rates from 3s. (Rs. 1½) to 2s. 9d. (Rs. 1¾) which has been noticed above, was to reduce these totals by £39 (Rs. 390) in the main Mával group and by £15 (Rs. 150) in the Mulshi group.²

The eighteen years ending 1854 was a period of little improvement. In Indápúr and Bhimthádi the people were few and poor. Over almost the whole of the district about half of the eighteen years, 1838, 1840, 1841, 1844, 1845, 1850, 1851, and 1853, were bad seasons; and except when its price was raised by a general failure of crops grain was ruinously cheap, the rupee price of Indian millet varying from 30 to 144 and averaging 104 pounds.³ In spite of these obstacles the tillage area rose from 895,438 acres in 1839-40 to 1,368,540 acres in 941 villages in 1853-54, and the collections from £63,612 (Rs. 6,36,120) in 1837-38 to £72,476 (Rs. 7,24,760) in 1853-54. The turning point was passed about 1852 and there was a marked and steady improvement in the next twelve years 1854-1866. Towards the close of this period, owing to the continuation of the American war and several years of short crops, produce prices were higher than they had been since the beginning of British rule. Júári sold at Indápúr at about 26 to 36 pounds (13-18 shers) the rupee in 1862-1866 in place of about 48 pounds (24 shers) in 1818, 88 pounds (44 shers) in 1826, 96 pounds (48 shers) in 1835, and 112 pounds (56 shers) in 1854. During the twelve years ending 1866 the tillage area rose from 1,368,430 acres in 941 villages in 1853-54 to 1,743,179 in 988 villages in 1865-66; and collections from £72,476 to £105,521 (Rs. 7,24,760 - Rs. 10,55,210). In Indápúr, which before

¹ These figures are for 178 out of the 180 villages of this survey group. Including two villages which came into British possession in 1848, the survey rental when compared with the previous year shows a reduction from Rs. 59,358 to Rs. 58,947. Bom. Gov. Sel. LXX. 9.
1846 was one of the most distressed subdivisions, collections showed a rise from £6522 (Rs. 65,220) between 1836 and 1846 to £8305 (Rs. 88,050) between 1856 and 1866 or an increase of 27 per cent, the average remissions were reduced from £1222 (Rs. 12,220) to 12s. (Rs. 6), and during the ten years ending 1856-66 there was hardly any waste. The yearly details are:

In 1854-55 in the plain or desh part of the collectorate much distress was caused by the late setting in of the rains. In the rice-growing tracts along the Sahyadris, where failure of rain would have caused serious distress, the usual showers fell during the whole of June and July; on the whole 1854 was a favourable season. In December some damage had been done to the crops by hailstorms in parts of Junnar and Purandhar. At the beginning of the season many cattle died of starvation in consequence of the scarcity of fodder. In August 1854 the Revenue Commissioner sanctioned the grant of advances to landholders, and they were enabled to renew their stock of cattle and to keep up their cultivation which must otherwise have fallen. Of £1385 (Rs. 13,850) the total sum advanced, £1143 (Rs. 11,430) were for cattle and £242 (Rs. 2420) were for water works. At Indapur the rupee price of Indian millet or jvatri rose from about 112 to 58 pounds (56-29 shers). Over the whole district the tillage area rose from 1,368,430 to 1,395,080 acres, and the collections from £72,476 to £81,486 (Rs. 7,24,760-Rs. 8,14,860); £612 (Rs. 6120) or 0.74 per cent were remitted and £24 (Rs. 240) left outstanding.1

In 1855-56 twenty-three villages lapsed and raised the number of Government villages from 947 to 970 and reduced the number of alienated villages from 247 to 224. Rain began in the month of June and continued to fall seasonably until the middle of July. After this none fell in Indapur and Bhimthadi until the end of August, and the other sub-divisions had little or no rain till about the middle of September. A favourable change took place after

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The details are:

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>1853-54</th>
<th>1854-55</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Villages</td>
<td>Tillage</td>
</tr>
<tr>
<td>Shivner</td>
<td>176</td>
<td>320,147</td>
</tr>
<tr>
<td>Indapur</td>
<td>99</td>
<td>299,061</td>
</tr>
<tr>
<td>Khed</td>
<td>1874</td>
<td>164,822</td>
</tr>
<tr>
<td>Pahal</td>
<td>65</td>
<td>152,579</td>
</tr>
<tr>
<td>Purandhar</td>
<td>774</td>
<td>217,925</td>
</tr>
<tr>
<td>Bhimthadi</td>
<td>73</td>
<td>167,778</td>
</tr>
<tr>
<td>Hareli</td>
<td>90</td>
<td>198,206</td>
</tr>
<tr>
<td>Maval</td>
<td>150</td>
<td>35,806</td>
</tr>
</tbody>
</table>

Total: 1,389,480 acres the total area under tillage, 430,125 acres or 31.5 per cent were under jadri, 447,153 or 33 per cent under bajri, 74,503 or 5.5 per cent under wheat, 64,031 or 4.5 per cent under gram, 60,167 or 4.3 per cent under muth, 37,941 or 2.7 per cent under hardal, 18,606 or 1.3 per cent under sugarcane, 14,488 or 1 per cent under rice, 1597 under udid, 4123 under cotton, 229 under hemp, 166 under limeed, and 232,951 or 16.7 per cent under miscellaneous crops.

Chapter VIII
Land.

The British.

1854-55.

1855-56.
the 20th of September. There were several heavy falls of rain through nearly every part of the collectorate, and the crops which had not suffered beyond recovery revived. On the whole the season of 1855 was fair. At Indapur the rupee price of Indian millet or jwadi fell from about 58 to 64 pounds (29-32 shers). Over the whole district the tillage area rose from 1,985,080 acres in 947 villages to 1,447,066 acres in 970 villages, and the collections from £81,486 to £85,429 (Rs. 8,14,860 - Rs. 8,54,290); £1082 (Rs. 10,820) or 1:19 per cent were remitted, and £41 (Rs. 410) left outstanding.1

In 1856 general but slight rain fell early in June. From the end of June till late in July the fall was very slight and partial. During early August rain fell seasonably everywhere in the collectorate. But for the rest of the season it was partial and scanty. Considerable and general failure resulted in some parts of the district. On the whole, the season was below the average. At Indapur the rupee price of Indian millet or jwadi was the same as in 1855-56 about 64 pounds (32 shers). Over the whole district the tillage area rose from 1,447,006 to 1,534,473 acres and the collections from £85,429 to £87,928 (Rs. 8,54,290 - Rs. 8,79,280); £1649 (Rs. 16,490) or 1:8 per cent were remitted and £35 (Rs. 350) left outstanding.2

1 Bom. Gov. Rev. Rec. 15 of 1860, 4-6, 29, 32, 56. The details are: Poona Tillage and Revenue, 1854-55.
In October 1857 Mr. Leighton, the first assistant collector who had charge of Khed Havali and Mäval, wrote\(^1\) that the object of improving the state of the people by lowering the Government demand had been defeated by the extortionate demands of money-lenders. He thought that a law should be passed to prevent the levy of extortionate interest. He knew the objections which were urged against usury laws in England. He was satisfied that these objections did not apply to the state of affairs in Western Poona. The borrowers were poor ignorant and simple, the lenders were sharp unscrupulous strangers. Mr. Leighton thought that no bond passed by a landholder should be binding unless it was registered in an assistant collector's court; that the rate of interest should be limited by law and that all holders indebted beyond a certain amount should be obliged to give up their land. These measures would at first be unpopular; in time the people would see that they were for their good. Until indebtedness was checked it was hopeless to attempt to improve the state of the people. Native officers anxious to please said the people were much better off since the revised survey had come in. He saw no sign of improvement. All that Government had sacrificed had gone to the Märvâri. Moreover now that a light assessment had made land valuable, every year numbers of fields passed from the husbandman to the moneylender whose slave he became.

Except in Indápur and Bhimthadi 1857 was on the whole a favourable season. Though there were considerable failures in various parts of Indápur and Bhimthadi the revenue had been collected without undue stress. At Indápur the rupee price of Indian millet fell from about 6\(^1\) to 78 pounds (32-39 shers). Over the whole district the tillage area rose from 1,534,473 to 1,566,231 acres and the collections from £87,928 to £91,919 (Rs. 8,79,280. Rs. 9,19,190), £291 (Rs. 2910) or 0.31 per cent were remitted, and £61 (Rs. 610) left outstanding.\(^2\)

The season of 1858 was on the whole favourable. Rain began early in June, visiting the districts generally but slightly. It afterwards fell seasonably up to mid-July. From the middle to the end of July there was abundant rain throughout the collectorate,

\(^{2}\) Bom. Gov. Rev. Rec. 17 of 1861, 5, 37, 40, 68. The details are:

**Poona Tillage and Revenue, 1856-1858.**

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>1856-57</th>
<th>1857-58</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shivner</td>
<td>175</td>
<td>215,981</td>
</tr>
<tr>
<td>Indápur</td>
<td>29</td>
<td>304,743</td>
</tr>
<tr>
<td>Khed</td>
<td>1905</td>
<td>185,126</td>
</tr>
<tr>
<td>Fëhäl</td>
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<td>274,523</td>
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<td>217,913</td>
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<tr>
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<td>115,889</td>
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<tr>
<td>Mäval</td>
<td>192</td>
<td>66,586</td>
</tr>
<tr>
<td>Total</td>
<td>973</td>
<td>1,554,473</td>
</tr>
</tbody>
</table>

Of the whole area under tillage 36 per cent were under jâdri and 29 per cent under bhûjri.
Chapter VIII.

Land.

The British.

1858-59.

1859-60.

1860-61.

DISTRICTS.

except in Indapur, Supa, and a few villages of Pabal and Bhimthadi. During August the fall was partial but after August the supply was general and satisfactory. At Indapur the rupee price of Indian millet or jwar rose from about 78 to 64 pounds (39-32 shers). Over the whole district tillage rose from 1,566,231 to 1,598,885 acres and collections from £91,919 to £99,305 (Rs. 9,19,190 - Rs. 9,33,050), £243 (Rs. 2430) or 0.25 per cent were remitted, and £9 (Rs. 90) left outstanding.¹

The season of 1859 was an average but an unhealthy season. Tillage rose from 1,598,885 to 1,654,399 acres and collections from £93,305 to £95,663 (Rs. 9,33,050 - Rs. 9,56,630), £36 (Rs. 360) were remitted, and £1 (Rs. 10) left outstanding.² At Indapur the rupee price of Indian millet fell from about 64 to 78 pounds (32-39 shers). In the opinion of the Deccan Riots Commissioners³ notwithstanding the pressure of debt and the hardships which the laws inflicted on borrowers, about 1860 the landholders of Poona were better off than they had been for years. The conditions of agriculture had been favourable. For nearly twenty years most of the district had enjoyed a fixed and moderate assessment, large tracts of waste had been brought under tillage, ordinary communications and means of transport were improved, and the railway had been brought within easy reach. The construction of the railway had poured into the district a sum of not less than £200,000 (20 lakhs of rupees) in wages of transport and labour. Above all a series of fair seasons had richly rewarded the husbandman's labours. Although the lender might have recourse to the civil court, there was a possibility of the borrower being able to borrow from another lender in order to pay him and the court would give time; if a decree passed against the landholder his stock and field tools were safe, and his land was not in real danger. He might be imprisoned until he signed a new bond, but he was not likely to be panpered.

In 1860-61 the rainfall was partial but timely, and the season was on the whole favourable.⁴ Tillage rose from 1,654,399 to 1,664,802 acres and collections from £95,663 to £96,618 (Rs. 9,56,630 to


<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>Villages</th>
<th>Tillage</th>
<th>Re-</th>
<th>Remis-</th>
<th>Out-</th>
<th>Collections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shiever</td>
<td>178</td>
<td>284,687</td>
<td>Rs.</td>
<td>Rs.</td>
<td>Rs.</td>
<td>1,377,19</td>
</tr>
<tr>
<td>Indapur</td>
<td>99</td>
<td>305,100</td>
<td>20</td>
<td>1,16,528</td>
<td>39</td>
<td>2,36,428</td>
</tr>
<tr>
<td>Khed</td>
<td>194</td>
<td>174,928</td>
<td>287</td>
<td>1,10,279</td>
<td>330</td>
<td>3,38,428</td>
</tr>
<tr>
<td>Pabal</td>
<td>59</td>
<td>167,868</td>
<td>29</td>
<td>1,09,608</td>
<td>39</td>
<td>2,38,428</td>
</tr>
<tr>
<td>Purandhar</td>
<td>1003</td>
<td>282,838</td>
<td>90</td>
<td>1,37,633</td>
<td>384</td>
<td>4,40,465</td>
</tr>
<tr>
<td>Bhimthadi</td>
<td>74</td>
<td>217,657</td>
<td>26</td>
<td>1,14,432</td>
<td>37</td>
<td>1,34,465</td>
</tr>
<tr>
<td>Haveli</td>
<td>92</td>
<td>117,243</td>
<td>500</td>
<td>1,16,684</td>
<td>36</td>
<td>1,34,465</td>
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<tr>
<td>Shivali</td>
<td>184</td>
<td>71,597</td>
<td>2274</td>
<td>76,315</td>
<td>188</td>
<td>74,376,585</td>
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</table>

<table>
<thead>
<tr>
<th>1857-58.</th>
<th>1858-59.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Villages</td>
<td>Tillage</td>
</tr>
<tr>
<td>661</td>
<td>1,556,231</td>
</tr>
</tbody>
</table>

Of the whole area under tillage 27½ per cent were under jwar and 36 per cent under bajra.


³ Deccan Riots Commissioners' Report, 1876, para 61 page 35.

Chapter VIII

Land.

The British.

1861-65.

1862-63.

1863-64.

1864-65.

1865-66.

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Rs. 9,66,180), £24 (Rs. 240) were remitted, and £5 (Rs. 50) left outstanding. At Indapur the rupee price of Indian millet rose from about 78 to 66 pounds (39-33 shers).

In 1861-62 the rainfall was 23 inches at Indapur, 47 at Poona, 35 at Junnar, and 12 at Khadkála.¹ The season was favourable and healthy.² Tillage rose from 1,664,802 to 1,691,352 acres and collections from £96,618 to £99,933 (Rs. 9,96,180-Rs. 9,99,930), 8s. (Rs. 4) were remitted, and £330 (Rs. 330) left outstanding. At Indapur the rupee price of Indian millet rose from about 66 to 54 pounds (33-27 shers).

In 1862-63 a scarcity of rain caused much damage to the early harvest; but an abundant fall in September and October gave a rich late crop. The rainfall was 12 inches at Indapur, 27 at Poona, 10 at Junnar, and 63 at Khadkála. Public health was good.³ Tillage rose from 1,691,352 to 1,696,097 acres, collections fell from £99,933 to £99,699 (Rs. 9,99,330 - Rs. 9,99,990), £42 (Rs. 420) were remitted, and £42 (Rs. 420) left outstanding. At Indapur the rupee price of Indian millet rose from about 54 to 32 pounds (27-16 shers).

In 1863-64 a scanty early fall was, except in Indapur and Bhimthadi, followed by a satisfactory late supply. So serious was the failure of rain in Indapur and Bhimthadi, that relief works had to be opened. The rainfall was 3 inches at Indapur, 23 at Poona, 17 at Junnar, and 95 at Khadkála. Cholera was prevalent particularly in the city of Poona in November after the Alandi fair.⁴ Tillage rose from 1,696,097 to 1,720,335 acres, collections fell from £99,699 to £98,879 (Rs. 9,99,330 - Rs. 9,98,790), £147 (Rs. 1470) were remitted, and £3438 (Rs. 34,380) left outstanding. At Indapur the rupee price of Indian millet rose from about 32 to 26 pounds (16-13 shers).

In 1864-65 the rainfall was 10 inches at Indapur, 17 at Poona, 15 at Junnar, and 50 at Khadkála. The season was on the whole unfavourable though better than the year before, and public health was good.⁵ Tillage rose from 1,720,335 to 1,736,582 acres and collections from £98,879 to £100,641 (Rs. 9,98,790-Rs. 10,06,410), £23 (Rs. 230) were remitted, and £1536 (Rs. 15,360) left outstanding. At Indapur the rupee price of Indian millet fell from about 26 to 32 pounds (13-16 shers).

In 1865-66 the rainfall though not seasonable, was sufficient, and the early crops were good except in parts of the east. The late harvest was also good except in a few villages of Purandhar, Bhimthadi, and Indapur. On the whole the season was more favourable than any of the three previous years. The rainfall was 6 inches at Indapur, 31 at Poona, 20 at Junnar, and 65 at Khadkála. Public health was good.⁶ Tillage rose from 1,736,582 to 1,743,179 acres and collections from £100,641 to £105,521 (Rs. 10,06,410 -Rs.10,55,210), £13 (Rs. 130) were remitted,

¹ Indapur is 90 miles from the crest of the Sahyádris, Poona 32, Junnar 12, and Khadkála in Maváli 11.
⁵ The Collector, 3027 of 10th December 1864.
In 1866-67 only in Mával was the rainfall seasonable. In Shivner, Khed, and Haveli, in some parts of Pábal, and in many parts of Purandhar, though the rainfall was short and ill-timed, the crops were not much below the average. In Bhimthadi and Indápur and in the rest of Pábal and Purandhar the rainfall was so short, that both the early and late crops almost entirely failed. The rainfall was 5 inches at Indápur, 19 at Poona, 24 at Junnar, and 66 at Khadkála. Public health was on the whole good; and, except in some villages of Khed, cattle were free from disease.1 Tillage rose from 1,743,179 to 1,784,390 acres and collections fell from £105,521 to £93,730 (Rs. 10,55,210 - Rs. 9,37,300), £8004 (Rs. 80,040) were remitted, and £7177 (Rs. 71,770) left outstanding. At Indápur the rupee price of Indian millet fell from about 32 to 36 pounds (16-18 shers). In 1866-67 only in Mával was the rainfall seasonable. In Shivner, Khed, and Haveli, in some parts of Pábal, and in many parts of Purandhar, though the rainfall was short and ill-timed, the crops were not much below the average. In Bhimthadi and Indápur and in the rest of Pábal and Purandhar the rainfall was so short, that both the early and late crops almost entirely failed. The rainfall was 5 inches at Indápur, 19 at Poona, 24 at Junnar, and 66 at Khadkála. Public health was on the whole good; and, except in some villages of Khed, cattle were free from disease.1 Tillage rose from 1,743,179 to 1,784,390 acres and collections fell from £105,521 to £93,730 (Rs. 10,55,210 - Rs. 9,37,300), £8004 (Rs. 80,040) were remitted, and £7177 (Rs. 71,770) left outstanding. At Indápur the rupee price of Indian millet fell from about 32 to 36 pounds (16-18 shers). In 1866-67 relief works were opened and more than 108,000 poor landholders and labourers were employed in Indápur, Bhimthadi, and Sirurr. Up to the 10th of November 1867 £1876 (Rs. 18,760) were expended on relief works.2 Considerable remissions were also granted. The help given by Government by grants, remissions, and postponements, was of the greatest service to the people, enabling them to tide over their difficulties and start afresh.3

In 1867 the thirty years’ leases of the original survey settlement began to fall in and arrangements were made for a revision survey. The revision survey was begun in Indápur in 1867. Since then, except during the 1876 and 1877 famine when survey operations were at a stand, the revision has been gradually extended as the leases fell in. Now (1st July 1884) all, except 162 Haveli villages and the Khod and Mával sub-divisions, is completed. The result of the revision has been an increase in the assessment from £61,161 to £81,683 (Rs. 6,11,610 - Rs. 8,16,830) or 34 per cent. The details are:

Poona Revision Settlement, 1867-1884.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Group</th>
<th>Villages</th>
<th>Survey Settlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1866-67</td>
<td>Indápur</td>
<td>78</td>
<td>Rs. 81,184, Rs. 1,24,605, 63, 1,11,866, 38</td>
</tr>
<tr>
<td>1871-72</td>
<td>Bhimthadi</td>
<td>48</td>
<td>Rs. 74,322, Rs. 1,28,971, 73, 1,05,662, 40</td>
</tr>
<tr>
<td>1872-73</td>
<td>Pábal</td>
<td>59</td>
<td>Rs. 102,228, Rs. 1,61,631, 48, 1,39,474, 38</td>
</tr>
<tr>
<td>1873-74</td>
<td>Haveli</td>
<td>83</td>
<td>Rs. 89,065, Rs. 1,33,794, 65, 1,13,773, 41</td>
</tr>
<tr>
<td>1874-75</td>
<td>Supa</td>
<td>39</td>
<td>Rs. 57,461, Rs. 81,713, 42, 72,503, 26</td>
</tr>
<tr>
<td>1875-76</td>
<td>Purandhar</td>
<td>17</td>
<td>Rs. 18,735, Rs. 25,917, 32, 25,627, 22</td>
</tr>
<tr>
<td>1876-77</td>
<td>Purandhar</td>
<td>18</td>
<td>Rs. 18,426, Rs. 24,634, 39, 25,651, 30</td>
</tr>
<tr>
<td>1877-78</td>
<td>Sirurr</td>
<td>37</td>
<td>Rs. 57,581, Rs. 72,005, 24, 72,005, 24</td>
</tr>
<tr>
<td>1878-79</td>
<td>Junnar</td>
<td>142</td>
<td>Rs. 1,20,596, Rs. 1,49,172, 23, 1,49,172, 23</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>502</td>
<td>6,11,610, 8,95,920, 46, 8,16,838, 34</td>
<td></td>
</tr>
</tbody>
</table>

1 Rev. Comr. S. D. 824 of 5th March 1867.
2 INDÁPUR, 32 miles executed, 69 remained to be executed on 10th November 1867, amount expended Rs. 3840. BHIMTHADI, 21 miles executed, 13 remained, amount spent Rs. 9420. SIRUR, 18 miles executed, and amount spent Rs. 970. Cost of tools and plant Rs. 30. Total Rs. 18,760.
3 Mr. Oliphant, Collector, 3900 of 12th December 1867.
4 Mr. Stewart, C. S., Surv. Comr. 1531 of 28th June 1884.
An examination of the history of the Indapur villages during the survey lease satisfied Colonel Francis that between the cheapness of grain and the occurrence of bad seasons the original rates continued to 1846 as high as the people could afford to pay. During the second period of ten years (1846-1856) the average yearly collections increased but little; at the same time a decline in remissions showed that the landholders were better off than before. During the next or last ten years of the survey lease (1856-1866) the whole subdivision of Indapur may be said to have been regularly under tillage, the highest return of arable waste in any year being only 1176 acres. The revenue returns for this period were perhaps even more satisfactory. Of £83,054 (Rs. 8,30,540) the total revenue demand for these ten years, only £6 (Rs. 60) had to be remitted.

Besides the moderateness of the assessment, during the survey lease, Indapur had been enriched by the introduction of carts; by the making of roads; and, in 1862, by the opening of the Peninsula railway through its northern villages. Till 1852-53 produce prices continued low or uncertain. In that year Indian millet was selling at about 112 pounds (56 shers) the rupee. By 1855-56 it had risen to about 64 pounds (32 shers). From that it remained pretty steady till 1862-63 when it rose to about 32 pounds (16 shers) and continued at about thirty-two pounds till 1867. The increase of wealth among the Indapur landholders during the survey lease was shown by the sinking of 625 new wells and the repairing of 184 old wells which together might be estimated to represent an outlay of £30,000 (Rs. 3,00,000). During the same time fifty-nine village offices or chāvdis had been built at a cost of £1842 (Rs. 13,420), and twenty-seven rest-houses at a cost of £1284 (Rs. 12,840). Of this whole outlay Government had paid £451 (Rs. 4510) and the people £2175 (Rs. 21,750). At the beginning of the survey lease land had no sale value. At its close, an examination of a number of sales satisfied Colonel Francis that the land was on an average worth

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2. In 1866 only 930 acres were under the head of waste. This total included some tracts of assessed grazing or gāyārān made over to the villagers as free grazing but which, as they bore an assessment, were included in the arable waste. Even with this undue increase the arable waste bore the insignificant proportion of one-third per cent to the total arable area of the sub-division, Bom. Gov. Sel. CVII. 38.
3. Bom. Gov. Sel. CVII. 21, 39. The details are:

### Indapur Revenue, 1826-1866.

<table>
<thead>
<tr>
<th>Year</th>
<th>Settlement</th>
<th>Remissions</th>
<th>Outstanding</th>
<th>Collections</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1826-1836</td>
<td>Rs. 76,930</td>
<td>Rs. 23,300</td>
<td>Rs. 13,474</td>
<td>Rs. 40,256</td>
<td>...</td>
</tr>
<tr>
<td>1836-1846</td>
<td>77,443</td>
<td>12,223</td>
<td>65,290</td>
<td>24,944</td>
<td>62</td>
</tr>
<tr>
<td>1846-1856</td>
<td>77,919</td>
<td>325</td>
<td>77,654</td>
<td>35,708</td>
<td>91</td>
</tr>
<tr>
<td>1856-1866</td>
<td>83,054</td>
<td>6</td>
<td>83,048</td>
<td>43,298</td>
<td>106</td>
</tr>
<tr>
<td>1866-1867</td>
<td>79,472</td>
<td>4365</td>
<td>75,107</td>
<td>34,551</td>
<td>86</td>
</tr>
</tbody>
</table>

(a) & (b). Five and six per cent respectively should be deducted from the revenues of these periods as a set-off for the collections from two leased villages not included in the ten years' average preceding the settlement. Bom. Gov. Sel. CVII. 39.
5. Of the 625 new wells 291 were sunk during the six years ending 1866. Bom. Gov. Sel. CVII. 50-51.
seventeen years' purchase that is a total sale value of about £138,000 (Rs. 13,80,000).¹ During the thirty years of the survey lease population increased from 40,179 to 52,830 or 31 per cent, farm bullocks from 17,673 to 20,976 or 19 per cent, carts from 291 to 1,165 or 300 per cent, and ploughs from 1,454 to 1,820 or 25 per cent.² Cattle other than farm bullocks showed a decrease from 27,002 to 24,565 or 9 per cent. Because of inaccuracies in the former measurements, and still more from changes made afterwards when boundary marks were fixed, it was found necessary to resurvey the whole tract. In order that it might afterwards be of use in the Trigonometrical Survey the traverse system was adopted.³

¹ Bombay Gov. Sel. CVII. 53. The following sales are quoted by Colonel Francis:

<table>
<thead>
<tr>
<th>Village</th>
<th>Year</th>
<th>Area Sold</th>
<th>Assessment</th>
<th>Price</th>
<th>Years' Purchase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indapur</td>
<td>1866</td>
<td>341</td>
<td>85</td>
<td>1,968</td>
<td>23</td>
</tr>
<tr>
<td>Gogasgaon</td>
<td>1866</td>
<td>20</td>
<td>4</td>
<td>200</td>
<td>2</td>
</tr>
<tr>
<td>Pimpri Khurd</td>
<td>1866</td>
<td>41</td>
<td>10</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Daus</td>
<td>1866</td>
<td>74</td>
<td>15</td>
<td>175</td>
<td>21</td>
</tr>
<tr>
<td>Pavan</td>
<td>1866</td>
<td>33</td>
<td>6</td>
<td>160</td>
<td>16</td>
</tr>
<tr>
<td>Udhat</td>
<td>1866</td>
<td>11</td>
<td>3</td>
<td>190</td>
<td>27</td>
</tr>
<tr>
<td>Palasdev</td>
<td>1866</td>
<td>108</td>
<td>24</td>
<td>600</td>
<td>4</td>
</tr>
<tr>
<td>Bikvan</td>
<td>1866</td>
<td>23</td>
<td>6</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>Kalas</td>
<td>1866</td>
<td>75</td>
<td>22</td>
<td>150</td>
<td>7</td>
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<tr>
<td>Redni</td>
<td>1866</td>
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<td>12</td>
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<td>13</td>
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<tr>
<td>Nirvandi</td>
<td>1866</td>
<td>35</td>
<td>12</td>
<td>80</td>
<td>66</td>
</tr>
<tr>
<td>Bavda</td>
<td>1866</td>
<td>74</td>
<td>22</td>
<td>275</td>
<td>10</td>
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<tr>
<td>Bhat Nimbaon</td>
<td>1866</td>
<td>8</td>
<td>5</td>
<td>175</td>
<td>9</td>
</tr>
<tr>
<td>Varanbuda Budrakh</td>
<td>1866</td>
<td>29</td>
<td>16</td>
<td>115</td>
<td>7</td>
</tr>
<tr>
<td>Gopi</td>
<td>1866</td>
<td>22</td>
<td>8</td>
<td>550</td>
<td>64</td>
</tr>
<tr>
<td>Sarsati</td>
<td>1866</td>
<td>50</td>
<td>35</td>
<td>300</td>
<td>10</td>
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<tr>
<td>Agoli</td>
<td>1866</td>
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<td>15</td>
<td>120</td>
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<tr>
<td>Nimbaon Ketki</td>
<td>1866</td>
<td>26</td>
<td>14</td>
<td>200</td>
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<td>Ajota</td>
<td>1866</td>
<td>71</td>
<td>15</td>
<td>300</td>
<td>16</td>
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<tr>
<td>Medanvadi</td>
<td>1866</td>
<td>35</td>
<td>11</td>
<td>120</td>
<td>1</td>
</tr>
<tr>
<td>Rui</td>
<td>1866</td>
<td>21</td>
<td>4</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td>Babulgaon</td>
<td>1866</td>
<td>11</td>
<td>4</td>
<td>50</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>1866</td>
<td>1,223</td>
<td>304</td>
<td>6,696</td>
<td>17</td>
</tr>
</tbody>
</table>

² Bom. Gov. Sel. CVII. 52. A. stands for acres and g. for gunthads 40 of which make an acre.

³ Bom. Gov. Sel. CVII. 57-62. In twenty survey numbers of two to thirty-five acres the error in Mr. Pringle's measurements was found to vary from one to ninety-four per cent. The details are:

<table>
<thead>
<tr>
<th>Survey Numbers</th>
<th>Area according to Mr. Pringle's Survey</th>
<th>Present Survey</th>
<th>Difference</th>
<th>Area according to Mr. Pringle's Survey</th>
<th>Present Survey</th>
<th>Difference</th>
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<td>A. g. 9</td>
<td>A. g. 9</td>
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<td>10 ... 10</td>
<td>10 ... 10</td>
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<td>4 ...</td>
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<td>15 ... 15</td>
<td>0</td>
</tr>
<tr>
<td>5 ...</td>
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<td>20 ... 20</td>
<td>0</td>
<td>20 ... 20</td>
<td>20 ... 20</td>
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<tr>
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<td>28 ... 28</td>
<td>28 ... 28</td>
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<tr>
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<td>9 ... 9</td>
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<tr>
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</tr>
</tbody>
</table>

DISTRIBUTIONS.
The result of the survey was to show in the whole area an error of only 6\% per cent in the old measurements.\(^1\) The details are:

**Indapur Area, 1866 and 1866.**

<table>
<thead>
<tr>
<th>Government Land</th>
<th>Alienated Land</th>
<th>Roads and Ponds</th>
<th>Grand Total</th>
</tr>
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<tbody>
<tr>
<td>Arable</td>
<td>Un-arable</td>
<td>Grazing and Un-assessed</td>
<td>Total</td>
</tr>
<tr>
<td>Present Survey...</td>
<td>276,076</td>
<td>15,062</td>
<td>300,000</td>
</tr>
<tr>
<td>Mr. Pringle's Survey...</td>
<td>250,135</td>
<td>17,912</td>
<td>299,000</td>
</tr>
<tr>
<td>Increase</td>
<td>21,941</td>
<td>183</td>
<td>22,124</td>
</tr>
<tr>
<td>Decrease</td>
<td>13,533</td>
<td>21,061</td>
<td>34,594</td>
</tr>
</tbody>
</table>

It was also found advisable to reclassify the lands. Apart from the errors and confusion which were inseparable from a first attempt to introduce a new system, changes of market, new lines of trade, and the opening of the railway compelled a fresh grouping of villages. In re-grouping the villages the classing was based on the permanent distinctions of climate, markets, and husbandry. The state of the landholders was not allowed to affect their position.\(^2\) In fixing fresh rates care had to be taken that improvements made with the holder's capital were not considered grounds for enhancing his rental. In revising the Indapur assessment one of the chief points to consider was the effect of improved communication. When the original survey was introduced there was not a mile of made road in the subdivision. About 1852 the Poona-Sholapur road was completed and made Indapur an important centre of trade. Indapur was still a local centre but it had suffered by the opening of the railway in 1863. The second leading element in fixing revised rates was the change in produce prices. During the five years before the original settlement, the average rupee price of Indian millet was about 106 pounds (53 shers). During the first ten years of the lease little change took place. Indian millet rupee prices ranged from about 144 pounds (72 shers) in 1843-44 to about 72 pounds (36 shers) in 1837-38 and 1845-46, and averaged 113 pounds (56\(\frac{1}{2}\) shers). In the first year of the next period of ten years (1846-47) crops failed and Indian millet rose to 30 pounds (15 shers) the rupee. But the price again speedily fell to 144 pounds (72 shers) in 1848-49 and 1849-50. From 1850 it steadily rose to 64 pounds (32 shers) in 1855-56. The average for the ten years ending 1855-56 was 91\(\frac{1}{2}\) pounds (45\(\frac{1}{2}\) shers). From 1856-57 to 1861-62 the price of Indian millet varied from 64 to 54 pounds (32-27 shers) the rupee. During the remaining four years partly on account of the abundance of money in consequence of the American war, but chiefly because of several years of local failure of rain Indian millet remained at 32 pounds (16 shers) the rupee. For the ten years

\(^1\) Bom. Gov. Sel. CVII. 62.  
\(^2\) Bom. Gov. Sel. CVII. 63.
The third question for consideration was climate. The uncertain rainfall had prevented the Indâpur landholders from realizing the wealth which ought to have accompanied so great a rise in the value of produce. The rainfall was most precarious. For two and three years at a time it was either so scanty or so untimely that no crop came to maturity. In the Kalas group a good crop might be expected once in three years. Of the other two years one was generally middling and the other utterly bad. During the five years ending 1867 the average rainfall was only 5'85 inches. As regards the weight to be given to the three elements of change, improved communication enhanced prices and rainfall, the rainfall might be dismissed as, though bad, the climate was no worse than it had been at the beginning of the former lease. Communications might also be dismissed as the only tangible way in which they acted on the landholder was the rise in the price of produce.

Prices have been shown to have risen from 132 pounds (66 shers) to an average of 52 pounds (26 shers) during the ten years ending 1866, that is a rise of 150 per cent. Up till about 1852 grain prices were so low that the original rates remained heavy. No considerable increase of capital had taken place. The years between 1852 and 1856, in spite of some indifferent seasons caused a steady and large increase of wealth. The average rupee price of āndra during the five years ending 1856 was 84 pounds (42 shers) and this price, Colonel Francis thought, might be taken as the basis at which the former rates left the landholder a liberal margin. During the ten years between 1856 and 1866 the average rupee price of āndra stood at 52 pounds (26 shers) instead of 84 pounds (42 shers) that is a rise of 61 per cent. Colonel Francis therefore considered that as far as change in the price of grain went, the existing rates should be raised fifty to sixty per cent.

The rates proposed by Colonel Francis were for sixty-two of the seventy-six villages a highest dry-crop acre rate of 2s. (Re.1);
for thirteen villages near Kalas whose distance from the Mahádev
bills made the rainfall specially scanty, 1s. 9d. (14 as.) ; and for the
market town of Indápur 2s. 9d. (Rs.1¼). Close to the banks of the
Bhima were some lands which were occasionally specially
enriched by flood deposits. In these the highest acre rate was
fixed at 3s. (Rs.1½). The new rates raised the existing assessment
by 53 per cent. With this addition the average acre rate on the
whole arable area was only 11½d. (7½ as.). The rate of increase
varied considerably in individual villages. In one case it amounted
to 150 per cent, in several it was about 100 per cent, and in some
it was only 17 or 18 per cent. Among the villages whose highest
acre rate was 2s. (Rs.1) the increase ranged from 50 to 100 per
cent. The village of Nimbgaon Ketki near Indápur showed one of
the smallest increases, 18 per cent. The reason was that it had a
considerable area of well-garden land, bearing a special rate for
which there was no corresponding entry in the new assessment, as
no special rate was to be imposed on wells. In the villages whose
highest acre rate was 1s. 9d. (as. 14), the increase varied from 25 to
50 per cent. Colonel Francis ended his report by dwelling on the
loss which Indápur suffered from its uncertain and scanty rainfall.
He urged that measures should be taken to introduce a large scheme
for watering the lands of the sub-division. The proposed settle-
ment was sanctioned by Government in March 1868.2

In 1867-68 the rainfall was 20 inches at Indápur, 27 at Poona,
26 at Junnar, and 50 at Khadkála. In the sub-divisions along
the range of the Sahyádris the rainfall was abundant and
favourable and the general state of the early crops was good. In
the eastern sub-divisions after the first falls of rain in June, which
enabled the cultivators to sow their early crops, there was in July
August and September a great want of rain and at one time a
scarcity was feared. Scarcity was averted by a heavy fall of rain
in October which in a great measure saved the early crops and
produced a more than average late crop. The late harvest in all the
sub-divisions was good. In Bhimthádi the landholders admitted
that they had not had such fine late crops for many years. The
Indian millet was often six and seven feet high, more like Gujaráti
than Deccan jvári. Public health was good.3 Tillage rose from
1,784,390 to 1,803,708 acres and collections from £93,730 to
£111,609 (Rs. 9,37,300 - Rs. 11,16,090), £4432 (Rs. 44,320)
were remitted, and £101 (Rs. 1010) left outstanding. At Indápur the
rupee price of Indian millet fell from about 46 to 82 pounds (23-
41 shers).

In 1868-69 the rainfall was 8 inches at Indápur, 31 at Poona,
25 at Junnar, and 77 at Khadkála. Except in Sirur Bhimthádi
and Indápur, the rainfall, though not seasonable was generally good.

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1 The original settlement, cultivated land Rs. 81,184, waste Rs. 207, total
Rs. 81,391 : revised settlement, cultivated land Rs. 1,24,506, waste Rs. 194, total
1,24,700 ; increase, cultivated land Rs. 43,322, decrease in waste Rs. 13, total increase
Rs. 43,309 or 53 per cent. Bom. Gov. Sel. CVII, 77.
2 Surv. Comr. Lt.-Col. Francis' Reports of January 1867 and 147 of 12th February
3 Mr. Bellasis, Revenue Commissioner, 146 of 16th January 1868, Bom. Gov. Rev.
Rec. 99 of 1868, 315.
and the early crops on the whole did well. Owing to the want of a fall towards the close of the season the yield from the late crops was scanty. Cholera slightly prevailed in a few of the sub-divisions, but on the whole public health was good. Owing to the serious failure of rain in part of Indapur remissions to the extent of fifty per cent were granted in forty-three villages, and twenty-five per cent in thirteen villages. In sanctioning an expenditure of £100 (Rs.1000) on clearing prickly pear from the grass lands near Allegaon, Government observed that the Khadakväsła water works, on which it was calculated 10,000 men would be engaged, would afford employment enough for those in search of employment.° Tillage rose from 1,803,708 to 1,814,896 acres and collections from £111,609 to £115,578 (Rs. 11,16,090-Rs. 11,55,780), £4859 (Rs. 48,590) were remitted, and £43 (Rs. 430) left outstanding. At Indapur the rupee price of Indian millet rose from about 82 to 70 pounds (41-35 shers).

In 1869-70 the rainfall, 26 inches at Indapur, 29 at Poona, 25 at Junnar, and 57 at Khadkála, was sufficient and seasonable. Except that rice suffered slightly both the early and the late crops were good. Locusts appeared in a few villages of Junnar, Khed, Mával, and Haveli; but they passed without causing any appreciable damage. Public health was good, though slight cholera appeared in parts of the district. There was no great mortality among cattle. Tillage rose from 1,814,896 to 1,819,237 acres and collections from £115,578 to £120,148 (Rs. 11,55,780-Rs. 12,01,480), £479 (Rs. 4790) were remitted, and £27 (Rs. 270) left outstanding. At Indapur the rupee price of Indian millet rose from about 70 to 58 pounds (35-29 shers).

In 1870-71 the rainfall though abundant was not seasonable. The fall at Indapur was 24 inches, at Poona 41, at Junnar 30, and at Khadkála 66 inches. The outturn of the early crops in Khed, Mával, Purandhar, and Haveli was fair, but excessive rain caused loss in Indapur, Bhimthadi, Sirur, and Mulshi. Except in Indapur and Bhimthadi where it was indifferent the late harvest was good. Public health was generally good, though in a few villages fever ague and cholera were prevalent. The cattle were generally free from disease. Tillage rose from 1,819,237 to 1,831,953 acres, collections fell from £120,148 to £111,138 (Rs. 12,01,480-Rs.11,11,380), £176 (Rs. 1760) were remitted, and £255 (Rs. 2550) left outstanding. At Indapur the rupee price of Indian millet rose from about 58 to 50 pounds (29-25 shers).

In 1871-72 the rainfall was 15 inches at Indapur, 27 at Poona, 27 at Junnar, and 66 at Khadkála. The rainfall was much below the average, especially in the east. In the west the yield of the kharif or early crops was fair except in Junnar where it was not more than half a crop. The rabi or late crops throughout the district were at first very unpromising but a slight fall of rain in

1 Revenue Commissioner Mr. Ashburner 1264 of 12th April 1869, Bombay Gov. Rev. Rec. 65 of 1869, 253.
November revived them. In Indápur the late or rabi harvest was about half a crop and in Bhimthadi even less. Some Haveli villages suffered from a failure of water. Except for a few scattered cases of fever and cholera the season was healthy and cattle disease in a few Mával villages. Tillage rose from 1,831,953 to 1,842,883 acres, collections fell from £111,138 to £96,737 (Rs. 11,138-Rs. 9,67,370); £5778 (Rs. 57,780) were remitted, and £12,450 (Rs. 1,24,500) left outstanding. At Indápur the rupee price of Indian millet fell from about 50 to 60 pounds (25-30 shers).

In 1871-72 revised rates were introduced into fifty-four villages of Bhimthadi. Of these fifty-four villages, twenty-three formerly belonged to the Pimpalgaon and thirty-one to the Kurkumb group. At the time of revision survey, with some villages formerly in Purandhar and Bárímati, they formed the subdivision of Bhimthadi. The villages of this group stretched east and west in a long narrow belt from the western boundary of Indápur to within twenty miles of Poona. The belt was bounded on the north and east by the Bhima; on the south by a range of hills which divided it from Purandhar and from villages which formerly belonged to Supa, and on the west by the Haveli sub-division. Of the fifty-four villages six had fallen to Government at intervals during the survey lease. Of the remaining forty-eight, which had been settled by Lieutenant Nash in 1840, the area was 382 square miles or 244,623 acres and the population 28,467 that is a pressure of 74 to the square mile. The south-east and south were rough and hilly. The north along the Bhima was level with much fine black soil. In spite of Government offers of rent-free lands for a term of years if the holders would plant them, the whole group was very bare of trees. At Pátas the average rainfall in the eight years ending 1870 was 13·23 inches.

The only water-work of any size was a reservoir at Kásurdi which had been built in 1838 at a cost of £1182 (Rs. 11,820). A flood in 1843 had swept away its earthen dam which had been repaired by Government shortly before 1870. The supply was believed to be enough to water 250 acres. The chief products were bájí and jvāri which together formed four-fifths of the whole. The remaining fifth was under math, gram, wheat, and kulith and a little sugarcane, cotton, tobacco, linseed, and vegetables. The Pimpalgaon

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2 In consequence of the late redistribution of villages, the 1871 Bhimthadi subdivision, part of which was now (1871) under revision, did not correspond with the Bhimthadi sub-division of 1832-39. Surv. Supt. 440A of 12th July 1871, Bom. Gov. Sel. CLI. 201.


4 The details are:

<table>
<thead>
<tr>
<th>Year</th>
<th>Rainfall</th>
<th>Year</th>
<th>Rainfall</th>
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<tbody>
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<td></td>
<td>Inches</td>
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<td>9.52</td>
</tr>
<tr>
<td>1864</td>
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<td>11.69</td>
</tr>
<tr>
<td>1865</td>
<td>11.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1866</td>
<td>6.37</td>
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<tr>
<td>1867</td>
<td>10.68</td>
<td>Average</td>
<td>13.23</td>
</tr>
</tbody>
</table>

Bom. Gov. Sel. CLI. 212.

5 In 48 villages bájí was 43·4 per cent, jvāri 35·6, math 2, kulith 0·8, wheat 1.
villages grew about twice as much bájí as jvári and the Kurkumb villages grew about one-sixth more jvári than bájí. The revenue was collected in two equal instalments. In the early harvest or kharif villages these instalments fell on the 10th of January and the 10th of March; in the late harvest or rabi villages they fell on the 10th of February and the 10th of May.

During the survey lease communication in the Bhimthadi villages had been improved by the making of the Poona-Sholapur road and the Peninsula railway. Besides these main lines there were good roads from the station at Kedgaon to Sirur by Párgaon, and to Supa and Jejuri by Padvi. There were three market towns, Pátas the mámlatdār’s station, Kurkumb, and Yevat, all on the Poona-Sholapur high road. The people were almost all husbandmen. Their chief market was Poona and to a less extent Bombay. Along the Poona-Sholapur road grass and straw fetched good prices. The railway had reduced the road traffic. The toll revenue at Hadapsar had fallen from £1760 (Rs.17,600) in 1859-60 to £901 (Rs.9010) in 1870. Still the amount of traffic was considerable.

During the ten years ending 1850-51, that is the first ten years of the survey lease, the rupee price of jvári averaged 91 pounds (45½ shers) and of bájí 73 pounds (36½ shers). In the ten years ending 1860-61 the average rate was jvári 72 pounds (36 shers) and bájí 68 pounds (29 shers) or a rise of 26 per cent in both cases over the ten previous years. In 1851-52 the first year of this decade, the 1850-51 prices were maintained, but they fell again in 1852-53 though not to the same extent as in 1849-50. They then rose in 1853-59, jvári to 52 pounds (26 shers) the rupee and bájí to 42 pounds (21 shers), and, in the next two years they fell, jvári to 80 and 73 pounds (40 and 36½ shers) and bájí to 65 and 56 pounds (32½ and 28 shers). The ten years ending 1870-71 began with jvári at 60 pounds (30 shers) and bájí at 47 pounds (23½ shers). During the next four years prices rapidly rose and during the five closing years (1865-71) they fluctuated, jvári never falling below 65 pounds (32½ shers) or bájí below 39 pounds (19½ shers). Jvári closed at 36 pounds (18 shers) and bájí at 30 pounds (15 shers). The average rates for this third decade were jvári 39 pounds (19½ shers) and bájí 30 pounds (15 shers) that is 133 and 143 per cent over the corresponding averages of the first decade and of 85 and 93 per cent over those of the second decade.¹

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¹ The details are:

<table>
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<tr>
<th>Year</th>
<th>Jvári</th>
<th>Bájí</th>
<th>Year</th>
<th>Jvári</th>
<th>Bájí</th>
<th>Year</th>
<th>Jvári</th>
<th>Bájí</th>
<th>Year</th>
<th>Jvári</th>
<th>Bájí</th>
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<td>25</td>
<td>1870-71</td>
<td>18</td>
<td>15</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Average: 45½ | 30½

Average: 35½ | 22½

Average: 10½ | 15
The average collections during the ten years ending 1850 were £4341 (Rs. 43,410). In the first year of the settlement (1840-41) the cultivated area was 123,000 acres, and the waste 43,000 acres or about one-fourth, and the assessment was £5307 (Rs. 53,070) of which £160 (Rs. 1600) were remitted, and £5147 (Rs. 51,470) were collected. No great change took place during the next three years. In 1844-45, £2293 (Rs. 22,930) were remitted and in 1845-46 £3134 (Rs. 31,340) in which year the collections were only £1772 (Rs. 17,720). During the remaining four years (1846-1850) the collections were steady at about £5000 (Rs. 50,000), and the remissions small. During the ten years ending 1860 the average collections were £5785 (Rs. 57,850) or an increase of 33 per cent on those of the first ten years. This period (1850-1860) began with a year (1850-51) marked by the large remission of £1863 (Rs. 18,630) or 29 per cent of the revenue. From 1850 things began to mend. Cultivation continued steadily to rise from 96,000 acres in 1850-51 to 164,000 acres in 1859-60, and revenue from £2500 to £7365 (Rs. 25,000-Rs. 73,650); between 1854 and 1860 remissions averaged only £2 (Rs. 20). During the ten years ending 1870 the average collections were £7259 (Rs. 72,590) or an increase of 25 per cent on those of the ten years ending 1860 and of 67 per cent on the ten years ending 1850. During the ten years ending 1870 the whole of the arable land had been taken for tillage, and, except in 1866-67 when £2073 (Rs. 20,730) were granted, no remissions had been required. The following statement shows the revenue collections and remissions during each decade of the survey lease:

### Poona Produce Prices, Shera the Rupee, 1841-1871.

<table>
<thead>
<tr>
<th>Year</th>
<th>Jōdrī</th>
<th>Bojārī</th>
<th>Year</th>
<th>Jōdrī</th>
<th>Bojārī</th>
<th>Year</th>
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<td>1853-54</td>
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<td>1844-45</td>
<td>27</td>
<td>23</td>
<td>1854-55</td>
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<td>25</td>
<td>1869-70</td>
<td>15</td>
<td>13</td>
</tr>
</tbody>
</table>

Average: 32 24

Bom. Gov. Sel. CLI. 211.

1. During the survey lease (1840-1870) tillage rose from 122,000 acres in 1840-41 to 125,000 in 1841-42 and fell to 107,000 acres in 1845-46. In the next year it rose to 111,000 and again fell to 91,000 in 1849-50. After that it steadily rose to 105,000 in 1852-53, to 120,000 in 1853-54, to 135,000 in 1855-56, to 156,000 in 1856-57, and to 165,000 in 1861-62. In the last two (1868-1870) of the remaining eight years it slightly declined. Collections rose from Rs. 51,000 in 1840-41 to Rs. 55,000, in 1842-43 and fell to Rs. 51,000 in the next year. In 1844-45 they were Rs. 29,000 and in 1845-46 Rs. 19,000. In the next five years they fell from Rs. 46,000 in 1846-47 to Rs. 25,000 in 1850-51. In the next ten years they steadily rose from Rs. 45,000 in 1851-52 to Rs. 75,000 in 1860-61. In the next nine years, except 1866-67 when they were Rs. 55,000, they stood at about Rs. 75,000. Remissions were Rs. 22,000 in 1844-45, Rs. 30,000 in 1845-46, Rs. 19,000 in 1850-51, Rs. 20,000 in 1866-67, and Rs. 3000 in 1853-54. In other years remissions were few or none. Survey Diagram. Bom. Gov. Sel. CLI. 208.
Chapter VIII.

Land.

Revision Survey.
Bhimthadi, 1871-72.

DISTRIBUTES.

Bhimthadi Collections, 1840-1870.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Land Revenue</th>
<th>Revenue from other sources</th>
<th>Total Revenue</th>
<th>Re-</th>
<th>Collections</th>
<th>Arable Waste</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Acres.</td>
<td>Rs.</td>
<td>Rs.</td>
<td>Rs.</td>
<td>Rs.</td>
<td>Rs.</td>
</tr>
<tr>
<td>1849-50</td>
<td>131,127</td>
<td>49,796</td>
<td>214</td>
<td>6695</td>
<td>2109</td>
<td>7385</td>
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<tr>
<td>1850-60</td>
<td>129,213</td>
<td>60,165</td>
<td>1103</td>
<td>5066</td>
<td>7590</td>
<td>2903</td>
</tr>
<tr>
<td>1860-67</td>
<td>165,744</td>
<td>74,065</td>
<td>2047</td>
<td>5065</td>
<td>8012</td>
<td>35,077</td>
</tr>
</tbody>
</table>

In forty-eight villages during the survey lease population increased from 20,401 in 1840-41 to 28,467 in 1870-71 or 39½ per cent; farm-bullocks from 11,568 to 13,792 or 19 per cent; other cattle from 36,931 to 39,050 or 5½ per cent; carts from 273 to 1011 or 270 per cent; and ploughs from 1115 to 1365 or 22½ per cent. Wells in working order increased from 527 to 727 or 38 per cent. Of the addition of 200 wells, 141 were new and 59 were repaired. Of the 141 new wells eight were made in the ten years ending 1850, forty-one in the ten years ending 1860, and ninety-two in the ten years ending 1870. From a very depressed state at the beginning of the survey lease the Bhimthadi villages had in 1860 reached a high state of wealth and prosperity.¹ The short rainfall in 1863 and 1864 caused severe loss, and in 1866-67 another season of scanty rainfall the loss was so great that as much as £2000 (Rs. 20,000) or about 27 per cent of the collections had to be remitted. Though prices had considerably fallen during the four years between 1866 and 1870 the bulk of the people seemed to be comfortably off, and a record of sales of land showed prices varying from ten to fifty-two times the assessment. In estimating the probable standard of grain prices during future years Colonel Waddington, the survey superintendent, chose as his basis the average of the five years ending 1860 and of the five years ending 1870. This gave a rupee price of about 52 pounds (26 shers) for jvári and about 40 pounds (20 shers) for bájri. These prices were for jvári 68 per cent and for bájri 72 per cent higher than the average prices during the fifteen years ending 1855. As their conditions were so much alike Colonel Waddington thought that the increase of fifty to sixty per cent which had been introduced into Indápur might be applied to Bhimthadi. This result would be obtained by fixing on the Kurkumb group the highest dry-crop acre rate in sixteen villages at 2s. 6d. (Rs. 1½) and in nine villages at 1s. 3d. (Rs. 1½). Their nearness to the Poona market and their surer rainfall made the Pimpalgaon villages so much better off than Indápur that to equalize them, in twenty-two of the Pimpalgaon villages the highest dry crop acre rate should be raised to 3s. (Rs. 1½) and in seven villages to 3s. 6d. (Rs. 1½). Under this arrangement, of fifty-four villages seven were in the first class with a highest dry-crop acre rate of 3s. 6d. (Rs. 1½); twenty-two were in the second class with a highest rate of 3s. (Rs. 1½); sixteen were in the third class with a highest rate of 2s. 6d. (Rs. 1½); and nine

¹ Bom. Gov. Sel. CLI. 199.
POONA.

were in the fourth class with a highest rate of 2s. 3d. (Rs. 1½). The effect of these rates in forty-eight villages was an increase of 73 per cent. Of this whole increase about £1533 (Rs. 15,330) or twenty per cent was due to the discovery of land held in excess of the recorded area. The following statement shows the effect of the survey:

<table>
<thead>
<tr>
<th></th>
<th>VILLAGES.</th>
<th>CULTIVATED LAND</th>
<th>WASTE.</th>
<th>TOTAL.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area.</td>
<td>Rental.</td>
<td>Area.</td>
<td>Rental.</td>
</tr>
<tr>
<td>Proposed ...</td>
<td>136,776</td>
<td>1,32,971</td>
<td>2019</td>
<td>871</td>
</tr>
<tr>
<td>Existing ...</td>
<td>164,619</td>
<td>74,225</td>
<td>1884</td>
<td>644</td>
</tr>
<tr>
<td>Increase ...</td>
<td>25,165</td>
<td>64,749</td>
<td>35</td>
<td>227</td>
</tr>
</tbody>
</table>

In individual villages the increase varied considerably. In one case it was as high as 120 per cent; in another it was as low as 16 per cent. No rate beyond the highest dry-crop rate was laid on well watered lands. On channel watered land the acre water rate varied from 2s. to 12s. (Rs. 1-6) in excess of the dry-crop rate. This channel water cess yielded £119 (Rs. 1,190). Into the six villages which had lapsed to Government since the introduction of the 1840 settlement, the survey had been introduced, leases being granted for terms which would end at the same date as the thirty years' lease of the rest of the sub-division. The cultivated area of these six villages was 23,908 acres. Compared with the preceding year's payments their rental under the proposed rates showed an increase from £1160 (Rs. 11,600) to £1675 (Rs. 16,750) or 44 per cent. Under the new survey the total cultivated land in the fifty-four villages was 212,703 acres or an increase of 22,293 acres or 11 per cent. The assessment including the rates on channel watered lands was £14,660 (Rs. 1,46,600) against £3646 (Rs. 36,460) or an increase of 69 per cent.\(^1\) Government sanctioned the proposed rates in January 1872.\(^2\)

In 1872-73 in Junnar and Khed the rainfall was much below the average. In the rest of the district the season was favourable. A heavy fall early in September damaged the early crops especially in Khed, Junnar, and Haveli. In the west the yield of the early crops was fair. The late crops started badly, but a fall early in December did them much service and the output was good. The Mâvals and the north were the only parts which suffered. The rainfall was 26 inches at Indâpur, 22 at Poona, 15 at Junnar, and 79 at Khadkâla. Cholerâ was present in Poona and its suburbs, and a few cases occurred in Bhimthadi, Purandhar, and Sirur. Dengue fever was general in Poona, Bhimthadi, and Purandhar.\(^3\) Tillage rose from 1,842,868 to 1,848,831 acres and collections from £96,737 to £112,689

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\(^3\) Revenue Commissioner S. D. 6369 of 31st December 1872.
Between 1872 and 1874 the revised settlement was introduced into Pábal. In 1866 the villages of the old Pábal sub-division had been distributed among Khed, Junnar, Pärner, and Sirur. Revised rates were introduced into a group of fifty-six villages of the old Pábal sub-division, and new rates into three villages received from H. H. Holkar. The fifty-six villages had an area of 353 square miles or 225,613 acres and a population of 53,525 or 151 to the square mile. A range of hills running west and east divided the lands of this group into two. To the south was the valley of the Vel bounded southward by a range running from Gulání to Kendur, where it sank into the plain. The eastern border from Nimbgaon to Chincholi was broken and hilly, the rest of the valley was waving and there was much fine land with many water channels. The tract to the north of the central line of hills included the two large valleys of the Ghod and the Mina, the villages lying chiefly along the banks of these streams. The parts to the west were better wooded, and from their nearness to the Sahyádris enjoyed a heavier and less uncertain supply of rain. During the four years ending 1866 the Pábal rainfall averaged 14‘91 inches; 11‘38 inches fell in 1863, 17‘68 in 1864, 16‘91 in 1865, and 13‘67 in 1866.

The lands of this group were drained by four rivers, the Bhima, Mina, Ghod, and Vel. As their sources were in the Sahyádris, the Bhima, Mina, and Ghod had an unfailing supply of water, though in consequence of the depth of their channels they were not used for irrigation. The Vel, which rose in a small range about nine miles north-west of Khed and in the hot weather occasionally failed, was of more value to the landholders as its banks were so low that its water could be stopped and used for irrigation by building temporary dams.

The price returns for Talegaon in the south-east and for Manchar in the north-west corner of the Pábal group showed that at Talegaon, the average rupee price of báyí during the ten years ending 1871 was about 32 pounds (16 shers) compared with about 74 pounds (37 shers) during the ten years ending 1851, that is a rise of 131 per cent. At Manchar the corresponding rates were 32 pounds (16 shers) instead of 76 pounds (38 shers) that is a rise of 137·5 per cent. Compared with the prices of the fifteen years ending 1865 the average price of bhí during the ten normal years, five ending

\[\text{Average price of bhí during the ten normal years, five ending}\]

The western and northern villages of Pábal had more rain than the eastern villages. The following details of the rainfall at Khed, Ghod, and Junnar on the west and north and at Sirur on the east show that the fall increased towards the west. From Pärner northward the fall of rain was generally good and certain. Bom. Gov. Sel. CLI. 303, 304:
1860-61 and five ending 1870-71, that is leaving out the five American war years, showed a rise of 52·1 per cent.1

In the five years (1836-1841) before the former settlement, in the

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**Table:** Poona Rainfall, 1833-1871.

<table>
<thead>
<tr>
<th>Year</th>
<th>Khed.</th>
<th>Ghod.</th>
<th>Junnar</th>
<th>Sirur</th>
<th>Pashal.</th>
<th>Up to</th>
</tr>
</thead>
<tbody>
<tr>
<td>1833</td>
<td>14-02</td>
<td>12-35</td>
<td>12-56</td>
<td>7-86</td>
<td>11-33</td>
<td>30th Sept.</td>
</tr>
<tr>
<td>1834</td>
<td>14-39</td>
<td>14-78</td>
<td>6-33</td>
<td>17-68</td>
<td>16-01</td>
<td>Do.</td>
</tr>
<tr>
<td>1835</td>
<td>17-72</td>
<td>19-18</td>
<td>14-61</td>
<td>16-91</td>
<td>30th</td>
<td>Do.</td>
</tr>
<tr>
<td>1836</td>
<td>17-72</td>
<td>21-33</td>
<td>7-33</td>
<td>13-67</td>
<td>30th</td>
<td>Do.</td>
</tr>
</tbody>
</table>

1 The details are:

**Pashal Produce Prices : Shere the Rupee, 1841-1871.**

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</tr>
</thead>
<tbody>
<tr>
<td>1841-42</td>
<td>44</td>
<td>35</td>
<td>26</td>
<td>24</td>
<td>1851-52</td>
<td>40</td>
<td>34</td>
<td>27</td>
<td>26</td>
<td>1861-62</td>
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<td>23</td>
<td>19</td>
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<td>23</td>
<td>24</td>
<td>1852-53</td>
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<td>38</td>
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<td>26</td>
<td>1862-63</td>
<td>42</td>
<td>35</td>
<td>19</td>
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<tr>
<td>1843-44</td>
<td>67</td>
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<td>1853-54</td>
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<td>26</td>
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<td>1861-64</td>
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<td>24</td>
<td>1854-55</td>
<td>33</td>
<td>24</td>
<td>22</td>
<td>21</td>
<td>1861-65</td>
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<td>10</td>
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<td>24</td>
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<td>1861-66</td>
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<td>1856-57</td>
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<td>24</td>
<td>1861-67</td>
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<td>15</td>
<td>10</td>
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<td>1847-48</td>
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<td>16</td>
<td>1857-58</td>
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<td>27</td>
<td>19</td>
<td>20</td>
<td>1870-71</td>
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<tr>
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<td>1870-71</td>
<td>19</td>
<td>15</td>
<td>12</td>
<td></td>
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</tr>
</tbody>
</table>

Average | 50   | 37    | 24    | 24    | Average | 39   | 30    | 22    | 22    | Average | 13   | 19    |

**Manchar.**

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</tr>
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<tbody>
<tr>
<td>1841-42</td>
<td>46</td>
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<td>24</td>
<td>1851-52</td>
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<td>1857-58</td>
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<td>1868-69</td>
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<td>1858-59</td>
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<td>1869-70</td>
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<td>1859-60</td>
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<td>22</td>
<td>1870-71</td>
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<td>15</td>
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<td>1850-51</td>
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<td>24</td>
<td>1860-61</td>
<td>44</td>
<td>34</td>
<td>24</td>
<td>22</td>
<td>1870-71</td>
<td>19</td>
<td>15</td>
</tr>
</tbody>
</table>

Average | 47   | 38    | 27    | 29    | Average | 34   | 29    | 24    | 24    | Average | 21   | 16    |

**Talagan,** average of fifteen years (1841-42 to 1855-56), Jedri 46, bhuj 35, wheat 24, gram 24; average of ten years (1856-57 to 1860-61 and 1866-67 to 1870-71), Jedri 30, bhuj 23, wheat 15, gram 16, Manchar, fifteen years' average, Jedri 42, bhuj 35, wheat 26, gram 29; ten years' average, Jedri 29, bhuj 26, wheat 16, gram 17; potato eight (1849-56) years' average, Rs 2 as. 15 the palla of 120 shere and ten years' average, Rs 3.8. Bom. Govt. Sel. CLI 307.
fifty-six villages for which the revision survey prepared a diagram, the average collections amounted to £6651 (Rs. 66,510) and the average remissions to £2276 (Rs. 22,760). The assessment of unoccupied land during the four years ending 1840 varied from £4632 (Rs. 46,320) to £4323 (Rs. 43,230) or about one-third of the whole. In 1841, 10,000 acres of waste were taken for tillage but the very large amount of £3604 (Rs. 36,040) of remissions had to be granted. The introduction of the rates was not completed until 1844-45 and in 1845-46 a considerable area was set apart for free grazing. The first five years showed no increase of tillage or other improvement. In 1846-47 the cultivated acres were 142,000 and the waste 21,600 or about one-seventh, the assessment on occupied land was £8121 (Rs. 81,210), and the remissions only £6 (Rs. 60). The years 1847-48 and 1848-49 show a slight increase in cultivation and collections, but, during the three years ending 1852, both cultivation and collections decreased; in 1851-52 the collections amounted to only £8038 (Rs. 80,380). The average cultivation during the six years ending 1852 was 144,742 acres and the average collections £8178 (Rs. 81,780). During the ten years ending 1862 the cultivation and the collections steadily increased. The cultivation rose from 137,673 acres in 1852-53 to 158,556 acres in 1861-62 and averaged 145,251 acres, and the collections from £8083 to £9129 (Rs. 80,830-Rs. 91,290) and averaged £8540 (Rs. 85,490); the only remissions granted were £54 (Rs. 540) in 1853-54. During the ten years ending 1872 the cultivation and collections remained nearly steady, the average area under cultivation being 161,336 acres, and the average collections £9230 (Rs. 92,300); the only remission during this third term of ten years was £4 (Rs. 40) in 1871-72. The waste land in the last year of the lease was only 508 acres or 0.003 of the total arable area or 0.3 per cent. The following statement gives the average revenue for the thirty-six years ending 1871-72:

<table>
<thead>
<tr>
<th>Year</th>
<th>Occup.</th>
<th>Waste</th>
<th>Total</th>
<th>Remis.</th>
<th>Collections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1836-37</td>
<td>87,560</td>
<td>46,318</td>
<td>133,878</td>
<td>18,784</td>
<td>65,796</td>
</tr>
<tr>
<td>1837-38</td>
<td>86,431</td>
<td>44,489</td>
<td>130,900</td>
<td>15,591</td>
<td>70,890</td>
</tr>
<tr>
<td>1838-39</td>
<td>85,967</td>
<td>45,162</td>
<td>131,129</td>
<td>20,462</td>
<td>69,494</td>
</tr>
<tr>
<td>1839-40</td>
<td>89,557</td>
<td>43,234</td>
<td>132,791</td>
<td>16,663</td>
<td>72,677</td>
</tr>
<tr>
<td>1840-41</td>
<td>96,016</td>
<td>33,185</td>
<td>129,101</td>
<td>30,043</td>
<td>60,973</td>
</tr>
<tr>
<td>1846-47</td>
<td>89,720</td>
<td>42,476</td>
<td>131,746</td>
<td>22,764</td>
<td>66,068</td>
</tr>
<tr>
<td>1847-48</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>1848-49</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>1849-50</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

In this survey group of fifty-six villages during the survey lease population increased from 48,102 in 1841 to 53,525 in 1871 or 11.27 per cent; bullocks from 18,131 to 18,634 or 2.7 per cent; other

1 A part of the increase was due to bringing to account the assessment of alienated lands, which attended the introduction of Captain Wingate's scale of remuneration of village officers in 1853-54. Bom. Gov. Sel. OII. 310.
cattle from 49,656 to 53,393 or 7-5 per cent; carts from 754 to 1304 or 73 per cent; ploughs from 2715 to 3052 or 12-4 per cent; and wells in working order from 1493 to 1977 or 32-4 per cent.1

The land was more regularly and carefully tilled in the Pábal villages than in East Poona. Both light and heavy soils were ploughed every year. A six or eight-bullock plough was used for heavy soils, and a four-bullock plough for light soils. January or February ploughing was considered more useful than ploughing later in the season. Besides ploughing them it was usual to harrow all kinds of soil before sowing, and to weed with the hoe once or twice after the crops had sprung up. Garden lands, as a rule, were ploughed twice, once lengthways and once crossways before each crop, and 25 to 30 cartloads of manure an acre were always given though the price varied from 1s. to 4s. (Rs. 1/2 - 2) and was sometimes even as high as 6s. (Rs. 3) the cartload. Dry-crop lands occasionally received ten to fifteen cartloads of manure the acre. The use of manure on dry-crop lands was much more general than it had been some years before. In the dry-crop soils either late or early crops were grown. Of the early or kharif crops the lighter soils yielded year after year bájri mixed with hulga, math, jvári, ambádi, and mug; in the better soils were grown bájri, with every fourth furrow bájri and tur; bájri only, followed in good seasons by a late crop of gram; udid and mug grown separately, followed in good seasons by wheat or gram after udid, and by kardai or jvári after mug; potatoes, which when raised as an early crop, in good seasons, were succeeded by gram wheat or jvári. As a rule rabi or late crops were grown only on the best soils. They included jvári generally mixed with kardai, or wheat mixed with kardai, or gram, followed in the fourth year by bájri, and in good seasons by a second crop. The above were the only rotations. In garden land the usual rotation was in the first year bájri or potatoes with a late crop of wheat, gram, or vegetables; in the second year earthnut or chillies; in the third year sugarcane or bájri with a late crop. In most villages large numbers of sheep were reared as Poona furnished a certain and convenient market. The wool was sold to the weavers, and the droppings formed one of the best manures and were carefully collected in the pens in which the sheep were folded at night. Especially in gardens the sub-divisions of land were very minute and the right of occupancy was jealously guarded. The land bore a high sale value. In some instances dry-crop land was sold or mortgaged for as much as 116 to 160 years' purchase of the assessment.

Though the line did not pass through any part of it, the Pábal group had gained by the opening of the Peninsula railway. The stations at Úruli and Talegaon Dábháde afforded easy access to the Bombay market. The group was also crossed from south to

1 Between 1861 and 1871, 336 wells were sunk. The well cess imposed in 1840 was most unpopular. In 1843 it was revised, but complaints still continued. Many wells in good repair fell into disuse, the landholders, in some cases building new wells, exempt from the cess, rather than use old wells on which the tax was imposed. In 1853-54 the sum of Rs. 1875 was remitted on account of unused wells and water channels. Bom. Gov. Scé. CLII, 906.
north by the Poona-Nášik road, and from west to east by the Poona-Ahmadnagar road. There were also several good fair-weather roads, and two metalled high roads, one branching from Shikrãpur and forming a direct line to Talegaon on the railway, the other connecting the town of Pábal with Poona. A fair-weather road from Pábal to Sirur by Malthán was nearly completed. The Bhima at Koregaon and the Ghod at Kalaub were crossed by ferries during the rainy season and a substantial bridge spanned the Vel at Shikrãpur. The only road which remained to complete the system of communication was the road from Sirur to Náráyangon. The fall in the toll farm from £2250 (Rs. 22,500) in 1865-66 to £520 (Rs. 5200) in 1872-73 showed how greatly railway competition had reduced cart traffic.¹ The chief towns, none of which were of any considerable size, were Pábal, Talegaon, Manchar, and Kauta. Weekly markets were held at each of these towns and also at Váp-gaon; and Náráyangon and Khed were convenient markets for the villages near them. On the whole the people had great advantages in disposing of their field produce; no part of the group was more than five or six miles from a market town. Tillage was almost the only industry. There were 217 looms some for blankets others for coarse cottons. Lavish expenditure on marriages and other social ceremonies had kept the people dependent on the money-lenders. Still their state had greatly improved since 1841. The chief causes of their improvement were a sufficient and a fairly certain rainfall, unbroken peace, low assessment, the extended use of the potato, the opening of the railway and of roads, and the rise in grain prices.²

The fifty-six villages were arranged in six classes with highest dry-crop acre rates varying from 6s. to 3s. 6d. (Rs. 3·1¼). The two elements for reducing rates were less certain rain and more distant markets. The first class contained one village with a highest dry-crop acre rate of 6s. (Rs. 3); the second class contained sixteen with 5s. 6d. (Rs. 2½); the third class, thirteen with 5s. (Rs. 2½); the fourth class, twelve with 4s. 6d. (Rs. 2½); the fifth class, eight with 4s. (Rs. 2); and the sixth class, six with 3s. 6d. (Rs. 1¼). Of the three villages received from Holkar one was placed in the first, one in the third, and one in the fifth class. There were no masonry dams, but, especially along the Vel, the people made temporary embankments. The chief crops grown under the channels were sugarcane, potatoes, earthnut, chillies, vegetables, and garlic in a few villages. The highest acre rate proposed for channel water was 12s. (Rs. 6) and the lowest 2s. (Rs. 1). The assessment on this account amounted to £563 (Rs. 5630) or an average acre rate of 5s. 3d. (Rs. 2½). The total former assessment on wells and channels together was £1343 (Rs. 13,430) of which only £1203 (Rs. 12,030) were

¹ Lient.-Col. Waddington, Surv. Supt. 689 of 10th October 1872. Bom. Gov. Sel. CLI. 301. The toll amounts were (farmed) 1865-66 Rs. 22,500, 1866-67 Rs. 19,500, 1867-68 Rs. 16,000, 1868-69 Rs. 14,000, 1869-70 Rs. 12,000, 1870-71 Rs. 10,500; (managed by Sirur mánlatdár) 1871-72 Rs. 6295, and (farmed) 1872-73 Rs. 9200.
collected in 1871-72, the remainder being remitted as the wells were not in use. Under the revision survey no extra assessment was imposed on well lands, a change which, on the 10,047 acres of well land, represented a loss to Government of £2000 to £2500 (Rs.20,000-25,000). Of rice land, there were only ninety-two acres. As it was of superior quality the highest acre rate was fixed at 10s. (Rs. 5), and the average at 6s. 2\frac{3}{4}d. (Rs. 3 as. 1\frac{1}{4}F). The proposed rates increased the assessment on Ausari, the only village in the first class by 70 per cent; on the villages of the second class by 74 per cent; on those of the third class by 94 per cent; on those of the fourth class by 90 per cent; on those of the fifth class by 95 per cent; and on those of the sixth class by 103 per cent. The average increase on all the fifty-six villages was 88 per cent over the previous year's payments. The following statement shows the effect of the survey:

**Pabul, Fifty-six Villages: Revision Settlement, 1872.**

<table>
<thead>
<tr>
<th>Settlement</th>
<th>Occupied</th>
<th>Unoccupied</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area</td>
<td>Rental</td>
<td>Area</td>
</tr>
<tr>
<td>Proposed</td>
<td>181,076</td>
<td>173,395</td>
<td>567</td>
</tr>
<tr>
<td>Existing</td>
<td>160,062</td>
<td>92,349</td>
<td>545</td>
</tr>
<tr>
<td>Increase</td>
<td>20,854</td>
<td>81,546</td>
<td>19</td>
</tr>
</tbody>
</table>

Compared with the average collections between 1862 and 1871 the revised survey rental showed an increase of £8160 (Rs. 81,000) or 88 per cent; and compared with the average collections from 1836 to 1840 they showed an increase of £10,739 (Rs. 1,07,390) or 161 per cent. The rental of the three villages received from Holkar was raised 60 per cent. The greatest individual increase was a rise of 159 per cent in Eklahara. The largest general increase, 103 per cent, was in the lowest or sixth class in which the average dry-crop acre rate was only 1s. 3\frac{3}{4}d. (10\frac{1}{4} as.). The highest dry-crop acre rate, which occurred in Pimpalgaon, was 3s. 10\frac{3}{4}d. (Rs. 1 as. 15\frac{1}{4}). The average dry-crop acre rate in the fifty-six villages was 1s. 10\frac{3}{4}d. (14\frac{3}{8} as.).

In forwarding the Superintendent's proposals, the Survey Commissioner Colonel Francis made some changes in the grouping of villages and removed the first class rate of 6s. (Rs. 3). His proposals reduced the increase in the total rental of the fifty-six villages from 88 to 85 per cent and of the three villages received from Holkar from 60 to 45 per cent. He next suggested that in addition to this a reduction of four annas a class for the first four classes and of two annas in the fifth or last class might be made in the highest dry-crop acre rates. This would reduce the rates to 5s. (Rs. 2\frac{1}{2}), 4s. 6d. (Rs. 2\frac{1}{4}), 4s. (Rs. 2), 3s. 6d. (Rs. 1\frac{3}{4}), and 3s. 3d. (Rs. 1\frac{3}{8}), and bring the increase down to 65 or 66 per cent. Government adopted a somewhat different grouping from that proposed by the

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survey officers. They sanctioned the following highest dry-crop acre rates, 5s. (Rs. 2½) for nine villages, 4s. 3d. (Rs. 2½) for nine villages, 4s. (Rs. 2) for twenty-four villages, and 3s. 3d. (Rs. 1½) for seventeen villages. With these rates the increase on the whole fifty-nine villages amounted to about 75 per cent beyond the old assessment in place of the 88 per cent proposed by the Superintendent. The final result of the revised settlement introduced into the fifty-nine villages of the Pábal group was as follows: Under the revised settlement, the average dry-crop acre rate was 1s. 6d. (12½ as.), the water rate 4s. 7½d. (Rs. 2 as. 5½), and the rice land rate 6s. 8d. (Rs. 3 as. 5½). The total assessment on occupied lands was £15,151 (Rs. 1,51,510) or £3819 (Rs. 38,190) less than that originally proposed by the Superintendent, and £4928 (Rs. 49,280) or 48 per cent more than the former assessment.

The revised survey settlement was introduced into Haveli in 1872-73. Of the eighty-four villages under revision, twenty-one of which formerly belonged to Bhimthadi and seven had since the first settlement been transferred to Mával, three villages were omitted as survey rates had been introduced into them within the preceding fifteen years. The Haveli or mámlátádás group was bounded on the north by the Bhima and Indráyani; on the east by Bhimthadi; on the south by the Sinhgad-Bhuleshvar hills; and on the west by the Náne Mával, the Mulshi petty division, and the Pant Sáchiv’s territory. Nearly in the centre was Poona a city of 90,436 people from which no part of the group was more than eighteen miles distant, and which formed a ready and convenient market for all kinds of produce. The total area of the eighty-one villages was 319 square miles or 204,135 acres. Of these 10,198 acres or 4·8 per cent was unarable land included in numbers, and 18,346 or 8·8 per cent was alienated. There were also 6673 acres of grass or kurān land, chiefly in the villages to the west of Poona and near the Sáhyádrís. The Haveli sub-division was more varied than any of the sub-divisions yet resettled. East of Poona the country was flat, open, and almost bare of trees; to the west it was rugged and hilly, and much of it well wooded, especially along the south side of the Mutha river where were large numbers of fine mangoes and a sprinkling of jack trees which were unknown to the east of Poona. Teak occurred on the hill sides but never grew to any size. The climate varied much, the rainfall increasing towards the west, until, in the border villages rice and nágli took the place of jvári and bájri. The lands to the east of the city were divided into two nearly equal portions by the Mutha-Mula. The tract lying between the Mutha-Mula and the Bhima comprised some of the poorest villages. It was chiefly stony sterile upland, better fitted for sheep grazing than for tillage. The people made the most of their barren inheritance, every available gorge in the ravines being blocked with rough stone embankments to gather and hold the scanty soil washed

from the higher grounds. The district to the south between the Mutha and the hills was much more level, and contained a large proportion of rich soil. Even the villages under the hills were not unfertile, the more plentiful rainfall which they enjoyed making up for their somewhat poorer soil. Towards the west the rainfall was heavier. During the nine years ending 1871, compared with an average of 27.07 inches at Poona, Patas about forty miles to the east had an average of 14.18 inches and Mulshi about twenty-five miles to the west, of 46.99 inches. The country was well watered. Besides by minor streams it was crossed by five considerable rivers including the Bhima and the Indrāyani on the north. During the survey lease (1841-1871) Poona produce prices had doubled. The rupee price of jwāri rose from about 63½ pounds (31¾ shers) in the ten years ending 1851 to 60 pounds (30 shers) in the ten years ending 1861, and to 34 pounds (17 shers) in the ten years ending 1871; the corresponding averages for bājri were 53½, 50, and 27 pounds (26½, 25, and 13½ shers).

1 Bom. Gov. Sel. CLI. 406. The details are:

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Poona</th>
<th>Patas</th>
<th>Mulshi</th>
<th>Up to</th>
</tr>
</thead>
<tbody>
<tr>
<td>1861</td>
<td>26.55</td>
<td>8.83</td>
<td>45.34</td>
<td>Ditto.</td>
</tr>
<tr>
<td>1862</td>
<td>31.32</td>
<td>11.69</td>
<td>45.96</td>
<td>Ditto.</td>
</tr>
<tr>
<td>1863</td>
<td>18.90</td>
<td>6.27</td>
<td>54.70</td>
<td>4th Nov. Ditto.</td>
</tr>
<tr>
<td>1864</td>
<td>37.79</td>
<td>10.89</td>
<td>26.69</td>
<td>Ditto.</td>
</tr>
<tr>
<td>1865</td>
<td>30.91</td>
<td>10.32</td>
<td>61.48</td>
<td>30th Nov. Ditto.</td>
</tr>
<tr>
<td>1866</td>
<td>35.76</td>
<td>22.76</td>
<td>39.29</td>
<td>Ditto.</td>
</tr>
<tr>
<td>1867</td>
<td>40.69</td>
<td>26.31</td>
<td>61.50</td>
<td>Ditto.</td>
</tr>
<tr>
<td>Average</td>
<td>27.87</td>
<td>14.18</td>
<td>46.99</td>
<td>...</td>
</tr>
</tbody>
</table>

2 The Bhima, the Indrāyani, the Mula, the Pauna, and the Mutha.

3 In 1840, at the time of the first settlement, Capt. Wingate and Lt. Nash estimated that the price of grain ranged about 25 per cent higher in Poona than in the adjoining sub-division of Bhimthadi. The statement given below shows that from 1841 to 1851 the average price of jwāri was 30 and of bājri 35 per cent higher in Poona than in Yevat; from 1851 to 1861 the price of jwāri was 19 and that of bājri 15 per cent higher; but during the last ten years (1851-1871), owing to the levelling influence of railways, the difference fell to 13 per cent on jwāri and 11 per cent on bājri, while in 1871 it was only 5 9 on jwāri and 1 on bājri. Bom. Gov. Sel. CLI. 409. The details are:

<table>
<thead>
<tr>
<th>YEAR</th>
<th>POONA.</th>
<th>YEVAT.</th>
<th>TALEGAON.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jwāri</td>
<td>Bājri</td>
<td>Jwāri</td>
<td>Bājri</td>
</tr>
<tr>
<td>1841-42</td>
<td>30</td>
<td>24</td>
<td>47½</td>
</tr>
<tr>
<td>1842-43</td>
<td>22</td>
<td>26</td>
<td>30</td>
</tr>
<tr>
<td>1843-44</td>
<td>30</td>
<td>30</td>
<td>64</td>
</tr>
<tr>
<td>1844-45</td>
<td>27</td>
<td>22</td>
<td>50</td>
</tr>
<tr>
<td>1845-46</td>
<td>21</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>1846-47</td>
<td>16</td>
<td>14</td>
<td>15½</td>
</tr>
<tr>
<td>1847-48</td>
<td>31</td>
<td>27</td>
<td>37</td>
</tr>
<tr>
<td>1848-49</td>
<td>21</td>
<td>15</td>
<td>64</td>
</tr>
<tr>
<td>1849-50</td>
<td>47</td>
<td>37</td>
<td>64</td>
</tr>
<tr>
<td>1850-51</td>
<td>30</td>
<td>22</td>
<td>35</td>
</tr>
<tr>
<td>Average</td>
<td>28½</td>
<td>26½</td>
<td>45½</td>
</tr>
</tbody>
</table>

Average ... 30 25 35½ 28 39 30
In the group of eighty-one villages the average collections during the five years before the first settlement were £6445 (Rs. 64,450), and the average remissions £2534 (Rs. 25,340). During the eleven years ending 1852 the average collections were £6974 (Rs. 69,740) or 8·2 per cent more than the collections of the five years ending 1841 and the average remissions were £42 (Rs. 420). In 1841-42 the first year of the survey settlement the total area of Government assessed land was 124,500 acres and the rental £7450 (Rs. 74,500); of which 16,000 acres or nearly one-eighth was waste. In 1843-44 the levy of a well-cess raised the assessment to £7708 (Rs. 77,080); but the same year £100 (Rs. 1000) and in the succeeding year £199 (Rs. 1990) of the newly imposed cess were remitted. After 1849-50 the whole amount was collected except about £40 (Rs. 400). In 1851-52 the arable waste was reduced to 10,000 acres or one-twelfth of the whole arable area. During the ten years ending 1862 the arable waste fell from 9777 to 1922 acres, and the average remissions on account of well-cess were £18 (Rs. 180). The largest remission during the thirty-one years ending 1861 was £679 (Rs. 6790) in 1853-54. The average collections during the ten years ending 1862 were £7626 (Rs. 76,260) or 9·3 per cent more than the collections of the eleven preceding years and 18·3 per cent more than those of the five years before the settlement. The average remissions were £73 (Rs. 730). Since 1862 the arable waste was gradually absorbed until in 1871-72 only 634 acres of arable land remained unoccupied. Since 1856 there were almost no remissions, and the average collections for the ten years ending 1872 were £7815 (Rs. 78,150) or 2·5 per cent more than the preceding ten years, and 21·3 per cent more than the five years (1836-1841) before the settlement. They would have been greater had not a considerable quantity of land been taken for forest and other Government purposes, such as the powder works at Kirkee and for Lake Fife.¹

¹ The Tillage area rose from 109,000 acres in 1841-42 to 117,000 acres in 1846-47, fell to 115,000 in 1852-53, and again rose to 125,000 acres in 1860-61. Since 1866 it began to decline and reached 121,000 acres in 1871-72. The largest remissions were about Rs. 6800 in 1853-54. In other years there were little or no remissions. The collections rose from Rs. 65,000 in 1841-42 to Rs. 71,000 in 1846-47. They fell to Rs. 70,000 in the next five years, rose to Rs. 71,000 in 1852-53, and again fell to Rs. 67,000 in 1853-54. They then rose to Rs. 77,000 in 1857-58 and stood at Rs. 79,000 during the next six years. Since then they began to decline and reached Rs. 76,000 in 1871-72. Survey Diagram, Bom. Gov. Sel. CLI 410.

Poona-Yeat-Talegaon Produce Prices, 1861-1871—continued.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>POONA</th>
<th>YEAT</th>
<th>TALEGAON</th>
</tr>
</thead>
<tbody>
<tr>
<td>1861-62...</td>
<td>26</td>
<td>19</td>
<td>30</td>
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<tr>
<td>1862-63...</td>
<td>30</td>
<td>15</td>
<td>15½</td>
</tr>
<tr>
<td>1863-64...</td>
<td>11</td>
<td>9</td>
<td>15½</td>
</tr>
<tr>
<td>1864-65...</td>
<td>12</td>
<td>10</td>
<td>15½</td>
</tr>
<tr>
<td>1865-66...</td>
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<td>1866-67...</td>
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<tr>
<td>1867-68...</td>
<td>13</td>
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<tr>
<td>1868-69...</td>
<td>13</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>1870-71...</td>
<td>13</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Average</td>
<td>17</td>
<td>13½</td>
<td>19½</td>
</tr>
</tbody>
</table>
During the survey lease, in the eighty-one villages, population had increased from 37,695 in 1840-41 to 53,829 in 1871-72 or 42.8 per cent; houses from 6598 to 7079 or 7.3 per cent; carts from 1146 to 2655 or 131.7 per cent; ploughs from 1907 to 2324 or 19.8 per cent; draught and plough bullocks from 15,899 to 17,811 or 12 per cent; cattle, sheep, and horses from 26,890 to 34,845 or 29.6 per cent; and working wells from 799 to 1091 or 36.5 per cent. Of 418 new wells 278 had been sunk during the ten years ending 1872. The liberal remission of the well cess was beginning to have the best effect. Several landholders in the Havelli group, on being assured by the Survey Superintendent that the wells were not to be taxed under the revision survey and that Government were prepared to help them with advances, took to sinking wells. Especially in the north-east villages many dams were also built with the object of collecting soil to prevent the fields being damaged by floods. The style of tillage showed more energy and care than in parts of the district at a distance from good markets. Manure was eagerly sought for and brought from long distances. The city and cantonment of Poona furnished a large supply in the shape of night-soil which, after being buried in trenches for three or four months, was bought by the landholders of the surrounding villages. A few years before no Kunbi would touch this form of manure. The price paid at the trench was 2s. (Re. 1) for three carts. Of dry-crops both early and late were grown. They included bōjri, jvāri, gram, tur, wheat, khurāns, udīd, and mug. Near Poona those crops were grown which were calculated to meet the daily demands of a large city. Thus early jvāri and maize for green fodder to a great extent superseded grain. In garden lands, for some miles round Poona, oranges, limes, guavas, plantains, figs, pomegranates, grapes, and mangoes, and vegetables of all kinds both local and foreign were reared to a large extent. Lucerne grass was much grown and was a profitable crop. It required watering once in twelve or fifteen days, and continued to yield for three years. The guava also gave a good return; it preferred a light soil and required water only during the bearing seasons, between October and December and again between April and May. The tree was very hardy and generally yielded a certain crop. It was usual for the husbandmen to sell the crop of oranges, limes, and mangoes on the tree as soon as the young fruit was fairly set. But figs were
so uncertain that the crop was seldom bought until it was well
developed. Betel vine gardens or pán malás were numerous
especially in the villages of Kondva, Undri, Mahamadvádi, and
Phursangi. These gardens required a large outlay at starting, and,
throughout the year, constant attendance for weeding, watering,
insect-killing, and leaf-gathering. They paid well, the returns being
constant, as the rows of vines were arranged so as to come into
bearing in regular rotation. A betel garden or pán mala continued
to yield from ten to fifteen years. The potato was not grown,
apparently because the eastern villages had too small a rainfall and
the western villages too much moisture. In the western villages
the early harvest was the most important, the chief crops being
early jñári and bájri, supplemented by tur, til, náchní, and wheat.
Rice was also grown in a few of the border villages, notably in
Ráhátáunda, Arví, Márunjí, Kásáráí, Mulkhed, and Bhukam.
The villagers complained that, owing to the recent transfer of large tracts
of hill land to the Forest Department, they had not sufficient
brushwood to burn on their rice lands; the Survey Superintendent
thought this would seriously interfere with the growth of rice, as
cowdung, which the people were forced to use, was too expensive on
account of the large city demand for cowdung fuel. The western
villages had little garden land, probably because a certain rainfall
ensured a regular return on the dry-crop lands. They also left much
land under grass, which, from the plentiful rainfall, grew freely, and
found a ready sale. Every day long strings of men and women
brought bundles of grass, firewood, cowdung-cakes, and milk to the
camp and city. In 1871-72 of the whole rent-paying area early crops
covered 52 1/4 per cent, late crops 34 per cent, and occupied
waste 13 1/4 per cent. The area of occupied waste held for private
grazing was large. Vágholi, Khorádi, Vadgaon, Sherí, Kesmand, and
Lohogaon, from their nearness to Poona, had considerable tracts
under grass, which probably paid better than if they had been
cultivated. Except some villages to the north-west of Poona,
Havelí was abundantly provided with means of communication.
The Peninsula railway ran through the middle of it and had five
stations within Havelí limits and a sixth just beyond. The high
roads were numerous and good, the chief being those to Bombay,
Ahmadnagar, Sholápur, and Sátára. To Sátára there were three
routes, by the Kátráj, Bábdev, and Diva passes, all made with great
skill and in the most substantial manner, the top of the Kátráj pass
being pierced by a long tunnel. Many miles of excellent made road
crossed the Poona cantonment, and connected it with Kirkee and
the city. There was also a second class road by Náráyangon to
Junnar and Násík. All these roads converged on the city and
afforded easy access from all parts of the sub-division to the vast
quantity of supplies required by a population of over 90,000. In
the opinion of Mr. Fletcher the classing officer, the people to the

1 The details were: Of the early crops, bájri 34 5 per cent, jñári 18 5, rice 1 9, nágph
0 9, til and rásá 0 5, tur 0 3, chillies 0 3, hulga 0 3, and bhoomiy 0 2, total 52 3 per cent.
Of the late crops, jñári 28 9, wheat 3 2, gram 1 3, castor seed 0 6, sugarcane 0 8,
miscellaneous 1 6, total 34 2; occupied waste 13 5. Bom. Gov. Sec. CLI. 463.
west of Poona were poorer and less thriving than those in the east. The holdings were smaller, there was a want of roads, and the land was less fertile. Colonel Waddington thought this might be true of a few exceptional villages. But on the whole the people of the sub-division were better off than the people of any other part of the district. As regards the value of land, as much as one hundred times the amount of the assessment was obtainable in 1871.

Under the revision survey the total area of the eighty-one villages was found to be 204,135 acres or 28,031 acres more than the former recorded area. This large discrepancy was mainly due to the fact that at the time of Lieutenant Nash's survey the area of free grazing lands was not measured. Of the total number of eighty-four villages, seventy-four were arranged in eight classes with highest dry-crop acre rates varying from 8s. to 8s. 6d. (Rs. 4-1‌ trail. Three villages, Vánori Ghorpuri and Kirkee, adjoining the cantonment were placed in the first class with a rate of 8s. (Rs. 4). Six villages on the skirts of the city and across the Mutha river were placed in the second class with a rate of 7s. (Rs. 3). Twenty-six villages adjoining the first and second classes were placed in the third class with a rate of 6s. (Rs. 3). Thirteen villages formed the fourth class with a rate of 5s. 6d. (Rs. 2‌ trail). Nine villages formed the fifth class with a rate of 5s. (Rs. 2‌ trail). Five villages formed the sixth class with a rate of 4s. 6d. (Rs. 2‌ trail). Nine villages formed the seventh class with a rate of 4s. (Rs. 2). Three villages, across the Mutha-Mula in the north-east corner of this survey group, formed the eighth class with a rate of 3s. 6d. (Rs. 1‌ trail). Of the remaining ten villages, seven villages transferred to the Mával sub-division were placed in the fifth class with a rate of 5s. (Rs. 2‌ trail), and the three villages, of which the existing settlement had been carried out subsequent to that of the rest of the sub-division, were placed one in the third, one in the fourth, and one in the fifth class.

There was little channel watered land, and except in the village of Páshán the water-supply in none of the channels was of superior quality. In Páshán, in consequence of the improvement in the supply of water caused by the recent construction of a large pond, the Survey Superintendent proposed to apply a highest acre rate of 16s. (Rs. 8) in excess of the dry-crop rate. The highest rate in other villages was 11s.(Rs. 5‌ trail) and in some lands it was as low as 2s. (Re. 1). The existing assessment on well-watered and channel-watered land was £470 (Rs. 4700); the proposed channel watered assessment was £223 (Rs. 2230) or

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2 Of this large increase in area Col. Francis (Survey Comr. 497 of 24th March 1873, Bom. Gov. Soc. CII. 457) wrote: In no reassessed district has been found the former survey so imperfect as it has been found to be here. This is owing chiefly to the general adoption of Mr. Pringle's measurements at the first settlement in place of a fresh survey. The largest differences of area, compared with the present survey, occur in hilly lands, which in some cases seem to have been left unmeasured, and in others shown as unarable, though producing grass, and most valuable for grazing on account of their nearness to Poona. In one case the arable area, according to the new survey is shown to be more than double what was charged for under the original settlement; in another case it is 90 per cent more, and in many cases it is between 20 and 30 per cent in excess.
an average acre rate of 5s. 3½d. (Rs. 2 as. 10½) exclusive of dry-crop rate. Rice was grown to some extent in the villages on the western border, but the total area under rice was only 1095 acres. Colonel Francis' highest riceacre rate for the contiguous Màval villages was 9s. (Rs. 4½), the average acre rate on them being 4s. 3½d. (Rs. 2 as. 2½). For the Haveli group the highest rice acre rate proposed was 12s. (Rs. 6) which when applied gave an average acre rate of 7s. 3½d. (Rs. 3 as. 10½). The effect of the proposed rates in eighty-one villages was to raise the assessment on occupied land from £7686 (Rs. 76,860) collected in 1871-72 to £15,312 (Rs. 1,53,120) or an increase of 99 per cent. Of this sum £14,689 (Rs. 1,46,890) was the assessment on dry-crop land, giving an average acre rate of 2s. 1d. (Re. 1 a. ½), £223 (Rs. 2,230) were on account of a water cess, and £400 (Rs. 4000) on rice land. In the remaining three villages the assessment was raised from £361 (Rs. 3610) to £532 (Rs. 5320) or not quite 48 per cent, but the average dry-crop acre rate amounted to 2s. ½d. (Re.1 a. ¼) or nearly the same as the general average.

The following statement shows the effect of the survey in eighty-one villages:

<table>
<thead>
<tr>
<th>SETTLEMENT</th>
<th>OCCUPIED</th>
<th>UNOCCUPIED</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area</td>
<td>Rental</td>
<td>Area</td>
</tr>
<tr>
<td>Proposed</td>
<td>Acres</td>
<td>Rs.</td>
<td>Acres</td>
</tr>
<tr>
<td>Existing</td>
<td>1,42,290</td>
<td>1,53,118</td>
<td>1,54,340</td>
</tr>
<tr>
<td>Increase</td>
<td>19,860</td>
<td>76,255</td>
<td>—280</td>
</tr>
</tbody>
</table>

Compared with the average collections of the five years before 1841, the rental under the revised rates was 138 per cent higher; compared with the average collections of the eleven years ending 1852 it was 119 per cent higher; compared with those of the ten years ending 1862 it was 101 per cent higher; and compared with those of the ten years ending 1872 it was 96 per cent higher. The largest increase was in the village of Bhádvi which was raised 228 per cent. Of this amount the increase in the occupied arable land hitherto not shown in the accounts was 90 per cent. In Dhankauri the increase was 175 per cent and in Vagdaon Sheri 177 per cent.¹

Shouuld these proposed rates appear too high and the increase in rental be not in accord with the Government policy of moderation, the Survey Superintendent submitted a modified scale to be substituted in their place. He reduced the highest dry-crop acre rates of the first and second classes by 1s. (8 as.) and the remaining classes by 6d. (4 as.) each except in one or two cases in which the reduction made was 1s. (8 as.). The effect of the changes was to lower the proposed assessment on dry-crop land from £15,209 to £13,679 (Rs. 1,52,090-Rs. 1,36,790) and the total assessment from £15,884 to £14,354 (Rs. 1,58,840 - Rs. 1,43,540). This was an increase of 79 per

cent on the preceding year's collections in eighty-one villages; of this increase 16 per cent was due to the greater area brought under assessment, leaving 63 per cent as the increase caused by the new rates. The Survey Commissioner suggested a highest rice acre rate of 10s. (Rs. 5) instead of 12s. (Rs. 6), and made some changes in the grouping of villages. According to his proposals the increase in the total rental was reduced to about 75 per cent. Government sanctioned the proposals of the Survey Commissioner.¹

As the Government of India intimated their satisfaction that the rates originally proposed by the Survey Superintendent had been modified, and expressed their readiness to make further reductions, should reductions appear necessary, the Survey Superintendent made some further changes in individual villages and brought the total assessment on the cultivated lands of the eighty-four villages to £13,419 (Rs. 1,34,190) showing an increase of 67 per cent on the preceding year's payments. The average dry-crop acre rate was 1s. 9½d. (14½ as.), channel water rate 4s. 5½d. (Rs. 2 as. 3½f.) and rice rate 5s. 11½d. (Rs. 2 as. 15½).²

The following statement shows for the eighty-four Haveli villages under the revision settlement originally proposed by the Superintendent of Survey, the revised settlement advocated in the transmitting report of the Survey Commissioner and sanctioned by Government in June 1873, and the settlement finally proposed by the Survey Superintendent³ in September 1873. Government sanctioned the final proposals in October 1873:⁴

### Eighty-four Haveli Villages: Settlement, 1873.

<table>
<thead>
<tr>
<th>Former 1871-72</th>
<th>Proposed 1872-73</th>
<th>Increase</th>
<th>Per Cent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rs.</td>
<td>Rs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80,965</td>
<td>1,48,836</td>
<td>96</td>
<td>66</td>
</tr>
<tr>
<td>80,965</td>
<td>1,45,544</td>
<td>77</td>
<td>66</td>
</tr>
<tr>
<td>80,965</td>
<td>1,34,199</td>
<td>56</td>
<td>66</td>
</tr>
</tbody>
</table>

In 1873-74 the rainfall was 14 inches at Indapur, 32 at Poona, 13 at Junnar, and 68 at Khadkála. Except in Mával, Purandhar, and the late crop part of Indápur, the rainfall was not favourable either for the early or for the late harvest. In the west the early crops were good in Mával and in the south-west and north of Haveli, and fair in Junnar and Khed. In Mulshi insufficient rainfall in the early part of the season, and an excessive fall near the close caused much damage. In the east the early crop was fair in Purandhar, middling in Sirur, and indifferent in Bhimthadi and Indápur where the outturn was very trifling. The late harvest was good in Purandhar, fair in Indápur, and middling in the rest of the east. Public health was generally good. Slight cattle disease was

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present in Mával, Junnar, Haveli, and Khed. Tillage rose from 1,848,831 to 1,901,205 acres, collections fell from £112,689 to £99,117 (Rs. 11,26,890-Rs. 9,91,170), £17,796 (Rs. 1,77,960) were remitted, and £9125 (Rs. 91,250) left outstanding. At Indápur the rupee price of Indian millet fell from about 28 to 45 pounds (14-24 shers).

In 1873-74 the revised survey settlement was introduced into a group of thirty-nine villages settled in 1843-44. These villages formerly belonged to the Supa petty division of Purandhar. Since the first settlement in 1843-44 thirty of these villages had been handed to Bhimthadi and nine to Purandhar. The country sloped southwards in a waving plain watered by the Karha and other streams none of which flowed throughout the hot weather. In capabilities and climate these villages differed little from each other, except that those lying along the Nira had a larger proportion of deep black soil. The early crops were böjri, math, and mug; the only late crop was jvíri among which a good deal of kardái was sown broadcast. In the northern and eastern villages the late crops, and in the western and southern villages the early crops, predominated. Except in a few villages cultivation was careless. The fields were overrun with weeds; the land was not ploughed more than once in three or four years; and the use of manure on drycrop lands, except to a limited extent by the folding of sheep, of which great numbers were reared, was apparently unknown. The garden lands, which were almost exclusively under wells, were by no means of a high class. Sugarcane was grown in the few places which had a twelve month’s water-supply. The usual garden crops were wheat, gram, vegetables, and jvíri; of these jvíri was a special favourite under inferior wells. As regards communication and markets considerable changes had taken place since the former settlement in 1843. At that time, of the four markets which gave Supa an advantage over Indápur and Kurkumb, three, Wáí Bhor and Sátára, were thirty miles across the country from the nearest part of the group and more than twice as far from the most distant; while the fourth, Sásvad, was not less than twenty miles from the nearest point. By the new roads from the Nira bridge to the railway station at Kedgaon, from Bárámatí to Pátas, and from Sátára to Poona by the Diva and Kátraj passes, many of these villages had been brought within a day’s march of the railway. Poona, which was still as formerly the great market for produce, was more accessible than from Indápur, and not much less accessible than from Kurkumb. The town of Supa itself was only ten miles from the Kedgaon station. The local markets were Bárámatí, Supa, Pátas, and Jejuri, of which Bárámatí was the most important especially as a cattle market.

During the survey lease the Supa price of jvíri rose from about 80 pounds (40 shers) the rupee in the first ten years to about 34 pounds (17 shers) the rupee in the last ten years of the lease that is an increase of 135 per cent. The corresponding increase in the

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price of bājri was from about 68 to 28 pounds (34-14 shers) or 143 per cent.1

At the introduction of the 1843 settlement the Supa group was passing from a state of great depression to one of comparative prosperity. This was due to the revision of assessment carried out some years before by Lieutenant Shortrede. Under Lieutenant Shortrede’s rates the assessment which had been fixed by the former survey at £12,270 (Rs. 1,22,700) on thirty-seven villages was reduced to £10,140 (Rs. 1,01,400) on 39½ villages. In spite of this reduction the average yearly collections, during the seven years (1836-1842) after the introduction of Lieutenant Shortrede’s modified rates, were only £3498 (Rs. 34,980) of a total assessment on Government lands of £8850 (Rs. 88,500) or less than 40 per cent; and, though cultivation spread from 40,696 acres in 1836 to 111,768 acres in 1842, there was a progressive increase in remissions. No less than £5000 (Rs. 50,000) of a total of £7400 (Rs. 74,000) of remissions were allowed during the last two years (1841-42) of the settlement. The fixed survey settlement for thirty years was introduced in 1848, the new rates being the same as in Kurkumb or ten per cent higher than in Indāpur. During the first year (1843-44) of this thirty years’ settlement, of a total assessed area of 141,310 acres, 26,302 arable acres were waste. In the next year the arable waste was reduced to 17,191 acres, in the succeeding year to 14,146, and in 1847 it had fallen to 8690 acres. From this time until 1852 the arable waste gradually increased until in 1852 it amounted to nearly 15,000 acres. The collections varied from £4206 (Rs. 42,060) in 1844-45 to £5310 (Rs. 53,100) in 1847-48 and £5194 (Rs. 51,940) in 1852-53. Large remissions were granted in two of the first ten years, £417 (Rs. 4170) in 1844-45 and £828 (Rs. 8280) in 1850-51. The average collections during the ten years ending 1853 were £4886 (Rs. 48,860) and remissions £171 (Rs. 1710), and the area under tillage was 126,604 acres. Between 1853 and 1858 the arable waste was reduced to 1000 acres; in 1862 it had risen to 1757 acres. The collections in 1862-63 were £5723 (Rs. 57,280). The average area under cultivation was 139,966 acres. During the ten years ending 1873 the arable waste averaged 1843 acres, and the occupied area 142,225 acres, but the collections amounted to £5550 (Rs. 55,500). The fall in average revenue was

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1 The details are:

Supa Produce Rupee Prices, 1844-1873.

<table>
<thead>
<tr>
<th></th>
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<td>25</td>
<td>32</td>
<td>1864</td>
<td>12</td>
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<td>1873</td>
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<td>1845</td>
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<td>1855</td>
<td>30</td>
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<td>1874</td>
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<td>1875</td>
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<td>5</td>
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<td>1877</td>
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<td>1878</td>
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</tr>
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<td>1850</td>
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<td>32</td>
<td>1860</td>
<td>25</td>
<td>5</td>
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<td>32</td>
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<td>1879</td>
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<td>25</td>
</tr>
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<td>1861</td>
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<td>1871</td>
<td>32</td>
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<td>1862</td>
<td>25</td>
<td>5</td>
<td>1872</td>
<td>32</td>
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<td>1881</td>
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<td>1853</td>
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<td>1863</td>
<td>25</td>
<td>5</td>
<td>1873</td>
<td>32</td>
<td>32</td>
<td>1882</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

Bom, Gov. Sel. CLl. 516.

n 1327—63

Chapter VIII.
Land.

Revision Survey.
Supa, 1873-74.
due to the very large remission allowed in 1866-67, which amounted to £1859 (Rs. 18,590) or one-third of the entire assessment. With this exception the remissions since 1854 were nominal. The following statement gives the average tillage and collections during the survey lease:

Supa Tillage and Revenue, 1843-1873.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>OCCUPIED</th>
<th>UNOCCUPIED</th>
<th>TOTAL</th>
<th>REMISSIONS</th>
<th>COLLECTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area</td>
<td>Rental</td>
<td>Area</td>
<td>Rental</td>
<td>Area</td>
</tr>
<tr>
<td>1843-1853</td>
<td>138,664</td>
<td>50,554</td>
<td>15,190</td>
<td>6152</td>
<td>141,754</td>
</tr>
<tr>
<td>1853-1863</td>
<td>129,906</td>
<td>56,428</td>
<td>2225</td>
<td>1212</td>
<td>142,721</td>
</tr>
<tr>
<td>1863-1873</td>
<td>142,328</td>
<td>67,509</td>
<td>1545</td>
<td>612</td>
<td>144,688</td>
</tr>
</tbody>
</table>

During the survey lease population increased from 22,795 in 1843 to 32,722 in 1873 or 43.5 per cent; houses from 3804 to 4304 or 13 per cent; wells from 1003 to 1720 or 71 per cent; carts from 191 to 578 or 202 per cent; ploughs from 1110 to 1457 or 31.2 per cent; buffaloes from 1252 to 1654 or 32 per cent; cows from 9946 to 11,649 or 17 per cent; bullocks, draught and plough, from 12,907 to 14,256 or 10.4 per cent; and sheep and goats from 18,934 to 24,663 or 30.3 per cent. Horses showed a fall from 1150 to 544 or 56.6 per cent.

Of the new wells 44 were built in the first ten years, 148 in the second ten years, and 225 in the last ten years of the survey lease.

The condition of the people was on the whole good. Few of them were hopelessly involved and every village had some families who were free from debt. At Pandára there were many stacks of straw two years old still undisposed of, though the third year's crop was in the ground and ready to cut. Many of the villages especially the larger ones showed signs of having once been more populous. In numerous instances this apparent fall in the population and ruined appearance of the larger villages was owing to the fact that landholders whose fields lay far from the village site, had built themselves huts and lived there permanently, allowing their village houses to go to ruin. Thus the apparent desolation was in many cases a sign of increased security of life and property.

It was a common practice in this as in other sub-divisions for the cultivators to sell their crops in a lump or khoti while still unripe. In 1872 in the Supa group the prices realized varied from 31 times to a little less than 1½ times the new assessment. The highest sum realized was from the poorest field the classification of which was only 1½ annas. The total collections in twenty cases of lump or

1 The tillage area rose from 115,000 acres in 1843-44 to 133,000 acres in 1847-48 and fell to 128,000 in 1849-50. After 1849-50 it rose to a little over 140,000 in 1857-58 and stood at about 142,000 during the remaining fifteen years. The remissions were about Rs. 5000 in 1844-45, Rs. 5000 in 1850-51, and Rs. 18,000 in 1866-67. In other years there were little or no remissions. The collections rose from Rs. 44,000 1843-44 to Rs. 54,000 in 1847-48 and fell to Rs. 44,000 in 1850-51. They then rose to Rs. 56,000 in 1855-56 and stood at about Rs. 57,000 during the next ten years. In 1866-67 they were Rs. 39,000 and again stood at about Rs. 57,000 during the next six years. Survey Diagram, Bon. Gov. Sel. Clf. 614.
khoti sales were £217 16s. (Rs. 2178) on which the proposed assessment came to £37 (Rs. 370) or about one-sixth. This did not represent the gross produce of the land, since the middle-man must, besides the element of risk, cover the expenses of watching, reaping, and harvesting.¹

Thirty-nine villages were arranged in four classes with highest drycrop acre rates varying from 2s. 9d. to 2s. (Rs. 1 1/2). Two villages close to the road from Sátára by the Nira bridge to Poona were placed in the first class and charged a rate of 2s. 9d. (Rs. 1 1/2); twelve villages along the western boundary and on the road to the Kedgaon station were placed in the second class and charged a rate of 2s. 6d. (Rs. 1 1/2); twelve villages to the east and south of the preceding class were placed in the third class and charged a rate of 2s. 3d. (Rs. 1 1/2); and thirteen villages in the south-east of this revision survey group were placed in the fourth class and charged a rate of 2s. (Rs. 1). No rice was grown in any of these villages and the channel irrigation was very poor. The proposed highest channel water acre rate was 4s. (Rs. 2). Compared with the preceding year’s collections the revised survey rental showed an increase from £5746 to £8171 (Rs. 57,460 - Rs. 81,710) or 42 per cent. The following statement shows the effect of the survey:²

Supa Revision Settlement, 1873.

<table>
<thead>
<tr>
<th>Settlement</th>
<th>Occupied</th>
<th>Unoccupied</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area</td>
<td>Rental</td>
<td>Area</td>
</tr>
<tr>
<td>Proposed</td>
<td>Acres.</td>
<td>Rs. 142,253</td>
<td>Acres</td>
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<tr>
<td>Existing</td>
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<td>81,713</td>
<td>159</td>
</tr>
<tr>
<td>Increase</td>
<td>14,693</td>
<td>24,252</td>
<td>-272</td>
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</tbody>
</table>

The Survey Commissioner proposed a few modifications. He removed the first class, and transferred a few villages from the second to the third class, and from the third to the fourth class. Government sanctioned the settlement as modified by the Survey Commissioner.³

In 1874-75 the rainfall was 27 inches at Indápur, 38 at Poona, 25 at Junnar, and 92 at Khadkála. The season was on the whole favourable both for early and late crops. In some villages of Haveli, Indápur, Bhimthadi, and Khed the early crops were slightly damaged by excessive rain in September and October. In a few villages of Junnar considerable damage was caused by insects called nákyádás. Public health was generally good. Slight cattle disease was present in some sub-divisions.⁴ Tillage fell from 1,901,205 to 1,884,679 acres, collections rose from £99,117 to £118,333 (Rs. 9,91,170 - Rs. 11,83,330), £4061 (Rs. 40,610) were remitted, and £720 (Rs. 7200) left outstanding. At Indápur the rupee price of Indian millet fell from about 48 to 60 pounds (24-30 shers).

¹ Bom. Gov. Sel. CLI 512.
About the close of 1874 a fall in the price of grain\(^1\) led Government to set limits to the amounts by which the former rates might be enhanced and to reduce some of the enhanced settlements which had been introduced into Poona. It was right that Government should take advantage of the discovery of land held without payment, should correct mistakes in measuring and in classing, should share with the people the benefits derived from better roads and from the opening of railways, and should receive a share of the profit which the rise in produce prices caused to the landholders. As it no longer seemed probable that the high prices which ruled during the ten years ending 1872 would continue, Government ordered that the increase in revenue in any village group should never be more than thirty-three per cent; that the increase in a single village should never be more than sixty-six per cent, and that the increase in an individual rental should never be more than 100 per cent. To bring the amounts of enhancement, which had been sanctioned in some of the revised portions of Poona,\(^2\) into accord with these rules, Government proposed that the necessary changes should be made on the following principles. The highest rates in the group were to be so reduced as to bring the increase in the total revenue of the group within the limits of fifty per cent. When this was done, any case in which the increase in a village was still above 75 per cent, or in an individual holding above 100 per cent, should be reported for orders with distinct recommendations from the survey officers whether further changes were necessary, and if so how they should be made. Government hoped that in groups originally settled after 1848, little or no field operations would be required, and that the revision of the assessment by a mere readjustment of the highest rates would be found to be sufficient.\(^3\)

In accordance with these instructions in 1875-76 the survey officers made proposals for reducing the revised assessment of Indápur, Bhimthadi, Haveli, Pábal, and Supa. The actual settlements finally sanctioned by Government are given below, showing their

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\(^1\) Indian millet rupee prices were in Bhimthadi 14\(^\frac{1}{4}\) sars in 1868-69, 19\(^\frac{1}{4}\) in 1869-70, 17\(^\frac{1}{4}\) in 1870-71, 12 in 1871-72, 22\(^\frac{1}{2}\) in 1872-73, 30 in 1873-74, 32 in 1874-75, and 36 in 1875-76; in Indápur 15 in 1871-72, 17 in 1872-73, 30 in 1873-74, 46 in 1874-75, and 37 in 1875-76. Collector of Poona, 4376 of 7th June 1884. The Indápur figures here given differ from those given in the statement on page 512.

\(^2\) The details (Bom. Gov. Sel. Clr. 174) are:

Poona Survey Settlements, 1836 - 1844 and 1865 - 1875.

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>Original Settlement</th>
<th>Revised Settlement</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indápur</td>
<td>228,125</td>
<td>81,391</td>
<td>5.5</td>
</tr>
<tr>
<td>Bhimthadi</td>
<td>199,410</td>
<td>86,464</td>
<td>7.3</td>
</tr>
<tr>
<td>Haveli</td>
<td>137,619</td>
<td>89,555</td>
<td>10.2</td>
</tr>
<tr>
<td>Pábal</td>
<td>191,206</td>
<td>105,258</td>
<td>10.1</td>
</tr>
<tr>
<td>Supa</td>
<td>147,244</td>
<td>59,926</td>
<td>6.6</td>
</tr>
</tbody>
</table>

percentage increase on the original thirty years' settlements introduced between 1836 and 1844.¹

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>Villages</th>
<th>Settlements 1836-1844.</th>
<th>Reduced Revision Settlements, 1875-76.</th>
<th>Increase over 1836-44.</th>
<th>Average Dry-crop Acre Rate.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indapur</td>
<td>78</td>
<td>Rs. 81,184</td>
<td>Rs. 1,11,866</td>
<td>38</td>
<td>6 8</td>
</tr>
<tr>
<td>Bhimthadi</td>
<td>48</td>
<td>Rs. 74,222</td>
<td>Rs. 1,13,772</td>
<td>40</td>
<td>8 9</td>
</tr>
<tr>
<td>Haveli</td>
<td>83</td>
<td>Rs. 90,665</td>
<td>Rs. 1,30,883</td>
<td>41</td>
<td>11 10</td>
</tr>
<tr>
<td>Pabal</td>
<td>59</td>
<td>Rs. 1,02,238</td>
<td>Rs. 1,39,479</td>
<td>26</td>
<td>11 2</td>
</tr>
<tr>
<td>Supa</td>
<td>39</td>
<td>Rs. 57,461</td>
<td>Rs. 72,303</td>
<td>26</td>
<td>...</td>
</tr>
</tbody>
</table>

In 1875-76 the rainfall was 21 inches at Indapur, 38 at Poona, 34 at Junnar, and 116 at Khadkála, a full supply, but, as the falls were ill-timed, the season was unfavourable. An excessive fall, when the early crops were still young, did so much damage that many tracts had to be resown. In a few villages of Haveli and Sirur the crops were slightly injured by locusts. The rice in Maval suffered from early floods and later from want of rain. The outturn of the early crops was not more than ten-sixteenths to twelve-sixteenths; in many places it was much less. In the eastern or late crop parts the rainfall was short, and the crops were far below the average. In Indapur, Bhimthadi, and south Sirur jvári withered for want of rain, and in many places did not grow more than eighteen inches high. The late harvest was less than a half crop and the outturn of cotton was not more than a fourth. The district suffered from a severe outbreak of cholera which began in the hot weather and continued until October (1875). More than 4000 seizures were fatal. About 1000 head of cattle died from disease.² Tillage fell from 1,884,679 to 1,875,669 acres and collections from £118,933 to £112,673 (Rs. 11,83,330 - Rs. 11,26,730), £8480 (Rs. 34,800) were remitted, and £703 (Rs. 7030) left outstanding. At Indapur the rupee price of Indian millet rose from about 60 to 56 pounds (30 - 28 shers).

In 1876-77 the rainfall was 5 inches at Indapur, 15 at Poona, 17 at Junnar, and 77 at Khadkála. In the east 1876-77 was a year of famine. The rainfall was very scanty and the crops failed. The Maval rice suffered considerably. In the west of Junnar Khed and Haveli the early crops were fair perhaps six to seven-sixteenths. In the east of these sub-divisions and in Indapur and Bhimthadi, except in watered land no early crops were grown. Late crops were sown in parts of Maval, Haveli, Sirur, and Purandhar, but none were sown in Indapur or in Bhimthadi. All over the district the late harvest was an almost complete failure. Great distress prevailed and relief works had to be provided.³ Public health on the whole

¹ Bombay Gov. Sel. CII. The highest dry-crop acre rates finally sanctioned were Indapur, Rs. 11, Rs. 13; Bhimthadi, Rs. 16, Rs. 15, Rs. 14, Rs. 1; Haveli Rs. 34, Rs. 26, Rs. 2, Rs. 2, Rs. 15, Rs. 16, Rs. 14; Pabal Rs. 21, Rs. 2, Rs. 12, Rs. 16, Rs. 15, Rs. 14; Supa Rs. 14, Rs. 13, Rs. 1.
³ A summary of the 1876-77 famine details is given under Agriculture Chap. IV.
was good. Cholera appeared in some parts and caused 651 deaths. Cattle disease prevailed slightly. In the east many cattle died of starvation and thousands were driven to the west for grazing.¹ Tillage fell from 1,875,669 to 1,864,475 acres and collections from £112,673 to £70,321 (Rs. 11,26,730 - Rs. 7,03,210), £174 (Rs. 1740) were remitted, and £45,683 (Rs. 4,56,830) left outstanding. At Indápur the rupee price of Indian millet rose from about 36 to 38 pounds (28-19 shers).

In 1877-78 the rainfall was 23 inches at Indápur, 20 at Poona, 17 at Junnar, and 51 at Khadkdála. In the east and south-east a long break damaged the early crops but in the west the early harvest was above the average. The late crops were much injured by blight and in some places towards the east they entirely failed. Fever was very prevalent, and there were 3196 deaths from cholera.² Tillage rose from 1,864,475 to 1,868,193 acres and collections from £70,321 to £110,148 (Rs. 7,03,210 - Rs. 11,01,480), £135 (Rs. 1350) were remitted, and £8866 (Rs. 88,660) left outstanding. At Indápur the rupee price of Indian millet rose from about 38 to 18 pounds (19-9 shers).

In 1878-79 the rainfall was 29 inches at Indápur, 33 at Poona, 39 at Junnar, and 73 at Khadkdála. In the west the early crops were good; in the east they were almost destroyed by untimely rain and to some extent by locusts. In the west the late harvest was an average one; in the east it was almost destroyed by rats. Numbers of the poorer husbandmen took work on the Nira Canal. Public health was generally good.³ Tillage fell from 1,868,193 to 1,861,631 acres and collections from £110,148 to £104,030 (Rs. 11,01,480-Rs.10,40,300), £25 (Rs. 250) were remitted, and £10,864 (Rs.1,08,640) left outstanding. At Indápur the rupee price of Indian millet fell from about 18 to 20 pounds (9-10 shers).

In 1878-79 revised assessments were introduced into thirty-five Government and one reversionary or dumála village, and survey rates were for the first time introduced into four reversionary or dumála villages in Purandhar. Most of these villages had belonged to the Sásvd mámlátár’s division of Purandhar which was settled in 1847. Of the thirty-five Government villages the revised settlement was proposed for a group of seventeen villages in April 1878 and for a group of eighteen Government villages in February 1879.⁴ The Purandhar sub-division was bounded on the

⁴ Purandhar formerly included two divisions, the subha or mámlátár’s charge with the head-quarters at Sásvd and the peta or mahálkari’s charge with the head-quarters at Supa. The Supa group which was settled in 1844 included fifty-nine villages, forty-five Government and fourteen alienated. The Sásvd group which was settled in 1847 included seventy villages, thirty-two Government and thirty-eight alienated. In 1861-62 the office of mahálkari was abolished and the villages of his division were included within the limits of the mámlátár’s division. In the following year 1862-63 eight villages were transferred from the adjoining sub-division of Havell and finally in 1866-67 forty-five villages, thirty-seven Government and eight alienated were made over to the Bhàndhí sub-division. These changes left for Purandhar in April 1878 ninety-two villages, sixty-seven Government and twenty-five alienated.
north and north-east by Haveli and Bhimthadi which were separated from Purandhar by the Bhuleshvar range which rose about 1000 feet from the plain. Purandhar was bounded on the east by Bhimthadi, on the south by the river Nira which separated Poona from Sâtâra, and on the west by the Pant Sachiv's territory and a portion of Haveli. The rainfall in the Purandhar sub-division varied from 14-62 inches in 1872-73 to 31-26 inches in 1874-75 and averaged 20-24 inches.\(^1\) The husbandry in Purandhar did not differ from that in the neighbouring sub-divisions except that the land was oftener ploughed, the light soils yearly and the heavier black soils once in two years. The landholders showed more energy in the cultivation of their fields. The sub-divisions of land property, as a rule, were minute and its market value was high. Manure was applied to the drycrop soils only when the farmer found he had it to spare. Watered lands when made ready for sugarcane generally got as much as fifty cartloads the acre, while twenty to thirty cart loads the acre sufficed for ordinary garden crops. The manure consisted of the usual farm-yard refuse or sheep droppings. In most of the first group of nineteen villages, seventeen Government and two alienated, it was customary to raise a second crop of grain after bajri or other khari crops had been cleared. According to Mr. Whitcombe the classing assistant who reported on these nineteen villages, the sugar manufactured in this sub-division was much prized for its firmness which enabled it to stand travelling. It fetched about 4s. (Rs. 2) the palla of 120 akers more than the jâgri manufactured elsewhere. The Purandhar sugarcane had the peculiarity of being kept eighteen months on the ground. The people said that by keeping it so much longer the sugar-making power of the juice was greatly increased. The cane was planted in May or June and cut in November or December of the following year. The early crops were 51-5 per cent and the late crops, including 14 per cent of fallow land, were 48-5 per cent. The chief crop was bajri 48 per cent and the next was jâvari 27-2 per cent.\(^2\)

During the term of the survey lease road communications had been greatly improved. In 1847 the Poona-Sâtâra road by the Bápdev pass was the only made road. This pass was very steep and

\(^1\) The details are:

\begin{center}
<table>
<thead>
<tr>
<th>Year</th>
<th>Purandhar</th>
<th>Pátas.</th>
<th>Bârtmati</th>
<th>Haveli</th>
</tr>
</thead>
<tbody>
<tr>
<td>1871-72</td>
<td>17-77</td>
<td>12-60</td>
<td>12-20</td>
<td>19-38</td>
</tr>
<tr>
<td>1872-73</td>
<td>14-62</td>
<td>12-10</td>
<td>20-77</td>
<td>20-20</td>
</tr>
<tr>
<td>1873-74</td>
<td>17-77</td>
<td>14-18</td>
<td>19-17</td>
<td>26-20</td>
</tr>
<tr>
<td>1874-75</td>
<td>31-26</td>
<td>25-54</td>
<td>26-31</td>
<td>37-75</td>
</tr>
<tr>
<td>1875-76</td>
<td>29-58</td>
<td>12-35</td>
<td>6-61</td>
<td>37-43</td>
</tr>
<tr>
<td>1876-77</td>
<td>17-54</td>
<td>6-0</td>
<td>7-34</td>
<td>14-20</td>
</tr>
<tr>
<td>Average</td>
<td>20-24</td>
<td>15-0</td>
<td>14-45</td>
<td>20-16</td>
</tr>
</tbody>
</table>
\end{center}

\(^2\) The 1875-76 details for seventeen Government and one alienated village were: Early or khari, bajri 48 per cent, rice one per cent, matki 0-4, hulgâ 0-3, udid 0-1, and miscellaneous 1-7, total 51-5. Late or rabi, jâvari 27-2, wheat 2, sugarcane 1-1, gram 0-7, miscellaneous 5-5, waste or fallow 14, total 49-5.
little used by carts. Pack bullocks brought most of the surplus produce to the Poona market. In 1878 the Bapdev pass road was used by local carts as a means of communication from the villages near it to the chief market town of Sásvad. Here the road joined the comparatively new road to Poona over the Diva pass. From Sásvad numerous roads branched, one to Jejuri where it was joined by the main road from the Diva pass. Half-way from the Bapdev pass on the road to Sásvad branched off another road to the fort of Purandhar, but since the completion of the Diva pass road this was not much used. Another road fairly metalled but not bridged, left Sásvad to the south-west, and, after passing through the Safgir pass, joined the main road from Poona to Sátára by the Kátraí pass. The Kátraí pass road, after passing through the lands of some of the south-western villages of Purandhar, crossed the Nira river not far from the market town of Kikvi. Another unbridged made road left Sásvad on the south and crossed the Pimpal pass close to the village of Parincha and thus on to the river Nira not far from the village of Tondla. Another road practicable for carts left the main road from the Diva pass, close to the village of Belsar, and crossed the Bor pass to the Urali railway station. Besides these metalled roads, during the 1876-77 famine three other fair weather roads were laid out as relief works. One of them joins Sásvad with Supa, and the other two start from Jejuri and pass east. Where thirty years before there was only one made road, in 1878 there were numerous lines of communication affording every facility for the conveyance of surplus produce to the different large markets the chief of which was Poona. The chief manufactures were cotton cloth or lugdis, blankets or kámblis, and bangles. One hundred looms were devoted to the weaving of lugdis and twenty-one to the making of kámblis. The best of both were taken to the Poona market where they found a ready sale. The prices for lugdis ranged from 5s. to £1 (Rs. 2½-10), and the highest price that the best class of kámblis fetched was 6s. (Rs. 3). At the village of Mandar coarse glass bangles were made costing about 6d. (4 as.) the hundred. The local markets were at Sásvad, Vala, Parincha, and Kikvi. Except Sásvad they were of no great importance. Almost the whole of the surplus field produce went to Poona.

During the thirty years ending 1877 the Sásvad produce prices had risen from an average of 85 pounds of juári the rupee during the ten years ending 1857 to 42 pounds during the ten years ending 1867 or 102 per cent. The average for the next ten years (1867-1877) 44 pounds showed a fall of 5 per cent compared with the ten years ending 1867 and a rise of 93 per cent compared with the ten years ending 1857. The corresponding figures for bání were 70 pounds in the ten years ending 1857, 36 in the ten years ending 1867, and 36 in the ten years ending 1877; for wheat 58 pounds, 29 pounds, and 27 pounds; for gram 61 pounds, 28 pounds, and 29 pounds; and for rice 86 pounds, 20 pounds, and 20 pounds. Thus, as regards the three chief grains juári bání and wheat, the landholder was nearly 100 per cent better off in the last ten than in the first ten years of the 1847 settlement. Compared with those of the second ten years (1857-1867) the average prices during the last ten years (1867-1877) showed a
slight fall. But the high average of the ten years ending 1867 was chiefly owing to the extreme dearness of grain between 1861 and 1866. In 1862 the price was higher even than in the 1877 famine. Compared with the ten years before the 1847 settlement the average waste acres in fifteen Government villages during the ten years ending 1857 showed a fall from 2046 to 1148, in the next ten years to 373, and in the last ten years ending 1877 to 214 acres. Average remissions fell from £230 (Rs. 2300) in the ten years before the settlement to £8 (Rs. 80) in the first ten years and to 4s. (Rs. 2) in the second ten years. In the last ten years there were no remissions. The occupied acres of Government and alienated land rose from 19,834 in the ten years ending 1847 to 40,209 in the ten years ending 1857, to 41,225 acres in the ten years ending 1867, and to 41,420 acres in the ten years ending 1877. The average collections on these lands did not show much rise, the amounts being £1792 (Rs. 17,920) during the ten years (1837-1847) before the settlement, £1693 (Rs. 16,930) during the first ten years, £1813 (Rs. 18,130) during the second ten years (1857-1867), and £1839 (Rs. 18,390) in the last ten years ending 1877. The following tabular statement gives the results:

<table>
<thead>
<tr>
<th>Year</th>
<th>Government Villages</th>
<th>Tillage</th>
<th>Waste</th>
<th>Remissions</th>
<th>Outstanding</th>
<th>Collections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1837-1847</td>
<td>15</td>
<td>19,834</td>
<td>2046</td>
<td>2300</td>
<td>2</td>
<td>17,924</td>
</tr>
<tr>
<td>1847-1857</td>
<td>15</td>
<td>40,209</td>
<td>1148</td>
<td>80</td>
<td>2</td>
<td>16,932</td>
</tr>
<tr>
<td>1857-1867</td>
<td>15</td>
<td>41,225</td>
<td>373</td>
<td>2</td>
<td>1</td>
<td>18,130</td>
</tr>
<tr>
<td>1867-1877</td>
<td>15</td>
<td>41,420</td>
<td>214</td>
<td>2</td>
<td>2</td>
<td>18,390</td>
</tr>
</tbody>
</table>

According to Colonel Laughton there was a gradual and steady rise in collections until 1874 when the receipts reached within £1 2s. (Rs. 11) of the total survey rental. During the thirty years' lease in the fifteen Government villages settled in 1847-48, population increased from 13,482 in 1847-48 to 18,895 in 1876-77 or 22 per cent, and the density to the square mile from 184 to 224; flat roofed and tiled houses increased from 2239 to 2680 or 19.7 per cent and thatched houses from 250 to 293 or 15.1 per cent; ploughs from 555 to 757 or 36.4 per cent and carts from 60 to 315 or 425 per cent. The value of land was very high. Though the information cannot be considered more than a rough indication of the true value it is worthy of note that in fifteen mortgages sums ranging from eight to 420 times and in seven sales sums ranging from seven to 389 times the yearly land assessment were realized. Subletting was common but nowhere for cash payments. It was chiefly on the ardhalt that is half-share plan, by which the holder who paid the Government assessment exacted half of the produce from the tenant, and supplied half of the seed, and, in

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1 Col. Laughton has shown that the apparently doubling of the area held for tillage during the first ten years is partly due to the conversion of bighas into acres at the rate of 4ths of an acre equal to one bigha.

2 Col. Laughton shows that these returns may mislead because the sums entered as paid may include the accumulated interest of years of outstanding accounts.

Chapter VIII

Land.

Revision Survey.

Purandhar, 1879.
Chapter VIII.

Land.

Revised Survey.

Purandhar, 1879.

the case of garden land, half of the cost of ropes and of manure. Under the revision survey the seventeen Government villages were arranged in four classes with highest dry-crop acre rates of 3 s. 6 d., 3 s. 3 d., 3 s., and 2 s. 9 d. (Rs. 1 ½, 1 ¼, 1 ¼, and 1 ⅛). The effect of the proposed settlement was an increase of 45 7 per cent and a rise in the average acre rate from 1 s. 4 d. to 1 s. 5 ⅚ d. (8 ½ - 11 ½ as.). The details are:

<table>
<thead>
<tr>
<th>CLASS</th>
<th>GOVERNMENT VILLAGES</th>
<th>FORMER SURVEY</th>
<th>REVISION SURVEY</th>
<th>INCREASE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acres</td>
<td>Rs.</td>
<td>Acres</td>
<td>Rs.</td>
</tr>
<tr>
<td>I. ...</td>
<td>1</td>
<td>3618</td>
<td>3257</td>
<td>3569</td>
</tr>
<tr>
<td>II. ...</td>
<td>2</td>
<td>1701</td>
<td>1589</td>
<td>1636</td>
</tr>
<tr>
<td>III. ...</td>
<td>10</td>
<td>23,262</td>
<td>19,633</td>
<td>23,510</td>
</tr>
<tr>
<td>IV. ...</td>
<td>4</td>
<td>8025</td>
<td>7257</td>
<td>8091</td>
</tr>
<tr>
<td>Total...</td>
<td>17</td>
<td>36,589</td>
<td>35,173</td>
<td>36,757</td>
</tr>
</tbody>
</table>

The Government unoccupied waste was 133 acres assessed at £2 18 s. (Rs. 29) or an average acre rate of 5 ⅔ d. (3 ½ as.).

Government ordered that the proposed rates might be adopted with such modifications as the Survey Commissioner might think necessary, reporting them for the sanction of Government.

The details of the settlement finally sanctioned are:

<table>
<thead>
<tr>
<th>CLASS</th>
<th>GOVERNMENT VILLAGES</th>
<th>DRY CROP LAND</th>
<th>FORMER</th>
<th>REVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rental</td>
<td>Proposed</td>
<td>Highest Acre Rates</td>
<td>Sanctioned</td>
</tr>
<tr>
<td></td>
<td>Rs.</td>
<td>Rs.</td>
<td>Per Cent</td>
<td>Rs.</td>
</tr>
<tr>
<td>I. ...</td>
<td>1</td>
<td>3257</td>
<td>4840</td>
<td>48 6</td>
</tr>
<tr>
<td>II. ...</td>
<td>2</td>
<td>1589</td>
<td>1963</td>
<td>23 3</td>
</tr>
<tr>
<td>III. ...</td>
<td>1</td>
<td>11,244</td>
<td>18,718</td>
<td>22 0</td>
</tr>
<tr>
<td>IV. ...</td>
<td>1</td>
<td>1273</td>
<td>1382</td>
<td>8 6</td>
</tr>
<tr>
<td>V. ...</td>
<td>2</td>
<td>1873</td>
<td>1765</td>
<td>50 0</td>
</tr>
</tbody>
</table>
| Total... | 17 | 18,733 | 23,665 | 20 6 | ... | 24,666 | 31 7 | ...

The proposed dry-crop rental was increased by £98 (Rs. 980) or 4 14 per cent. The proposed water cess was increased from 15s. to 16s. (Rs. 7 ½ - 8) and the total rental from £590 to £625 (Rs. 5900 - 6250), that is a rise of £35 (Rs. 350) or 5 9 per cent. Taking dry-crop and water rates together the proposed rental was increased by 4 ½ per cent. Compared with the former survey the sanctioned revision showed an increase of 52 8 per cent.

1 Col. Laughton, Survey Supt. 324 of 9th April 1878.
The lands of the second group of eighteen Government villages were close to or mixed with the lands of the first group. In climate, husbandry, productions, communications, markets, and manufactures there was no difference. The early crops were 44.6 per cent of which bajri was 34.3 per cent; and the late crops, including 8.2 per cent of waste or fallow, were 55.4 per cent of which 43 per cent were jwari. There were ten looms, one for cotton cloth and nine for blankets. During the thirty-one years of the settlement the area of arable waste fell from 5238 in the ten years ending 1847, to 1293 in the ten years ending 1857, to 404 in the ten years ending 1867, to 176 in the ten years ending 1877, and to 4 in 1877-78. During the ten years before the settlement (1837-1847) remissions amounted to £464 (Rs. 4640) which were reduced to £7 (Rs. 70) in the next ten years. Tillage rose from 20,029 acres in the ten years ending 1847 to 41,550 in the ten years ending 1877, and collections from £1816 (Rs. 18,160) in the first ten years of the settlement (1847-1857) to £1961 (Rs. 19,610) in the ten years ending 1877. The details are:

Purandhar Tillage and Revenue, 1837-1878.

<table>
<thead>
<tr>
<th>Year</th>
<th>Government Villages</th>
<th>Tillage Area (a)</th>
<th>Waste</th>
<th>Remissions</th>
<th>Outstandings</th>
<th>Collections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1837-1847</td>
<td>18</td>
<td>20,029 acres</td>
<td>5238</td>
<td>4636</td>
<td>1290</td>
<td>20,525</td>
</tr>
<tr>
<td>1847-1857</td>
<td>18</td>
<td>39,992 acres</td>
<td>1293</td>
<td>67</td>
<td>278</td>
<td>18,160</td>
</tr>
<tr>
<td>1857-1867</td>
<td>18</td>
<td>41,398 acres</td>
<td>604</td>
<td>1</td>
<td>1</td>
<td>10,275</td>
</tr>
<tr>
<td>1867-1877</td>
<td>18</td>
<td>41,550 acres</td>
<td>176</td>
<td>899</td>
<td>23</td>
<td>19,595</td>
</tr>
</tbody>
</table>

(a) Much faith cannot be placed in the return of area before the introduction of the revenue survey. The record of area was always kept in bighas, which has been turned into acres at 24fs of an acre to the bigha. This is not correct, for the bigha varied according to the nature of the soil. Probably in the best black soil the assumed proportion was fair enough. In the poor or barad soils the bigha represented three or more acres. (Colonel Laughton, Feb. 1870.)

During the first settlement lease population increased from 9451 in 1847-48 to 11,617 in 1877-78 or 22.9 per cent; flat roofed and tiled houses from 1219 to 1441 or 18.2 per cent; carts from 105 to 232 or 121 per cent; and watering wells from 201 to 275 or 36.8 per cent. Thatched houses decreased from 326 to 250 or 23.3 per cent; farm cattle from 4823 to 3878 or 19.7 per cent; and ploughs from 615 to 505 or 17.9 per cent. Under the revision survey these eighteen Government villages were arranged into six classes with highest dry-crop acre rates varying from 5s. 6d. to 2s. 9d. (Rs. 2 5/12 - 1 1/2). The effect of the proposed settlement was an increase of 34.3 per cent exclusive of water cess or 39 per cent inclusive of water-cess. The average acre rate rose from 1s. 4 1/2d. (8 1/3 as.) to 1s. 4 2/3d. (11 1/3 as.). The considerations which justified the increase were the improvement in communications, in the price of food grains, and in the value of land. There were only fifty-two acres of rice in which a highest acre rate of 16s. (Rs. 8) was proposed, and the actual highest acre rate was 6s. (Rs. 3) and the lowest 10 1/3d. (7 as.). The average acre rate amounted to 4s. 5 2/3d. (Rs. 2 as. 3 1/2) all new rice land was assessed at simple dry-crop rates. Garden land was found in every village and amounted to a total of 1435 acres. For the channel-watered portion of this land a highest acre rate of 16s. (Rs. 8), combining soil and water, was proposed. The details of the proposed settlement are:
Chapter VIII.

Land.

REVISION SURVEY.

Purandhar, 1879.

Purandhar Revision Settlement, 1879.

<table>
<thead>
<tr>
<th>Class</th>
<th>Government Villages</th>
<th>Survey Area</th>
<th>Survey Rental</th>
<th>Revision Area</th>
<th>Revision Rental</th>
<th>Increase</th>
<th>Highest Dry Crop Acre Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>2</td>
<td>43124</td>
<td>28112</td>
<td>44966</td>
<td>29411</td>
<td>28.9</td>
<td>2.5</td>
</tr>
<tr>
<td>II</td>
<td>3</td>
<td>1644</td>
<td>1205</td>
<td>1800</td>
<td>1050</td>
<td>35.7</td>
<td>2.0</td>
</tr>
<tr>
<td>III</td>
<td>2</td>
<td>57214</td>
<td>3065</td>
<td>6500</td>
<td>4750</td>
<td>37.5</td>
<td>1.4</td>
</tr>
<tr>
<td>IV</td>
<td>1</td>
<td>242</td>
<td>134</td>
<td>245</td>
<td>127</td>
<td>2.4</td>
<td>1.8</td>
</tr>
<tr>
<td>V</td>
<td>1</td>
<td>1387</td>
<td>800</td>
<td>1481</td>
<td>773</td>
<td>27.8</td>
<td>1.8</td>
</tr>
<tr>
<td>VI</td>
<td>8</td>
<td>22,906</td>
<td>10,553</td>
<td>32,530</td>
<td>15,456</td>
<td>27.8</td>
<td>1.6</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>28,475</td>
<td>18,486</td>
<td>36,500</td>
<td>25,631</td>
<td>30.0</td>
<td>...</td>
</tr>
</tbody>
</table>

Ten acres of Government arable waste were assessed at 4s. (Rs. 2) or an average acre rate of 4½ d. (3½ as.).

1. The proposed settlement was sanctioned in April 1879 with an intimation that the new rates should not be levied till the next year.

In 1879-80 the rainfall was 21 inches at Indápur, 34 at Poona, 36 at Junnar, and 57 at Khadkála, but the falls were untimely. The rice and other early crops were damaged by drought and by rats, and the outturn was middling. From the ravages of rats and from want of moisture, the late crop was only partial and the outturn poor. Government sanctioned a payment of 2s. (Re. 1) for every 100 rats killed and over 350,000 were destroyed. Public health was generally good, except a violent outbreak of cholera in Poona city which caused over 500 deaths.

2. Tillage fell from 1,861,631 to 1,775,553 acres, collections rose from £104,030 to £110,776 (Rs. 10,40,500 - Rs. 11,07,760), £397 (Rs. 3970) were remitted, and £2445 (Rs. 24,450) left outstanding. At Indápur the rupee price of Indian millet rose from about 20 to 18 pounds (10-9 shires).

As many territorial changes took place after the first revenue survey was begun in 1836, to show the results of the survey settlements in the villages of the present (1884) Poona district, special returns were prepared by the survey department in 1880-81. These returns show that the survey settlement has been introduced into 992 Government and 160 aliened villages of the present Poona district which contains 996½ Government and 204½ aliened villages. Between 1867 when the survey leases of the different groups began to fall in, up to 1880 when the special returns were prepared, revised settlements had been introduced into 376½ Government and seven aliened villages.

2. Rev. 2159 of 23rd April 1879. 
5. Of the 1153 villages into which survey rates were introduced, complete details were not available for thirty-eight Government and forty-seven aliened villages. The rate of the progress of the survey was as shown below. In 1836-37, 29 Government villages were settled; in 1837-38, 47; in 1838-39, 26; in 1839-40, 36; in 1840-41, 7; in 1841-42, 70; in 1842-43, 39; in 1843-44, 51; in 1844-45, 1; in 1845-46, 2; in 1846-47, 34; in 1847-48, 54; in 1848-49, 20; in 1849-50, 5; in 1850-51, 112; in 1851-52, 87; in 1852-53,
POONA.

The returns for 954½ Government villages, for which complete details were available, show that, compared with the average of the ten years before the survey, the average for the whole period during which the survey settlement was in force shows a fall in waste from 526,857 to 141,623 acres or 73 per cent and in remissions from £25,717 to £20,121 (Rs. 2,57,170 - Rs. 20,120) or 92 per cent, and an increase in occupied land1 from 1,071,585 to 1,794,197 acres or 73·18 per cent; and in collections from £75,592 to £91,586 (Rs. 7,55,920 - Rs. 9,15,860) or 21 per cent. Compared with the ten years before the survey, the figures for 1879-80 show a fall in waste from 526,857 to 159,553 acres or 69·7 per cent, and in remissions from £25,717 to £393 (Rs. 2,57,170 - Rs. 3930) or 98·47 per cent, and an increase in occupied land from 1,071,585 to 1,855,765 acres or 73·18 per cent; and in collections from £75,592 to £102,415 (Rs. 7,55,920 - Rs. 10,24,150) or 35·48 per cent. The returns for 113½ surveyed alienated villages, for which complete details were available, show that, compared with the ten years before the survey, the average for the whole survey period shows a fall in waste from 21,590 to 7382 acres or 65·8 per cent and in remissions from £5630 to £245 (Rs. 56,300 - Rs. 2,450) or 95·6 per cent; and an increase in occupied land from 200,727 to 276,114 acres or 37·5 per cent, and in collections from £14,498 to £17,614 (Rs. 1,44,980 - Rs. 1,76,140) or 21·49 per cent. Compared with the ten years before the survey the figures for 1879-80 show a fall in waste from 21,590 to 6029 acres or 72 per cent and in remissions from £5630 to £11 (Rs. 56,300 - Rs. 110) or 99·80 per cent, and an increase in occupied land from 200,727 to 277,607 acres or 38·30 per cent, and in collections from £14,498 to £17,614 (Rs. 1,44,980 - Rs. 1,76,140) or 21·49 per cent. The following statement shows for the Government and the alienated or inám villages of each sub-division the chief changes in tillage area, remissions, collections, and outstandings, since the introduction of the revenue survey:

\[\text{133; in 1852-53, 199; in 1854-55, 4; in 1856-57, 32; in 1857-58, 1; in 1858-59, 7; in 1863-64, 5; in 1864-65, 10; in 1868-69, 3; in 1869-70, 2; in 1873-74, 3; in 1874-75, 2; total Government villages 992. In 1837-38 one alienated village was settled; in 1841-42, 3; in 1842-43, 1; in 1846-47, 4; in 1847-48, 1; in 1848-49, 1; in 1852-53, 2; in 1853-54, 2; in 1854-55, 9; in 1855-56, 3; in 1856-57, 6; in 1857-58, 2; in 1858-59, 2; in 1860-61, 1; in 1861-62, 2; in 1863-64, 11; in 1864-65, 48; in 1865-66, 1; in 1866-67, 34; in 1869-70, 10; in 1870-71, 2; in 1871-72, 3; in 1875-76, 12; in 1878-79, 2; in 1879-80, 4; total alienated villages, 160; total Government and alienated villages 1153. The revised survey settlement was introduced in 1867-68 in 76 Government villages; in 1871-72 in 58; in 1873-74 in 175; in 1874-75 in 15; in 1875-76 in 6; in 1878-79 in 9; in 1879-80 in 51; total Government villages 9754. The revised survey settlement was introduced in seven alienated villages, one in 1867-68, one in 1871-72, two in 1873-74, half in 1874-75, half in 1878-79, and two in 1879-80.}

1 Government and alienated occupied land in Government villages. The fall in waste is 385,234 acres while the increase in occupied area is 722,612 acres. The discrepancy is due to imperfect measurements in former years.

2 In this statement before Survey means the average of the ten years before the revenue survey settlement, and Survey means the average of the whole period during which the original and revised revenue survey rates were in force.
### Districts

**Poona Survey Results, 1836-1880.**

<table>
<thead>
<tr>
<th>Sub-Division</th>
<th>Year</th>
<th>Assessed</th>
<th>Collections</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Occupied</td>
<td>Waste</td>
</tr>
<tr>
<td><strong>Government Villages.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maval</td>
<td>Before Survey</td>
<td>45,272</td>
<td>41,271</td>
</tr>
<tr>
<td></td>
<td>1879-79</td>
<td>115,073</td>
<td>12,533</td>
</tr>
<tr>
<td>Junnar</td>
<td>Before Survey</td>
<td>143,561</td>
<td>44,829</td>
</tr>
<tr>
<td></td>
<td>1879-79</td>
<td>288,328</td>
<td>17,899</td>
</tr>
<tr>
<td>Sirur</td>
<td>Before Survey</td>
<td>149,957</td>
<td>74,768</td>
</tr>
<tr>
<td></td>
<td>1879-79</td>
<td>234,974</td>
<td>14,926</td>
</tr>
<tr>
<td>Khed</td>
<td>Before Survey</td>
<td>173,208</td>
<td>54,068</td>
</tr>
<tr>
<td></td>
<td>1879-79</td>
<td>250,678</td>
<td>27,616</td>
</tr>
<tr>
<td>Purandhar</td>
<td>Before Survey</td>
<td>72,504</td>
<td>15,690</td>
</tr>
<tr>
<td></td>
<td>1879-79</td>
<td>144,513</td>
<td>17,690</td>
</tr>
<tr>
<td>Indapur</td>
<td>Before Survey</td>
<td>159,471</td>
<td>73,817</td>
</tr>
<tr>
<td></td>
<td>1879-79</td>
<td>220,060</td>
<td>6,626</td>
</tr>
<tr>
<td>Bhamthali</td>
<td>Before Survey</td>
<td>181,590</td>
<td>63,028</td>
</tr>
<tr>
<td></td>
<td>1879-79</td>
<td>220,800</td>
<td>161,522</td>
</tr>
<tr>
<td>Haveli</td>
<td>Before Survey</td>
<td>123,602</td>
<td>67,563</td>
</tr>
<tr>
<td></td>
<td>1879-79</td>
<td>251,520</td>
<td>13,631</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Before Survey</td>
<td>1,071,585</td>
<td>506,567</td>
</tr>
<tr>
<td></td>
<td>1879-79</td>
<td>1,858,705</td>
<td>159,583</td>
</tr>
<tr>
<td><strong>Inland Villages.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maval</td>
<td>Before Survey</td>
<td>449</td>
<td>321</td>
</tr>
<tr>
<td></td>
<td>1879-79</td>
<td>661</td>
<td>97</td>
</tr>
<tr>
<td>Junnar</td>
<td>Before Survey</td>
<td>972</td>
<td>752</td>
</tr>
<tr>
<td></td>
<td>1879-79</td>
<td>1,65,913</td>
<td>1814</td>
</tr>
<tr>
<td>Sirur</td>
<td>Before Survey</td>
<td>57,234</td>
<td>10,561</td>
</tr>
<tr>
<td></td>
<td>1879-79</td>
<td>55,606</td>
<td>1849</td>
</tr>
<tr>
<td>Khed</td>
<td>Before Survey</td>
<td>15,141</td>
<td>775</td>
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<td></td>
<td>1879-79</td>
<td>41,306</td>
<td>773</td>
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<td>Purandhar</td>
<td>Before Survey</td>
<td>33,243</td>
<td>1773</td>
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<tr>
<td></td>
<td>1879-79</td>
<td>55,778</td>
<td>801</td>
</tr>
<tr>
<td>Indapur</td>
<td>Before Survey</td>
<td>6349</td>
<td>676</td>
</tr>
<tr>
<td></td>
<td>1879-79</td>
<td>6349</td>
<td>676</td>
</tr>
<tr>
<td>Bhamthali</td>
<td>Before Survey</td>
<td>33,493</td>
<td>679</td>
</tr>
<tr>
<td></td>
<td>1879-79</td>
<td>36,125</td>
<td>1</td>
</tr>
<tr>
<td>Haveli</td>
<td>Before Survey</td>
<td>15,360</td>
<td>5752</td>
</tr>
<tr>
<td></td>
<td>1879-79</td>
<td>77,662</td>
<td>2172</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Before Survey</td>
<td>2,60,737</td>
<td>21,690</td>
</tr>
<tr>
<td></td>
<td>1879-79</td>
<td>577,607</td>
<td>6029</td>
</tr>
</tbody>
</table>

In 1880-81 the rainfall was 18 inches at Indapur, 20 at Poona, 18 at Junnar, and 36 at Khadkali. On the whole the rainfall was considerably below the average; but except in the western subdivisions and in north and west Purandhar, the early crops were fair. A seasonal fall in September caused a good late harvest everywhere except in Sirur. The scanty rainfall occasioned a drought during the hot weather in parts of the district. Public health was generally good, but cholera prevailed to a slight extent in Haveli, Purandhar, and Maval, causing 466 deaths.1

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1,775,553 to 1,777,153 acres and collections from £110,776 to £112,790 (Rs. 11,07,760 - Rs. 11,27,900), £133 (Rs. 1330) were remitted, and £1231 (Rs.12,310) left outstanding. At Inddapur the rupee price of Indian millet fell from about 18 to 28 pounds (9-14 shers).

1881-82. In 1881-82 the rainfall was 25 inches at Inddapur, 25 at Poona, 22 at Junnar, 58 at Khadkâla, and 26-52 over the whole district. In June the rainfall was short in the west and good in the east where the sowing of the early or kharif crops was begun. In July the fall was abundant especially in the centre and east, and sowing was general. In a few Junnar and Khed villages the early or kharif crops were slightly injured by insects which the people called nose-cutters or māktodâs. Over the whole district the outturn was about a three-quarters crop (12 as.). The late or rabi crops were seven-eighths (14 as.) of a full crop in Inddapur, and three-fourths (12 as.) in Bhimthadi, Purandhar, and Sirur. Grass and water were plentiful in Inddapur, but want of water was felt in Bhimthadi, Haveli, Junnar, and part of Purandhar. The Indnapur cotton was about a three-quarters (12 as.) crop. Tillage rose from 1,777,153 to 1,786,064 acres and collections from £112,790 to £115,069 (Rs. 11,27,900 - Rs. 11,50,690), £339 (Rs. 3390) were remitted, and £282 (Rs. 2820) left outstanding. At Indnapur the rupee price of Indian millet fell from about 28 to 50 pounds (14-25 shers).

1882-83. In 1882-83 the rainfall was 27·82 inches at Indnapur, 36·23 at Poona, 33·99 at Junnar, 80-27 at Khadkâla, and 35·93 over the whole district. The early rains were good and general. In Haveli, including the Mulshi petty division, excessive rain at the burst of the monsoon destroyed some dams and washed away rice-seed. In the rest of the west the early harvest was good; in the east the early harvest was fair, about a three-eighths (6 as.) crop. The late harvest was nearly ruined but was saved by a heavy fall late in November, and yielded from a five-eighths to a seven-eighths (10-14 as.) crop. Except in Indnapur and Bhimthadi, from the end of September, locusts destroyed from a sixth to a quarter of the crop. The damage was most serious in the western Mâvals where the nāchnâ, vari, and other hill grains suffered severely. Tillage fell from 1,786,064 to 1,775,583 acres and collections from £115,069 to £103,672 (Rs. 11,50,690 - Rs. 10,36,720), £10,865 (Rs. 1,08,650) were remitted, and £966 (Rs. 9660) left outstanding. At Indnapur the rupee price of Indian millet fell from about 50 to 62 pounds (25-31 shers).

1883-84. In 1883-84 the rainfall was 37·48 inches at Indnapur, 47·42 at Poona, 37·58 at Junnar, 73·14 at Khadkâla, and 40·91 over the whole district. The fall was abundant except in Khed, Khadkâla, and the petty divisions of Mulshi and Ambegaon. In the plain or desh villages of Junnar a heavy and timely rainfall favoured the early or kharif crops. They were slightly injured by excessive damp in September and October, and the bôjri was tinged red. The outturn was about a three-fourths (12 as.) crop. In Bhimthadi and Indnapur the late harvest suffered from excessive rain in October and did not yield more than a half (8 as.) crop. Except in Indnapur
The object of the promoters of the agricultural bank scheme is to form an association of local moneylenders and others who will advance money at a comparatively low rate of interest not to exceed twelve per cent to landholders, who, though hampered by

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1 Details regarding locusts are given above under Agriculture Chap. IV.
2 Grain prices were supplied by the Collector, 1011 of 8th Feb. 1884.
3 Mr. Moore, C. S., Collector of Poona, 1884.

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### Poona Tillage and Revenue, 1837-1884.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>GOVERNMENT MILL.</th>
<th>RAINFALL</th>
<th>RURAL MILL. SHOTS</th>
<th>TILLAGE</th>
<th>LAND REVENUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1837-38</td>
<td>32.7</td>
<td>30.4</td>
<td>30.4</td>
<td>29.6</td>
<td>30.4</td>
</tr>
<tr>
<td>1838-39</td>
<td>32.7</td>
<td>30.4</td>
<td>30.4</td>
<td>29.6</td>
<td>30.4</td>
</tr>
<tr>
<td>1840-40</td>
<td>32.7</td>
<td>30.4</td>
<td>30.4</td>
<td>29.6</td>
<td>30.4</td>
</tr>
<tr>
<td>1842-42</td>
<td>32.7</td>
<td>30.4</td>
<td>30.4</td>
<td>29.6</td>
<td>30.4</td>
</tr>
<tr>
<td>1844-44</td>
<td>32.7</td>
<td>30.4</td>
<td>30.4</td>
<td>29.6</td>
<td>30.4</td>
</tr>
<tr>
<td>1846-46</td>
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<td>30.4</td>
<td>30.4</td>
<td>29.6</td>
<td>30.4</td>
</tr>
<tr>
<td>1848-48</td>
<td>32.7</td>
<td>30.4</td>
<td>30.4</td>
<td>29.6</td>
<td>30.4</td>
</tr>
<tr>
<td>1850-50</td>
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<td>30.4</td>
<td>30.4</td>
<td>29.6</td>
<td>30.4</td>
</tr>
<tr>
<td>1852-52</td>
<td>32.7</td>
<td>30.4</td>
<td>30.4</td>
<td>29.6</td>
<td>30.4</td>
</tr>
<tr>
<td>1854-54</td>
<td>32.7</td>
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Deccan.

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debt, are not insolvent. It is proposed that as a preliminary, an experienced covenanted revenue officer be appointed to inquire into the condition of the landholders of the Purandhar sub-division. All who are hopelessly insolvent will be put on one side and with such the bank will have no dealings. As regards others, the special officer will endeavour to effect a compromise with the creditors for the settlement of old debts. If he can succeed in coming to terms with the creditors, they will be paid in money down from the Government treasury in satisfaction of all claims, and the debts will form a rent charge on the lands of the debtors, second to the Government assessment. The instalments are to be fixed at a reasonable amount including interest at nine per cent, with a sinking fund of three per cent to extinguish the original debt. The rent charge, it is suggested, should be taken over by the bank, who would repay Government the amount advanced to meet old debts and would make loans to agriculturists for improvements, for cattle, and for seed; provided the security is sufficient, and provided that Government consent to such loans forming a lien on the crop to be recoverable as arrears of land revenue. The loans would be made on mortgages executed by the agriculturists receiving them and the money advanced would not exceed 60 per cent of the full value of the security. It is believed that the scheme is being delayed owing to doubts on the part of the Government of India of the wisdom of recovering loans made by the bank as arrears of land revenue.

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