

There are six other estates in this tahsil, Nangla Bhawa, Bhagori, Samogar, Sarai Bambu, Nangla Honta, Dhareri, in which owing to deterioration by river action the settlement demand could not be paid and the State, instead of remitting or reducing the *jama* of the land thrown out of cultivation or injured in quality, with its usual inclination for *kham* management decided to make the collections *kham*, i.e., proportionate to the actual cultivation. The Settlement *jama* of these estates was Rs. 6,048 while last year the collections were Rs. 4,362 and the arrears on the nominal demand are Rs. 15,132. All these estates have now agreed to accept a fixed *jama* based on present conditions and any future changes will be taken account of under the diluvion-alluvion rules that will be framed.

In Bhusawar six whole estates (1) Nangla Man Singh, (2) Kotke, (3) Jat Balai, (4) Lalpur, (5) Jiwad,—all of which have suffered from Banganga inundations,—and (6) Sir Sirkar, representing the State *patti* in the town of Weir had come under *kham* management. The measures taken to control the Banganga floods have facilitated the settlement of Nos. (1) to (5). In (1) and (2) the whole area has been settled with the owners, and in (3) to (5) after deducting areas of excess waste to be leased to others for cultivation the rest has been made over to the zamindars; (6) will remain State property but fixed leases for the term of settlement have been given to the cultivators. Besides these six estates the township of Ballabgarh being the personal property of the Jagirdar is managed direct while the Jagir is under attachment and this arrangement will continue in view of its probable restoration.

There are a few other cases pending besides the above mentioned, but in all of these permanent arrangements will be made before giving out the new assessments in order to secure that no estate or holding may remain under direct management.

57. Besides estates managed *kham* in which the owners still live and hold deserted shares or holdings and part of the cultivation, there is a great number of estates or holdings out of those shown in para. 53 still derelict owing to the desertion of the owners and the refusal of the heirs or relations to take them up. In Rupbas there are no such holdings. In Oochain the area is inconsiderable amounting to only 276 *bighas* in the three estates of Lulkari, Atari, and Tehri Brahmin, and this has now been settled generally with the old owners or their heirs or relations.

In Biyana the area still derelict amounts to 2,421 *bighas* in the four estates of Jhamri, Bhuga Maroli, Mehrawar, and Sheopura. In these also arrangements have been made with the old owners where forthcoming or with other agriculturists of the village. These have already been put in possession and have accepted full liability from the present *kharif* harvest.

In Bhusawar for reasons already explained the abandonment of shares and holdings owing to the desertion or refusal of responsibility by the owners had reached a pitch which unless seriously grappled with threatened to involve the whole tahsil. In addition to the large areas transferred under pressure of the assessment and several estates held *kham*, in no less than 49 estates were there 122 deserted holdings or shares covering an area of 19,605 *bighas* assessed at Rs. 15,966. About 80 per cent. of these holdings had been deserted since the settlement of 1890, chiefly in the scarcity of 1895-96. Such holdings were generally managed by the tahsil through the Patwari who leased them to the zamindars of the village or to others at his own discretion. The zamindars had no interest in cultivating the land as this rendered them liable for the full assessment, which was generally excessive, whereas by allowing the land to run out of cultivation they had the benefit of the grazing and no revenue responsibility. In this way the cultivation of such lands gradually fell off, while the arrears being calculated on the nominal *jama* increased, and owing to both these causes no one would come forward to take up these holdings. The prompt settlement of this difficult question was however a necessary preliminary to the re-assessment. Each case was worked up by the Deputy Collector M. Hira Singh and when on tour in November last I called up the Zamindars, fixed the amount of the arrears since last settlement to be realised—generally taking one-

third or one-fourth—and in this way and also by assuring them that the new *jama* would be distributed by soils not by shares encouraged them to assume responsibility. The cases were then made over to the Deputy Collector to perfect the arrangements, which he did with such success that the old owners were induced to return in the majority of cases and resume possession and liability, and where they were not forthcoming other Zamindars in the village or adjoining villages willingly took up the holdings. Where the owners were without adequate means *Takavi* was advanced to them for seed and bullocks to the extent of about Rs. 3,000. Up to 1st April 1895 deserted holdings had been settled in this manner in 44 estates. The present *jama* of the area so settled is Rs. 14,881, and the arrears to be realised Rs. 8,693 out of a total of about Rs. 27,527. All the remaining cases have I think been since settled.

No less than 109 of the old owners have returned—for the most part from foreign territory, and it is estimated that the result of the scheme has been to increase the number of ploughs by 300 and the population by 1,000.

58. The following table shows the population of these tahsils and of the whole State by each census since 1867.

Tahsil.	1867.	1881.	1891.	1898-99.	DETAIL IN 1891 BY SEX AND RELIGION.						
					Males.	Females.	Hindu.	Musliman.	Jain.	Others.	Total.
Bupbas ...	30,322	34,134	30,186	26,362	16,351	13,835	27,656	2,612	18	...	30,186
Oochain ...	50,504	49,849	47,735	43,442	25,885	22,160	43,047	4,239	449	...	47,735
Biyana ...	76,347	76,559	75,126	62,919	40,646	34,480	70,605	4,194	327	...	75,126
Bhusawar ...	72,970	72,341	73,728	62,163	...	...	...	...	...	...	...
Hallabgarh ...	9,999	8,511	8,935	7,550	...	...	...	...	...	...	...
Total ...	82,990	80,882	82,683	69,703	44,134	38,629	77,135	4,969	559	...	82,683
Total of Southern Tahsils	2,63,142	2,40,394	2,36,710	2,02,416	1,26,716	1,08,094	2,18,443	15,914	1,383	...	2,35,710
Total of State ...	7,43,710	6,45,540	6,40,303	6,20,645	3,47,830	2,92,473	5,28,629	1,07,280	4,405	6	6,40,303

The official enumerations show (1) a slight decrease of 2·5 per cent. in these tahsils between 1867 and 1881, whereas the population of the whole State fell off by 13 per cent. in the same period, (2) a further slight falling off of about 2 per cent. between 1881 and 1891 the population of the State showing a decrease of less than one per cent. in that period. As a matter of fact the depopulation by drought, famine, etc., was probably as great in these as in the other tahsils, but has been disguised by the fact that since 1867, several villages have been transferred from the Bharatpur tahsil to Oochain and Biyana and from Akhagarh to Bhusawar. To be quite accurate the comparison should be based on the total population of the villages at present in each tahsil at successive enumerations, but data for this are not forthcoming. The census made during Settlement operations in 1898-99 shows a decline of over 33,000 or 14 per cent. in the population of these tahsils since 1891. This lends colour to the suspicion generally entertained that the figures of 1891 census were "adjusted"—to use a euphemistic term—in order to conceal the falling off in population. When the census of 1867 was made the State was undoubtedly, owing to the careful administration during a long minority, at the high-water mark of prosperity, and the severest comment on the revenue history since then is that in spite of an industrious agricultural population and abundance of waste land, the population of these tahsils and of the whole State so far from expanding has fallen off by over one-sixth. To conclude the subject of population it may be noticed that the excess of males over females is very marked and between the enumerations of 1881 and 1891 the disparity remained constant.



In these tahsils the vast majority of the population is Hindu, the percentages being Hindus 93, Musalman 6.5, Jains .5.

59. I may bring this lengthy but necessary account of the revenue history to a close by a reference to the famine of the year 1899-1900. Thanks to the prompt and liberal action of the administration in suspending a considerable part of the land revenue in granting *Takavi* for wells and seed, and in opening relief-works wherever required, the State though subjected to a very severe strain, has been saved from the general calamity which ruined its prosperity in 1877-78. The following table shows the weekly numbers on relief works and gratuitously relieved throughout the State since the distress took an acute form.

Month.	1st WEEK.			2nd WEEK.			3rd WEEK.			4th WEEK.			5th WEEK.		
	Relief works.	Gratuitous.	Total.	Relief works.	Gratuitous.	Total.	Relief works.	Gratuitous.	Total.	Relief works.	Gratuitous.	Total.	Relief works.	Gratuitous.	Total.
October ...	507	...	507	1,193	105	1,298	1,330	135	1,465	3,046	...	3,046	...	...	...
November ...	1,062	76	1,128	692	62	754	360	37	397	7,494	66	7,560	...	...	...
December ...	8,423	67	8,490	10,257	913	11,170	11,138	83	11,221	11,329	97	11,426	...	...	...
January ...	12,295	81	12,376	11,842	176	12,018	11,183	237	11,420	10,500	326	10,826	...	...	...
February ...	10,238	37	10,325	10,870	876	11,746	11,481	768	12,249	11,567	577	12,144	...	...	...
March ...	...	...	...	11,381	1,045	12,426	10,955	879	11,834	7,175	2,028	9,203	...	...	...
April ...	9,293	962	10,255	10,454	965	11,419	11,456	1,028	12,484	...	...	...	...	...	...
May ...	12,341	1,007	13,348	12,650	1,025	13,675	12,130	1,016	13,146	11,909	1,103	13,012	...	...	...
June ...	11,598	1,209	12,717	10,697	1,148	11,845	11,016	1,033	12,049	...	...	...	...	...	...

The numbers show a steady increase throughout the cold weather up to the end of February, in March a considerable falling off owing to the harvest operations, in April and May again a steady increase, and in June a tendency to go down as the occasional showers attracted labour to the fields. Unfortunately the delay in the advance of the monsoon has increased the tension. The distress has been greatest in and around the city of Bharatpur and in the central and northern tahsils. These four tahsils had a fairly good rainfall last year and the *kharif* crop was from a 6 anna to a 12 anna one, while there was a very fair *rabi* on the sweet wells which form three-fourths of the total number.

59-A. Accordingly the revenue collections have been much better than in the rest of the State as the following figures only just received show.

Tahsil.	Total demand revenue and cesses.	Remission for bail.	BALANCE.			Realised.	BALANCE IN ARREARS.		
			Total.	Amount realisable of which suspended.	Actual demand.		Suspended.	Other.	Total.
	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bupbas ...	1,16,272	...	1,16,272	9,329	1,06,943	80,835	9,329	26,106	35,437
Oochain ...	1,00,384	...	1,00,384	21,609	1,68,775	1,66,992	21,609	1,783	23,393
Biyana ...	2,29,984	...	2,29,984	130	2,29,854	2,21,109	130	8,745	8,875
Bhusawar ...	2,60,701	...	2,60,701	66,675	1,94,026	2,03,410	54,178	3,113	57,291
Ballabgarh ...	33,932	...	33,932	5,614	28,318	31,350	2,582	...	2,582
Total southern Tahsils	8,31,273	...	8,31,273	1,03,357	7,27,916	7,03,696	67,828	39,749	1,07,577
Per cent. ...	100	...	100	12.5	87.5	84.5	10.5	5	15.5

Tahsil.	Total demand revenue and cesses.	Remission for hail.	BALANCE.			Realised.	BALANCE IN ARREARS.		
			Total.	Amount realisable of which suspended.	Actual demand.		Suspended.	Other.	Total.
	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Kumher ...	1,76,865	...	1,76,865	48,353	1,28,512	1,29,143	46,678	1,044	47,723
Akuegarh ...	1,54,525	...	1,54,525	27,120	1,27,405	1,30,848	20,770	2,907	23,677
Bharatpur ...	1,75,632	...	1,75,632	37,602	1,37,940	1,47,402	26,287	1,843	28,130
Nagar ...	3,16,415	16,458	2,99,957	60,957	2,49,000	2,37,872	60,029	11,456	62,085
Paharl ...	2,54,780	2,809	2,51,971	58,584	1,93,387	2,05,073	34,857	12,041	46,898
Kauna ...	1,70,712	4,440	1,72,265	45,397	1,26,868	1,06,162	43,955	22,148	66,103
Dig ...	1,72,917	1,234	1,71,683	59,207	1,12,476	1,03,248	59,207	9,229	68,435
Total remaining tahsils	14,27,746	24,948	14,02,798	3,27,210	10,75,588	10,59,748	2,82,383	60,667	3,43,050
Grand total of State ...	22,59,019	24,948	22,34,071	4,30,567	18,03,504	17,63,444	3,70,211	1,00,416	4,70,627
Per cent. ...	100	1	99	19	80	78	16.5	4.5	21

Thus taking the demand for the whole State—Rs. 22,59,019—as 100, one per cent.—Rs. 24,948—was remitted for damage by hail in the three northern tahsils, 19 per cent.—Rs. 430,567—was placed under suspension, leaving 80 per cent.—Rs. 18,03,504—to be collected. The actual collections came to Rs. 17,63,444 or 78 per cent., while 21 per cent.—Rs. 4,70,627—remained in arrears *viz.*, 16.5 per cent.—Rs. 3,70,211—out of the amount suspended, and 4.5 per cent.—Rs. 1,00,416—out of the actual demand.

In the four southern tahsils 12.5 per cent. of the demand was suspended, leaving 87.5 per cent. to be collected, and the amount collected was 84.5 per cent., leaving 15.5 per cent. in arrears *viz.*, 10.5 per cent. out of the suspended revenue—some of which it was found possible and desirable to collect—and 5 per cent. out of the actual demand.

It will immensely facilitate the working of the of settlement, and remove a fruitful source of future trouble and confusion if these arrears are now disposed of. As a supplement to the proposals in para 52, for the settlement of the arrears down to 1898-99, I now propose that the arrears of 1899-1900 in those tahsils be dealt with as follows:—

Tahsil.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Total arrears ...	35,437	23,392	9,875	67,201	2,592	1,27,677
Proposed for remission ...	25,437	15,892	6,375	44,791	1,592	94,077
" " realisation ...	10,000	7,500	2,500	12,500	1,000	33,500

Then the final result in each tahsil will be—

Tahsil.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Total arrears 1890-91 to 1899-1900 ...	1,66,060	1,62,166	75,525	2,10,245	10,123	6,24,139
Proposed for remission ...	1,36,000	1,34,686	58,025	1,70,245	6,623	5,05,639
" " " realisation ...	30,000	27,500	17,500	40,000	3,500	1,18,500

The total amount proposed for recovery is the most that the tahsils can bear having regard to their past history, present condition, and the future assessment to be proposed.

As regards the remaining tahsils, the question of the arrears of 1899-1900 will be disposed of in communication with the Political Agent and State Council.



## CHAPTER III.

## GENERAL STATISTICS.

Tenures and methods of distributing the revenue.

60. The following table shows the classification of estates in each tahsil according to tenures :—

Tahsil.	Detail.	ZAMINDARI.		PATTIDARI.		BHAYACHARA.		State property.	Kham.	Total.
		Pure.	Joint.	Perfect.	Imperfect.	Perfect.	Imperfect.			
Bapbas ...	Khalsa ...	3	23½	1	34	...	10½	1	½	73½
	Mafi ...	...	2	1	1	...	½	...	...	4½
	Total	3	25½	2	35	...	11	1	½	78
Oochain...	Khalsa ...	1	16	15	43	...	6	2	4	69
	Mafi ...	...	2	...	4	...	1	...	...	7
	Total	1	18	15	47	...	9	2	4	96
Biyana ...	Khalsa ...	...	80	12	92	3	23	1	1	132
	Mafi ...	...	2	2	9	...	3	...	...	16
	Total	...	82	14	91	3	26	1	1	168
Bhusawar	Khalsa ...	1	20	7	102	1	5	4	...	140
	Mafi ...	...	...	...	6	...	3	...	...	9
	Total	1	20	7	108	1	8	4	...	149
GRAND TOTAL		5	95½	38	281	4	54	8	5½	491

The *Kham* estates shown are those which had not been settled when the statistics were prepared. The "State property" includes in Bhusawar (1) the estates of Ballabgarh—really the property of the *Jagirdar*, (2) The *Sir Patti* in Weir—which will be leased to the cultivators for term of settlement, (3) the estate of Nangla Man Singh now given up for cultivation, (4) the State *Rund* of Jiwad. Two-thirds of the estates are held, at least in theory, by shares; one-fifth are owned by a single owner or bodies of joint owners and only one-eighth are held in severalty. This question of tenure will be better understood if considered in connection with the methods of distributing the revenue demand *viz.* :—

Number.	Particulars.	Bapbas.	Oochain.	Biyana.	Bhusawar.	Total.
1	By shares ...	43	44	106	101	294
2	As fixed at settlement on land	4	...	13	3	20
3	By annual soil rates	16	34	29	18	97
4	All-round rate on cultivation	10	9	1	10	30
5	Lump sums (chikots) on holdings	...	...	2	5	7
6	Mafi, Inam and State property	5	9	17	12	43
	Total	78	96	168	149	491

So that only 20 estates have a fixed *Khewat* or distribution over holdings ; three-fifths of the total number pay the jama according to shares ; one-fifth by soil rates, varying according to the cultivation of each year or harvest ; and the rest either by lump sums on holdings or an all-round rate on cultivation.

61. The general system of distributing revenue liability by shares, where proprietary rights are based on shares, though specious enough at first sight is radically unsound and has been the cause of the ruin of hundreds of shareholders, and of holdings being abandoned and left derelict. Such a distribution to be equitable presupposes (1) that the original partition of the land by shares was made equally and justly, but in Bharatpur this is very far from being the case, as the strongest shareholders seized the best land and wells prior to and retained them on partition, (2) that since the original partition there has been no change of any importance in the relative revenue-paying capacity of the holdings. But this assumption too is far from correct, for in a tract like this, subject to considerable river action, and also much dependent on wells, this factor cannot remain constant over a term of years. One shareholder's well is bitter ; or it runs dry, or collapses, and he is not in a position to renew it ; or his land gets sanded over by a Banganga flood, and goes out of cultivation, and yet he is compelled to pay the same amount of revenue as a shareholder who has none of these disadvantages to contend with. No wonder that under such a blind rule-of-thumb system desertions have been numerous, for a great number of shareholders must be placed under a distinct disadvantage. The fact is that in former assessments no attention was given to the distribution of the State demand. The people were in theory left to arrange this themselves, which in practice meant that it was arranged for them by the Patwari with the aid of one or two pushing lambardars or shareholders who had their own ends to serve. They have now come to recognise the evil results of the old system, and the first question asked when arrangements are on foot for the settlement of deserted holdings is whether the new jama will be distributed as before by shares—in which case no offers would be forthcoming—or by rates on the different classes of soil according to quality. When reassured on this point they were generally found willing to undertake responsibility. Even in joint estates the co-sharers are anxious to pay for the lands in their separate occupation by soil rates. Of course in such cases the first step should be a partition, but from this they have been hitherto deterred by the high fees charged and the trouble and delay involved. There are many large and unwieldy estates, still nominally joint, in which partition is absolutely necessary to put things on a proper footing, and special arrangements will be made for this as soon as possible.

62. The average land-revenue demand per estate on the present jama is in  
 Rupbas, Rs. 1,450, Oochain, Rs. 1,941,  
 Size of estates. Biyana, Rs. 1,312 and Bhusawar, Rs. 1,850.

To ascertain the average on the new jama, these figures should be altered in proportion to the alteration of the demand in each tahsil. The proportions of large and small estates will appear from the following table :—

Particulars.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Total.
Estates paying Rs. 500 or less	11	9	38	23	80
" " " 500 to 1,000	19	14	50	31	113
" " " 1,000 to 3,000	22	51	54	63	211
" " " 3,000 to 5,000	5	10	10	18	43
" " " over 5,000	1	3	5	9	19
TOTAL	73	89	157	147	466



From this it is clear that the tract is one of moderate-sized estates. No estate pays Rs. 10,000 or over. The highest revenue-paying estates are in Rupbas—Khanwa—Rs. 5,052; in Oochain—Pichuna—Rs. 9,957, and Panghora, Rs. 7,007; in Biyana—Biyana town—Rs. 7,483, and Singhara, Rs. 7,355; and in Bhusawar—Bhusawar town—Rs. 9,500, Sarsena, Rs. 6,740.

63. The following table—extracted from Statement V—shows the cultivating occupancy in the year 1898-99. In this and following statistics where the contrary is not stated, *mafi* areas have been excluded. In Bhusawar I have shown the Ballabgarh *jagir* separately and State property under cultivation is included as it is assessed; but in Biyana the village of Bareta, which is part of the Ballabgarh *Jagir*, is included in *mafi*.

Detail.	RUPBAS.		OOCHAIN.		BIYANA.		BHUSAWAR.		BALLABGARH.	
	Area.	Percentage.	Area.	Percentage.	Area.	Percentage.	Area.	Percentage.	Area.	Percentage.
Total area cultivated ... ..	53,049	100	1,23,593	100	1,42,060	100	1,70,378	100	20,899	100
Area cultivated by—										
(1) Owners ... ..	38,835	47	46,634	38	55,430	39	63,850	37	4,944	23
(2) Occupancy tenants ... ..	3,623	5	5,664	4	13,420	10	3,601	2	608	3
(3) tenants free of rent ... ..	1,705	2	2,296	2	3,894	3	5,449	3	278	1
(4) At favourable rents ... ..	159	...	1,082	1	375	...	13	...	...	...
Area cultivated by tenants at will—										
(a) paying in kind ... ..	...	...	...	...	173	...	528	...	...	...
(b) „ Zabti rents ... ..	3	...	2,690	2	...	...	...	...	...	...
(c) „ cash rents at owner's rates ... ..	12,716	15	26,728	22	12,771	9	15,320	9	128	1
(d) „ at other rates ... ..	25,708	31	37,000	31	65,979	39	81,617	40	15,041	72
Total cash rents ... ..	38,427	46	67,317	55	68,750	48	96,937	59	15,169	73
Number of owners excluding absentees ... ..	3,229	...	4,533	...	7,778	...	6,162	...	467	...
Number of proprietary holdings ... ..	672	...	1,359	...	2,173	...	2,422	...	152	...
Detail.	Area.		Area.		Area.		Area.		Area.	
	Jama.		Jama.		Jama.		Jama.		Jama.	
Average area of cultivation—	Rs.		Rs.		Rs.		Rs.		Rs.	
	...		...		...		...		...	
(a) per holding ... ..	124	...	82	...	61	...	70	...	137	...
(b) per owner ... ..	26	32	27	38	18	27	28	38	45	71
(c) per occupancy tenant ... ..	12	...	8	...	8	...	5	...	4	...
(d) per tenant-at-will ... ..	13	...	9	...	7	...	6	...	9	...

Thus in Rupbas owners as such cultivate nearly one-half of the total area; in the remaining three tahsils from three-eighths to two-fifths; and in Ballabgarh where all the land attached to Ballabgarh town—about one-fifth of the total—is owned by the *Jagirdar* and cultivated by tenants, only one-fourth.

64. The proportion cultivated by owners in all tahsils would have come out higher were it not that the *Kham* villages and deserted holdings—which had not as a rule been settled in 1898-99—are shown as cultivated by tenants even when these tenants are the former owners, many of whom have now been reinstated. Besides the area of *Khudkasht*

shown above, many owners for various reasons, *e.g.*, scarcity or inferiority of their own land, cultivate as tenants in their own or adjoining villages. The extent of such cultivation is as follows:—

Detail.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.
Area ...	3,135	14,440	9,800	15,575	1,228
Percentage of total ...	4	12	7	9	6

and if we add this to the area cultivated as owners, the proportion of the total area held by them comes to 46 per cent. in Biyana, Oochain, and Bhusawar, and 51 per cent. in Rupbas which is a very good proportion.

Excluding Ballabgarh the circumstances of which are exceptional, the average area of cultivation per owner ranges from 18 to 28 *bighas* or 7 to 11 acres, and the land-revenue per owner varies from Rs. 27 in Biyana—where holdings are small and population relatively dense—to Rs. 38 in Bhusawar and Oochain. In the Punjab in 1897-98 the average area of cultivation per owner was 8 acres assessed at Rs. 8.

65. The area held by occupancy tenants varies from 2 per cent. in Bhusawar, where the high assessment deterred tenants from urging their claims, to 10 per cent. in Biyana where much of the best well-cultivation is carried on by this class. Prior to the present settlement no enquiry had been made into tenant right. In preparing the new records registers were prepared in which all such claims were entered and disposed of by the officer in charge of the circle after full enquiry. The number of cases decided up to date has been: Rupbas—210, Oochain—824, Biyana—1,487, Bhusawar—600. In the majority of cases the claims were readily admitted by the owners who, where the assessment was heavy or cultivators few, were only too willing to admit others to share their liability. But where land was valuable the claims were often vigorously contested. Cases have also come to my notice in which at the time of attestation, the owners dissuaded the tenants from lodging or prosecuting their claims by the promise that their cultivation would not be disturbed, and the tenants subsequently finding from ejectment proceedings, etc., that they had been deceived have applied now to have their status defined.

The area held free of rent does not exceed 3 per cent. in any tahsil. It is usually so held in return for village service by Brahmins, Purohits, Chaukidars, etc., and now that the owners have come to realise that they have the discretion of including it in the *bachh*, it will probably fall off considerably. In Bhusawar the area held free by *Mina Chaukidars* in return for their duties of watch and ward is 1,415 *bighas* assessed at Rs. 2,500. Land held at favourable rent comes under the same category. The area is inconsiderable except in Oochain where it comes to 1 per cent. of the total.

Rents in kind, *i.e.*, in which the owners take a share of the crop are unknown in Rupbas and Oochain and very rare in Biyana and Bhusawar. Since Moghul times the revenue in these tracts close to Fattahpur Sikri and Agra, has been generally collected in cash, and for the same reason rents have been levied in cash, as the distinction between owner and cultivator has hitherto been so slight in practice that the latter usually paid the State demand direct instead of through his nominal landlord.

In all these tahsils therefore tenants usually pay in cash, and the proportion of the total area held on cash rents runs from 46 per cent. in Rupbas to 57 per cent. in Bhusawar or in round numbers half the area is so held. It will be seen that the area held "at owner's rates" is in all tahsils much less than that held at "other cash rents". The first and natural inference to be drawn from this is that the owners generally exact rents above the standard of "owner's rates".



The true explanation is frequently the very opposite of this, *viz.*, that the incidence of the jama is often so high, or so unequal, or so uncertain, especially where owners pay by shares, that the tenants prefer to cultivate under a *Patta* or written lease agreeing to pay a fixed sum. This point will be further noticed in Chapter VII.

66. The cultivators, where not owners themselves, are generally of the same caste as the owners or village menials—especially Chamars and Kolis. Brahmins, Baniyas, Kachis, and Mallis also cultivate fairly large areas. In the *kharif* non-owners of all classes endeavour to cultivate a few *bigbas*, not so much for the grain as to provide fodder for their cattle. These cultivators have often neither ploughs nor plough-oxen of their own and hire them out from the owners at the rate of 1½ annas to Re. 1 per day. Those who are too poor to afford this, break up the soil with hoes and then throw in the seed which explains the saying "Tickle it (the soil) with a hoe, and it will blossom into a harvest". The *Khatili* lands in the beds of the streams furnish ample scope for the village menials who have no agricultural implements. They require practically no ploughing, but much manure and abundant watering, so all that is needed is a donkey to bring the manure and a rope and *gharra* for the irrigation from holes dug in the sandy river-bed. The total area cultivated by tenants of the above class is as follows:—

E. Details.				Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.
Number of tenants	...	...	...	731	2,163	2,835	5,416	622
Area	...	...	...	3,335	8,335	12,414	27,201	3,002

The very large area held by them in Bhusawar is a distinct evidence of agricultural deterioration and weakness, for these tenants are the first to abandon cultivation in years of drought.

Another means of testing the stability of cultivation is the area held in an estate or in a tahsil by tenants from outside. This is commonly known as *pahikasht* and the area so held is—

Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.
10,735	1,553	20,148	25,352	3,282

Except in Oochain where owners and resident tenants are numerous, the area is considerable, especially in Bhusawar. This cultivation is in two ways an element of weakness in agriculture—(1) it tends to lower rents for the owners being dependent on tenants from outside have to tempt them by easy terms and cannot exact the full competitive rent, (2) it is the first to be abandoned in years of drought or distress. While on this point I may note that in many villages there were not enough cattle to work the great number of *kacha* wells sunk as a temporary resource within the last year or two (para. 21). Accordingly many of these were worked by hand, a row of men and women taking the place of the pair of oxen in supplying the draught power.

67. There are no estates held on favourable rates of assessment or on Favourable assessments and *Istamrari*. *Istamrari* tenure except Jhala Tala in Bhusawar which is held by one family of the Pathan owners at a fixed *Jama* of Rs. 1,135, while the revenue collected was in 1879-98, Rs. 2,900. The grant was resumed in 1958 for participation

in the mutiny, but subsequently restored in the name of one of the co-sharers who has recently died without issue, and the question of its continuance to the descendants of his brothers who was also implicated in the mutiny disturbances is under consideration. The manner in which the area of *Mafi* and *Inam* in these tahsils has been steadily reduced has been explained in para. 33.

68. Statement IV shows in detail the sales and mortgages as now ascertained by careful attestation—(1) from the summary settlement of 1855 to the settlement of 1890, (2) from 1890-91, up to date. The following table shows the percentage of the total and cultivated area transferred by sale or mortgage up to date—(a) to Zamindars, (b) to non-agriculturists, and the average rate per *bigha*—

Tahsil.	Detail.	PER CENT. MORTGAGED.			PER CENT. SOLD.			TOTAL SOLD AND MORTGAGED.		REMARKS.
		Total area.	Cultivated area.	Average per bigha.	Total area.	Cultivated area.	Average per bigha.	Total area.	Cultivated area.	
Rupbas	To Zamindars ...	14	17	Rs. 3	8	9	2	22	26	
	To others ...	2	4	8	1	1	5	3	5	
	Total ...	16	21	4	9	10	2	25	31	
Qosbain	To Zamindars ...	11	12	4	8	9	1	19	21	
	To others ...	1	1	5	...	...	...	1		
	Total ...	12	13	4	8	9	1	20	22	
Biyana	To Zamindars ...	4	8	9	1	2	2	5	10	
	To others ...	1	2	7	5	5	1	15	25	
	Total ...	5	10	8	15	25	3	20	35	
Dhansawa	To Zamindars ...	2	3	3	6	7	1	10	10	
	To others ...	1	1	6	2	3	1	3	4	
	Total ...	3	4	4	10	10	1	13	14	
Ballabgarh	To Zamindars ...	1	2	7	...	...	...	1	2	
	To others ...	1	2	3	...	...	...	1	2	
	Total ...	2	4	5	...	...	...	2	4	

The figures include the transfer of whole villages or shares in them made by the State in or after the famine year (para. 54).

69. The area transferred is highest in Rupbas where one-fourth of the total and nearly one-third of the cultivated area has changed hands, viz., 21 per cent. (of the cultivated area) by mortgage and 10 per cent. by sale; but only one-fifth of the mortgages and one-tenth of the sales have been to non-agriculturists. The total consideration is about Rs. 1,47,000 or  $1\frac{1}{2}$  years land-revenue, and averages Rs. 4 per *bigha* for mortgages and only Rs. 2 per



*bigha* for sales. The reason for this difference is that the sales were made in bad years under pressure of assessment or in payment of arrears and shares in the following villages were sold by the State—

Bansi Bagri ...	$\frac{1}{2}$	Bokoli ...	$\frac{1}{2}$	Binwan ...	$\frac{1}{2}$	Ahlu ...	$\frac{1}{2}$
Nangla Gujar ...	$\frac{1}{2}$	Milsua ...	$\frac{1}{2}$	Ibrahimpur ...	$\frac{1}{2}$	Kheriya Lodha ...	$\frac{1}{2}$
Kundanwara ...	$\frac{1}{2}$	Naiagaon ...	$\frac{1}{2}$	Noharda ...	$\frac{1}{2}$		

In Oochain about one-fifth of the total and over one-fifth of the cultivated area have been transferred—13 per cent. by mortgage, and 9 per cent. by sale; but of this only one-twentieth has passed to outsiders. The total consideration is about Rs. 1,11,000 or two-thirds of one year's land-revenue, and the average rate per *bigha* is Rs. 4 for mortgages as in Rupbas, and only Re. 1 for sales. The cause of the low rate in the latter case is the same as in Rupbas. Shares in the following villages were sold up by the State for arrears—

Karai ...	$\frac{1}{2}$	Khanera ...	$\frac{1}{2}$	Gahlan ...	$\frac{1}{2}$	Jarila ...	$\frac{1}{2}$
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In Biyana the area alienated is relatively small, *viz.*, one-sixteenth of the total and one-eighth of the cultivated area, and one-fifth of this has passed to non-agriculturists. The area (of cultivation) mortgaged is 10 per cent. and the area sold 25 per cent. of the whole. The total consideration is about Rs. 2,10,000 or one year's revenue demand, and owing to the superiority of the land in this tahsil the rate per *bigha* for mortgaged land comes to Rs. 8 per *bigha* on total and Rs. 14 per *bigha* of cultivated area; while the rate for sales which have generally been made for arrears or owing to pressure of assessment (para. 54) is only Rs. 2 per *bigha*. No transfers on an extensive scale were carried out in this tahsil by the State.

In Bhusawar (apart from Ballabgarh) 14 per cent. or about one-seventh of the cultivated area has been alienated, *viz.*, 4 per cent. by mortgage and 10 per cent. by sale, and over one-fourth of this has been to non-agriculturists. The total consideration is about Rs. 63,000 and averages Rs. 4 per *bigha* mortgaged and only Re. 1 per *bigha* sold. Shares in 10 estates were transferred by the State for arrears, and in 33 estates by the Zamindars under pressure of assessment, and in these forced transfers the average price realised was only about 12 annas per *bigha*, which explains the very low rates for sales. Mortgages in this tahsil are comparatively rare, the reason being that owing to the high assessment, the agricultural depression, and the large area of deserted holdings, the demand for land has been very slack. In Ballabgarh the mortgaged area is 5 per cent. and sales are practically unknown.

Total area alienated.

70. For the whole tract the area sold and mortgaged up to date is—

Detail.	MORTGAGED.		Mortgage money.	Rate per <i>bigha</i> cultivated.	SOLD.		Sale money.	Rate per <i>bigha</i> cultivated.
	Total area.	Cultivated.			Total area.	Cultivated area.		
			Rs.	Rs.			Rs.	Rs.
To Zamindars ...	60,820	45,030	3,62,560	8	66,267	31,786	63,663	2
Others ...	15,629	11,435	94,440	8	9,932	5,732	13,074	2
TOTAL ...	86,340	66,474	4,67,000	8	86,219	37,518	76,737	2

Or in other words 7·5 per cent. of the total and 10 per cent. of the cultivated area have been mortgaged—of which about one-fourth has gone to non-agriculturists; and 5·5 per cent. of the total and 7 per cent. of the cultivated area have been mortgaged, of which about one-sixth has gone to non-agriculturists. In all about one-sixth of the cultivated area has been alienated, of which only between one-fifth and one-sixth has passed into the hands of the non-agricultural class. The proportion alienated is almost the same as in the central tahsils, but non-agriculturists have taken much less in these tahsils. The causes of this are manifold, *viz.*:—(1) There are few wealthy money-lenders. (2) Hitherto the land has had little attraction for and yielded little profit even to the cultivating owners, and was more likely to prove a source of loss than of profit to an owner who could not cultivate himself. (3) The Zamindars, though poor, endeavour and are often able to finance one another. (4) There is a strong feeling against land passing into the hands of outsiders at least by sale, and the State has recently issued orders prohibiting all alienations to non-agriculturists.

71. High assessments therefore and harsh revenue administration, heavily as they have pressed on the people in the past, have in a manner protected them from expropriation. In the adjoining Agra District at the close of the 30 years' settlement in 1875, it was found that no less than 40 per cent. of the area of the district had passed into other hands than those who had held it at the previous settlement—30 per cent. temporarily and 10 per cent. permanently—the average prices being Rs. 7-12-0 per acre for land sold. Given a reasonable assessment and a decent revenue administration in the future, the Bharatpur zamindars will be in a better position than their neighbours in Agra, in so far as they have by the force of circumstances held on more tenaciously to their land.

72. The following table extracted from Statement I shows the total area at last settlement and now (1898-99) and its classification into *mafi*, unculturable, culturable, and cultivated.

Tahsil.	Detail.	Total area.	MAFI OR IRAM.		Khalas.	STATE PROPERTY.		UNCULTURABLE.		Culturable.	New fallow.	Cultivated.
			Total.	Cultivated.		Rund.	Others.	Hills.	Other roads, gardens, etc.			
Rupbas	1890-91	1,63,552	5,882	...	1,77,700	7,011	...	12,861	11,094	55,899	39,300	51,545
	1898-99	1,62,341	5,719	3,543	1,76,622	7,001	369	12,769	9,273	57,440	5,701	63,749
Ooghain	1890-91	2,53,870	31,268	...	2,02,611	1,379	961	5,001	16,323	27,773	49,291	1,02,981
	1898-99	2,32,990	29,377	19,907	2,03,622	1,622	1,018	6,834	10,233	53,609	6,713	123,523
Biyana	1890-91	5,02,572	30,307	...	4,71,505	350	1,796	1,46,045	63,968	60,732	42,133	194,561
	1898-99	5,01,103	30,071	19,606	4,70,432	290	2,401	1,53,307	86,607	75,184	11,533	142,090
Bhusawar	1890-91	3,37,103	21,599	14,869	3,15,705	4,458	265	7,349	33,367	25,623	4,5104	166,596
	1898-99	3,37,594	20,636	15,241	3,16,958	4,458	265	38,870	33,367	48,118	23,482	170,376
Ballabgarh	1890-91	37,816	2,327	1,025	35,489	...	...	5,179	...	2,412	5,169	19,740
	1898-99	36,409	2,010	1,129	34,399	...	...	4,483	4,226	4,074	717	20,999



The total area shows nowhere except in Ballabgarh a variation amounting to one per cent. The maps of last settlement as explained in previous reports have been retained and the areas checked, while all changes in fields, etc., have been brought up to date. The *mafi* area shows a slight decrease in all tahsils and a considerable decrease in Ballabgarh. The decrease is due partly to resumption and to correction of areas. In Oochain it would have been greater were it not that 1,925 *bighas* wrongly entered as *khalsa* at last settlement have now been classed as *mafi*. In Bhusawar the village of Jahanpur, the revenues of which are divided between the *mafidars* and the State, has all been shown as *khalsa* and so has the *Istamrari* village of Jhala Tala (para. 67), but allowance will be made for this in calculating the assessments. The reduction of area by more accurate measurements, and the changes in revenue-free area explain the slight increase and decrease of the *khalsa* area.

Coming to the subdivisions of *khalsa*, the first is "State property" which in its turn is subdivided into "State Runds" and "other," *i.e.*, roads, gardens, etc. Part of the *Rund* area is being allotted for cultivation in Oochain and Bhusawar, but as the property has not yet passed, it is still shown as belonging to the State. The unculturable land is shown under the headings of "hills" the area of which has increased slightly owing to more correct classification, and "other unculturable," *e.g.*, sandy or stony wastes, river-beds, ravines, *nalas*, village-roads, tanks, etc., the area of which shows a decrease in Rupbas and Oochain but a great increase in Biyana, where large areas of the land returned as culturable at last settlement are now quite unfit for cultivation. Culturable land, *i.e.*, old *banjar* shows a greater or less increase in all tahsils but Bhusawar, owing chiefly to the fact that much of the "new fallow" of last settlement which has not since come under cultivation is now included under the heading of "culturable". The most striking fact in the present classification is the enormous falling off of "new fallow". Apparently at last settlement all land that had at any previous time—no matter how far back—been under cultivation, but was then found to be out of cultivation, was classed as "new fallow". Most of this land has now gone to furnish the great increase in cultivation in Rupbas and Oochain, some has been included in old *banjar*, and only so much has been shown as 'new fallow' as has actually gone out of cultivation within the last three years.

73. Finally coming to the cultivated area, the expansion in Rupbas and Oochain is enormous, in Biyana substantial, and in Bhusawar appreciable. To arrive at the net increase in cultivation for assessment purposes, we must however deduct the area due to resumption of *mafis*. This is done in the following table:—

Tahsil.	Total increase in cultivation.	Deduct resumed <i>mafis</i> .	Add <i>khalsa</i> now included in <i>mafi</i> .	Net increase.	Percentage of increase.
Rupbas	31,504	120	.....	31,384	61
Oochain	20,612	2,491	1,471	19,592	19
Biyana	7,499	456	.....	7,043	5
Bhusawar	3,782	825	163	3,120	2
Ballabgarh	1,159	36	.....	1,123	6

The area of cultivation is that which was actually sown in the year 1898-99, which was rather below than above the average at least as regards *rabi* sowings, and it may therefore be accepted as the basis of our calculations without risk of error. Even if we take the area sown last year, 1899-1900, it shows

a slight increase in Bhusawar and Ballabgarh, has remained constant, in Biyana, fallen off slightly—by 1,000 *bighas*—in Rupbas, and considerably—by 8,000 *bighas*—in Oochain, but that was an extreme case and may be left out of consideration.

74. The following table shows that the area of culturable land, *viz.*, *banjar* and new fallow, is large in all tahsils. Arrangements for the leaving of culturable waste for cultivation.

Tahsil.					Area.	Percentage to cultivated area.
Rupbas	...	...	...	...	68,441	76
Oochain	...	...	...	...	60,322	49
Biyana	...	...	...	...	86,717	60
Bhusawar	...	...	...	...	71,600	41
Ballabgarh	...	...	...	...	4,791	23

Some of this will probably be brought under cultivation without delay under the arrangements now made for the settlement of *Kham* estates and deserted holdings. But even excluding this and allowing a considerable area for pasture requirements, many villages have still large areas of good culturable land, which, unless special arrangements are made, they are never likely to turn to useful account. In such cases I have followed the principles approved last year for bringing into cultivation the excess waste in Bharatpur tahsil, and after making liberal allowances for grazing, etc., have marked off the excess waste in several villages and given it out for cultivation at lenient rates, which vary according to the circumstances of each estate or tahsil but as a rule are as follows :—

1st year	...	...	...	...	4 annas per <i>bigha</i> .
2nd year	...	...	...	...	6 do. do.
3rd year	...	...	...	...	8 do. do.
4th year	...	...	...	...	10 or 12 annas to the expiry of the settlement.

Where the zamindars of the village can prove that they are in a position to break up the land and pay these rates, the lease is given to them by preference. Where they are too poor, too weak, or too indolent to undertake the responsibility, arrangements are made with zamindars of neighbouring villages, if forthcoming, and where this resource fails, with agriculturists from British territory or adjoining States. The areas so marked off to be separately leased are—

Tahsil.					No. of villages.	Area.	REMARKS.
Rupbas	...	...	...	...	9	7,790	Including land allotted to criminal tribes.
Oochain	...	...	...	...	10	8,767	
Biyana	...	...	...	...	2	1,750	
Bhusawar	...	...	...	...	14	11,543	Of this 2,500 <i>bighas</i> has been allotted from State Runds.
Total					35	29,850	



The revenue from this source which after a few years will be about Rs. 20,000 has been left out of consideration in Chapter IX.

The arrangements have now been completed in nearly all cases and the lessees put in possession with effect from the present *kharif* harvest. Given a good start, *i.e.*, favourable rains this year, I anticipate that the measure will bring about a rapid increase in cultivation and it will also act as a stimulus to the agriculturists of those villages which from one cause or another have hitherto failed to make good use of their culturable land. In Biyana the land shown as culturable is generally of inferior quality and hence in only a few villages have *chakks* been marked off.

75. The following table shows the details of the cultivated area at last Former and present cultivation by settlement (1890-91) and now 1898-99:—  
classes.

Tahsil.	Period.	Total cultivation.	CHAHIL.							Khatili.	SAIRABA.				BARANI.		
			PERMANENT.		Temporary.	CHAHIL SAIRABA.		Total.	Hal.		Sabika.	Barishi.	Total.	Barani.	Bhur.	Total.	
			Hal.	Sabika.		Hal.	Sabika.										
Rupbas ...	1890-01 ...	51,515	11,727	3,687	...	...	...	15,314	...	...	...	...	13,124	23,592	515	23,107	
	1898-99 ...	63,049	6,766	4,621	1,658	1,255	196	14,486	272	4,072	11,401	250	16,623	43,528	8,140	51,668	
Oochain ...	1890-01 ...	102,681	30,209	7,654	...	...	...	37,863	...	...	...	...	18,217	46,811	...	46,811	
	1898-99 ...	123,593	17,102	6,571	307	6,771	1,255	32,006	260	31,798	14,447	480	46,725	41,706	2,903	44,609	
Biyana ...	1890-01 ...	134,561	44,839	7,832	...	...	...	52,671	...	...	...	...	18,411	63,478	...	63,478	
	1898-99 ...	142,060	35,253	7,589	1,000	2,708	200	46,930	589	12,556	3,602	1,827	17,985	61,878	14,678	76,556	
Bhusawar ...	1890-01 ...	166,596	55,172	14,757	...	...	...	69,929	562	4,162	943	...	5,105	91,000	...	91,000	
	1898-99 ...	170,378	40,133	13,906	602	2,427	6	67,074	482	8,498	253	363	9,114	69,967	13,741	1,03,708	
Ballabgarh ...	1890-01 ...	19,740	6,177	1,270	...	...	...	9,447	...	...	...	...	188	10,105	...	10,105	
	1898-99 ...	20,899	7,188	1,546	143	115	...	8,992	...	...	228	55	283	7,042	4,663	11,624	

The causes of the increase and decrease of the different classes have been commented on in paras. 19—21 and in the remarks on the different tahsils. As the classification at last settlement was a very rough one, it is difficult to compare the subdivisions of each class, *chahi*, *sairaba*, *barani*, but the totals for each class can be compared. The *chahi hal* of last settlement should be compared with the sum of *chahi hal*, temporary *chahi* and *chahi-sairaba-hal* now. The comparison shows that not only has the total *chahi* area decreased, but also the area actually irrigated within one year. The reason as already explained is not a contraction in the number of wells but in their irrigating capacity owing to the recent drought.

The *khatili* area was separately shown at last settlement only in Bhusawar where it now shows a slight falling off.

At last settlement the *sairaba* or inundated land was not distinguished as now into (1) *hal*, inundated within the year, (2) *sabika*, within the last five years, (3) *barishi*, benefitted by drainage from the hillsides. But if we compare the total areas excluding *barishi* which is merely a subdivision of *barani* we find—(1) a considerable increase in Rupbas where however most of the *sairaba* is now *sabika* owing to insufficient rains and neglect of the *bands*, (2) an enormous and genuine increase in Oochain which has benefitted more than any other tahsil by the extension of irrigation works, (3) a slight contraction in Biyana where the *Bareta band* was not in full working and the old *bands* had not yet been repaired in the year 1898-1899, (4) a considerable expansion in Bhusawar owing to the extension of irrigation by new works such as the *Haleyna canal* and the *Lalpur band*. In making the comparison with last settlement I have not included *chahi-sairaba* as it was then included in *chahi*, but in taking a survey of the area now benefitted by inundations or irrigation works it should be included, as it receives considerable benefit in this way.

The *barani* land has increased considerably in all tahsils owing partly to the contraction of *chahi*, partly to the extension of cultivation. *Barani* and *bhur* have now for the first time been discriminated. The *barani* cultivation is 61 per cent. of the total in Rupbas, 56 in Oochain, 54 in Biyana, and 61 in Bhusawar.

76. The *barani* crops however are a more important factor than even the above percentages represent. To make this point more clear, I show both the cultivation and crops classed as *chahi*, *sairaba*, *barani* in the year 1898-99.

Tahsil.	Detail.	Total.	Chahi.	Chahi-sairaba	Sairaba.	Barani.	Percentage of crops to cultivation.
Rupbas	Cultivation	83,040	13,035	1,451	10,805	51,668	...
	Percentage	100	16	2	21	61	...
	Crops	88,948	8,352	1,500	5,945	73,652	107
	Percentage	100	9	2	7	83	...
Oochain	Cultivation	1,23,503	23,080	8,026	46,985	44,602	...
	Percentage	100	19	7	38	36	...
	Crops	1,33,141	17,569	6,915	38,557	70,110	108
	Percentage	100	13	5	29	53	...
Biyana	Cultivation	1,42,000	43,862	3,008	18,574	76,556	...
	Percentage	100	31	2	13	54	...
	Crops	1,60,343	38,601	2,955	15,859	1,02,838	113
	Percentage	100	24	2	10	64	...
Bhusawar	Cultivation	1,70,378	54,641	2,433	8,596	1,03,708	...
	Percentage	100	32	1	6	61	...
	Crops	1,79,596	42,752	2,274	9,372	1,25,197	105
	Percentage	100	24	1	5	70	...
Ballabgarh	Cultivation	20,809	8,877	115	283	11,624	...
	Percentage	100	42	1	1	56	...
	Crops	23,195	7,892	108	61	15,134	111
	Percentage	100	34	...	...	66	...

The result is that in the year 1898-99, no less than 82 per cent. of the crops in Rupbas, 53 per cent. in Oochain, 64 per cent. in Biyana, 70 per cent. in Bhusawar received no aid from wells, canals, or floods, but were grown purely as *barani*. Of course the figures hardly represent a normal year, as the excess of *barani* crops over *barani* area is in a measure due to dry crops having been sown on *chahi* or *sairaba* lands, which if the well water were more abundant and the *bands* had filled would ordinarily have borne *chahi* or *sairaba* crops. The figures are instructive however as proving the apparent paradox that the less the rainfall the more are the crops dependent on it, owing to the failure of other sources of irrigation.

77. The last column of the statement shows the extent to which land is double-cropped. Even in an indifferent year, the area of crops exceeded that of cultivation by 7 per cent. in Rupbas, 8 per cent. in Oochain, 13 per cent. in Biyana, 5 per cent. in Bhusawar, and 11 per cent. in Ballabgarh. In this respect this tract is superior to the central and northern tahsils and the reason is to be found in the superiority of the wells the great majority of which have sweet water. The soil too is a light clean loam free from *reh* or *kallar*, fertile and easily worked, and if manured it lends itself particularly well to double-cropping. The most ordinary forms are *bajra* and in places maize followed by barley or wheat on *chahi* or by gram in *barani* lands, and cotton followed by *zira*.

78. The methods of agriculture are the same as those described in previous reports. In this tract most of the zamindars' labour is concentrated on the well lands which are invariably manured and weeded and the tillage is generally superior to that of the northern and central tahsils. When going round Biyana in



March last as the *rabi* was being reaped it was quite exceptional to see a single weed among the well crops, which in the central and northern tahsils at least on bitter wells are often choked with weeds. This absence of weeds is due as much to the clean soil and sweet water as to the weeding. The *barani* cultivation on the other hand is rather rough, but manure is now being used more and more especially for *bajra* and cotton. *Rabi barani* crops, gram and *sarson*, are little grown as the winter rains are very uncertain, and the autumn crop is comparatively secure. The drainage from the hills is partly held up by the great number of *bands* in the hill villages, but much more might be done if small *bands* were made along the field boundaries as in the hilly tracts of the northern Punjab. These would arrest the passage of the hill-water with its fertilising ingredients, and level and improve the soil, which now is apt to deteriorate because the surface is often carried away by the rush of water.

79. Among the special crops grown may be mentioned (1) *zira* or cumin-seed grown as a second crop generally after cotton where water is sweet but scarce and most commonly in Biyana and Bhusawar, (2) *mehndi* or *henna* which is grown in a few villages close to Bhusawar and Biyana, (3) *pan* or betel leaf which is cultivated with great success in five villages—Umrend and Bhagora in Bhusawar, and Khareri, Bagrain, and Khan Khera in Biyana. As this is the only part of the State where *mehndi* and *pan* are grown, the method of cultivation, etc., may here be described.

*Mehndi*.—The seed is soaked for ten days in water, then sown broadcast—often with another crop—and manured. Within two years the shrub grows to a height of about a foot. It is then transplanted and watered and grows to a height of another foot within the next eight years. The plant lasts for 40 or 50 years, and if well pruned, manured, and watered, yields two crops of leaves each year. The leaves if soaked in water and then applied to the hands or face yield the peculiar *henna* dye so commonly used by Hindus in marriage ceremonies. They are also used for medicinal purposes. The yield is from one to two *mans* per *bigha*.

The cultivation of *pan* or betel leaf is a source of considerable revenue to the State. It requires a good soil, sweet water, and protection from the wind and from extremes of heat and cold. Hence it is grown generally under the shelter of hills. The cultivators are known as *Tambolis* and are quite distinct from the owners of the land, but they have a prescriptive right to grow the plant on whatever land they please on condition of paying certain rent and dues to the owners of the land and to the State, as well as duty on every *man* sold whether within or without the State.

The first step is, having selected a suitable situation close to a sweet well, to erect a rectangular shed of loose stones 8 to 10 feet high, and about 200 feet long, by 80 broad, roughly thatched with grass or *sarkanda*. This is known as a *bareja*. Within this are fixed long rows of light stakes made of bamboos, *dhauk* or other available wood, up which the plant is trained like a creeper. These are in parallel rows,  $1\frac{1}{2}$  feet apart, the distance between each stake being about 4 inches. A double row is known as a *pali*, and a *bareja* contains from 20 to 40 *palis*. The soil is richly manured and then prepared with the spade. In this the betel leaf is planted in the month of *Chait*. It soon throws out fresh leaves which trail themselves up the stake. At this stage the young plants are sprinkled with milk and beaten flour, and the soil is fertilised by the application of *sesamum* oil and oil-cake in the summer and of *sarson* oil in the winter. All this time the plant is being carefully watered, 5 or 6 times a day in the hot weather and at intervals of a couple of days in the cold, by a man who passes down along the parallel rows, *i.e.*, the *pali*, and lets the water flow gently from an earthen *gharra* which he carries on his shoulder using the palm of his hand to temper its force.

In *Jeth* (June) the plucking of the new leaves begins from the root upwards. The original plant yields about thirty leaves in the course of two years, after which the *bareja* is exhausted for the time being and is given up for a year or two, ordinary crops taking the place of the *pan* in the meantime. While the *bareja* is working it is most carefully guarded and no one but the

*Tambohi* is allowed to enter. A single *bigha* ( $\frac{2}{3}$ th of an acre) will contain 72 *palis* which in two years will produce 21,600 leaves each or 15,55,200 to the *bigha*. Of these leaves 9,167 go to a *man* which sells usually for Rs. 9 and pays a duty of 1-8-0 to the State. In two years therefore the produce of a *bigha* will sell for Rs. 1,530 besides paying Rs. 255 duty. The cost of working a single *pali* or double row of plants is as follows:—

					Rs.	A.	P.
(1)	wood and erection	...	...	...	1	0	0
(2)	straw	...	...	...	0	4	0
(3)	seed	...	...	...	0	1	0
(4)	watering	...	...	...	1	0	0
(5)	Lag Pahota 15 annas	{ $\frac{1}{2}$ to the State	1st year	...	0	7	0
			$\frac{1}{2}$ to land-owner	2nd year	...	0	8
(6)	State rent (all goes to the State)	Rs. 1 10 0	1st year	...	0	11	0
			2nd year	...	0	15	0
Total Rs.					4	14	0

or Rs. 351 per *bigha*. This does not include the cost of erecting the outer wall of stone or the wages of labour. Of these charges, (4) for watering, *i.e.* filling the reservoir from the well goes to the owner who also receives half of the *lag* or duty known as *Pahota*. This is said to be a payment for the grant of the wood free and as the betel-growers have now to purchase it, this tax the propriety of maintaining which was referred to me in 1897 should now be remitted.

The *pan* of these villages is famous and is exported to Jaipur, Agra, Dehli, etc. The leaves retain their freshness for three months. Mixed with the betelnut of Burma, lime, *katha* (catechu) and the aromatic *elachi* they form the delicacy so favoured by the people of Hindustan.

The total area covered by *barejas*, the area actually under the *pan*, and the revenue derived by the zamindars and the State are shown in the following table.

Name of villages.	COVERED BY BAREJAS.		ACTUALLY PLANTED IN 1898-99.		AVERAGE OF 9 YEARS.		AVERAGE INCOME TO STATE FROM LAND.				Customs duty.
	Area.	No. of barejas.	Area.	No. of barejas.	Area.	No. of palis.	Revenue.	Cesses.	Pahota.	Total.	
Kharera	65	130	28	49	32	858	1,181	245	215	1,641	4,253
Bagrain	40	80	19	32	17	453	482	111	57	650	
Khar Khera	30	41	11	27	11	321	261	65	40	366	
Umrend	67	112	19	30	18	...	461	120	198	779	1,170
Bhagora	8	17	1	2	2	...	17	4	12	33	
TOTAL	210	350	78	140	80	...	2,402	545	522	3,469	5,423

Thus the average annual income to the State from the 80 *bighas* actually under this plant is Rs. 3,469 or Rs. 43 per *bigha* from the land in the form of revenue, cesses, and *lag pahota*, besides Rs. 5,422 as customs duty, giving a total of Rs. 8,891. The income to the land-owners from their half share in the *lag pahota* is Rs. 522, and they are also paid for the use of the water and get *lambardari* dues on the land-revenue, while they pay nothing to the State for the land as long as it is under the betel-leaf. The actual growers get certain exemptions from the State—(1) 5 *palis* in every *bareja* are exempted from taxation, (2) they are given small sums for *pugris*, etc., (3) they are allowed 4½ annas per *pali* for *malba* or village expenses, and 1 anna per *pali* as *Hakk Meh-tari*, or allowance for the headmen.

The crop therefore, limited though the area is, is a very paying one to the State, and the expansion of the area should be encouraged. The best way to do this would be to remit the *lag pahota* as already proposed, and in place of the numerous petty cesses now levied to impose the usual cesses of 2 pice per rupee for *dami* or Patwar fund and 3 pice per rupee for local rate. These will come to only Rs. 7-11-0 per cent. on the land-revenue, while the present cesses come to over 20 per cent. The taxes now levied press heavily on the growers



and leave them only a small margin of profit. The rates vary in different villages, and the system of taxation and account is unnecessarily complicated. If this is done the land revenue and the customs duty can be maintained at their present rates, and the *malba* and *hakk mehtari* continued as before.

£0. In para. 18 (b) (2) reference has been made to the system under

Mango and other fruit trees.

which mango trees have been planted in husawar and the income derived from them. A similar custom obtains in Biyana town where any person may plant a tree in another man's land, and thereby is entitled to get half the fruit, the other half going to the owner of the land. In Biyana the State formerly claimed a share of the fruit, but in 1890 commuted this for a tax of Rs. 1-2-9 per thousand which yielded an average income of only Rs. 30 or so against Rs. 1,903 in Bhusawar. In 1896 this tax was remitted. The total number of mango trees in *khalsa* land in each tahsil and the income from sale of this fruit as now roughly ascertained is as follows :—

Tahsil.	Number of trees.	Income to owners.	Former average income to State.	Remarks.
Rupbas ... ..	358	Rs. 29 <sup>(1)</sup>	Nil	(1) From 59 trees in one village.
Oochain ... ..	1,379	798	...	
Biyana { (1) Town ... ..	947	800	30	...
(2) Other places ... ..	161	261	...	
Bhusawar ... ..	9,329	6,114	1,903	...
TOTAL ... ..	12,174	8,002	...	...

The income as stated by the zamindars has been compared with that obtained from trees which are State property. Thus in Biyana the average income from 417 State trees is Rs. 401 or Re. 1 per tree. As stated in para. 15, I propose to take account of this source of income in assessing villages, and show the demand for it separately, so that where the owner of the tree is not the owner of the land, he can be made to pay his fair share.

There is some income from the *ber* or wild plum in Weir and in four villages close to Biyana where the fruit is cultivated in gardens, but it is too small to be taken account of in assessing though it will be allowed for in the distribution. *Mahua* trees from the flower of which liquor can be distilled are fairly common in all tahsils, but bring in no appreciable revenue.

§1. The following table shows the number of cattle, carts, etc., as recorded in the papers of 1899 and as now ascertained by a special enumeration in 1898-99.

Cattle, Ploughs, etc.

Tahsil.	Detail.	CATTLE.											TOTAL.
		Hon. as.	Ploughs.	Carts.	Oxen.	Cows.	He-buffaloes.	She-buffaloes.	Goats and sheep.	Horses and ponies.	Mules and donkeys.	Camels.	
Rupbas ... ..	1890 ... ..	4,547	1,091	50	3,783	8,129	1,571	357	3,190	277	265	9	17,587
	1898-99 ... ..	6,533	2,015	263	5,265	13,136	6,306	1,019	5,616	499	556	29	31,426
Oochain ... ..	1890 ... ..	8,978	3,744	64	7,374	14,163	2,605	879	6,614	626	421	43	31,723
	1898-99 ... ..	9,685	4,461	331	12,054	17,258	8,756	3,144	8,662	570	1,241	53	32,338
Biyana ... ..	1890 ... ..	11,689	6,301	90	10,817	23,411	9,578	982	17,290	597	466	607	63,716
	1898-99 ... ..	14,318	6,501	204	13,596	28,363	16,620	2,183	30,828	737	1,451	608	94,288
Bhusawar ... ..	1890 ... ..	11,076	4,352	29	8,723	18,080	980	5,704	8,245	399	337	108	43,516
	1898-99 ... ..	13,062	5,248	422	13,622	21,918	3,001	12,080	14,594	690	1,571	132	67,584
Ballahgarh ... ..	1890 ... ..	1,397	475	115	945	1,963	118	632	1,858	42	12	47	5,718
	1898-99 ... ..	1,737	625	88	1,304	2,192	73	1,562	2,326	45	161	5	7,628

Assuming the figures of last settlement to be correct, there has been an improvement under almost every head in each tahsil. There probably has been some increase but by no means as great as the figures would show, as the statistics of last settlement were undoubtedly incomplete. The increase in ploughs is probably genuine and is of course due to the expansion of cultivation. The number of cattle in all tahsils was in 1898-99 if properly distributed more than adequate for agriculture and the requirements of the people in the way of milk, ghi, etc., but in para. 66 it has been shown that there are many cultivators who have no cattle of their own. In Biyana and in the hilly tracts of Bhusawar and Rupbas, which are owned chiefly by semi-pastoral Gujars, the large areas of waste enable them to keep immense herds of cattle, sheep, and goats. I fear however that the drought of the last two years though not nearly so severe here as in other parts of Rajputana has caused a sensible decrease not only of the surplus cattle but of plough and well bullocks, the extent of which can only be ascertained from a fresh enumeration which I propose to make this autumn. The State must now come to the rescue in such cases and in its own interests as well as those of the people help them with *Takavi* for the purchase of agricultural stock. The average area of cultivation per plough is in Rupbas 29 *bighas*, Oochain 32, Biyana 30, Bhusawar 35 *bighas*, or from 12 to 14 acres, which is not excessive, and is practically the same as for the whole Punjab. Since the enumeration was made there has been a further increase of ploughs owing to the measures taken for the settlement of waste or derelict lands.

82. The area of culturable and unculturable land available for pasture is shown in para. 72, and in all tahsils is adequate or in excess of the wants of the people. The area of State Runds, which after the grass necessary for State purposes is got together is let out for grazing, is insignificant except in Rupbas, where the large Rupbas Rund with an area of 7,001 *bighas* furnishes good pasture to Rupbas and the vicinity. Of the 4,458 *bighas* of Runds in Biyana only 1,500 *bighas* are being retained to furnish *pula* for the State and the rest is being leased out for cultivation. Biyana has only 2 small Runds with an area of 290 *bighas*, and Oochain has one Rund—Karka—with an area of 1,450 *bighas* which will also be probably given up for cultivation.

82-A. The hillsides in the southern tahsils as throughout the whole State are included in the village boundaries and regarded as the property of the zamindars. Hills and arboriculture. In theory it would have been a better arrangement had the State retained a considerable portion of the hills in its own possession, and worked them as forest reserves, but after what I have seen of the abuses and the hardships to the people incident to such a system in Alwar, I would hesitate to propose its adoption for Bharatpur. Besides it would be unpopular and unjust to deprive the people now of rights which they have held unquestioned for so long a period. In view of the evil results of de-afforestation I think however it is desirable that the State should secure the services of a Forest Officer for a few months, who would inspect the various hillsides and report on the measures to be taken to prevent further denudation and promote the growth of suitable shrubs and trees. There is still one relic of State ownership, *viz*, a tax is levied (*lag punchri*) on the grazing of goats and camels. In some cases this is levied only on animals from foreign territory. The question of maintaining this tax has been referred to me, but I shall defer giving an opinion till I have fully inspected the Dang tract next cold weather.

83. Villages with large pasture areas derive some income from grazing fees from outsiders and from sale of grass. Income from grazing and spontaneous products. During the last cold weather all the tract adjoining the Banganga was overrun by immigrants from Jodhpur and Bikanir whose enormous flocks of cattle, sheep and goats, ate up much of the pasture that the zamindars were relying on for the support of their own cattle.

*Pala* grows in profusion where the soil is a sweet clean loam, and here as elsewhere furnishes valuable fodder especially for milch cattle. *Pala* is



found in abundance in the sandy lands along the course of the Banganga and Gambhir, and always commands a ready sale, as the houses of all classes are thatched with it and the huts of the poorer classes are often made exclusively from it.

The income from the sale of *pala* and *pula*, from grazing fees, and water-nuts (*singhara*) grown in village ponds is estimated as follows :—

Article.	Rupbas.	Oochain.	Biyana.	Bhusawar.
	Rs.	Rs.	Rs.	Rs.
Pala ... ..	140	508	382	1,993
Pula ... ..	157	1,514	1,126	1,826
Grazing fees ... ..	467	1,020	303	} 846
Sales of grass ... ..	32	433	1,432	
Water-nuts ... ..	140	28	137	180
Total ... ..	936	3,503	3,380	4,845

84. Among miscellaneous income that from sales of milk and *ghi* and in Biyana of wool is the most important. Income from sales of milk, *ghi*, wool, etc. Accurate information on the subject it is impossible to obtain but it is estimated to be as follows :—Rupbas, Rs. 30,000; Oochain, Rs. 40,000; Biyana, Rs. 75,000; Bhusawar, Rs. 50,000; of which probably from one-half to one-third goes to the landowners. This income will be sufficiently taxed by imposing a rate on new fallow and culturable waste.

Carts are fairly numerous in all tahsils and the owners make a considerable income from them by the carriage of stones from the quarries in Rupbas and Biyana to the railway at Bharatpur and Agra. The number of carts so employed and the average income is as follows :—

Tahsil.	Number of carts.	Income.
		Rs.
Rupbas ... ..	80	5,000
Oochain ... ..	61	4,000
Biyana ... ..	50	3,000
Total ... ..	191	12,000

In Paharpur and Mahalpur-Chura the zamindars get one anna for every cart-load of stone that leaves the quarries, and as the average is 5,000 carts in the year, the revenue from this source is over Rs. 300.

85. The following table shows the average exports and imports of each tahsil and the customs duty paid to the State as far as can be ascertained from the records of the Customs Department :—

Tahsil.	Detail.	Grain, rice, etc.	Cotton ginned.	Oil-seeds.	Country cloth.	Betel.	Miscellaneous (sira).	Total.	Ghl.	Number of cattle.	Total value.	Custom duty.
											Rs.	Rs.
Rupbas ...	Imports in mans...	5,441	...	2	31	...	...	...	...	378	...	...
	Exports in mans...	5,727	259	5,254	...	...	...	...	338	1,020	...	11,120
	Value of exports in Rs. ...	9,163	1,799	21,016	2,106	...	...	41,606	6,700	6,207	54,573	...
Oochain ...	Imports in mans...	29	...	...	...	...	...	...	...	90	...	...
	Exports in mans...	10,978	4,295	3,149	25	...	...	...	111	1,296	...	9,925
	Value of exports in Rs. ...	17,565	41,343	12,696	366	...	...	81,158	2,220	5,248	88,026	...
Biyana ...	Imports in mans...	3,700	1	...	13	...	...	...	...	29	...	...
	Exports in mans...	5,539	6,721	562	193	...	...	...	316	5,304	...	14,549
	Value of exports in Rs. ...	8,862	66,646	2,248	5,247	...	...	94,537	6,320	13,245	1,14,102	...
Bhusawar ...	Imports in mans...	3,015	3	20	62	...	...	...	4	232	...	...
	Exports in mans...	20,751	7,385	1,527	533	35,130	2,917	...	1,762	3,000	...	28,558
	Value of exports in Rs. ...	38,222	71,342	6,108	17,213	35,130	14,585	188,562	35,240	17,277	241,319	...

The details are too numerous to be shown in full but the totals are correct. In the case of Rupbas, Oochain, and Biyana the figures represent the average of the four years, 1896-1899, three of which were years of scarcity in which there was little surplus available for export, and the volume of trade was therefore abnormally small. In Bhusawar the average is struck for the period 1891-99 which includes fat as well as lean years, and the exports average nearly 2½ lakhs which is almost equal to that of the other three tahsils combined. The exports for the four tahsils have a value of over 5 lakhs per annum of which the most important in order of value are cotton, grain, oilseeds, ghi, sira, betel-leaf, live-stock and country cloth. The chief imports are raw and refined sugar, rice, wheat, foreign piece-goods. The customs duties for the whole tract average over Rs. 60,000 per annum, but though a source of considerable income to the State, they are a terrible drag on trade and harassing to the people. When the finances of the State recover sufficiently from their present depression the earliest opportunity should be taken to abolish export and import duties as has been done with such good results in the adjoining Alwar State.

#### Towns, Schools, Dispensaries.

86. The only towns of any importance which are centres of local trade are—

	Population.
Rupbas ...	... 1,987
Oochain ...	... 1,971
Biyana ...	... 8,085
Bhusawar ...	... 7,419
Weir ...	... 6,824
Ballabgarh ...	... 1,594

An account of these will be found in Lala Jawala Sahai's history of Bharatpur. Rupbas, Biyana and Weir are places of historical and antiquarian interest.



It has recently been proposed to break up the Oochain tahsil and transfer its villages to Rupbas, Biyana and Akhegarh with a sub-tahsil at Oochain, and also to transfer the headquarters of Bhusawar tahsil to the more suitable site at Weir, leaving a sub-tahsil at Bhusawar. These schemes have been sanctioned and will probably be carried out within the present year.

There are two dispensaries in Bhusawar, *viz.*, at Bhusawar and Weir, and one at the headquarters of each of the other three tahsils. Now that the post of Agency Surgeon has been re-established, an improvement in the hitherto slack and defective medical and sanitary administration may be confidently anticipated.

Schools are maintained by the State at the headquarters of each tahsil, as well as four or five in the larger villages, but education has been much neglected, and while the State in 1897-98 spent nearly 6 lakhs or about one-fourth of its income on the army, the education budget was only Rs. 26,000 or about one per cent. of the income.

The State by consenting to the introduction of British post-offices has put the postal arrangements on a sound footing and all these tahsils are now efficiently served.

87. The people of these tahsils are on the whole peaceful, frugal and industrious; more simple and truthful and less litigious than the Meos of the northern tahsils, so that the task of preparing a correct record of rights was a comparatively easy one. Given normal seasons and a reasonable *jama*, these tahsils, having a good clean soil and a large area of cultivation protected by sweet wells or benefitted by the annual floods, should be the most prosperous in the State, but for the last 18 years while the northern tahsils under a fairer *jama* have prospered considerably, these have deteriorated. The standard of comfort is probably lower now than it was 25 years ago. The people are as a whole indifferently housed, poorly clad, and their food if sufficient is generally of the inferior grains. Owing to the abundance of cattle milk is plentiful, but meat is consumed only by the Gujars, Rajputs, and Musalmans, while *ghi* though produced in large quantities is like the butter of the Irish or Normandy farmers looked on as a means of paying the revenue or rent rather than as an article of domestic consumption. The number of persons from the agricultural classes in the service of the State or of the British Government is not considerable as will appear from the following table:—

Tahsil.	Detail of service.			Number of persons.	Monthly income.	Total annual income.
					Rs.	Rs.
Rupbas	State	...	...	122	979	18,600
	British	...	...	23	571	
Oochain	State	...	...	162	1,349	24,084
	British	...	...	57	658	
Biyana	State	...	...	213	1,576	30,708
	British	...	...	83	983	

These figures do not include the Saiyids of Paharsar in Oochain of whom many hold good positions in British territory and whose total income from service is said to be over Rs. 12,000 per month. The most prominent is Khan Bahadur Mir Aulad Hosain, C.I.E., late Settlement Officer in the Central Provinces.

## CHAPTER IV.

## PRICES.

88. The methods for ascertaining *bazar* and harvest prices described in the reports of the northern and central tahsils have been followed in these tahsils also. Appendix C shows the average (1) bazar, (2) harvest prices at the chief trade centres in each tahsil for (a) the 10 years 1889-91—1899-00 preceding the last settlement, (b) for the 9 years 1890-91—1898-99 preceding the new settlement. From these data, after comparison with the results arrived at in the rest of the State, I have fixed the following scale of commutation prices :—

Tahsil.	Cotton.	Pejra.	Jawar and Maize.	Moth Masina.	Til.	Wheat.	Barley.	Gram and Peas.	Oilseeds.	Bajra.	Gochai Gujra.
Rupbas ...	11	26	30	25	11	21	30	30	14	30	26
Oochain ...	11	26	30	25	11	21	30	30	14	30	26
Biyana ...	11	27	30	26	11	21	31	30	14	30	26
Bhusawar ...	11	27	30	25	11	21	30	30	14	30	26
Central Tahsils ...	11	26	30	25	11	21	29	30	14	30	...

It will be seen that in Rupbas and Oochain which are connected by good roads with the markets at Bharatpur, Achnera, and Agra, the rate of prices is practically the same as for the central tahsils and for certain food grains is a little higher than for Biyana and Bhusawar which are not so closely in touch with large markets. Compared with the average harvest prices of the last few years, the rates assumed may appear at first sight unduly favourable to the zamindars, but that period has been on the whole one of short harvests and high prices, and it is essential therefore to allow a considerable margin to cover fluctuations. As I write, the price of food grains at Bharatpur varies from 10 seers per rupee for wheat to 12½ seers for the coarser grains, but it cannot be argued that these famine-inflated prices are beneficial to the Zamindars the great majority of whom in a year of scarcity like this have to live largely on their credit with the grain-dealer, from whom they borrowed at these excessive rates and whom they repay at the cheaper harvest rates.

89. Comparing the average prices of the period preceding the last with those of the period preceding the present settlement, it appears that there has practically been no all-round enhancement, and similarly, if we compare the actual prices of recent years with those which are likely to prevail during the next twenty years, i.e., the term of the new settlement, we cannot reckon with confidence upon any increase. In fact, the probability is that with the return of more favourable seasons prices will in the future tend to fall below the average of the last few years. It follows therefore that we cannot look to an increase in prices as one of the factors for enhancing the demand.

## CHAPTER V.

## CROPS AND OUTTURN.

90. In para. 50 the fluctuations in cultivation from year to year since 1890-91 have been shown, and details of the crops grown in each year are given in Statement II. The following table extracted from Statement II shows—(1) the area of cultivation and crops and the



proportion of the chief crops to the total crops area at (a) last settlement, (b) by the average of 6 years 1892-93—1897-98, (c) for the year 1898-99 on the results of which the new settlement is based, (d) for the year just closed, 1899-1900 :—

Tahsil.	Period.	AREA OF—				PERCENTAGE OF DIFFERENT CROPS.															Percentage of total.
		Cultivation.	CROPS.			KHARIF.							RABI.								
			Total.	Kharif crops.	Rabi crops.	Cotton.	Bajra.	Jawar.	Masina.	Gawar charri.	Til.	Others.	Wheat.	Barley.	Gram.	Bajr.	Gochul.	Gojra.	Oilseeds.	Others.	
Rupbas	1891-92	51,545	64,045	26,301	37,744	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	41	59	6	21	5	2	5	1	1	14	8	12	12	4	3	2	4	
	1892-93-97-98	62,532	79,793	45,171	34,622	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	67	43	6	30	9	1	6	4	1	7	6	10	8	3	2	2	5	
	1898-99	63,049	88,948	69,427	19,521	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	78	22	5	43	9	6	4	10	1	4	6	4	1	...	1	2	4	
	1899-1900	81,299	87,697	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	87	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Oochain	1891-92	102,981	131,931	53,395	78,546	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	41	59	4	13	4	1	18	1	...	10	11	22	11	1	...	2	2	
	1892-93-97-98	99,805	114,259	60,058	54,171	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	53	47	5	20	7	2	16	2	1	9	12	10	9	2	...	2	3	
	1898-99	123,593	133,140	82,230	50,920	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	62	38	4	28	7	12	6	4	1	8	11	4	6	2	2	2	3	
	1899-1900	115,361	123,390	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	62	38	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Biyana	1891-92	134,501	166,911	68,218	68,693	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	59	41	10	21	4	11	11	...	2	10	10	9	...	9	...	...	3	
	1892-93-97-98	127,657	153,207	98,239	54,918	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	64	36	10	25	5	21	2	1	...	9	11	7	...	5	...	...	4	
	1898-99	142,060	160,343	117,828	42,515	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	73	27	9	31	6	19	5	2	1	7	10	3	...	2	...	1	4	
	1899-1900	142,042	159,676	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	73	27	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Bhusawar	1891-92	166,596	178,799	111,951	66,848	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	63	37	9	11	16	2	24	1	...	8	12	12	2	1	...	...	2	
	1892-93-97-98	162,786	177,864	120,232	57,632	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	68	32	8	16	10	3	20	1	1	7	12	8	1	...	...	...	4	
	1898-99	170,378	179,596	132,177	47,419	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	74	26	5	27	16	18	5	2	1	5	11	6	...	1	...	...	4	
	1899-1900	171,882	180,097	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	74	26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Ballabgarh	1891-92	19,740	21,622	15,499	6,123	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	72	28	17	11	3	1	40	...	...	9	11	5	...	...	...	3	...	
	1892-93-97-98	19,552	22,163	15,905	6,168	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	72	28	15	18	4	4	30	1	...	7	11	4	...	...	...	6	...	
	1898-99	20,890	23,195	18,292	4,903	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	79	21	12	28	3	29	5	1	1	5	10	...	...	...	...	6	...	
	1899-1900	21,125	22,972	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			Per cent.	79	21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

The chief deductions to be drawn from these figures are (1) the steady increase in cultivation which was not arrested except in Oochain even by last year's drought as the rains of 1899 were ample for sowings though insufficient to mature the crop, (2) a steady decrease in double-cropping owing to the increase in *barani* cultivation which is rarely double-cropped and the failure of water in the wells, (3) a very great decrease in the *rabi* area both absolutely and relatively to the *kharif*, and a corresponding increase in the *kharif*. This is explained by the failure of the autumn rains essential for *rabi barani* sowings, and the deficiency of well water. As these causes are only temporary, so the result may be regarded in the same light, and this must be borne in mind in noting the fluctuations in individual crops which will now be considered.

91. The area under cotton has increased in Rupbas, remained almost stationary in Oochain and Biyana, and fallen off in Bhusawar. A large proportion of

Leading kharif crops.

the cotton is *barani*, the cultivation of which depends on rains in May and June, and these have not been favourable in recent years. Moreover, the high prices of food grains have stimulated their growth at the expense of cotton, but the enormous rise in the price of cotton last year will, if maintained, soon counteract this tendency. The proportion of this crop to the total area varies from 4 per cent. in Oochain to 12 per cent. in Ballabgarh. It is the chief revenue-paying crop in the *kharif* as the exports (para. 85) show.

Bajra, on the other hand, is the staple *kharif* food crop. Its cultivation has increased enormously in recent years.

Bajra.

The area is now double that of last settlement, and it covers from 28 to 43 per cent. of the total crop area in the different tahsils the clean light soil of which is very well adapted to its growth. A small proportion of it is sown on *chahi* lands, and if rains are deficient, this gets a few waterings. *Bajra*, however, withstands a drought better than *jawar* and ripens quicker, so that it often makes way for a second crop in the *rabi*.

The cultivation of *jawar* has doubled in Oochain, more than doubled in

Jawar.

Rupbas, increased considerably in Biyana and remained stationary in Bhusawar. The proportion varies from 3 per cent. in Ballabgarh the very light soil of which is quite unsuited to it, to 16 per cent. in Bhusawar where it is very largely grown in Weir and the Trans-Banganga villages. It is also grown with success in the Wal of Rupbas, the Jatmai of Oochain, and the central portion of the Biyana Kather where the soil is stiff. It is even more exclusively a *barani* crop than *bajra* and is rarely grown on the well-lands.

The area under *mung*, *moth*, *chawila* and the various combinations of these crops with *jawar*, *bajra*, etc., (both forms are commonly called *masina*) has increased

Masina.

enormously on paper. Part of this increase is merely nominal, as at last settlement when these pulses were grown with cotton or the millets—*jawar* and *bajra*—they were classed under those heads or included with *gawar-charri*, and only the area grown separately was shown as *masina*. But there has been an undoubted genuine increase in the area owing to the extension of *barani* cultivation especially in the lighter soils which, when first broken up, are generally put under *masina*. The area now ranges from 6 per cent. of the total in Rupbas to 29 per cent. in Ballabgarh. The crop is rarely if ever an irrigated one. The outturn of grain is generally poor, as the crop is very sensitive to drought or high winds, and is also damaged by heavy rains but even when the grain fails the fodder is valuable.

The chief *kharif* fodder crop is however *gawar-charri*. The area shows an extraordinary falling off in all tahsils

Gawar-charri.

but Rupbas, the reason being that at last settlement *masina* was generally included with it, and partly perhaps that the people now prefer to sow crops which furnish grain as well as fodder. In dry years a good deal of the *charri* is grown on the wells in the hot months so as to furnish fodder for the well and plough cattle till the rains have set in.

The area under *til* shows a very marked increase in all tahsils, but above all in Rupbas and Oochain. One explanation is that the sandy land along the

Til.

former channels of the Banganga east of Farsu is peculiarly suited for this crop which however could not be sown with confidence while the land was exposed to inundations which it no longer is. In this locality I have met with crops of *til* surpassing any that I have ever seen. The crop requires only a moderate rainfall and is a very paying one. Hence its cultivation is yearly becoming more popular. The area under it varies from 2 per cent. of the whole in Bhusawar to no less than 10 per cent. in Rupbas.

Other *kharif* crops, such as hemp, tobacco, sugarcane, have increased in all tahsils but Biyana, but the area under them in no case exceeds one per cent.

Other kharif crops.

Sugarcane in small quantities is grown over all these tahsils. In Rudawal the area was considerable, but the wells in that tract have suffered very severely from the drought and cane cultivation has in consequence fallen off. Irriga-



tion from the Bareta *band* will give a stimulus to it in villages which are commanded by the ducts.

92. The *rabi* crop area as compared with last settlement has fallen off by from 30 to 50 per cent. for reasons already explained, and these reasons apply also to individual crops.

**Chief rabi crops.**

The area under wheat is now from 60 to 25 per cent. less than 10 years ago, and the reason is of course the reduced irrigating power of the wells. The area varies from 4 per cent. of the whole in Rupbas to 8 per cent. in Oochain. Wheat requires more waterings than barley, ripens later and is therefore more liable to damage from high winds, rust (*kungi*), smut (*kangiari*), and white ants. The outturn too is less than that of barley, and as the latter is the general food grain in the summer months, its cultivation is more popular.

**Wheat.**

The area under barley is practically unchanged except in Bhusawar where it shows a slight contraction, but the proportion to the total area has fallen off in all tahsils, and now varies from 6 per cent. in Rupbas to 10 per cent. in Oochain; like wheat it is generally manured and sown either on wells or on flooded lands.

**Barley.**

Gram was formerly the staple *barani* crop in the *rabi*, and at last settlement occupied from 12 to 22 per cent. of the crop area in each tahsil. Its cultivation has steadily declined since 1895 owing to the frequent failure of autumn and winter rains, and in 1898-99 the area under it was only from 3 to 4 per cent. It is grown on the superior *barani* and on the inundated lands and the failure of the *bands* to fill in recent years is also accountable for the falling-off.

**Gram.**

The above remarks reveal a lamentable contraction in the chief *rabi* crops irrigated and unirrigated. If we take account of the various combinations of wheat, barley, and gram—*bejar*, *gochni*, *gojra*—sown as mixed crops, the decrease is even more marked. At last settlement these together made up 19 per cent. of the crops in Rupbas, 12 per cent. in Oochain, 9 per cent. in Biyana, and 3 per cent. in Bhusawar, whereas this proportion is now reduced to 2 per cent. in Rupbas, 10 per cent. in Oochain (where the development of irrigation has increased the area), 2 per cent. in Biyana, and 1 per cent. in Bhusawar. Of these crops *bejar* (barley and gram) is grown on *barani*, *sairaba* or *khatili* lands, while *gochni* (wheat and gram) and *gojra* (wheat and barley) are confined to wells or the best inundated soils.

The area of *rabi* oilseeds (*sarson* and *tara-mira*), though relatively small, shows a steady increase in all tahsils, but the proportion to the whole area nowhere exceeds 2 per cent.

**Oilseeds.**

Other *rabi* crops cover 3 per cent. of the area in Oochain and 4 per cent. in the other tahsils. The most important is *zira* or cumin seed, which comes to from 2 to 3 per cent. of the crop area in all tahsils, leaving only 1 to 2 per cent. for miscellaneous crops.

- Miscellaneous kharif and rabi crops. 93. The detail of miscellaneous crops in *kharif* and *rabi* is in *bighas* :—

Tahsils.	KHARIF.					RABI.							Total.
	Tobacco.	Cane.	Vegetables.	Carrots.	Others.	Tobacco.	Poppy.	Vegetables.	Carrots.	Peas.	Miscellaneous.	Zira.	
Rupbas ...	162	35	106	2	479	85	...	88	91	53	1,089	2,168	4,258
Oochain ..	41	160	259	19	587	250	...	331	76	675	216	1,730	4,344
Biyana ...	53	108	303	19	936	214	29	418	185	402	280	4,083	7,120
Bhusawar ...	63	5	235	582	973	529	38	263	416	...	1,082	3,757	7,944
Ballabgarh ...	2	..	21	5	213	53	137	45	164	...	...	829	1,472

Of these crops the most valuable are tobacco, cane, and poppy. In estimating the value of the produce I have, after local enquiry, put their value per *bigha* as follows:—

	Rs.	Rs.
Tobacco ... ..	... 30	
Sugarcane ... ..	... 20 and in Biyana 30	
Poppy ... ..	... 20	
Zira .. ..	... 15 and in Rupbas 12	
Vegetables ... ..	... 12	
Others ... ..	... 10	

These rates are almost the same as for the central tahsils.

94. As an aid to determining the average outturn of the remaining crops, produce experiments have been steadily made in these tahsils since 1897-98 by the tahsil and settlement establishment under the supervision of Mr. Pyster, Assistant Settlement Commissioner, who personally carried out a considerable number. During my cold weather tour I had no less than 58 experiments made under my own observation, *i.e.*, I selected the field, left a reliable official to have the usual area ( $\frac{1}{40}$  of an acre) cut and brought into my camp where a sample of the grain was kept to be weighed when dried. The total number of experiments carried out in each tahsil was—

Tahsil.	Cotton.	Jawar.	Bajra.	Til.	Cane.	Musina.	Maize.	Wheat.	Barley.	Gram.	Bejar.	Gochhi Gojra.	Sarsan.	Total.
Rupbas ... ..	...	18	24	19	...	...	...	38	39	8	10	3	11	170
Oochala ... ..	5	15	28	8	2	...	...	34	68	14	13	2	13	203
Biyana ... ..	3	5	3	...	1	...	...	24	32	6	...	...	5	77
Bhusawar ... ..	10	14	51	2	...	10	2	42	56	15	1	2	6	211
Total ... ..	17	52	106	29	3	10	2	138	195	43	24	7	35	660

Thus 660 experiments in all were made during the last three years. The average results of these experiments for each class of soil are shown in Appendix B. Of the 6 harvests under observation, only two, *viz.*, 1897-98, were normal in character, and the average outturn therefore, though based on so large a number of actual experiments, cannot be blindly assumed as representative of the actual outturn over a series of years. Fortunately each year has increased the data for framing a reliable estimate, and we are now in a position to fix average rates of yield with more confidence than was possible when the operations began.

95. After careful consideration of the results obtained by actual experiments, enquiry from Zamindars and tahsil officials, discussion with the Deputy Collectors and comparison with adjoining tahsils in Bharatpur, Alwar, and Agra, I have assumed the following rates of yield per *bigha* for the different classes of soil or rather for the different classes of crops—for the outturn depends chiefly not on the classification of the soil but on the conditions under which the crop is actually grown, *i.e.*, on the absence or presence of natural or artificial irrigation.



Soils.	Tahsil.	Kharif.						Rabi.						Remarks.
		Cotton.	Bajra.	Jawar.	Maize.	Masina.	Til.	Wheat.	Barley.	Gram and peas.	Bejar.	Gochui.	Gojra.	
Chahi-hal	Rupbas	3½	5	4	4	2½	2½	7½	8	7	6½	7½	8	2
	Oochain	3½	5	4	4	2½	2½	7½	8½	7	6½	7½	8	2
	Biyana	3½	5	4	6	2½	2½	7½	8½	7	6½	8	8	2
	Bhusawar	3½	5	4	...	2½	2½	7½	9	7	8	7½	8	2
Chahi-Sabika	Rupbas	2½	4	4	4	2½	2	4½	4½	3	3	3	3	1
	Oochain	2	4	4	4	2½	2	4½	4½	3	3	...	3	1
	Biyana	2	4	4	4	2½	2	4½	4½	3	3	3	3	1
	Bhusawar	2	4	4	...	2½	2	4½	4½	3	...	...	...	1
Chahi-Sairaba-hal	Rupbas	...	...	...	...	...	...	8	9	7	8½	8	9	2
	Oochain	3½	5	4	4	2½	2½	8½	9½	7	8½	8	9	2
	Biyana	3½	5	...	6	2½	...	9½	11	7½	9	8½	8½	2
	Bhusawar	3½	5	4	...	2½	2½	8	9	7	8½	8	9	2
Sairaba-hal with Chahi-Sabika and Sairaba-hal.	Rupbas	2½	4	3	3	2½	2½	4½	5	5	5	5	5	2
	Oochain	2½	4	3	3	2½	2½	4½	5	5	5	5	5	2
	Biyana	2½	4	3	3	2½	2½	4½	5	5	5	5	5	2
	Bhusawar	2½	4	4	...	2½	2½	4½	5	5	5	5	5	2
Khatili	Rupbas	...	...	...	...	...	...	4½	5	...	...	...	2	2
	Oochain	...	...	...	...	...	...	4½	5	...	5	...	5	2
	Biyana	...	...	...	...	...	...	6	6	5	7	...	7	2
	Bhusawar	...	...	As for Sairaba.			...	...	...	...	...	...	...	...
Sairaba-Sabika	Rupbas	2	3	3	3	2½	2	4½	4	3	3	4	...	2
	Oochain	2	3	3	3	2½	2	...	4	3½	3	...	...	2
	Biyana	2½	4½	3	3	2½	2	4½	4	3½	3	3	...	2
	Bhusawar	2	2½	3	2½	...	2	3	4	3	...	...	...	...
Barishi	Rupbas	...	2½	3	3	...	2	3½	4	3	3	...	...	2
	Oochain	2	3	3	3	2½	2	3½	4	3½	...	...	3	2
	Biyana	2	3	3	3	2½	2	4	4½	3½	3	...	...	2
	Bhusawar	...	...	Same as Sairaba-sabika.			...	...	...	...	...	...	...	...
Barani	Rupbas	2	2½	2½	2½	2	2	3	4	3	3	3	3	1½
	Oochain	2	2½	3	3	2½	2	...	4	3	3	3	...	1½
	Biyana	2	2	3	3	2½	2	3	4	3	3	3	3	1½
	Bhusawar	2	2½	3	2½	...	2	...	4	3	3	...	...	...
Bhur-Barani	Rupbas	1½	2	2½	2½	1½	2	2	3	2	2	...	...	1
	Oochain	1½	2	2½	2½	1½	2	2	...	2	...	...	...	...
	Biyana	1½	1½	2½	2½	1½	2	1½	...	2	1½	1½	...	1
	Bhusawar	1½	2	2	1½	...	1½	...	...	...	...	...	...	...

As regards *chahi* and *chahi-sairaba*, there is little difference in the outturn, but that of *Biyana* and *Bhusawar* is slightly superior to the other two tahsils especially as regards the *rabi* crops, and a higher rate of yield has in consequence been brought out by the actual experiments and is now assumed. For *chahi-sabika* the yield is practically the same in all tahsils. For *sairaba-hal* too there is little difference in the yield except in the case of *jawar* which is better in *Bhusawar* than elsewhere. Similarly the *khatili* land

is of equal productiveness except in Biyana where, owing to the large area of superior *khatili* in the bed of the Gambhir, a higher outturn has rightly been assumed. The *sairaba sabika* in Biyana has a better yield than in the other tahsils and this has been allowed for. The *barani* yield is fairly even throughout, that of Oochain being a little superior. As regards *dhur*, the yield in Rupbas and Oochain is distinctly superior to that of Biyana or Bhusawar.

96. Converted into *mans* per acre, the yield now assumed may be compared with those of the northern and central tahsils and with those of the Agra Division and the Gurgaon District for a few leading crops.

Crop.	Soil.	AVERAGE OUTTURN IN MAUNDS.								
		Rupbas.	Oochain.	Biyana.	Bhusawar.	Northern tahsils.	Central tahsils.	Gurgaon.	Agra Division.	Alwar.
Jawar ...	Barani	6.3 to 10	7.5 to 10	7.5 to 10	7.5	6.2 to 10	6.2 to 7.5	7.7	8	
Bajra ...	"	6.2 to 10	6.8 to 10	6 to 10	6.2	6.2 to 7.5	6.3	5.5	7	
Masina...	"	5 to 6.2	6.2	5.6 to 6.2	6.2	3.7 to 6.2	5 to 6.2	4	8	
Gram ...	"	5.7	7.5	7.5	7.5	10 to 12.5	7.5	7.5	5	
Wheat ...	Chahi	18.7	18.7	18.7	18.7	17.5 to 20	15 to 18.8	12	16	
Barley ...	"	20	21	21	22.5	17.5 to 22.5	17.5 to 22.5	15	16	

In last year's report I compared the rates of the central tahsils with those of the Agra Division and of Gurgaon, and showed that my estimates for *barani* crops were on the whole lower and for *chahi* crops higher than those assumed in British districts where I think there is a tendency to underrate the outturn on *chahi* lands as an indirect way of allowing for the high cost of production.

As compared with the northern and central tahsils the outturn of the *kharif barani* crops is, I think, better in these tahsils as they have a higher rainfall, and the lighter soil does not succumb so readily to a drought. The yield of *chahi* lands is also better as the well water is generally sweet and the cultivation more careful, but crops grown on *sairaba* lands and especially gram have a smaller yield here, as the *sairaba* land is poorer and the winter rains more uncertain than in the north of the State.

97. For the reasons explained at length in Chapter V of my two previous reports it is necessary to allow certain deductions from the total crop area on account of (1) crops given as fodder to cattle employed in agriculture, (2) crops that fail to come to maturity owing to drought, floods, frost, etc., (3) crops that go to remunerate the labourers employed in agriculture; *viz.*, the carpenters and blacksmiths whose services are essential where well cultivation is so important. Of these (1) and (3) are really part of the cost of production and (2) is only a nominal part of the produce.

(1) For failure of crops.

The allowance for failure of crops is:—

Tahsils.	Rabi chahi.	All other crops.	Percentage of total crop area.
Bhusawar ...	4	8	6
Other tahsils ...	4	10	9

To anyone who like myself has observed the havoc wrought on the crops during the last three years by drought, floods, frost, locusts, high winds, dry winds, etc., this allowance will not seem excessive. It is meant only to cover the *ordinary* agricultural vicissitudes, and does not absolve the State from the duty of making large suspensions or remissions of revenue in the face of an overwhelming and widespread agricultural crisis like the famine of 1877-78 or the drought of the past two years.

The deductions for fodder for cattle follow pretty closely those given in (2) For fodder. the central tahsils and are:—

Tahsil.	Gawar charri.	Masina.	Carrots.	Barley.	Sarson.	Total percentage of crop area.
Rupbas ... ..	All	25 per cent.	All	5 per cent.	5 per cent.	6
Oochain ... ..	"	"	"	"	"	7
Biyana ... ..	"	15	"	"	"	8
Bhusawar ... ..	"	25	"	"	"	4

Thus the percentage of the total area varies according to the circumstances of each tahsil from 4 per cent. in Bhusawar to 8 per cent. in Biyana. This deduction, though not illiberal, by no means represents the extent to which the crops are cut for fodder in years of drought. Last autumn at least one-third of the *kharif* crop was cut for the cattle, or grazed by them, and at least one-fifth of the *rabi* crop was devoted to the same purpose.

(3) For menials' dues. For menials' dues the allowance here as in other tahsils is 2 seers per maund or 5 per cent. of the crop.

98. By applying the average rates of yield now assumed (para. 95), Net value of the produce and State or the cash rates per *bigha* for certain share at one-fourth. crops (para. 93), to the crop area of 1898-99—an average one as regards area—applying the scale of commutation prices (para. 88) and making the necessary deductions for fodder, failure of crops and menials' dues (para. 97), we arrive at the total net value of the crops in an average year. The process is worked out in detail in Appendix D and the result is shown below:—

Tahsil.	Kharif.	Rabi.	Total.	Chahi.	Others.	State share at one-fourth.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Rupbas ... ..	3,70,371	1,40,839	4,20,210	1,04,966	3,15,254	1,05,053
Oochain ... ..	3,15,140	4,24,410	7,39,550	2,77,943	4,61,707	1,84,867
Biyana ... ..	4,53,466	4,05,539	8,59,004	4,57,987	4,00,017	2,14,501
Bhusawar ... ..	4,90,504	4,47,577	9,47,081	4,91,711	4,55,370	2,36,570
Ballabgarh ... ..	77,033	56,076	1,33,709	...	...	33,427

The statement is of value as showing not only the total net value of the produce, but the relative value of *kharif* and *rabi*, *chahi* and non-*chahi* crops. In the last column I have shown what the State demand would come to at one-fourth of the net produce or rather of the value of the grain, for the value of the straw has not been taken into account.



## CHAPTER VI.

## VALUE OF OWNERS AND STATE SHARE BY RENTS IN KIND.

99. The area held by tenants paying in kind (para. 63) is quite inconsiderable, viz :—  
Area under and rate of rents in kind.

Tahsil.	AREA PAYING $\frac{1}{3}$ SHARE.		AREA PAYING $\frac{1}{3}$ SHARE.		AREA PAYING $\frac{1}{3}$ SHARE.	
	Irrigated.	Unirrigated.	Irrigated.	Unirrigated.	Irrigated.	Unirrigated.
Biyana ... ..	126	24	13	...	...	10
Bhusawar ... ..	1	64	14	24	172	248

In Rupbas and Oochain there is no land at all held on rents in kind and in Biyana and Bhusawar the area is too small to ensure average results. In the *jagir* villages of Bajaoli and Agaoli in Biyana the *jagirdars* take two-fifths of the produce in kind; elsewhere they realise in cash. The area paying one-fourth of the produce in Bhusawar is limited to a few broken-down villages which are by no means representative of the whole.

100. In previous reports it has been shown that the State share in Akbar's reign was fixed at one-third, and this tradition was maintained for some time after this tract fell away from the Empire. The old records show that one-third was maintained up to the summary settlement as the share of the produce of *chahi* land—in which the expenses of production are highest—but on other soils it was raised to two-fifths and these proportions may safely be assumed to represent what the owner would now take from the cultivator if rents were paid in kind. If therefore we take one-third of the value of the *chahi* crops and two-fifths of the value of other crops as already ascertained, the result will represent the owner's share, and two-thirds of this will represent the State share, which, as already settled, is now limited to two-thirds of the net assets. The result is brought out in the following table.

Tahsil.	Cash value of owner's share.	State share at two-thirds.	DETAIL.	
			Chahi.	Others.
	Rs.	Rs.	Rs.	Rs.
Rupbas ... ..	1,61,083	1,07,388	23,321	84,067
Oochain ... ..	2,77,294	1,84,863	61,741	1,23,122
Biyana ... ..	3,12,669	2,08,446	1,01,779	1,06,667
Bhusawar ... ..	3,45,552	2,30,701	1,09,270	1,21,431
Ballabgarh ... ..	47,498	31,666	...	...

The demand by this estimate is a little higher than that given by one-fourth of the net produce in Rupbas, almost exactly equal in Oochain, and

lower in Biyana and Bhusawar owing to the greater area of *chahi* land, in which the State share is only  $\frac{2}{3}$  or less than one-fourth. In this calculation the value of the straw has been excluded as the owner receives no share of it.

101. Applying the same method of calculation as explained in para. 90 of last year's report to each kind of soil, we can deduce (1) the total value of the produce, (2) the owner's share or net assets, *viz.*, one-third for *chahi* and two-fifths for other crops, (3) the State share at two-thirds of the owner's share; and dividing the result by the total area of cultivation in each class, we arrive at (1) the value of the produce per *bigha*, (2) the value of the owner's share per *bigha* or rent-rate, (3) the value of the State share per *bigha* or revenue-rates which, if applied, would bring out the State demand as above shown. The latter are shown in the following table and they can be usefully compared with the revenue-rates obtained from the data for cash rents :—

Class of soil.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Chahi hal—permanent ...	3 0 0	2 11 6	3 0 6	...	...
„ temporary ...	3 0 9	3 3 0	2 13 9	2 12 3	2 15 9
Chahi sairaba hal ...	2 15 9	2 15 3	3 0 3	2 11 3	3 9 0
„ Sabika ...	1 7 0	1 3 6	1 4 0	1 3 0	1 2 0
Sairaba hal ...	1 12 6	1 11 3	1 11 9	1 10 6	...
„ sabika... ..	1 2 0	1 1 0	1 2 9	0 15 3	0 11 0
„ barishi ...	1 4 0	0 15 3	1 1 6	0 15 6	0 13 9
Khatili ...	1 12 6	1 11 9	2 10 0	1 10 3	...
Barani ...	0 15 6	0 13 3	0 11 6	0 15 3	0 12 0
Bhar ...	0 13 0	0 10 3	0 7 6	0 8 6	0 7 6
Average on all cultivation...	1 4 0	1 7 11	1 7 6	1 6 0	1 8 3

These of course are only theoretical rates founded on a series of assumptions as to (1) average outturn and (2) average prices, and cannot be considered as reliable till tested by comparison with more positive data. With this view the cash rents actually realised will now be considered.

## CHAPTER VII.

### CASH RENTS AND STATE DEMAND ACCORDING TO THEM.

102. In para. 63 the total area held by cash-paying tenants at (a) owner's rates, and (b) other rates, has been shown, and details by soils for both kinds of rent are set forth below :—

Soil.	Detail of rent at	RUPBAS.			OOCHAIN.			BIYANA.			BHUSAWAR.			BALLABGARH.		
		Area.	Rent.	Rate.	Area.	Rent.	Rate.	Area.	Rent.	Rate.	Area.	Rent.	Rate.	Area.	Rent.	Rate.
			Rs.	Rs. A. P.		Rs.	Rs. A. P.		Rs.	Rs. A. P.		Rs.	Rs. A. P.		Rs.	Rs. A. P.
Chahi hal permanent.	Owner's rates	1,101	3,400	3 1 6	4,319	13,202	3 0 11	6,685	21,912	3 3 9	4,876	15,312	3 2 3	60	373	4 5 3
	Other ..	1,743	4,888	2 12 10	5,697	14,410	2 9 5	10,331	33,339	3 3 2	17,267	47,971	2 12 6	5,033	17,430	3 7 6
Chahi hal temporary.	Owner's ..	...	...	...	16	26	1 10 0	3	6	2 0 0	...	...	...	...	...	...
	Other ..	420	918	2 2 11	112	192	1 11 5	640	1,414	2 9 11	337	663	1 15 6	117	264	2 4 0
Chahi sairaba hal	Owner's ..	29	87	3 0 0	2,099	3,292	1 9 6	363	865	2 5 10	269	708	2 14 0	...	...	...
	Other ..	270	634	2 5 6	597	1,401	2 5 6	1,156	2,851	2 5 1	996	2,392	2 8 0	106	414	3 13 3



Soil.	Detail of rental	RUPBAS.			OOCHAIN.			BIYANA.			BHUSAWAR.			BALLABGARH.		
		Area.	Rent.	Rate.	Area.	Rent.	Rate.	Area.	Rent.	Rate.	Area.	Rent.	Rate.	Area.	Rent.	Rate.
			Rs.	Rs. A. P.		Rs.	Rs. A. P.		Rs.	Rs. A. P.		Rs.	Rs. A. P.		Rs.	Rs. A. P.
Chahi Sabika ...	Owners' rate ...	...	...	...	846	1,427	1 11 0	195	397	2 1 5	...	...	...	...	...	...
	Others ..	937	1,098	2 0 4	1,821	3,098	1 11 3	2,171	4,624	2 1 8	5,487	10,053	1 13 6	957	2,073	2 2 9
Chahi sabika sairaba hal.	Owners' ..	...	...	...	728	1,295	1 12 5	...	...	...	...	...	...	...	...	...
	Others ..	54	143	2 10 1	104	213	2 0 9	...	...	...	...	...	...	...	...	...
Sairaba hal ...	Owners' ..	508	1,171	2 1 0	8,796	12,767	1 7 3	1,061	1,516	1 6 6	503	990	1 15 6	...	...	...
	Others ..	1,869	3,506	1 14 0	7,622	12,205	1 9 7	5,409	8,951	1 10 6	4,714	7,116	1 8 3	...	...	...
Sairaba sabika ...	Owners' ..	...	...	...	4,803	5,190	1 1 4	41	64	1 8 11	...	...	...	...	...	...
	Others ..	2,597	4,193	1 9 10	4,240	4,968	1 2 9	1,667	3,154	1 14 6	113	145	1 4 6	153	215	1 6 6
Sairaba Bariahl ...	Owners' ..	...	...	...	25	22	0 14 1	12	27	2 4 0	42	47	1 2 0	...	...	...
	Others ..	6	24	4 0 0	271	331	1 3 7	577	719	1 4 0	94	110	1 2 9	49	42	0 13 9
Khatill ...	Owners' ..	...	...	...	11	18	1 10 2	93	122	1 5 0	...	...	...	...	...	...
	Others ..	46	130	2 13 2	217	388	1 12 7	310	991	3 3 2	467	1,035	2 2 6	...	...	...
Barani ...	Owners' ..	11,018	17,032	1 8 9	7,304	8,946	1 2 6	6,335	5,994	0 15 10	9,634	9,949	1 0 6	42	75	1 12 3
	Others ..	14,795	18,096	1 2 6	15,971	16,949	1 0 11	27,122	24,169	0 14 3	44,963	38,862	1 14 0	5,100	4,202	0 13 3
Bhur ...	Owners' ..	...	...	...	380	485	1 4 5	980	468	0 7 8	...	...	...	...	...	...
	Others ..	2,926	3,676	1 4 3	1,338	893	0 10 11	6,666	3,180	0 7 10	7,219	3,867	0 8 6	3,524	1,602	0 7 3
Total of tahsil ...	Owners' ..	12,716	21,096	1 11 3	29,327	46,179	1 9 2	12,771	21,371	1 10 9	15,320	27,066	1 2 3	128	447	3 8 0
	Others ..	25,708	38,206	1 7 9	37,990	54,988	1 7 2	55,979	83,392	1 8 2	81,617	1,12,215	1 6 0	15,041	26,242	1 12 0

From this it will be seen that in Rupbas and Bhusawar rents at 'other rates' are generally lower than those at 'owners' rates'; in Oochain they are generally higher, especially for *sairaba* land which in this tahsil is much sought after, and in Biyana they are higher for a few classes, equal or lower for the rest.

103. If we assume for the moment that the averages above deduced from State share at two-thirds of Khatauni "other cash rents" are full competitive rental. rents and apply them to the cultivated area, we get the total rental or net assets and the State share at two-thirds as follows. The present Jama is also shown for purposes of comparison:—

Tahsil.	Net-assets by other cash rents.	State share at two-thirds.	Present Jama.
	Rs.	Rs.	Rs.
Rupbas ...	1,19,258	79,839	1,05,855
Oochain ...	2,06,001	1,37,334	1,72,705
Biyana ...	2,25,394	1,50,263	2,05,972
Bhusawar ...	2,56,784	1,71,189	2,36,489
Ballabgarh ...	57,679	25,126	34,643

Thus, if we accept the cash rents, as stated at the time of attestation and recorded in the *Khataunis*, without discrimination and apply them to the whole area, the resultant net assets are only from 10 to 20 per cent. above the present demand, and the State share, if taken as two-thirds, would in all tahsils, but especially in Rupbas and Bhusawar, be considerably below the present demand.

104. The lowness of the cash rents has been noted and the causes of it

Causes of rents being low.

stated in the previous reports, and these causes are equally operative in these tahsils.

To some extent, especially in Bhūsawar, the lowness of the rents as compared with the *jama* is a genuine fact and is due to (1) the high pitch of the assessment; (2) the great agricultural depression that followed the famine of 1877-78 and reappeared again during the last 5 years; (3) the desertion of owners and tenants, which resulted in large areas being left derelict or managed *kham* which the owners or the State are glad to get taken up on very easy terms; (4) the want of competition for land owing to the extensive areas of waste and the comparative scarcity of tenants; (5) the past policy of the State in prohibiting or discouraging the owners from realising more than the State demand from the cultivators; (6) the recent drought has temporarily changed much land usually *chahi* into *barani*, and lowered the rents to a corresponding degree; (7) there has been a great increase in the *barani* cultivation within the last few years and tenants who break up waste are allowed very lenient rents, generally 4 annas per *bigha* for the first few years.

Besides these genuine reasons for the lowness of rents, there is another explanation, *viz.*, that the full rents have not in many cases been recorded. Some notorious instances of this were brought to light in several villages in Rupbas. In one of these the owners realised at the rate of Rs. 2-8-0 per *bigha*, while in the *bachh* they showed the tenants as having paid only 8 annas per *bigha*. This was done with the connivance of the tahsils officials who shared in the profits. Again in the more fertile tracts of Biyana, Rupbas, and Oochain, it is not uncommon for the owners to realise from 8 annas to Rs. 1 per *bigha* as profit from the tenant at the time of giving him a lease-to cultivate, while he is shown as paying only at "owners' rates" or even something less. Several of these cases came to my knowledge during my tour in these tahsils and increased my suspicions as the cash rents being so low as the recorded figures showed.

105. I therefore had a special enquiry made by my Assistant, Mr. Pyster,

Special enquiry made in three tahsils.

in a number of selected villages in which there was reason to believe that the genuine

rents had been ascertained. The number of villages selected were Rupbas—15, *viz.*, Wal 8, Dher 2, Nadwas 5; Oochain—16, *viz.*, Jatmai 9, Nadwas 4, Rudawal 3; Biyana—21, *viz.*, Kather 12, Nahera 5, Dang 4. So that each tract was fully represented. The total area and total cash rents of these villages were brought into the calculation, and the averages deduced for each class of soil in each tahsil were as follows:—

Class of soil.	RUPBAS.			OOCHAIN.			BIYANA.		
	Area.	Rent.	Rate.	Area.	Rent.	Rate.	Area.	Rent.	Rate.
		Rs.	Rs. A. P.		Rs.	Rs. A. P.		Rs.	Rs. A. P.
Chahi hal permanent ...	607	2,351	3 14 0	1,577	4,766	3 0 4	3,200	12,631	3 14 8
Chahi hal temporary ...	103	290	2 14 0	54	116	2 2 4	73	295	4 0 8
Chahi sairaba ...	81	250	3 10 4	77	261	3 6 3	290	822	2 13 4
Chahi sabika ...	344	896	2 9 11	398	580	1 14 0	480	1,563	3 3 2
Chahi sairaba hal ...	10	18	1 12 10	58	78	2 0 10	...	...	...
Sairaba hal ...	982	2,107	2 2 4	805	1,853	2 4 10	1,644	3,182	1 14 8
Sairaba sabika ...	600	1,263	2 1 8	439	687	1 9 0	663	1,729	2 9 9
Sairaba barishi ...	...	...	...	1	1	1 0 0	74	131	1 12 4
Khatill ...	...	...	...	50	140	2 8 0	154	669	4 6 6
Barani ...	3,242	3,763	1 2 7	4,413	5,436	1 3 8	5,910	5,322	0 14 5
Ibne ...	1,100	1,694	1 8 5	253	170	0 11 8	1,498	739	0 7 11
Total ...	7,078	13,638	1 12 7	8,001	14,088	1 12 2	13,995	26,953	1 14 10



The area on which these results are based is from one-fourth to one-fifth of the total area held on "other cash rents", and as the villages selected are typical of the whole and within them there has been no selection or rejection of holdings, I think the result may be regarded as fairly representative. If these rents are applied to the total cultivated area, and the State share worked out at two-thirds, we get the following result:—

Tahsil.						Total net assets.	State share at two-thirds.	Present Jama.
						Rs.	Rs.	Rs.
Rupbas	...	...	...	...	...	1,46,003	97,325	1,65,835
Oochain	...	...	...	...	...	2,40,311	1,60,207	1,72,705
Biyana	...	...	...	...	...	2,70,978	1,84,052	2,05,972

Even by this method therefore though the *jama* works out considerably higher than by the *Khatauni* cash rents, it is still appreciably below the present demand, and considerably below the demand based on the kind rents, though the latter estimate was a careful and moderate one.

In Bhusawar, owing to the absence of the Deputy Collector on leave, no special enquiry on the above lines were made nor was it likely to prove of material use, as that tahsil is admittedly over-assessed and rents are lower relative to the *jama* and the agricultural depression greater than in any other part of the State. We are therefore driven to the conclusion that at present we can find in the cash rents as disclosed no justification for enhancing the present demand, partly because these cash rents are for many reasons, some of which are purely temporary, really low and not fully competitive, and partly because the rents disclosed are not genuine.

106. It must however be remembered that the demand brought out by the

Addition to the demand on account of above calculations is only on cultivation, waste and fallow land.

and includes nothing for the culturable (new fallow and *banjar*) and unculturable land the profits from which in all tahsils are considerable. When new fallow is held by an owner or a cultivator, it generally pays either revenue or rent at lenient rates. Thus, in Bhusawar the rent on 3,500 *bighas* of new fallow is Rs. 2,036 or over 9 annas per *bigha*, and, as shown in para. 83, pasture land, especially that which produces *pala* and *pula*, is leased out at from 2 to 8 annas per *bigha*. From a consideration of these facts, and also because new fallow was in all and *banjar* in some cases assessed at last settlement, I propose to now impose the following rate:—

New fallow—4 annas per *bigha* in all tahsils.

*Banjar*—one anna in Rupbas and Oochain, half an anna in Biyana, where the *banjar* is of poor quality. In Bhusawar as much of the culturable land is being separately leased, and the area of fallow to be assessed is considerable, I have put nothing on the remaining *banjar*. The addition to be made under this head will be—

Detail.						Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.
						Rs.	Rs.	Rs.	Rs.	Rs.
New fallow	...	...	...	...	...	1,425	1,090	2,880	5,620	180
Banjar	...	...	...	...	...	3,000	1,250	2,200	...	...
Total						4,425	2,340	5,080	5,620	180

or in round numbers Rs. 4,500 in Rupbas. Rs. 3,000 in Oochain, Rs. 5,000 in Biyana and Rs. 5,500 in Bhusawar.

## CHAPTER VIII.

### RATES OF LAST SETTLEMENT AND ITEMS INCLUDED IN THE PRESENT DEMAND.

107. The manner in which the *jama* of last settlement was arrived at has been explained in Chapter II and is certainly not such as to inspire confidence.

Rates of last settlement.

As it is usual however to explain the rates by which the existing assessment was calculated, and the result that would be obtained by applying these rates to the present area, I have worked out from the *data* available the rates for the different classes of soil at last settlement in the manner described in para. 100 of last year's report. This is shown in the attached table :—

Tahsil.	Details.	Chahi.	Sairaba.	Barani.	New fallow.	Banjar.	Total.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Rupbas	Area at last settlement ...	15,314	13,124	23,107	24,585	3,032	80,062
	Jama imposed ...	48,547	23,811	26,209	6,522	676	1,05,765
	Rate per bigha ...	Rs. 3-2-8	Rs. 1-13-0	Rs. 1-2-2	Rs. 0-4-3	Rs. 0-2-0	...
Oochain	Area at last settlement ...	35,791	18,350	34,877	30,791	2,231	1,22,040
	Jama imposed ...	95,015	32,259	25,263	16,072	186	1,68,795
	Rate per bigha ...	Rs. 2-10-6	Rs. 1-12-1	Rs. 0-11-7	Rs. 0-8-4	Rs. 0-1-4	...
Biyana	Area at last settlement ...	50,590	16,525	64,174	39,755	31,200	2,02,244
	Jama imposed ...	1,29,061	26,907	38,966	6,336	1,707	2,01,767
	Rate per bigha ...	Rs. 2-8-6	Rs. 1-9-10	Rs. 0-0-8	Rs. 0-2-7	Rs. 0-1-0	...
Bhusawar	Area at last settlement ...	61,109	5,826	75,590	68,629	13,604	2,24,948
	Jama imposed ...	1,48,866	10,058	55,882	21,443	1,429	2,37,178
	Rate per bigha ...	Rs. 2-7-0	Rs. 1-11-7	Rs. 0-11-9	Rs. 0-5-0	Rs. 0-1-8	...
Ballabgarh	Area at last settlement ...	9,094	273	7,732	3,833	478	21,410
	Jama imposed ...	22,875	514	5,103	1,097	50	29,539
	Rate per bigha ...	Rs. 2-5-3	Rs. 1-14-0	Rs. 0-10-6	Rs. 0-4-7	Rs. 0-1-8	...

Except in Rupbas the statistics of area and *jama* are not quite complete, as returns for some villages which were *kham* at the time are not forthcoming. As far as they go, however, the statistics show the area of each of the main classes at last settlement and the *jama* assessed on it, and from these *data* the rates are deduced as shown in the table.

It will be seen that in all tahsils, but especially in Bhusawar, a considerable sum was imposed on the large area then fallow; and as the increase of cultivation has taken place mainly in land then recorded as fallow, the fact that it is



already assessed at from  $2\frac{1}{2}$  annas to over 8 annas per *bigha* discounts the assessment which can now be taken. In Rupbas and Oochain the *banjar* land was assessed in only a few villages—four in each tahsil—and the sums imposed, Rs. 676 and Rs. 136, respectively, were trifling; while in Biyana and Bhusawar the areas of *banjar* assessed and the sum assessed were considerable.

108. If we apply these rates (omitting the rate on *banjar* in Rupbas and Oochain) to the present area, the result is—

Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.
Rs.	Rs.	Rs.	Rs.	Rs.
1,36,472	2,03,239	2,01,203	2,41,275	31,409

which gives a considerable increase in the present demand in Rupbas and Oochain, a slight increase in Bhusawar, and a slight decrease in Biyana and Ballabgarh. No argument in favour of enhancement can, however, be based on this calculation because (1) the assessment and rates of last settlement were generally excessive and have not been paid in full, and (2) the arrears would have been greater were it not that the great expansion of cultivation since last settlement has considerably reduced the incidence.

109. To arrive at the present pitch of the assessment, not only the *jama* alone, but the various cesses levied in addition, must be taken into account. The following table gives details of the land revenue and total demand for the year 1898-1899—

Details.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.	Remarks.
	Rs.	Rs.	Rs.	Rs.	Rs.	
Khalsa demand (1898-99) ...	1,05,777	1,71,717	2,04,905	2,35,210 (a)	34,611	(a) Includes Jhala Tala istam-rari Rs. 1,135 and all of Jahanpur Rs. 2,801 of which Rs. 1,500 is <i>mafi</i> and the rest <i>khalsa</i> ; excludes Rs. 133 on account of excess land held by mafidars but includes Rs. 70 paid to Deochi as <i>Jama</i> of a well in Samraya.
Resumed <i>mafi</i> ...	78	988	1,007	1,270	32	
Total land revenue ...	1,05,855	1,72,705	2,05,912	2,36,480	34,643	
Local rate @ 4-11-0 per cent. ...	4,967	8,094	9,653	10,717	1,505	
Patwar cess @ Rs. 3-3-0 per cent	3,296	5,396	6,435	7,543	1,091	
Installments levied for old arrears	2,690	1,658	1,723	2,931	371	
Subscription to temples ...	1,274	1,181	1,837	1,719	207	
Miscellaneous ...	102	283	339	599	...	
Total cesses ...	12,329	16,612	19,987	23,509	3,174	
Percentage on revenue ...	12	10	10	10	9	
GRAND TOTAL FIXED ...	1,18,184	1,89,317	2,25,899	2,59,989	37,817	
Fluctuating water rate ...	533	7,127	644	5,190 (b)	Nil.	(b) The average of 3 years 1897-98 and 1898-99.

Thus the demand for cesses runs from 9 per cent. on the revenue in Bhusawar to 12 per cent. in Rupbas. Of these only the local rate and Patwar cess which come to Rs. 7-13-0 per cent or 5 pies per rupee will in future be maintained.

110. The instalments for arrears represent the payments on account of Explanation of miscellaneous cesses arrears prior to last settlement fixed by and proposal for their abolition. the Assessing Committee at rates varying from one to ten per cent. on the *jama*. As all the arrears prior to last settlement have now been remitted by the State, and all payments on account of them abandoned, this item has now disappeared. *Chanda* or subscription to temples will now as in other tahsils be included in the *jama*, and the State will arrange for payment from the Treasury. The miscellaneous cesses in each tahsil are made up as follows:—

Detail.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.
	Rs.	Rs.	Rs.	Rs.	Rs.
(1) Road side grazing ... ..	48	...	100	146	...
(2) Malba of Kham villages ... ..	43	283	...	393	...
(3) Sawal Das Fakir ... ..	9	...	22	...	...
(4) Nazrana or bait ... ..	...	...	30	8	...
(5) Cesses paid by 6 villages for importing cattle from Jaipur ... ..	...	...	16	...	...
(6) Waterman ... ..	...	...	80	...	...
(7) Rund Kahnawar ... ..	...	...	141	...	...
(8) Resumed Hakk Mokaddami in Bhusawar town ... ..	...	...	...	62	...
Total ... ..	102	283	339	599	...

Of these (1) has hitherto been levied from certain villages adjoining the main roads which grazed their cattle or cut grass on the road side, but has now been abolished by order of the State Council, dated 31st August 1899; (2) represents the *malba* of villages under *kham* management which has been credited direct to the State as temporary owner, but as the proprietary rights have been now settled in all such estates, the *malba* will in future go to the owners; (3) is of the nature of *chanda* and will be similarly dealt with; the origin of (4) *nazrana* paid to the State by certain villages is uncertain, and as there is now no justification for it, it will merge in the *jama*; (5) paid by certain villages in the Biyana Dang for the privilege of importing cattle from a village which they own in Jaipur should also cease, as any such imports pay separate customs duty; (6) the Rs. 30 levied in Biyana to pay a water-carrier should also cease; (7) is really an item of land revenue as it represents the *jama* of Rund Kahnawar which after last settlement was given at an assessment of Rs. 141 to the village of that name, so it will now be treated as land revenue; (8) represents the *hakk mokaddami* in the town of Bhusawar resumed by the State prior to the summary settlement; it will now be restored after enquiry. Hence in future all these miscellaneous items will disappear and the demand will be limited to—

- (1) land revenue,
- (2) local rate at 4-11-0 per cent.,
- (3) Patwari cess at 3-2-0 per cent.,
- (4) in certain villages instalments on account of arrears since last settlement.

The question of charges for irrigation from State *bands* or canals will be separately treated.



111. Besides the extra cesses referred to which are fixed, there has also been a fluctuating demand for *talabana* (process fees) hitherto levied at excessively high rates from villages late in paying their revenue as a charge for the *dastaks* (writs of demand) issued by the State. The demand, realisations, and arrears under this head since last settlement are as follows:—

Detail.	Rupbas.	Oochain.	Biyana.	Bhusawar.
	Rs.	Rs.	Rs.	Rs.
Demand ... ..	9,542	14,336	11,564	28,896
Realisation ... ..	456	7,723	7,605	19,054
Arrears ... ..	9,086	6,613	3,959	9,842

The arrears under this head are included in the arrears of revenue up to date, but the realisations have not been included, as the demand is fluctuating and separate from the land revenue and cesses.

Over and above the State demand account must also be taken of the *malba* or fund for village expenses. This is levied by a percentage on the land revenue varying according to the *jama* and other circumstances of each estate. The rates in each tahsil and the total payment at present are shown below:—

Tahsil.	Rate.	Total demand.	Average per-centage on land revenue	REMARKS.
	Rs. Rs. As. P.	Rs.	Rs. As. P.	
Rupbas ... ..	4 to 12 8 0	7,462	7 8 0	
Oochain ... ..	2 „ 10 0 0	7,318	4 4 0	
Biyana ... ..	3 „ 16 0 0	15,627	7 9 0	
Bhusawar ... ..	5 „ 15 0 0	16,297	6 14 0	
Ballabgarh ... ..	6 „ 10 0 0	2,044	6 0 0	

The rates allowed in the past have generally been higher than is required for legitimate village expenses, and there have been many abuses and irregularities connected with the expenditure, the remedy for which is now under consideration.

Limitation of the rate and amount of *Malba*.

these tahsils also:—

112. The following scale has been fixed in the other tahsils and may be applied in

	Rs. A. P.	
Villages paying up to Rs. 500	7 13 0 per cent.	or 5 pice per Rupee.
„ „ „ Rs. 500 to Rs. 1,000	6 4 0	„ 4 „
„ „ „ Rs. 1,000 to Rs. 3,000	4 11 0	„ 3 „
„ „ „ above Rs. 3,000	3 2 0	„ 2 „

In each case one pice per rupee, i.e. Rs. 1-9-0 per cent. will go to the *lam-bardar* as an addition to the Rs. 3-2-0 per cent. *hakk mokaddami* which he receives from the State, and the rest will be appropriated to legitimate village expenses as defined in the *wajib-ul-arz*, and the zamindars should be left as far as possible to administer this fund themselves without interference from the tahsil. These rates, if applied to the present *jama*, give a total demand for *malba* of Rs.

4,836 in Rupbas, Rs. 7,012 in Oochain, Rs. 9,452 in Biyana, Rs. 10,076 in Bhusawar, and Rs. 1,342 in Ballabgarh; and even allowing for the increase in the *malba* which will result from the enhancement of *jama* in certain tahsils, there will still be a considerable decrease in the burdens of the people under this head, approximately—

Rupbas	...	...	...	...	...	2,000
Oochain	...	...	...	...	...	Nil.
Biyana	...	...	...	...	...	5,000
Bhusawar	...	...	...	...	...	6,000
Ballabgarh	...	...	...	...	...	500
Total						13,500

The decrease will no doubt be unpopular with the *lambardars* and the petty tahsil and revenue officials many of whom have hitherto looked on the *malba* as a personal perquisite, but it will be a distinct relief to the revenue payers.

113. From Captain Nixon's remarks quoted in para. 43, it is clear that the *hakk mokaddami* up to the summary settlement represented the only share of the profits left to the zamindars as a body, and even then it was probably as a rule made over to the leading men (*mokaddams*) of the village who were responsible for collecting and paying in the State demand. When the State demand became limited to a fixed assessment and a share of the profits or net assets was in theory at least left to the zamindars, this *hakk mokaddami* began to be regarded as the remuneration of the *lambardars*, and although in places the old system of dividing it among the whole proprietary body has survived, the principle has now been authoritatively laid down that the *lambardars* alone are entitled to it. Hitherto the rates at which it was allowed have been very arbitrary and varied not only from one tahsil to another but from village to village as the following table shows :—

Tahsil.	Total number of khales estates.	RATES IN WHICH <i>hakk mokaddami</i> IS PAID AT							Total amount paid.	Jama on which paid.	Percentage on revenue.	Total number of <i>lambardars</i> .	Average per <i>lambardar</i> .	REMARKS.
		Rs. 2 per cent.	Rs. 2-4-0 per cent.	Rs. 2-6-0 per cent.	Rs. 3 per cent.	Rs. 3-5-0 per cent.	Rs. 4 per cent.	Rs. 5 per cent.						
Rupbas	73	2	60	...	3	...	...	3	Rs. 2,413	Rs. 1,04,504	Rs. a. p. 2 4 6	274	Rs. a. p. 8 13 0	...
Oochain	89	50	...	1	3	21	1	14	4,012	1,68,522	2 6 1	635	6 5 0	...
Biyana	157	140	...	...	3	2	5	8	4,370	2,05,124	2 2 1	684	5 7 0	...
Bhusawar	126	...	...	95	8	...	14	5	5,850	...	2 9 0	630	9 0 0	...
Ballabgarh	13	...	...	...	...	...	...	12	1,327	...	4 8 0	67	20 0 0	...

From this it appears that the prevailing rates were Rupbas 2-4-0 per cent., Oochain and Biyana 2 per cent., Bhusawar 2-6-0 per cent., and Ballabgarh 5 per cent.; the higher rates from 3 to 5 per cent. being generally allowed to certain privileged villages of Jats, Rajputs, and in some cases Gujars. These rates were not, however, allowed on the full demand. In Rupbas the 5 per cent. was allowed only on 80 per cent. of the revenue; the other rates on 90 per cent. In Oochain and Biyana the rates above 2 per cent. were calculated on only 90 per cent. of the revenue. In Bhusawar rates of 3 per cent. and above



were subject to a similar deduction of 10 to 20 per cent., and in Ballabgarh where the rate is 5 per cent. in all villages—except Ballabgarh town which is *kham*—the deduction was 10 per cent.

The rates were generally much lower than in the northern and central tahsils, and in addition, they were never paid in full, advantage being taken of any delay in paying the State revenue to with-hold the *hakk mokaddami* altogether even when the arrears were subsequently paid up in full.

The sums thus withheld in each tahsil in the nine years 1890-91 to 1898-99 are :—

					Rs.
Rupbas	...	...	...	...	4,839
Oochain	...	...	...	...	8,458
Biyana	...	...	...	...	8,543
Bhusawar	...	...	...	...	16,746
Ballabgarh	...	...	...	...	800

Thus in estates which from over assessment, bad harvests, desertion of shareholders, etc., were unable to meet the demand in full, the *lambardars* received no remuneration at all, and they being discouraged and disappointed lost heart and made no attempt to promote cultivation or assist in realising the State demand. The whole system is an apt illustration of the narrow, selfish, and short-sighted policy pursued with such evil results in Bharatpur, of squeezing the people on every occasion, and as was inevitable the absence of fair-dealing on the part of the State drove the people to adopt every dishonest subterfuge in order to evade their liabilities, so that the State was the greater loser in the long run.

114. In 1898 the present administration tackled the subject on broad lines, swept away all complications and anomalies, and laid down—  
Reform of the *lambardari* system.

- (1) A uniform rate of Rs. 3-2 per cent. or 2 pice per rupee for the whole State besides the 1-9 per cent. from *Malba*; but in the Ballabgarh Jagir the old rate of 5 per cent. has been maintained.
- (2) This rate to be allowed on the revenue collected according as it is paid in.

Some subsidiary arrangements have still to be made for the smooth working of this latter rule, but the measures taken have not only considerably increased the remuneration of the *lambardars* in these tahsils, but have also restored their confidence in the intentions of the State to deal fairly by them. As long however as the number of *lambardars* continues as excessive and the average remuneration as low as at present, no great improvement in their efficiency can be expected. A regular enquiry into the *lambardari* system has now been undertaken village by village, one result of which will be to considerably reduce the numbers, by getting rid of men who are self-appointed and have no just claim to the office.

115. Among the items of demand shown in para. 109 is that for fluctuating water-rate, which is considerable in Rupbas and Biyana, Rs. 533 and 644 respectively, but amounts to a substantial sum in Oochain, Rs. 7,127, and Bhusawar, Rs. 5,190. These sums represent the charge on all lands irrigated by dams, channels, and other distributaries constructed by the State. At last settlement lands which were *sairaba* at the time, *i.e.*, inundated by any of these sources, were assessed as such, and no provision was made for charging a separate rate in case of future extensions of irrigation.

The development of the irrigation system, so successfully carried on by the Executive Engineer within the last six years, has greatly increased the area benefitted by and the efficiency of the inundations, especially in Oochain, and since 1897, when the results of the new management began to be appreciable, the State has imposed a demand of Re. 1 per *bigha* within and 8 annas per *bigha* outside the *bands* for all new land irrigated. The working of this rule

gave rise to many disputes and much confusion, as the zamindars when assessed to water-rates frequently claimed (1) that this was already included in their *jama* as the land had been recorded and assessed as *sairaba* at last settlement; (2) that their lands were not irrigated by any State works, but inundated by natural flow of the annual floods.

116. Finally, after discussion and consultation with the Executive Engineer and the State Council the following general principles (see Executive Engineer's letter No. 1519, dated 19th August 1899 to State Council) were accepted:—

- (1) Land benefitted by natural flow without artificial means of distribution, to be assessed accordingly in the settlement and not to pay separate water-rates.
- (2) As a general rule the *sairaba* area at time of attestation to be taken account of in assessment, so that no separate demand for water-rate will arise as regards it, whether actually irrigated in any year or not.
- (3) Land newly irrigated after the settlement or lands not assessed as *sairaba* at settlement but which have been artificially irrigated shall pay a separate water-rate.
- (4) When the total area irrigated in any village by new works or by good floods distributed artificially exceeds in any year the area assessed as *sairaba* at settlement, that village will have to pay water-rates on the excess area.
- (5) If the total area so irrigated should be less than the area assessed as *sairaba* at settlement, the village will nevertheless have to pay its full *Jama* because the contingency of an occasional failure has been taken account of in fixing the *sairaba* rates of assessment.
- (6) If any land has been newly irrigated but has derived no benefit as regards the crops from such irrigation, the water-rate will be remitted; if the benefit is slight, a partial exemption will be allowed.
- (7) All lands held in Mafi, Inam, or Jagir will pay a separate water-rate on the area benefitted by irrigation works, unless they have been specially exempted from such payment.

To complete these rules it is only necessary to add as a rider to rule (5)—“But if owing to changes in the course of the stream, floods, or irrigation channels, the *sairaba* area assessed at settlement has been considerably reduced, that shall be a reason for revising the assessment.”

117. These rules are of general application throughout the State. In all Application of the principles in the tahsils already assessed all *khalsa* lands southern tahsils. entered as *sairaba* at attestation have been assessed as such except in (1) the old Nagar tahsil where the irrigation from the Sikri *band* by means of the Nagar canal is still in its initial stages, and (2) the kham estates of Bharatpur Khas and Srinagar in Bharatpur; and water-rates can only be separately charged in the event of an extension of the *sairaba* area beyond that assessed at settlement. In the southern tahsils the *sairaba* lands will be assessed on their merits in all cases except:—

- (1) The villages in Biyana and Oochain irrigated by the canals from the Bareta *band*. This irrigation was only 1,325 *bighas* in 1898-99 in Biyana, but over 8,000 *bighas khalsa* in 1899-1900, viz., Biyana 6,427, Oochain 1,802. The lands within the *band* liable to submerging will be assessed from year to year on the fluctuating system.
- (2) The villages irrigated from (a) the new Thilchabi or Haleyna canal in Bhusawar and Oochain, (b) the Hasaonda and other canals in Bhusawar. The area so excluded is 3,310 *bighas* which paid an average water-rate of Rs. 1,510 in Bhusawar, and only 200 *bighas* in Oochain. The reason for exempting these cases is that the irrigation is by canals, and can be easily controlled, measured, and assessed separately to water-rate. In the case of all other *sairaba* dependent on *bands*, or flood channels, or natural inundations, the irrigation is rather directed than controlled; the villages affected benefit to some extent every year, though the advantage varies largely from year to year; it is next to impossible to separate the



value of the land from the water advantage; the people are accustomed to having the latter included in their *jamas*; and the most workable system is therefore to assess such lands as they are, making sufficient allowance for occasional failure or excess of floods and leaving it open to charge a separate water-rate when the area benefitted exceeds that now assessed as *sairaba*.

## CHAPTER IX—PART I.

### ESTIMATES OF ASSESSMENT AND PROPOSED DEMAND AND RATES.

118. The following table shows in the form of percentages the increase or decrease of cultivated area (para. 73), crops (90), *chahi* and *sairaba* area (75), wells and laos (21), ploughs (81), and population (58) since 1890-91 :—

Tahsil.	Cultivated area.	Crops.	CHAHÍ.		Masonry wells working.	Laos working.	Kacha wells.	Sairaba excluding barishi.	Ploughs.	Population.
			Hal.	Total.						
Rupbas	+61	+39	-17	-5	+86	+11	+273	+25	+46	-16
Oochain	+19	+1	-21	-16	+3	+11	-2	+155	+19	-9
Biyana	+5	-4	-13	-11	-3	+5	-22	-13	+4	-15
Bhusawar	+2	+1	-20	-19	+5	+11	+29	+70	+21	-14
Ballabagh	+6	+7	-9	-5	...	...	...	+50	+32	-15

There is a considerable increase in the areas of cultivation, and crops, *sairaba* area, and ploughs, and a slight increase in wells (except in Biyana) and of *laos* in all tahsils. But as a set off against these facts which make for enhancement, there is a marked decrease in both the total *chahi* area and the area irrigated within the year (*chahi hal*), and in population; while in Chapter IV it has been shown that from an assessment point of view there has been no increase in prices.

119. Among other reasons for enhancement may be urged—(1) a great improvement in the revenue administration, *viz.*, the correct definition of the rights of the zamindars, the limitation of their liabilities to the State, greater security of property and safeguards against exactions, and above all the settlement on a sound basis of deserted holdings and *kham* estates; (2) the remission of all arrears prior to 1890 and all payments in liquidation thereof; (3) the proposals now put forward to remit most of the arrears since 1890, and to realise the rest by easy instalments; (4) the steady development of the irrigation system, and the restoration and extension of the *bands* on which the State has spent several lakhs within the last six years; (5) the disappearance of the wild cattle nuisance which harassed parts of Rupbas and Oochain; (6) the inclusion in the *jama* of a number of extra cesses, the reduction in the rates of *malba*, and the reform of the *lambardari* system; (7) the large amount of waste land still available in all tahsils; (8) the assessment of most of the *sairaba* lands as such, so that separate water-rates will no longer be levied.

These are all weighty reasons for enhancement, but there are very strong arguments also on the other side, *viz.*, (1) the revenue has been enhanced by over 40 per cent. within the last 45 years by successive reassessments (para. 38); (2) the condition of the people steadily deteriorated between 1876 and 1890, and the improvement which set in between 1890 and 1895 has been arrested by the unfavourable agricultural conditions of the last 5 years; (3) in consequence the *jama* fixed in 1890 has never been paid in full, the arrears averaging over Rs. 13,000 per annum in Rupbas, over Rs. 14,000 in Oochain, Rs. 7,000 in Biyana, Rs. 17,000 in Bhusawar, and nearly Rs. 1,000 in Ballabgarh, which proves that the assessment was heavy at the time, and the arrears would have

been even greater but for the extension of cultivation; (4) the drought of recent years has considerably impaired the efficiency of the wells and increased the area insecure against drought, so that at present from 36 to 61 per cent. of the cultivation and from 53 to 82 per cent. of the crops in the different tahsils are dependent solely on the rainfall which, though it has a fair average over a series of years, varies considerably from year to year and is often badly distributed; (5) the new cultivation is chiefly in the inferior soils and mainly consists of land recorded as fallow at last settlement and then assessed at from  $2\frac{1}{2}$  to  $8\frac{1}{2}$  annas per acre; (6) cultivators are insufficient in number and often weak in capital and rents are consequently low; (7) many village communities are unable to work their lands fully for want of labour and capital, while nearly all have been much straitened by the drought of late years and will need breathing time before they will be able to pay even a moderate assessment; (8) the crops are in many places damaged by wild animals—deer, *nilgai*, pig, and in the sandy tracts close to the Banganga and Kumber by field-rats.

Other circumstances could be adduced to support the argument for leniency in assessing, but the circumstances of each tahsil have been so fully described in Chapters I to III that recapitulation is unnecessary.

120. I now proceed to determine what will be a fair two-thirds net assets assessment in each tahsil. The various Demand by the various estimates. estimates which will help towards this object are summed up in the following table :—

No.	Estimates.	Rupbas.	Oochain.	Biyana.	Bhuswar.	Ballabgarh.	REMARKS.
		Rs.	Rs.	Rs.	Rs.	Rs.	
...	Demand of 1898-99 ...	1,05,855	1,72,705	2,05,972	2,36,480(a)	34,643	(a) Includes Is- tamrari Rs. 1,135 and the mafi por- tion of Jahanpuri Rs. 1,500.
...	Add cesses to be abolished ...	4,066	3,132	3,768	5,249	578	
...	Add water-rate now included in jama—about.	533	7,000(b)	500(b)	3,080	...	(b) Approximately see paragraph 117.
...	Total ...	1,10,454	1,82,837	2,10,230	2,45,409	35,221	
...	Total present demand including all water-rate and cesses.	1,18,717	1,96,454	2,20,003	2,65,179	37,617	
A.	By summary rates of last settlement (Chapter VIII).	1,56,745	2,11,782	2,09,391	2,55,334	32,710	
B.	By soil rates of last settlement (Chapter III).	1,36,472	2,03,239	2,01,203	2,41,275	31,409	
C.	By one-fourth of the produce (Chapter V).	1,05,082	1,64,887	2,14,501	2,36,770	33,427	
D.	By kind rents State share being two-thirds of owners' share.	1,07,389	1,84,868	2,08,446	2,30,701	31,606	
E.	By khatauli cash rents ...	79,839	1,37,334	1,50,203	1,71,169	25,126	
F.	By actual cash rents in selected vil- lages.	97,325	1,60,207	1,64,632	...	...	

The new demand may be compared with the present actual *khalsa* demand alone, or with the present *khalsa* demand including the miscellaneous cesses and the water-rates now to be included in the assessment.

Taking these estimates in order—

A. and B. which are calculated on the summary and soil rates of last settlements are an unreliable guide because (1) that assessment was an unequal



and excessive one; (2) there has been a great increase in *barani* at the expense of the more valuable classes of soils.

C. and D.—the estimates founded respectively on one-fourth of the produce and on the State share being taken as two-thirds of the owners' share—agree fairly closely, and have been calculated with care and moderation.

E.—which is based on *khatauni* cash rents—has been shown in Chapter VII to be entirely misleading, and

F.—the estimate framed from actual cash rents realised in selected villages in each tahsil—though nearer the mark is not convincing though useful for check upon and comparison with the other estimates. At all events it is the best estimate we have founded upon actual and carefully attested data in three tahsils, though unfortunately it is wanting in Bhushawar. On general grounds I think that we shall find the two-thirds net assets assessment somewhere between F. and D., the estimates based on the best actual and theoretical data.

121. How near we should approach one or the other, is a matter in which Assessment proposed on cultivation local experience must be a guide. I have and waste. therefore in the course of my village inspections made rough calculations of what each estate can be properly called upon to pay, have compared my notes with the estimates of Mr. Pyster and of Mr. Hira Singh, an officer of exceptional judgment and knowledge of assessment matters. Using this knowledge as a check upon the above estimates, and taking into account the income from fallow and waste lands, and the assessment to be imposed on them, I consider the following to represent a fair two-thirds net assets demand in each case.

Detail.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
On cultivation ...	1,06,600	1,84,000	2,12,000	2,31,000	36,000	7,69,600
On fallow and banjar ...	4,500	3,000	5,000	5,000	...	17,500
Total ...	1,11,000	1,87,000	2,17,000	2,36,000	36,000	7,67,000

And I propose this as the future assessment of each tahsil to come into force from the *khariif* of 1900 for a term of 20 years.

122. The proposed demand includes the miscellaneous cesses to be abolished Gross and net increase or decrease on and the water-rates now merged in the the present demand. *jama* with the exceptions noted in para.

117. It may therefore be compared with (1) the present *khalsa* demand and (2) the present *khalsa* demand including water-rates and cesses merged in the *jama*. This is done in the following table :—

Particulars.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.	Total.
Increase or decrease on present khalsa demand.	Rs. +5,145	+14,205	+11,028	—480	+1,357	31,345
Percentage ...	+5	+8.5	+5.5	—2	+4	+4
Do. Do. khalsa demand including water-rates and cesses merged in the <i>jama</i> .	Rs. +546	+4,163	+6,770	—9,400	+770	2,849
Per cent. ...	+5	+2.5	+3	—4	+2	+5

Thus the net result is (1) to enhance the present *khalsa* demand for the whole tract from Rs. 7,55,655 to Rs. 7,87,000, i.e., by Rs. 31,345 or 4 per cent., the variations ranging from a trifling decrease in the old demand in Bhushawar, to



an enhancement of 8·5 per cent. in Oochain; (2) to enhance the present *khalsa* demand together with cesses and water-rate now merged in the *jama* by only Rs. 2,849 or ·5 per cent. which is arrived at by small enhancements of from 2 to 3 per cent. in Oochain, Biyana and Ballabgarh, a nominal enhancement of ·5 per cent. in Rupbas, and substantial decrease of nearly Rs. 10,000 or about 4 per cent. on the present demand in Bhusawar, where the *jama* is undoubtedly excessive. It should be explained that in Bhusawar the former and the proposed demand include the total assessment of Jahanpuri of which Rs. 1,500 at present goes to the *mafidars*.

123. If we look to the great increase in cultivation and the large margin for Justification of the assessment proposed. future expansion the net enhancement may appear trifling, but if we look to the actual realisations of the past ten years (para. 51), in which all cesses are included but water-rate is excluded, the new demand may seem excessive. In making this comparison, however, it must be remembered that the increase in cultivation has been greatest within the last few years, and given normal seasons the people were in a much better position to meet the demand of last settlement at the end of its term than at the beginning. The old assessment was not in late years excessive so much as it was unequal, owing to a bad distribution between and within estates at the start, and the great changes wrought during its currency by Banganga floods, years of scarcity, etc. I am confident that the demand I have now proposed is fair to the State and the people, that it will be accepted cordially by the latter, and that, if judiciously apportioned between the villages, and carefully distributed within them, they will have no difficulty in discharging it in full in normal years. Of course, in assessing, no provision can be made against such agricultural calamities as those experienced within the past year and should such recur, the State will have to follow the wise and enlightened policy of the British Government and the best Native States in suspending and remitting part of the demand and otherwise alleviating agricultural distress. When the settlement of the State was taken in hand 3½ years ago, it was a notorious fact that the southern tahsils were suffering from over-assessment, and it was anticipated that considerable reduction would be necessary. Had it not been for the beneficial results of the action taken by the Executive Engineer to control and utilise the Banganga floods, and to restore the neglected *bands* on the maintenance of which the prosperity of so many estates is dependent, instead of being able to bring out a slight enhancement, a reduction of from Rs. 75,000 to 1,00,000 would probably have been necessary.

The assessment now proposed for the tahsils as a whole is in round numbers, and the sum-total of the village assessments as announced may exceed or fall short of it by one or two per cent. especially in Biyana where I have still some 50 villages to inspect. In some cases it may also be necessary to make the assessment progressive, *e.g.*, where a village is now temporarily depressed. The actual result will however be reported in due course.

124. Assuming that the assessment as announced will not differ from that now proposed, the net result for the whole State (see para. 3) will be to raise the *Khalsa* demand from Rs. 19,04,396 to Rs. 20,69,845 initial and Rs. 20,86,813 final, *i.e.*, thus giving an initial enhancement of Rs. 1,65,449, or 8 per cent., and a final enhancement of Rs. 1,82,417, or 9·5 per cent. The old demand includes, but the new does not include, the three *Kham* estates of Kumher, Srinagar and Bharatpur town, for which an additional sum of about Rs. 14,400 may be added, giving a total final demand for the State of 21 lakhs and an enhancement of over 10 per cent. Moreover, the demand on account of waste lands leased for cultivation in the four southern tahsils and in Bharatpur, Kumher and Akhegarh is not included. The revenue under this head will in a few years be about Rs. 60,000 per annum.

In connection with the settlement arrears of land revenue and cesses prior to 1890 to the amount of Rs. 43,59,518 have been remitted and instalments in liquidation of them given up, while of the arrears since 1890 the total of which

is Rs. 7,88,106—excluding arrears of 1899-1900—Rs. 6,00,917 have been remitted (assuming that my proposals for the southern tahsils are accepted) and the balance Rs. 1,87,189 will be realised with the land-revenue by easy instalments.

#### Soil rates proposed.

125. The rates which I propose to bring out the new demand are as follows :—

Class of soil.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Chahi hal (a) permanent ...	2 12 0	2 8 0	3 0 0	2 13 0	3 4 0
(b) temporary ...	2 4 0	2 4 0	2 4 0	2 0 0	2 8 0
Chahi salraba hal ...	3 0 0	3 0 0	3 4 0	3 0 0	3 4 0
Chahi sabika ...	1 8 0	1 4 0	1 8 0	1 3 0	1 8 0
Average Chahi per bigha ...	2 5 0	2 5 4	2 8 4	2 6 9	2 13 3
" " " acre ...	5 12 0	5 13 0	6 4 10	6 0 9	7 1 0
Khatili ...	1 10 0	1 12 0	2 8 0	2 0 0	...
Salraba hal ...	1 10 0	1 12 0	1 10 0	1 8 0	...
" sabika ...	1 4 0	1 0 0	1 6 0	1 2 0	1 2 0
" Barishi ...	1 4 0	1 2 0	1 2 0	1 2 0	1 2 0
Average salraba per bigha ...	1 5 1	1 8 4	1 8 11	1 7 6	1 2 0
" " " acre ...	3 7 6	3 13 0	3 14 0	3 10 9	2 13 0
Barani ...	1 0 0	0 14 0	0 12 0	0 12 0	0 12 0
Bhur ...	0 13 0	0 10 0	0 8 0	0 8 0	0 8 0
Total demand on cultivation ...	1,07,230 0 0	1,84,544 0 0	2,11,879 0 0	2,26,331 0 0	34,183 0 0
Average on cultivation per bigha ...	1 4 8	1 8 0	1 7 10	1 5 3	1 10 3
" " " acre ...	3 3 8	3 12 0	3 11 9	3 5 0	4 1 8
New fallow ...	0 4 0	0 4 0	0 4 0	0 4 0	...
Old banjar ...	0 1 0	0 1 0	0 0 6	...	...
Total demand on fallow and banjar ...	4,425 0 0	2,930 0 0	5,680 0 0	5,620 0 0	...
GRAND TOTAL OF DEMAND ...	1,11,655 0 0	1,87,474 0 0	2,16,959 0 0	2,31,951 0 0	34,183 0 0

The rates work out very closely to the proposed demand except in Ballabgarh, where the well cultivation is very superior, and on that account and also as the zamindars have now had their proprietary rights secured to them, the assessment may be pitched above the rates, so that the Jagirdar may receive some compensation for what he may regard as the loss of his authority over the zamindars. The rates are based on the results of the produce estimate in Chapter VI, modified by the data as to cash rents. The variations between different tahsils are in accordance with differences of quality, etc., which have already been sufficiently discussed and need not be further alluded to here.

126. Compared with the rates of last settlement (para. 107) these rates are decidedly lenient. In the following table a comparison is made with the rates of the northern and central tahsils, and with those of the adjoining Agra and Muttra tahsils which were



however, assessed 25 years ago. The figures throughout represent rates per acre:—

District or State.	Tahsil.	Chahi of all kinds.	Sairaba.	Total Barani.	Bhur.	Average on all cultivation.
		Rs. A. P. Rs. A. P.	Rs. A. P. Rs. A. P.	Rs. A. P. Rs. A. P.	Rs. A. P. Rs. A. P.	Rs. A. P. Rs. A. P.
Bharatpur ...	Northern ...	4 13 0 to 6 1 0	2 14 0 to 4 14 0	2 4 0 to 2 8 0	1 4 0 to 1 9 0	2 13 0 to 4 0 10
	Central ...	4 1 0 to 5 5 0	2 8 0 to 3 12 0	2 0 0 to 2 6 6	1 4 0 to 1 9 0	2 10 0 to 2 15 0
Muttra ...	Cis-Jumna ...	2 10 0	.....	1 8 0 to 4 0 0	1 0 0 to 2 4 0	1 11 0 to 2 0 5
Agra ...	Fattehpur Sikri	2 11 0	.....	1 14 0	.....	2 5 6
	Khairagarh ...	3 2 6	.....	1 8 4	.....	2 0 3
	Agra ...	2 15 4	.....	1 18 0	.....	2 9 5
Bharatpur ...	Southern ...	5 12 0	3 7 6 to 3 14 0	1 14 0 to 2 8 0	1 4 0 to 2 0 6	3 3 8 to 3 12 0

I have excluded the Ballabgarh *Jagir* as the area is small and the circumstances exceptional.

Compared with the northern and central tahsils the *chahi* rates in the southern tahsils are considerably higher, the chief reason being that the latter tract has sweet water and the wells in ordinary years have much *dofasli* and a higher yield all round. The *sairaba* rates on the other hand are lower in the southern tahsils, as the Banganga floods are not so rich in fertilising ingredients as those of the Ruparel, and the arrangements for storage and distribution are not yet perfected. The *barani* and *bhur* rates in Rupbas are equal to those of the northern tahsils; in Biyana and Bhusawar the *barani* rate, 12 annas, is lower than anywhere else in the State because the cultivation is indifferent and owing to the uncertainty of the winter rains the most paying *barani* crops—gram and *sarson*—are little raised. For the whole tract the incidence per *bigha* or acre of cultivation is higher than in the central or northern tahsils—excepting Gopalgarh—owing to the higher proportion of *chahi* land in the southern tahsils and its superior quality.

To make the comparison with the Agra and Muttra rates a correct one, the latter should be raised by one-third to allow for the difference in the standard of assessment— $\frac{2}{3}$  in British territory and  $\frac{1}{3}$  in Bharatpur. If this be done, the *barani* rates in Agra and Muttra are much higher than I have proposed, while the *chahi* rates are considerably lower. I have passed through many of the cis-Jumna villages of Agra at various times, and in my opinion the well cultivation and the *chahi* crops except in the immediate vicinity of Agra city are distinctly inferior to those of the southern tahsils in Bharatpur. For this there are two causes, *viz.*, the character of the wells and the quality of the water. In the Agra tahsils (see para. 27 Settlement Report) most of the wells are *kacha* or earthen, *viz.*, Fattehpur Sikri 77 per cent., Agra 87 per cent., Khairagarh 89 per cent.; and these, though less costly, are never so efficient for irrigation purposes as masonry wells, which in the Bharatpur southern tahsils form 80 per cent. of the total number. Again the quality of the water is inferior in the Agra tahsils and the following quotation from the Settlement Report (para. 31) corroborates my opinion:—

“In Fattehpur Sikri there is a very large proportion of brackish or salt water and this defect is met with, though to a much smaller degree, in the Agra tahsil. Where the water is brackish or salty, the cultivator in the midst of wells is for the most part no better off than if he were in a wholly unirrigable country.”

If we increase the all-round incidence in Agra by one-third to bring it up to the Bharatpur standard, the result is 2-11-0 per acre in Khairagarh, Rs. 3-2-0 in Fattehpur Sikri and Rs. 3-8-0 in Agra which agrees fairly closely with the incidence in Rupbas Rs. 3-3-8 which is wedged in between Fattehpur Sikri and Khairagarh. The proportion of irrigated land is, however, higher in the British tahsils, but on the other hand they were assessed 25 years ago and prices and rents have risen considerably since.

On the whole therefore the comparison with adjoining British tahsils points to the conclusion that the rates now fixed are moderate with reference to the standard of assessment.

Other demands in addition to land revenue and revenue instalments.

127. Besides the assessment now imposed, the only extra charges will be—

(1) Cesses at the rate of Rs. 7-13-0 per cent., or 5 pice per rupee, for local rate and the Patwar Fund.

(2) Instalments on account of arrears since 1890 in certain villages.

(3) Water-rate on the area irrigated by State works, where such irrigation has not been taken account of in the new assessment or where a greater area is benefitted than that now assessed (para. 117).

(4) *Malba* for village expenses at the rates shown in para. 111.

If sanction to the proposals is received in time, I intend to announce the new assessments in August in all but the villages of Biyana which I have not yet seen.

The dates for the revenue instalments provisionally sanctioned for the northern tahsils are—

<i>Kharif</i> 1st	...	...	...	25th November,
2nd	...	...	...	25th December.
<i>Rabi</i>	...	...	...	15th May.

Experience has shown that these dates are rather late and the tahsildars are inclined to anticipate them. I think the following dates will be suitable for the whole State:—

<i>Kharif</i> 1st	...	15th November to 30th November.
2nd	...	15th December to 30th December.
<i>Rabi</i>	...	1st May to end of May.

If collections are begun at earlier dates, the result will be considerable hardship to the people as they will be forced to dispose of their produce at a disadvantage. I therefore trust that the Darbar will insist on these dates being rigidly adhered to.

## Part II. Revenue-free grants and Miscellaneous.

128. The proposals in Part I of this Chapter refer only to *Khalsa* lands, but in Bharatpur, for reasons explained in the introduction to the report on the northern tahsils, all revenue-free grants, whether of whole estates, shares in them, or separate plots, have been brought under settlement, and records of rights prepared for them which will be of use in settling any future disputes between the *mafidar* and the zamindars. A nominal assessment has also been worked out for all such grants as a basis for calculating the cesses due to the State for local rate, *dami* (Patwar cess), etc. This *jama* will be given effect to in case of resumption, and may be brought into working at once if either the *mafidar* or the proprietors of the land so desire, as one or the other generally does.

The total and cultivated *mafi* areas of each tahsil have been shown in para. 72, and further particulars as to the number of estates, etc., are given in para. 14. Revenue-free grants of land are, as explained in para. 121 of last year's report—(1) *Inam* or *chakiri* on condition of furnishing so many guns (footmen) or horses (horsemen) for military service—an obligation which is now generally commuted by payment of Re. 1 per month as penalty for absence (*ghairhaziri*); (2) *Punarth* or charitable grants to temples or other religious institutions, Brahmins, *purohits*, etc.; (3) *Iwaz Khidmat* or grants for other services; (4) *Kansa* or maintenance grants to State *Sirdars* who are generally relations of the ruling family or the so-called Thakurs of the *Solah Kothris*, i.e., descendants of the 16 sons of Raja Badan Singh; (5) *Jagirs* or grants to foster-relations of the Chief, other persons of importance, and Court favourites.



129. The following table gives details of the number of estates (where Area of each class of cesses now levied whole estates or shares in them are allotted), total and cultivated area, cesses at present levied, and nominal assessment by the new rates, for each class of grants:—

Tahsil.	Kind of mafi.	Detail.	Number of villages.	Total area.	Cultivated area.	Fallow.	Jama by new rates.	CESSES.							REMARKS.
								Daml.	Local rate.	Excess (Barha).	Absence penalty.	Bait or nazari.	Contribution.	Total.	
Ropbas	Panarth	Whole	4	4,420	2,544	37	...	62	61	...	...	4	3	130	
		Plots	...	587	502	3	...	17	...	...	...	...	...	17	
		Total	4	5,007	3,046	40	...	79	61	...	...	4	3	147	
	Kausa	Petty	...	74	53	...	...	2	...	...	...	...	...	2	
		Whole	1	353	259	5	...	14	...	...	68	6	...	88	
		Petty	...	258	181	26	...	11	...	...	48	10	...	69	
Inam	Total	1	611	444	31	...	25	...	...	116	16	...	157		
	Total of tahsil	.....	4½	5,692	3,543	71	5,23	106	61	...	116	20	3	306	
Oochain	Panarth	Whole	3	8,090	4,195	379	...	74	72	...	...	709	3	858	
		Petty	...	1,694	1,428	102	...	51	5	36	...	...	1	93	
		Total	3	10,384	5,623	481	...	125	77	36	...	709	4	951	
	Kausa	Whole	3	11,657	9,223	510	...	394	268	...	...	...	5	667	
		Petty	...	24	24	...	...	1	...	...	...	...	...	1	
		Total	3	11,681	9,247	510	...	395	268	...	...	...	5	668	
	Inam	Petty 34 guns	...	1,968	1,732	49	...	81	...	...	430	26	...	537	
		Whole	1	4,948	3,022	33	...	159	100	...	...	...	...	259	
		Petty	...	301	288	...	...	9	...	...	...	...	...	9	
	Jagir	Total	1	5,249	3,310	33	...	168	100	...	...	...	...	268	
Total of tahsil		.....	7	29,282	19,912	1,073	29,083	769	443	36	430	735	9	2,424	
Biyana	Panarth	Whole	3	3,209	1,436	101	...	105	35	...	...	6	3	149	
		Petty	...	1,783	1,484	61	...	252	...	...	...	...	...	252	
		Total	3	4,992	2,920	162	...	357	35	...	...	6	3	401	
	Kausa	Whole	9½	16,056	9,090	637	...	409	292	...	...	26	29	756	
		Petty	...	29	13	...	...	1	...	...	...	...	...	1	
		Total	9½	16,085	9,103	637	...	410	292	...	...	26	29	757	
	Jagir	Whole	...	...	...	...	...	...	...	...	...	...	...	...	
		Petty	...	...	...	...	...	...	...	...	...	...	...	...	
		Total	3	6,486	4,738	143	...	198	158	...	...	2	2	360	
	Chakri	Whole	1	1,424	836	46	...	40	...	...	105	2	31	178	
		Petty	...	2,462	1,881	113	...	86	...	...	348	12	...	446	
		Total	1	3,886	2,717	159	...	126	...	...	453	14	31	624	
	Miscellaneous	Petty	...	212	196	9	...	6	...	...	...	...	...	6	
Total of tahsil		.....	16	30,601	19,006	1,169	32,960	1,097	485	...	473	48	65	2,148	
Bhusawar	Panarth	Whole	4½	6,178	6,345	314	...	371	262	...	...	18	3	654	
		Petty	...	4,523	3,755	313	...	150	...	135	...	...	...	255	
		Total	4½	13,001	10,100	627	...	521	262	135	...	18	3	909	
	Iwar khidmat	Petty	...	702	557	112	...	24	...	24	...	...	...	47	
		Whole	3½	4,160	2,557	638	...	117	70	...	...	4	3	194	
		Petty	...	57	57	...	...	3	...	8	...	...	...	11	
	Kausa	Total	3½	4,207	2,614	638	...	120	70	8	...	4	3	205	
		Whole	1	455	394	75	...	16	...	...	90	...	...	105	
		Petty	...	2,271	1,620	260	...	69	...	24	317	...	...	440	
	Inam chakri	Total	1	2,726	1,964	341	...	84	...	24	437	...	...	545	
Total of tahsil		.....	8½	20,636	18,241	1,918	22,510	749	332	190	437	22	6	1,736	

Tahsil.	Kind of mafi.	Detail.	Number of villages.	Total area.	Cultivated area.	Fallow.	Jama by new rates.	CESSES.						REMARKS.	
								Dami.	Local rate.	Excess (Barha).	Absence penalty.	Bait or nazaf.	Contribution.		Total.
Ballabgarh ...	Punarth ...	Petty ...	...	169	166	...	...	17	...	...	...	...	...	17	
	Iwaz khidmat ...	Petty ...	...	52	42	...	...	2	...	...	...	...	...	2	
	Kansa ...	Whole ...	...	1,186	374	2	...	48	...	...	...	...	...	48	
		Petty ...	...	346	290	47	...	11	...	...	...	...	...	11	
		Total ...	...	1,532	664	49	...	59	...	...	...	...	...	59	
Chakri ...	Petty ...	...	257	254	...	...	11	...	...	35	...	...	46		
Total of	Ballabgarh ...	.....	...	2,010	1,126	49	1,478	89	...	...	35	...	...	124	

The total assessment by new rates (in which *banjar* is not included) and the cesses at present levied are—

Tahsil.	Jama by new rates.	CESSES AT PRESENT LEVIED.						
		Dami.	Local rate.	Excess barha.	Absence penalty.	Bait or bazar.	Contribution to temples.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Rupbas ... ..	5,230	106	61	...	116	20	3	306
Oochain ... ..	29,683	769	445	36	430	735	0	2,424
Biyana ... ..	32,960	935	484	...	483	48	65	2,015
Bhusawar ... ..	22,510	749	332	190	437	22	6	1,736
Ballabgarh ... ..	1,478	89	...	...	35	...	...	124
Total ... ..	91,861	2,648	1,322	226	1,501	825	83	6,605

130. So that for the whole tract the nominal assessment of the alienated Proportions of *khalsa* and revenue-free or revenue-free grants is Rs. 91,861, or assessment in the whole State. about 10.5 per cent. of the total assessment of *khalsa* and *mafi* lands.

If we add in the valuation of revenue-free lands for the northern and central tahsils (para. 3)—which, however, does not include the remission in *Chauth* villages—the total assessment comes to Rs. 2,74,132 initial rising to Rs. 2,74,377 final. Adding this to the *khalsa* demand—approximately 21 lakhs—the total land-revenue *khalsa* and assigned comes to 23½ lakhs, of which between 11 and 12 per cent. is assigned. The *mafi* figures in Oochain include the village of Bareta which is part of the Ballabgarh Jagir, and though temporarily attached, the income is separately credited to the jagir account. I have therefore not included it in *khalsa*. When the temporarily forfeited Jagir of Ballabgarh is restored, the *mafi* figures should be increased and the *khalsa* figures decreased by about Rs. 36,000.

131. Returning to the southern tahsils the explanation of the various cesses levied is as follows:—

*Dami* or Patwar cess is levied on all *mafi* lands; in the case of whole villages at the usual rate of Rs. 3-2-0 per cent. on the old valuation of the grant, and in the case of separate plots at the rate of 2 pice per *bigha* on the whole area. The only exception is the small grant of 100 *bighas* in Rund Samra which has hitherto paid not even *dami*, but the liability will be enforced now unless there is a special order remitting it. The term *dami* appears to be derived from the cess of one *dam* per *bigha*, which, as appears from the *Ain-i-Akbari*, was even then levied in addition to the State demand, in order to form a fund for paying the patwaris. Local rate at the rate of 2 per cent. is generally



paid by whole villages held in any form of *mafi* tenure except Inam grants which are exempt. *Barha* is really not a cess but represents the *khalsa* revenue due on the excess area found to be in the possession of the *Mafidar*. Where this land can be identified, the area will be included in *khalsa* and assessed as such.

The absence penalty (*ghairhaziri*) represents the payments made at the rate of one rupee per month by Inamis who have permanently or temporarily commuted their liability to attend in person for service. The general tendency is now towards such commutation, and to facilitate collections the amount due will be shown in the new records as part of, and will be realised with, the land revenue demand. The demand includes a sum of Rs. 30 levied from the Inamis of Kapura Maluka in Biyana to pay a water-carrier when they used to attend personally for service. But as they now pay the absence penalty as well as the usual cesses, this extra payment (see paragraph 110) should cease.

The Inamis of Naigaon Khurd in Biyana are liable to furnish 16 guns or footmen, of whom four are employed in the tahsil and receive Rs. 4 per mensem and 12 as watchmen in the Secundra Fort and are paid Rs. 1-4-0 per man. Thus they receive a cash remuneration in addition to holding their land revenue free. The *chanda* or contribution to temples is a small sum paid at the rate of Rs. 1 to 2 per village by all grantees of whole villages except Inamis, and the same rule applies to the cess known as *nazar bait*. The only exception is the case of the large estate of Paharsar in Oochain held in *mafi* by Saiyids since Moghul times, or rather since the conquest of Biyana by Abu Bakar Kandahari. About ninety years ago Maharaja Randhir Singh fixed Rs. 701 (now Rs. 699) as *nazarana*. Maharaja Balwant Singh remitted Rs. 193 of this in favour of widows and orphans, but directed that the sum remitted should be paid into, and disbursed from, the Treasury. The arrears of this *nazarana* since last settlement amount to Rs. 2,252, but the Saiyids, though men of position and wealth—their monthly income from, service chiefly under the British Government, is said to be over Rs. 12,000—refuse to pay up the arrears, and wish to set off against them the Rs. 193 paid annually into the Treasury which they say has not been disbursed for some years. I allude to this matter here in order that the State Council may take steps for its early settlement.

132. Correct figures as to the arrears due from revenue-free holdings are difficult to obtain owing to the cumbersome system in the past by which part of the demand, *viz.*, for local rate and *Patwar* cess, was treated as land revenue and realised through the tahsil, while the other items were under the control of the special Inam Department. I give below the figures as supplied to me showing separately the arrears prior to last settlement, which have now been included in last year's general remission, and the arrears since 1890, which have now to be disposed of—

Particulars.	Detail.	Rupias.	Oochain.	Biyana.	Bluswar.	Total.	REMARKS.
Arrears up to 1890 remitted.	Tahsil office ...	850	2,243	3,183	...	6,276	
	Inam office ...	157	2,537	2,342	4,110	9,146	
	Total ...	1,007	4,780	5,525	4,110	15,422	
Arrears since 1890 ...	Tahsil office ...	275	3,410	298	408	4,451	
	Inam office ...	478	2,465	4,200	2,011	9,151	
	Total ..	753	5,875	4,498	2,479	13,605	

Thus, if the figures can be relied upon, Rs. 15,422 arrears prior to 1890, have been remitted, and arrears since 1890 amount to Rs. 13,605, of which the sums due for '*Dauran Mokaddami*' (i.e., pending sanction to the succession the State claimed the income) viz, Re. 1 in Rupbas, Rs. 32 in Oochain, Rs. 40 in Biyana and Rs. 468 in Bhusawar, should certainly be remitted. Arrangements for the realisation of the rest will be made after reference to the Political Agent and Council.

133. Besides the *Hakk Mokaddami* allowed by the State as a percentage on Nankar and Chhut allowances in the *jama*, the *lambardars* and in some Khalsa villages. cases the whole proprietary body in certain villages receive small grants from the State known as *Nankar* and *Chhut*, i.e., a reduction on the revenue. The number of estates and the total amount so allotted in each tahsil is as follows:—

Detail.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Total.	Total for the State.
Number of estates ...	1	50	22	34	107	169
Amount ...	30	834	766	947	2,577	4,874

In the southern tahsils Rs. 2,577 is paid to 107 villages and in the whole State Rs. 4,874 to 169 villages, and this does not include about Rs. 1,000 paid to Chaudhris in the northern tahsils.

Originally these payments were probably a form of remuneration to influential zamindars for helping to collect the revenue; in others an addition to the *Hakk Mokaddami*. The original intentions have now been lost sight of and the State gets no return for this large expenditure. In some cases it takes the form of a percentage on the revenue, but usually it is a fixed sum. In some villages only the *lambardars* receive it; in others it is shared by all the owners.

134. As suggested in paragraph 181 of my report on the northern tahsils, I think this sum, which is now frittered away among several hundred persons, none of whom derives any substantial benefit from it, might be utilised to remunerate *Chaudhris* to be appointed in each tahsil in the same way as *Zaildars* in the Punjab. I therefore propose that in future these payments to bodies of *lambardars* or whole villages should cease, unless where there is a very special reason for retaining them, and that in their stead the State allow 2 per cent. of the *jama* in each tahsil (excluding Gopalgarh and Pahari where there are already well-paid *Chaudhris*) to remunerate *Chaudhris*, who will be appointed from among the most prominent zamindars with due regard to tribe and local influence at the close of the settlement and whose duties will be similar to those of *zaildars* in the Punjab.

The State would gain financially by this proposal as 2 per cent. on the new revenue excluding Gopalgarh and Pahari, would be about Rs. 3,300, while the present expenditure is Rs. 4,874. From the fund so formed *inams* averaging Rs. 100 per annum could be given to from two to four selected men in each tahsil according to its size. The gain to the administration—revenue, police, etc.,—if good men are selected and the system properly worked, will be considerable. What is at present most needed in Bharatpur is to raise the status of the zamindars, and promote the growth of the sturdy yeoman class, which is found so useful in the Panjab as an intermediary between the Government and the people. There is abundance of good material in the State, but the policy in the past has been to regard the zamindar as a cow to be milched dry, or as a sponge to be squeezed, and no steps have ever been taken to raise their position. The result is that nothing is done by the agricultural body to assist the administration. The tahsil chuprassi and the Patwari have to be requisitioned for



the most ordinary duties and the collection of the revenue is left almost entirely in their hands.

135. In this as in previous reports I have confined myself to only one branch of the settlement, viz., the assessment and cognate matters. In Bharatpur, however, which has hitherto had no record of rights, the preparation of a correct record and the organisation of an establishment to maintain it are of primary importance. These objects have been steadily kept in view since the beginning of the settlement, and the progress made has been noted in my annual reports on the working of the settlement to the Political Agent and Council. The matter will be dealt with more fully in the Final Report which I hope to write before closing the operations, but I may here note briefly some of the chief measures carried out or under consideration.

(1) All questions connected with proprietary and tenancy rights, revenue liability, shares, rights in wells and irrigation, claims of deserting and absconded owners to recover, disputes between *mafidars* and zamindars, have now been enquired into and finally disposed of, and the results have been incorporated in the new record.

To illustrate the labour involved in even one branch, I need merely state that up to September 1899 over 16,000 cases relating to tenant right were disposed of by the Circle Officers, while 2,044 cases relating to proprietary right and 3,739 other cases have been enquired into and adjudicated upon by them. My own work, apart from village inspection and assessment, consisted of 163 judicial and 13 *masi* cases, 99 appeals and 4,139 miscellaneous cases.

(2) The general enquiry into revenue free tenures is being made for the first time under rules framed by the Political Agent and Council. Up to date 427 cases have been investigated, but pressure of other work has retarded their disposal.

(3) The Patwari Agency has been thoroughly re-organised; the number which was excessive has been reduced by the weeding out of old and inefficient men; the circles re-arranged and the pay improved. Formerly the average pay was Rs. 7-8-0 per month. Four grades have now been formed, the pay being Rs. 8, 9, 10 and 11 per month, which will compare favourably with the pay in any Native State and enable us to secure better men.

(4) The Kanungo Agency has at the same time been re-organised. Formerly there was one Field and one Office Kanungo in each tahsil and their pay averaged Rs. 10 only per month. The scale now fixed is one Office Kanungo—and in Bharatpur and Dig two—at Rs. 20 per month and two Field Kanungos paid Rs. 20 and Rs. 25. This reform has stimulated the old Kanungos to qualify themselves and all have now undergone a thorough course of training in the settlement; while for the new posts the most capable men have been selected from the settlement and in a few cases Patwaris have been promoted.

(5) The Naib Tahsildars throughout the State are being put through a six months course of training in settlement, half at a time.

(6) To strengthen the revenue supervising agency it has been proposed that the services of M. Hira Singh, Settlement Deputy Collector, be lent to the State for five years as Revenue Deputy Collector.

136. In carrying out these reforms and in pushing on the settlement generally I have received the hearty co-operation of the State Council and in particular of Rai Bahadur M. Sohan Lal to whose initiative many of them are due, and whose knowledge of and interest in settlement matters have immensely facilitated the prompt disposal of the many questions in which reference to the Council was necessary. I have to thank the Political Agent, Lieut.-Col. Herbert, who has been in charge of the Bharatpur administration since 1897, for the cordial support he has afforded to me throughout, which has enabled me to carry on the work without friction and without