

# ASSESSMENT REPORT

OF TAHSILS

ALWAR, BANSUR, AND 'THANA  
GHAZI,

ALWAR STATE.

(1899-1900.)

BY

M. F. O'DWYER, Esq., I.C.S.,

SETTLEMENT COMMISSIONER.

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# ASSESSMENT REPORT

## OF TAHSILS

### ALWAR, BANSUR, AND THANA GHAZI

## ALWAR STATE.

### CHAPTER I.

1. Assessment operations have already been completed in nine out of the twelve tahsils of the Alwar State. The proposals for the four eastern tahsils—Kishengarh, Ramgarh, Govindgarh and Lachmangarh—were sanctioned in the Foreign Department letter No. 2598-I., dated 26th September 1898, and the village assessments were given out by me in October 1898, with effect from that *kharif* harvest. The 427½ *khalsa* estates concerned accepted the new *jamas* without appeal or objection. Similarly the proposals for the re-assessment of the next group of five tahsils—Tijara, Bahrar, Mandawar, Katumbar and Rajgarh—were sanctioned by the Foreign Department letter No. 2785-I. A., dated 25th September 1899, and the village assessments were announced by me in October last with effect from *kharif* 1899. Of the 619 *khalsa* estates in these tahsils, all but two at once accepted responsibility and signed the engagements to pay the new demand, and the two estates which at first held out gave in their agreements within a week or two.

2. The new *jamas* given out in October 1898 had been collected in full in that *kharif* and the following *rabi* harvest, though the year was an indifferent one. The year which has just closed, 1899-1900, has been the most disastrous since the great famine of 1877-78, and though the severe scarcity in Alwar never rose to the pitch of actual famine, it was found impossible to collect in full either the new assessment in the nine tahsils mentioned, or the old assessment in the remaining three tahsils. After a sum proportionate to the circumstances of each estate had been collected, the State allowed the balance to remain over as suspended revenue. Further information as to the revenue history of the year will be given in Chapter II, but it may be convenient to here sum up the financial results for the nine tahsils already dealt with.

Tahsil.	Former <i>jama</i> .	Sanctioned <i>jama</i> .	Total of <i>jamas</i> as announced village by village.	Increase on former <i>jama</i> .	ARREARS.			REMARKS.
					Total.	Remitted.	To be collected.	
Kishengarh ...	2,13,181	2,38,000	2,40,034	26,853	60,371	35,910	24,461	
Ramgarh ...	2,03,083	2,20,000	2,18,462	15,379	1,25,028	87,294	37,734	
Govindgarh ...	76,411	80,000	87,000	10,589	16,175	8,234	7,941	
Lachmangarh ...	1,73,754	1,86,000	1,87,012	13,258	2,33,012	2,13,178	25,834	
Total four eastern tahsils ...	6,66,429	7,30,000	7,32,508	66,079	4,40,586	3,44,616	95,970	
Tijara ...	1,58,903	1,77,500	1,78,286	19,383	83,311	57,151	26,160	
Mandawar ...	1,00,088	1,80,000	1,80,188	19,492	3,197	3,108	89	
Bahrar ...	1,64,578	2,12,000	2,12,388	17,607	3,294	3,294	NIL.	
Katumbar ...	1,50,053	1,08,000	1,05,521	5,868	2,00,159	1,80,195	28,064	
Rajgarh ...	1,56,272	1,72,000	1,73,080	16,708	14,102	13,279	823	
Total five tahsils ...	8,36,199	9,07,500	9,09,457	79,258	3,13,063	3,57,027	56,736	
Total of nine tahsils ...	14,96,628	16,37,500	16,41,965	1,45,337	7,53,649	6,01,643	1,52,006	

Thus the enhancement in these nine tahsils amounts to Rs. 1,45,337, or if we add the commutation dues on *masi* holdings—Rs. 1,759 in the four eastern, and Rs. 1,766 in the five tahsils of Tijara, etc., which prior to the new assessment had been included in the land revenue demand, but will in future be separately levied, the total enhancement works out as Rs. 1,48,862, or almost exactly 10 per cent. on the old demand.

3. The present report deals with the three remaining tahsils, *viz.* Alwar (Central), Bansur (Western), and Thana Ghazi (South-Western). The data on which the calculations are based are those of the year 1898-99, when the papers of these tahsils were attested, but wherever necessary the figures of the present year 1899-1900 as far as available have also been shown for purposes of comparison. The system of working is the same as that described in paragraph 2 of last year's report. These three tahsils are contiguous, each touching the other two. Their boundaries and leading natural features are shown in the map attached. The Alwar tahsil, which is the largest and most important of the twelve, occupies the centre of the State, and is the only one which does not touch foreign territory. The capital, Alwar city, has a most central situation on the Rajputana-Malwa Railway, 46 miles south of Riwari and 37 north of Bandikui. Bansur is bounded on the west by the Kot Putli *pargana* of the Khetri Raja, a feudatory of Jaipur; the Sahibi *nadi* forming the boundary for nearly the whole length. Thana Ghazi runs with Jaipur territory on the west and south.

4. In spite of their contiguity these three tahsils have little in common except as regards the hill villages which are fairly uniform. Alwar is separated from Bansur and Thana Ghazi by a chain, or rather a series of parallel chains of sandstone or limestone hills running from the trijunction of the Alwar, Bansur, and Mandawar tahsils on the north for a distance of about 50 miles to where the Thana Ghazi and Rajgarh tahsils join on to Jaipur territory at Baldeogarh on the extreme south of the State. This range, which is an offshoot of the Aravalis, varies in breadth from 5 to 15 miles, and rises to a height of 2,390 feet at Rajor, the trijunction point of Alwar, Thana Ghazi and Rajgarh. The hills rise boldly and abruptly from the plains on both sides, presenting an almost impassable wall of rock, often bare of vegetation or only sparsely covered with a thin growth of *dhau* (*boscillia thurifera*), *dhak* (*butea frondosa*), *salar* (*anogeissus latifolia*), *chonkar* (*prosopis spicigera*). Where however the hills are preserved by the State as fuel (*banni*) and fodder (*rund*) reserves there is a fair growth of the above shrubs and in places of the bamboo, *gular* or wild fig (*ficus virgata*) and *bargat* (*ficus bengalensis*) on the hillside, and of *babul* (*acacia arabica*), *khair* (*acacia katechu*), *chonkar*, *jand* or *jent*, tamarind (*imli*) in the raviney land at their feet besides the very common shrubs *pilu* or *jhal* (*salvadora*), *ber* (*zizyphus jujuba*). This central range in its length through these tahsils has only a few openings through which cart-traffic can pass, *viz.*, (1) the Alwar-Thana Ghazi road through Sariska along the valley of the Ruparel, and the offshoot from the latter valley through which a road runs through Talbrichh to Narainpur, and (2) the long narrow valley which runs up from the rear of the Siliserh *band* to Hajipur and Hamirpur in Bansur. There are 5 or 6 other passes over the hills which are practicable only for foot passengers. This central range is the dominating feature of these tahsils and in fact of the entire State. It abounds in wild animals and the communications of the Bansur and Thana Ghazi tahsils which lie west of it, with the railway running north and south through the centre of the State, are hampered not only by the physical difficulties of the routes, but also by the depredations of tigers, panthers, etc., which render the roads dangerous especially at night.

5. From the central range the Alwar tahsil slopes away gently to the east the drainage being carried off east towards Bharatpur by the two torrential streams—the Chuhar Sidh from the north, and the Ruparel which finds its way through the main opening in the hills from Thana Ghazi on the south. The western portion of Alwar from the crest of the hills up to the railway has marked hilly



features. The eastern portion is a level and fertile plain diversified by a few scattered hill ridges which have however little effect on the cultivation.

6. The Bansur tahsil on the other hand slopes rather sharply from the crest of the same range west or north-west to the Sahibi *nadi*, into which nearly all the

Situation of Bansur tahsil. hill drainage, except that portion which runs south into the Siliserh *band*, eventually finds its way. The hills on this side contain great pockets of yellow sand, which has been worked down by the annual rains in the course of centuries, and has spread over the plains below. This influence combined with that of the Sahibi and its tributaries which are all sand-depositing streams has made the Bansur tahsil, with the exception of the south-east portion, a plain of undulating sand dunes scarred all over with deep ravines, and almost impassable *nalas*. Firm level land is found in places between the sandhills, and in this or in the beds of the broader *nalas* the irrigation wells are usually sunk; but the prevailing soil is generally sandy except on the south in the Narainpur *pargana*, which adjoins and is similar in features to the Thana Ghazi tahsil.

7. The latter presents a most abrupt contrast to Bansur. Besides the main range already referred to which separates it from Alwar, another fairly regular and

Situation of Thana Ghazi tahsil. well-marked range runs for nearly 30 miles along the western boundary separating it from Jaipur. This extends into the south-west of the Bansur tahsil at Baragaon on the Jaipur boundary, where it culminates in a peak 2,542 feet above level—the highest point in the Alwar State. Between these two ranges there are several parallel ranges running in the same direction due north and south. The tahsil in fact is made up chiefly of mountain ranges and intermediate long narrow valleys where the soil when cleared of stone and embanked is of extraordinary fertility. The only two plains of any considerable extent are on the north round Thana Ghazi and the Baldeogarh *pargana* with 23 villages in the extreme south where the hills widen out and the intermediate valleys are from 4 to 6 miles in width. The hills are chiefly of limestone or quartz. The hill drainage therefore brings down no sand but highly fertilising ingredients which renew the richness of the soil. The latter is generally a stiffish loam, or dark clay, somewhat similar to the black cotton soil of Central India, and where irrigation is sufficient regularly yields two crops in the year without showing any signs of deterioration.

Unfortunately owing to the difficulty of constructing *bands* most of the fertilising hill drainage is carried off by the numerous *nalas* or streams. The chief among these are (1) the Narainpur *nadi* which drains the north-west of the tahsil and runs north into the Sahibi, (2) the Ruparel draining the centre and east which runs through a cleft in the main range north-east into the Alwar tahsil, (3) the Ajabgarh or Kali *nadi* which drains the south-east and (4) the Narainpur or Goera *nadi* draining the south-west which runs south into Jaipur and after uniting at Nangla Dasa on the Jaipur-Thana Ghazi border run east into the Banganga.

#### Leading Statistics.

8. A few leading statistics are given in the following table:—

Tahsil.	Detail.	No. of estates.	AREA IN SQUARE MILES.		Census of 1891.	AVERAGE POPULATION PER SQUARE MILE.		Present population.	REMARKS.
			Total.	Cultivated.		Total.	Cultivated.		
Alwar	Khalsa ...	157½	316	177	1,23,087	390	605	2,74,665	(*) Excluding population of Alwar city. (**) Of these 7 are <i>malikdars</i> and 2 are <i>kanat</i> <i>malikdars</i> .
	State property	19(*)	155	3	20,381	(227) (*)	(405) (*)	...	
	Jagir and <i>malikdars</i>	70½	98	...	...	208	...	...	
	Total ...	247	569	...	1,43,468	248	...	...	



Tahsil.	Detail.	No. of estates.	AREA IN SQUARE MILES.		Census of 1891.	AVERAGE POPULATION PER SQUARE MILE.		Percent <i>jama</i> .	REMARKS.
			Total.	Cultivated.		Total.	Cultivated.		
Bansur ...	Khalsa ...	133½	285	152	63,169	222	415	1,63,304	
	State property	2	22	...	...	...	...	...	
	Jagir and mañ	10½	27	...	2,094	79	...	...	
	Total ...	146	334	...	65,263	196	...	...	
Thana Ghazi...	Khalsa ...	120	214	44	48,157	230	1,117	1,50,022	
	State property	14	56	...	...	...	...	...	
	Jagir and mañ	24	43	...	5,404	126	...	...	
	Total ...	158	313	...	54,561	174	...	...	
Grand Total...	Khalsa ...	410½	615	373	2,35,353	289	631	5,88,591	
	State property	35	283	3	...	...	...	...	
	Jagir and mañ	106½	168	...	27,679 (*)	...	...	...	(2) Includes State property in Alwar.
	Total ...	551	1,216	...	2,63,232	...	...	...	
Total of Alwar State.	Khalsa ...	1,457	2,392	1,408	6,61,311	277	470	16,41,965 (*)	(2) 9 tahsils re-assessed.
	Including jagir mañ and State property.	1,842	3,193	...	7,61,913	239	...	5,88,591 (*) 22,30,556	(*) 3 tahsils under assessment.

The State has an area according to the present survey of 3,192 square miles, the figures given at last settlement (3,024 square miles) are now found to be erroneous owing to the omission of certain *runds* or grass reserves in the hills. Of this area 2,592 square miles or three-fourths are included in the *khalsa* estates, 1,457 in number, and 59 per cent. of this *khalsa* area is under cultivation.

The three tahsils now under consideration comprise 38 per cent. of the total, 34 per cent. of the *khalsa*, and 27 per cent. of the cultivated *khalsa* area, 35 per cent. of the total population—761,913 in 1891, and 26 per cent. of the total land revenue, *vis.*, Rs. 5,88,591 out of a total of Rs. 22,30,556. This latter proportion will, however, be raised by the re-assessment. The incidence of population per square mile of total and cultivated area is considerably below the average for the whole State in Bansur, where much of the soil is decidedly poor. It is considerably above the average in Alwar, but if we exclude the large urban population of Alwar city—51,369,—which is almost entirely non-agricultural, the figures—227 per square mile of total and 405 per square mile of cultivated area—are almost the same as for Bansur.

In Thana Ghazi on the other hand while the incidence of the population on total area—230 per square mile—is below the normal—only 21 per cent. of the *khalsa* area being cultivated, the pressure of population on cultivation—1,117 per square mile—is excessively high, and probably has no parallel outside the most congested districts of Bihar or Oudh. The reason why Thana Ghazi can maintain more than double the average number of souls per unit of cultivation is that the latter is very intense, the proportion of irrigated land is very high—46 per cent—and most of this produces two or more crops in the year.

9. The incidence of the present and proposed land revenue per acre of cultivation with adjoining tracts. Comparison of incidence of taxation, and per head, as compared with adjoining tracts in Alwar, Jaipur, Bharatpur and the Punjab is shown in the following table:—

Name of tract.	Particulars	Incidence						Remarks.
		Per acre of cultivation.			Per head of population.			
		Rs.	As.	P.	Rs.	As.	P.	
Alwar ...	Present ...	2	9	6	2	3	9 <sup>1</sup>	1 Excluding Alwar city Rs. 3-3-5.
	Proposed ...	2	12	6	2	6	3	
Bansur ...	Present ...	1	10	9	2	9	5	
	Proposed ...	1	13	6	2	13	6	
Thana Ghazi ...	Present ...	5	6	0	3	1	0	
	Proposed ...							
Alwar ...	Eastern tahsils (1898) ...	2	12	6	4	6	0	
Gurgaon district ...	1898 ...	1	5	6	1	13	1	
Punjab ...	1898 ...	1	2	0	1	5	1	
Bharatpur ...	Central tahsils (1899)	2	8	6	3	9	0	
Jaipur ...	1895-96	3	6	3	3	11	2	

Thus the incidence of land revenue per head of population in these tahsils, though more than double that of the Punjab in 1898, is not excessive judged by the Native State standard. The incidence per cultivated acre is fairly low in Bansur, moderate in Alwar, and for reasons already given extraordinarily high—viz., 5-6-0 per acre—in Thana Ghazi.

10. The leading physical features of each tahsil may now be considered in more detail. It should be explained that the standard of measurement throughout the State is the Shahjahani *bigha*, which is the square of a chain 165 feet in length, and therefore contains 3,025 square yards or five-eighths of the statute acre. Each tahsil and even each *pargana* has its own local standard, but the adoption of the Shahjahani *bigha* at the survey of last and present settlements has gradually ousted all such local variations.

#### ALWAR.

11. Alwar is the central and by far the largest of the 12 tahsils in the State, covering an area of 569 square miles, of which however 155 square miles including nearly all the hills on the west are State property—fuel and fodder reserves—98 square miles are included in the 69½ *jagir* and *mafi* villages which are scattered all over the tahsil, but are most numerous in the southern portion, while 316 square miles are included in the 157½ *khalsa* estates. Of these latter 5 are held in *jaidad*, i.e., the revenues are allotted to the ladies of the palace for their maintenance, but for all other purposes they are treated as *khalsa* estates. Two estates, Sonawa and Khora close to the city which are irrigated from the Siliserh lake, are under the management of the canal department. These and the *istamrari* village of Chureti have been kept outside the assessment operations and are not included in the total of 157½ *khalsa* estates. This number will now be increased to 162½ by the splitting up of the large village of Bahadarpur into 5 separate estates and by the formation of a new estate in the hamlet known as Sheodanpura close to the Siliserh lake.

Of the total *khalsa* area 54·5 per cent. (including petty mafis) is under cultivation, 23 per cent. is under hills, 11 per cent. is "other unculturable" and 11·5 per cent. is culturable. There is consequently not much room for cultivation to expand, as the culturable land is not more than sufficient for grazing requirements. If we add to the State *runds* the hills in possession of the villagers, one-third of the total area will be found to be covered with hills.

The main range which occupies all the western portion of the tahsil has been already described, and its geological formation is explained in pages 177—183

(b) Hills and valleys. of Major Powlett's Gazetteer. The highest points in this tahsil are the Alwar Fort overlooking the city—1,960 feet, and the Sira Bas Hill—6 miles due west of Alwar—2,131 feet above sea level. These hills enclose several valleys (*chhinds*) with a considerable area of cultivation which is fertilised by the washings from the limestone and quartzite. These are (1) the Behroz valley on the north-west with 4 villages adjoining the Mandawar tahsil to which it topographically belongs and in which it was formerly included. As these villages are isolated from Alwar by a lofty range of hills, and can only be approached from that side by a precipitous pass, it has been proposed to re-include them in Mandawar; (2) the Dadikar valley which runs from the west of the Alwar Fort past the Tehrpur *band* up to the village of Dehra, and in which the Chuhar Sidh stream has its origin; (3) the Siliserh valley which runs north-west to Sera Bas from the rear of the Siliserh *band* and contains 6 villages. (4) The Kalikhhol valley which strikes west from Akbarpur on the Thana Ghazi road and runs between high hills for some miles, but includes only the single *khalsa* estate of Kalikhhol. (5) The famous Bara valley through which the Ruparel stream from Sariska in Thana Ghazi runs for a length of 10 miles before it debouches into the plains at a narrow opening in the hill range at Bara. This contains besides the Thana Ghazi village of Sariska the four fertile villages of Indok, Khushalgarh, Madhogarh and Dharampur; while an offshoot through which a stream from the Bansur side joins the Ruparel contains the two small villages of Kala Jhara and Nangal Heri. Two villages, Kairaska and Dabli, are situated on the high tableland. These have no wells, and are deserted after the autumn harvest is reaped.

Generally speaking all the villages on the west of the tahsil lying between and under the hills are rather similar in character to Thana Ghazi. They have usually a fertile and stiff soil, which where irrigation is sufficient yields two crops in the year, *viz.*, *bajra* or maize followed by wheat or barley. They have, however, suffered most heavily from the recent drought as the water level is very deep, and the wells being fed rather by percolation from the upper layers than by springs from below dry up more rapidly than in the plains to the east. The drainage from these hills, which is very considerable, is partly held up by irrigation dams at Bahroz, Chandauli, Tehrpur, Siliserh and its adjuncts, Umran, Dharampur, Akbarpur, Baleta, etc., which will be referred to further on. None of these dams but the Siliserh has any large irrigating capacity, and most of the water is carried off by the Chuhar Sidh, Ruparel and their tributaries.

Besides the main range of hills there are several scattered ridges on the north and east. The chief of these is the range that enters the tahsil on the north-east from Kishangarh, and runs south-west up to the railway line at Jatiana. It forms the western boundary of the Bahadurpur *pargana* and drains east into the Bajhera *band* and thence on to Ramgarh tahsil. The hill drainage is very beneficial to the villages of this *pargana*, which have a soil fertile but stiff and requiring heavy rainfall or abundant irrigation. On the east side some scattered hills enter the tahsil from Ramgarh. The land on the slopes is sandy, otherwise they have no influence on the cultivation.

On the south-east of the tahsil a narrow ridge of hills penetrates from Rajgarh and runs north-east to Ghat in the Lachmangarh tahsil. Close to this range the soil is uneven sandy jungle locally known as *bihar*; and most of the inferior *bhur* cultivation is found here and extends in long narrow veins west towards Malakhera. There is also a good deal of uneven sandy soil on the extreme north along the railway line in the villages lying between Ghatla and Jatiana where the hills on both sides approach the railway. This, however, is clean fertile soil, and though light in texture is much superior to the ordinary *bhur*.

The soil of the tahsil as a whole is decidedly superior, 29 per cent. being recorded as *chiknot*, 63 per cent. as *mat-tiyar*, 7 per cent. as *bhur* I, and only 1 per cent. as *bhur* II. The best soil is found north of the Ruparel and here

(c) Soils.



the *chiknot* and *mattiyar* are so nearly akin in composition and productive power as to be scarcely distinguishable. The villages south of the Ruparel in the Malakhera *pargana* have a considerable area of *bhur*, little *chiknot*, and the *mattiyar* is rather light though fertile enough and with sufficient rains capable of growing gram and oilseeds after an autumn crop.

The course of the two main streams—the Chuhar Sidh and Ruparel and their tributaries—is shown in the map attached. The Ruparel has some water throughout the year; all the other streams are in flow only in the rains.

(d) Streams.

(1) Chuhar Sidh.

The Chuhar Sidh takes its rise among the hills about 8 miles north-west of Alwar city in the uninhabited estates of Madarpur close to the shrine of Chuhar Sidh, a famous local Saint or sage after whom it is named.

It runs due east for 4 miles where it is joined by the streams from Ghatla through the Chandauli *band* and from Basai Jagta in Kishangarh which bring down the drainage of the northern villages. It thus takes a southern course and before crossing the railway close to Jatiana is joined by another important tributary from the Tehrpur *band*. Thence it runs south-east in a deep bed as far as Bahala, from which point it spreads out and inundates the villages of Chaprara, Bahala, Nangla Banjir, Bagar Meo and Bagar Rajput, in all of which it forms excellent *dabri* or flooded land, before it enters the Ramgarh tahsil at Bamni Khera. For its subsequent course see paragraph 8 of report on eastern tahsils. Up to Bahala the Chuhar Sidh and its tributaries being confined in deep channels do not irrigate by overflow, but they have some good *khatili* cultivation in their beds, aided by *dhers* and *dhenklis*. The construction of the Tehrpur *band* has cut off one of the largest tributaries of the Chuhar Sidh and gave cause of complaint to the villages of Alwar and Ramgarh which are benefited by the Chuhar Sidh floods and assessed accordingly. The interests of these villages should be considered before any further interference is made with the Chuhar Sidh or its affluents.

The Soth *nala* rises in Dasula close to the Dig road five miles east of Alwar. It receives the drainage from the hills around Alwar, and according to local tradition the floods held up by the Partab *band* below the Alwar fort find their way thither by a subterranean channel. It runs due east and is reinforced by the drainage of the Agiyara *rund* and the large area of flat *kallar* or *kaur* to the south. The flood water is partly held up by the *bands* of Kamalpur and Dhadholi constructed as relief works in the famine of 1877-78, but these are now out of repair, and the advantage of restoring them is doubtful as the water damages the land by bringing out the saline efflorescence known as *reh*. The floods, however, fill some depressions, raise the water level and form some *dabri* land in these villages, as well as in Sankla, Agiyara and Kala Megha, whence they run north to Bagar Rajput, where they have sterilised a considerable area, thence into the Ramgarh tahsil at Gugrod, and finally join the Chuhar Sidh in Ramgarh.

(2) Soth *nala*.

(3) Ruparel.

The Ruparel has the largest catchment area (estimated at 282 square miles up to the point where it leaves this tahsil) and the greatest irrigating capacity of the Alwar streams, but owing to the provision which prohibits any interference with its free flow into the Bharatpur State during the four rainy months—10th June to 9th October—the benefits derived from it by the Alwar State are not commensurate with its importance. It has its origin in a spring at the temple of Ude Nath under the hills in the deserted village of Todi Nijran, six miles to the south-east of Thana Ghazi town, and after a circuitous course of about 10 miles through that tahsil enters the Alwar tahsil at Indok. At Sariska just before it leaves Thana Ghazi it is dammed from 10th October to 9th June by a temporary *band*, a channel from which affords some irrigation to Sariska and Indok, and this irrigation is a standing source of litigation between these villages. From Indok it runs between the hills in a north-easterly or easterly direction, absorbing all the local drainage for a distance of 10 miles, when it

leaves the hills at Bara in Dharampur. Here it is again tapped by a small canal irrigating an average area of 217 *bighas* in Dharampur, Akbarpura and Chand Pahari. From Dharampura it runs north-east to Nangla Jogi—8 miles south-east of Alwar—where it is joined by the *nala* from the Umran *band*, which brings in the overflow from the Siliserh escape, and the local drainage. Six miles further east at Gujar Bas it is joined by the Sukhri *nala*—a considerable stream in the rains which receives the drainage of the north-east of Rajgarh and the south-east of Alwar. After a further course of 4 miles to the north-east, it enters the Lachmangarh tahsil at Ghat—where it is again dammed in the non-rainy months and tapped by a canal irrigating several villages in Lachmangarh (see report on the eastern tahsils). From Lachmangarh it passes east through Govindgarh into Bharatpur, where its waters are held up and distributed by means of the famous Sikri *band*. Prior to the drought which began in 1896-97 the Ruparel is said to have been in flow all the year round, though the volume of water was never considerable after the rains. At present it may be said to be a fairly continuous stream as far as Bara where it leaves the hills, but eastward from that point it holds water throughout the year only here and there in deep creeks, or where there are springs in the bed. The effects of the continued drought are showing themselves more and more every year, in the falling off of the irrigation from the small canals at Sariska, Bara, and Ghat. The villages along the course of the stream have endeavoured to make up for this by utilising the bed, which all along its course is now cultivated after the rains wherever possible, and irrigated by means of *dhera* and *dhenklis*. This land is exceedingly fertile and usually produces two and sometimes three crops in the year.

The beds of the Umran and Sukhri *nalas* are similarly cultivated throughout almost their entire length.

The cultivated area directly dependent on these streams excluding the area irrigated by dams or overflow is as follows :—

Number.	Name of stream.	Number of villages affected.	LAND BENEFITED.					NUMBER OF	
			Permanent <i>chahi</i> .	Temporary <i>chahi</i> .	<i>Dahri</i> .	<i>Khatili</i> .	Total.	<i>Dhera</i> .	<i>Dhenklis</i> .
1	Ghatla ... ..	4	...	35	...	17	63	4	23
2	Chuhar Sidh ... ..	15	...	171	...	55	338	11	76
3	Bahadurpur ... ..	1	75	...	210	116	401	...	...
4	Ruparel ... ..	20	...	401	...	65	466	6	205
5	Botka ... ..	1	...	24	...	...	24	...	10
6	Umran ... ..	5	...	233	...	19	351	20	62
7	Sukhri ... ..	8	...	75	...	29	104	4	35
8	Others... ..	4	103	...	403	...	506	...	...
Total ... ..		63	178	939	703	330	2,140	54	471

Of the total cultivated area 17 per cent. is *chahi*, 8 per cent. *dahri*, 1 per cent. *chahi-dahri* and 74 per cent. *barani*.

(c) Details of cultivation. The *dahri* irrigation will be more fully discussed under that heading. In this tahsil it amounts to 8 per cent. of the

total cultivation, but of this only 2 per cent. is usually and 5 per cent. occasionally flooded from *bands* or streams, while 5 per cent. is *nahri* and no less than 5 per cent. is *dahri barishi*, i.e., more or less benefitted by hill drainage.

The rainfall is therefore the most important factor in agriculture. The figures will be discussed in detail in paragraph 14. The tahsil enjoys a decidedly good rainfall for Rajputana. For the 24 years, 1876-77—1899-1900, the average as recorded at Alwar city comes to 27.30 inches with a minimum of 13.30 inches in the famine year 1877-78 and a maximum of 41.86 inches in 1879-80. In six years the amount has fallen short of 20 inches, while in four it has exceeded 35. The rainfall of Alwar city, which, though in the centre of the tract, lies close under a high range of hills that attract the rain clouds, is not fairly representative of the tahsil as a whole. The rainfall decreases rapidly as we proceed to the level plains on the east. Thus at Lachmangarh 20 miles south-east of Alwar the average is only 16.73 inches, and at Ramgarh 13 miles to the north-east 18.59 inches. I should put the average at Alwar as 25 inches in the tract west of the railway, 21 inches in the tract east of it. As the prevailing soil is a stiffish loam or clay, a rather heavy and well distributed rainfall is required for successful *barani* cultivation. Given such rain the soil produces first-rate crops—*jawar* and *bajra* in the *kharif*, oilseeds and especially gram in the *rabi*. If the monsoon rains are prolonged so as to moisten the soil for *rabi* sowings, a good deal of the *barani* land is sown with gram or *sarson* as a second crop after the *bajra* has been reaped.

About 17 per cent. or one-sixth of the cultivation is protected by wells. The well water is generally excellent—92 per cent. of the wells being returned as sweet or hard, and only 8 per cent. as bitter or *tehiya*. The latter wells irrigation from which unless aided by a copious rainfall deteriorates the soil are generally found in the villages along the Dig Road from Dasula to Bagar Rajput, especially in the great *kallar* plain adjoining the Agiyara *rund*, and in a few villages close to Bahadurpur, viz., Mundia Khera, Pilwa, Kakrala, where the results of irrigation in recent years have been particularly destructive. The water level ranges from 80 feet in hill villages on the south-east to 15 feet in villages close to the Ruparel or Siliserh canals. The average for the tahsil is 42 feet, while the average depth of water is only 14 feet. These figures are based on the returns of 1899-1900, but the drought of the last year has still further reduced the water-supply, and further crippled the irrigating capacity of the wells throughout the tahsil, but especially on the west towards the hills.

The northern portion of the tahsil lies in the Mewat, and over half the *khalsa* villages are held by Meos chiefly of the Nai, Pundlot and Singal clans, a sturdy race of good if not first-rate cultivators. The southern portion of the tahsil is held chiefly by Jats, Gujars, Brahmins and Thakurs, all of whom except the latter are good or fair cultivators. Agricultural communities are on the whole strong and cohesive, but many of them were badly shaken by the great famine of 1877-78 and subsequent revenue maladministration.

Communications leave little to be desired. The Rajputana Malwa Railway runs right down the centre from north to south, a distance of 30 miles, and, in addition to the two main stations at Alwar and Malakhara, there are flag stations at Parisal and Maha. From Alwar a fairly good metalled road runs east to Dig with a branch, also metalled, striking off north to Ramgarh. Another metalled road connects it with Thana Ghazi on the south-east. This work, an admirable piece of engineering through a most difficult country, has been completed by the State Engineer within the last few years, and has been of great value in opening up the remote and hitherto isolated Thana Ghazi tahsil.

## BANSUR.

12. The Bansur tahsil covers 10.5 per cent. of the total area of the State.

(a) General description. Its boundaries are clearly defined by the high mountain range along the east and the Sahibi stream along the west boundary. The features of the western



slope of the mountain chain are similar to those of the eastern slope already described in the case of Alwar, with one radical difference that the hill streams on this side usually bring down sandy deposits. The width of the range in this tahsil is less than in Alwar, but it increases steadily from north to south, and splits up into two or even three parallel chains enclosing picturesque and fertile valleys, which contain the fine estates of Chinde, Dhamlaka Bas, Rampur, part of Hamirpur and Hajipur, Ghat, Likhri, Kharka Kalan, Baira Bas, etc.

One village Raika Mala (Mala=plateau) is situated on the broad plateau where the range enters Thana Ghazi, but like the Alwar valley similarly situated, it has no wells and is generally deserted after the autumn harvest is reaped.

(b) Drainage lines and communications. The south-east portion of this range drains through the Baira Bas valley into the Ruparel, which it joins at Khushalgarh (see Alwar), and a branch from the Alwar-Thana Ghazi road runs up this valley and gives a rather circuitous and difficult communication between Alwar and Narainpur. The drainage of the Chinde and Dhamlaka Bas valleys on the extreme east runs south through the Sira Bas valley (see Alwar) into the Siliserh *bund* and a rough but fairly direct road up this valley which joins the Alwar-Thana Ghazi road near Unran is the chief means of communication between Alwar and the centre of the tahsil, *viz.*, Rampur, Hajipur and Bansur. The only other road connecting the tahsil with the railway at Khairthal and Alwar is a roundabout and indifferent route which skirts the northern base of the mountain range near Teharpur and runs on *via* Mataur to Khairthal and Alwar. This is the most popular as the two routes already described are barely passable for cart traffic and the tracts through which they pass are the home of tigers and panthers. The wall of rock on the east boundary is therefore a terrible barrier to facility of communications, and though the town of Bansur, which lies in the centre of the tahsil, is only 20 miles in a direct line from the railway at Khairthal and 16 from Alwar, in practice the distance may be taken as half as much again.

(c) Hills. There are a few other scattered hills or chains of hills at Harsora on the north-east and Khori on the west, and a narrow ridge about five miles in length on the north-west runs from Mocerri parallel with the Sahibi stream south to Buteri. From the slopes and base of these hills too, volumes of sand are washed down by the annual rains, or dispersed by the high winds. The only other hill worthy of mention is the bare lofty range which enters the tahsil from Thana Ghazi close to Narainpur on the south-west and forms the boundary with Jaipur up to Baragaon, where it culminates in a peak 2,542 feet high. These hills being formed of black quartzite or limestone, do not wash down sand and the land at the base is a stiff blackish clay capable of growing two crops in the year with irrigation.

(d) State runds. The summit of these hills forms the large State *rund* or forest preserve of Narainpur, while the summit and part of the slopes of the great eastern range to the south of Rampur are included in *rund* Rampur. These are the only two *runds* which lie exclusively in these tahsils, and as their boundaries with the adjoining villages are now being demarcated, their exact area cannot yet be ascertained. The crest and part of the slopes of the hills along the east boundary from Hamirpur to Rampur—an area of about 7,000 bighas—are included in *rund* Sira Bas—tahsil Alwar—but I have now proposed that they be permanently leased to the adjoining Bansur villages for Rs. 600 per annum and this has been agreed to by the Political Agent and Council.

(e) Soils. Of the total *khalsa* area 54 per cent. is under cultivation, two per cent. fallow, 9 per cent. is culturable and 35 per cent. unculturable. The latter is made up chiefly of hills, *nalas* and the raviney country at the base of the hills known as “*Gadaora*.” As regards soil the tahsil is perhaps the poorest in the State—Tijara excepted. Only four per cent. of the cultivation is *ohiknat*, 32 per cent. or nearly one-third is *mattiya*, but much of this is naturally

*bhur*, which has been classed as *malliyar* because it has been levelled and improved by manure and well irrigation; forty per cent. or two-fifths is *bhur* I, and twenty-four per cent. or nearly one-fourth is very inferior *bhur* made up of uneven and often shifting sandhills, which can only grow the very poorest *kharif* crops, and sometimes after bearing a crop have to be left fallow for a year. Thus the dominant soil is *bhur*. It is prevalent all over the tahsil except in the Narainpur *pargana* along the south boundary from Baragaon to Talbrich where the soil is an excellent *chiknot* as in Thana Ghazi, and in the villages between the eastern hills already mentioned, where the soil is also superior. In nearly all these villages *kacha* wells can be sunk at small expense, and, as they last 20 or 30 years, they are a most useful adjunct to cultivation. The worst *bhur* is found in the centre and north of the tahsil and also in the Sahibi villages along the west boundary. In most of these owing to the sandy subsoil *kacha* wells cannot be sunk at all, or, if sunk, have to be renewed every year or two. Masonry wells are, however, successfully worked. The site chosen is generally the low land between sandhills, where the water level is reasonably near, and as the drainage off the sandhills has no exit, it all sinks into the soil, and the supply is therefore much better than in the hill villages or in the Narainpur *pargana* where the water runs off in the numerous streams or *nalas*.

In some half a dozen villages round Bansur the light surface soil has been washed away by the floods, and a firmer stratum exposed. The evaporation of the drainage water which accumulates in this depression has formed a great plain of *kallar* or sour clay locally known as "kharri". This in years of heavy rainfall is a swamp, but the drought of late years has afforded an opportunity of reclaiming it, and as water is near the surface great numbers of wells and *dhenklis* have been sunk for irrigation and the crops raised are now among the best in the tahsil.

The drainage of these central villages runs north by a series of *nalas* into the Babariya *band* on the north,

(f) Streams.

(1) Babariya *band*.

and in its passage thither has in places brought out *reh* or *kallar* by washing away the surface soil, and in places deposited sand. The Babariya *band* is the only work which utilises the local drainage for irrigation. It is a fine masonry work constructed originally in Moghul time, but more than once repaired and enlarged by the Alwar State. It contains 922 *bighas* usually and 383 *bighas* occasionally flooded. The overflow from it known as the Surakh *nali* runs north to join the Sahibi at Soda Bas in Mandawar. All the rest of the local drainage with the exception noted in paragraph 11 eventually finds its way into the Sahibi by the streams or *nalas* shown in the map attached. The chief of these are:—

The Hajipur or Nihaoni *nala* which rises between the hills south of Rampur, runs due north past Hajipur and Harsora draining nearly all the east of the

(2) Hajipur or Nihaoni *nala*.

tahsil, and after a course of about 16 miles through this tahsil enters Mandawar at Dehla Bas and finally joins the Sahibi at Bijwar 35 miles from its source. In years of abundant rainfall, the stream is in flow as far as Harsora all the year round, but owing to the drought of late years this is now reduced to occasional pools or springs. There is however some excellent *khatili* and *chahi* cultivation along its bed.

The Narainpur *nala* rises at Agar in the west of Thana Ghazi, drains the north-west of that tahsil, after a course of

(3) Narainpur *nala*.

16 miles due north enters Bansur at Mandha, then strikes north-west past the town of Narainpur, Nimuchana, etc., and after a further course of 12 miles joins the Sahibi at Bas Diyal. This is a torrential stream which is only in flow in the rainy months. After entering Bansur its bed widens out, and though the height of the banks on both sides is a bar to inundations, the villagers have sunk a great number of masonry and *kacha* wells in the low land between the high bank or cliff and the centre of the stream from which they raise excellent *rabi* crops. Curiously enough this low land though regularly inundated has often an admixture of *reh* or *kallar*.



The Sahibi *nala* (see paragraph 7 of report on Tijara, etc.) rises at Saiwar in Jaipur territory and after a north easterly course of 20 miles enters Bansur at

(4) Sahibi *nala*.

Thurana. Thence it runs almost due north forming the boundary between Alwar and Jaipur for a distance of 20 miles, and then for 5 miles the boundary between Bansur and Mandawar, receiving all the drainage of the west of the Bansur tahsil. Its subsequent course has been described in the report on Bahrur, Mandawar, etc. Throughout its course the deep stream is the boundary between opposite villages, and as the channel often shifts, this gives rise to frequent disputes. The Sahibi is a torrential stream only in flow immediately after the rains. The flood water is charged with sand, but as the banks on the Alwar side are high and the slope of the country is towards the stream, there are no inundations. However all of the villages along its banks have not only some *khatili* cultivation in the bed, but a great number of wells in the low land between the high bank and the river. This is occasionally flooded and the water-supply in consequence is near and plentiful.

The only advantages therefore which the tahsil derives from these streams are that wells are sunk close to them, and there is a certain amount of *khatili* cultivation in their beds. The area of the latter is 1,530 *bighas* or 1 per cent of the whole.

At Kul and Mamur cold-water springs, and at Talberich a hot-water spring issue from the hills. The water is held up in *kunds* or bathing tanks which are the sites of religious fairs. Only a few *bighas* of land, and this chiefly *mafi*, are irrigated

(g) Springs.

The well cultivation in Bansur is very important, as the *rabi* crop is almost entirely dependent on wells. It amounts to 22 per cent. of the total cultivation and pays more than half the land revenue. The water level varies from 100 feet in Mandha on the extreme south of the tahsil to 25 feet in the low land on the banks of streams. The average for the tahsil is 38 feet to the water level and 14 feet of water for masonry wells, and for *kacha* wells 36 feet and 8 feet respectively. The water is as a rule of excellent quality. No less than 95 per cent. are sweet, 3 per cent. hard or brackish, and 2 per cent. bitter. The bitter wells are found in the *kallar* land adjoining Bansur, or in the stiff *chiknot* in some villages of Narainpur.

(h) Wells.

76 per cent. of the cultivation in this tahsil is *barani*, and this includes nearly all the *bhur*, which is 64 per cent. of the total cultivation. The inferior *kharif* crops, *moth*, *masina*, *chawila*, are chiefly sown in the *barani* land. *Jawar* is hardly grown at all except in the Narainpur villages on the south, and *rabi barani* crops—gram and *sarson*—are very sparingly sown as the soil is not suited to them. From this it will be understood that what the crops require is gentle and fairly continuous rather than heavy rain. The average annual rainfall for the 24 years 1876-77—1899-1900 has been 19.38 inches with a maximum of 31.55 in 1887-88 and a minimum of 2.27 in the famine year 1877-78. In 4 years the rainfall has fallen short of 15 inches, while in three it has exceeded 25. The light soils of this tahsil stand a drought better than the stiffer lands of Alwar and the eastern tahsils, and this was very marked in last year's drought.

(i) Barani cultivation and rainfall.

The tahsil is not very fortunate in its agricultural population. Of the 133½ *khalsa* estates only 20, on the north towards Mandawar, are held by Ahirs and Jats, who may be considered first-class cultivators. Gujars, who in this tahsil are fair cultivators, hold 30 villages chiefly among the hills on the east and along the Sahibi on the north-west where the abundant grazing enables them to maintain a great number of cattle. Brahmins, Moghuls and Pathans, who are only middling agriculturists, hold 10 villages, while the remaining 73 or over half the tahsil are held by Rajputs, chiefly of the Shaikhawat tribe, who, though superior in industry to the Narukas of the eastern tahsils and the Rajawats of Thana Ghazi, are inferior to the Chauhans and Bargujars of Mandawar and

(j) Agricultural population.

Bahrer. They were, as will subsequently appear, leniently assessed by Captain Abbott at last settlement. They hold, moreover, a certain number of wells in *masi* in Narainpur and the vicinity, and eke out a living by serving as sepoy in the Raj forts, and doing police work on the numerous passes leading to Alwar, Jaipur and Kot Putli. They are generally weak in numbers for the areas they hold, and many of them own in several villages. A marked feature of this tahsil is the great number of outlying hamlets known as *dhanis* or *mazaras* found in almost every village. These are due (1) to the well lands being dispersed among the sandhills and the necessity of keeping the cattle at the well for manure; (2) to the necessity of protecting the crops from wild animals, such as pig, deer, nilgai, which abound in the hills and ravines. In spite of the poor soil, distance from markets, and the damage caused to cattle and crops by wild animals, the tahsil as a whole cannot be considered an unprosperous one. The present *jama* is undoubtedly light by comparison with other tahsils, and has been paid on the whole with ease and regularity.

#### THANA GHAZI.

13. Some of the main physical features of Thana Ghazi have been alluded to in paragraph 7. The tahsil may

##### (a) General description.

be described as a series of long narrow valleys between parallel hill ranges, and intersected by a net work of streams which are generally dry except in the cold weather. It has been not inaptly compared to the human body, the bones being represented by the hills, and the veins and arteries by the streams. Of the *khalsa* area only one-fifth is cultivated, or if the State *runds* be included only one-sixth. Over half of the total area is covered by hills, *viz.*, 20 per cent. by the State *runds*, and about 30 per cent. by hills in village boundaries. If we exclude the State *runds* which cover the slopes and summits of all the chief mountain ranges, and consider merely the village area, 38 per cent. is under hills, 24 per cent. is otherwise unculturable, *viz.*, beds of *nalas* or the unreclaimed stony plains at the foot of the hills, 17 per cent. is culturable, but most of this is inferior stony or uneven land, 1 per cent. is recent fallow and 20 per cent. is under cultivation. The cultivated area represents the best land which lies in the fertile plains between the hills and has gradually been reclaimed from jungle or stony wastes. The hillsides being steep and stony, cultivation is never carried up along their slopes.

The proportion of superior soils is higher here than in any other tahsil—

##### (b) Soils.

37 per cent. of the cultivation being recorded as *chiknot*, 55 per cent. as *mattiyar*, much of which is closely akin in strength and fertility to *chiknot*, 6 per cent. is *bhur I*, and only 2 per cent. *bhur II*.

Irrigation too is more fully developed. No less than 46 per cent. of the

##### (c) Irrigation.

cultivation is *chahi*, 1 per cent. is *nahri* or irrigated from springs, 1 per cent. *dahri* or irrigated from *bands*, 5 per cent. is *dahri barishi* which benefits from hill drainage, and 47 per cent. is *barani*. Capital and labour are concentrated chiefly on the well lands, most of which are double cropped. The *barani* land by comparison is of little value, and though including the *dahri barishi* it amounts to over half the area, it does not pay more than one-sixth of the assessment.

The superiority of the well land is due to the great natural fertility of the soil which is periodically renewed by the washings from off the hills, and the excellence of the well-water for irrigation, no less than 98 per cent. of the wells being sweet. The wells have often to be sunk through a stratum of solid rock (*papra*) which is met with at 10 to 25 feet from the surface, or through a stratum of mixed clay and rock. In such cases no masonry cylinder is sunk. These wells, though very lasting and comparatively cheap, are largely dependent for their supply on the local drainage, and as they do not reach down to spring level, they are more liable to run dry in a drought than wells in which the cylinder (*nal*) is used and the springs in the subsoil tapped. As might be expected from the physical features of the tract, the water level varies enormously not only from village to village, but even in the same village. It is nearest in the Ajabgarh valley—28 feet from the surface, while in Amraka Bas

on the banks of the Ruparel it is 95 feet from the surface. The average for the tahsil is for masonry wells 38 feet to water level and 14 feet of water, and for *kacha* wells 36 feet and 8 feet respectively. These averages are based on the figures of 1898-99, since when there has been a considerable sinking owing to the drought.

The tahsil is subdivided into five *parganas*, which also represent some broad natural distinctions in soil and produce.

(d) Natural Divisions.

The Narainpur *pargana* with 7 villages on the extreme north belongs naturally to the *pargana* of that name in Bansur to which it was formerly attached. The villages are owned by Shaikhawat Rajputs and are not up to the standard of the rest of the tahsil.

This is included under the general designation of *nahera* (uneven) and the uncultivated lands are defined according to the greater or less abundance of stone as (1) *papra* where the stone on or below the surface forms a continuous layer or sheet, (2) *rari* where the soil is covered with loose stones, (3) *pathrer* where the surface is merely stony. It includes the *parganas* of (1) Thana Ghazi in the centre and north-east with 41 *khalsa* villages, (2) Partabgarh on the south-west embracing 22 *khalsa* villages, (3) Baldeogarh most of which has purely plain features with 23 villages on the extreme south-east, (4) Ajabgarh on the east lying between Thana Ghazi and Baldeogarh with 27 small villages known as *gawaras* (cattle-folds) in a narrow valley between parallel hill ranges, all of which were originally attached to the parent village of Ajabgarh but were formed into separate estates at the three years' settlement. This is the richest and most highly assessed part of the tahsil and one of the most picturesque valleys in the State, but of late years the failure of the well-water owing to drought has struck a severe blow at its prosperity. The tract has a bad reputation for unhealthiness, malaria in the autumn months being very prevalent. The people though industrious in a plodding way are of a poor physique and wanting in backbone. Their standard of comfort is low. Population shows a tendency to decrease rather than to increase, and a reference to the genealogical tree of any village will show that at least half of the owners have died childless.

As regards fertility there is little difference between the remaining three *parganas*. Partabgarh is the most hilly, Baldeogarh has suffered most from the scarcity of water in the wells, and the temporary depression there is more severe even than in Ajabgarh. Sugarcane was formerly grown in large quantities throughout the tahsil and was famous for its quality. Its cultivation is now much reduced, partly owing to the cheapness of sugar, and partly owing to the contraction of the water-supply. Indigo is grown in a few villages of Baldeogarh which receive irrigation from the hot springs of Naraini.

There are several perennial springs issuing from the hills in this tahsil which are more or less utilised for irrigation. The chief of these is the hot spring

(e) Springs.

at the sacred shrine of Naraini near Baldeogarh, a most picturesque spot and a well-known tiger beat, from which 291 *bighas* are irrigated in Paota and Barda Dungri, including the State garden in Naraini. The other springs utilised for irrigation are as follows:—

Bhangarh	...	...	...	...	69 <i>bighas</i> .
Suratgarh	...	...	...	...	12 "
Gawara Jogiyan (Partabgarh)	...	...	...	...	6 "
Gawara Nijran (Samia)	...	...	...	...	1 "
Angari	...	...	...	...	1 "
Parakehapli	...	...	...	...	1 "

The land so irrigated which comes to 1 per cent. of the total cultivation has now been classed as *nahri*, and in future as in the past the water-rate will be included in the fixed *jama*.

All these springs have a sacred character, and are furnished with *kunds* or bathing tanks, which are more or less frequented at the annual religious fairs.

The drainage from the hillsides in this tahsil is enormous, but owing to the physical conformation of the country little of it can be held up by means of irrigation dams and the total *dahri* area attached to *bands* is only 549 *bighas*

(f) Dahri area.



or one per cent. of the whole, while the area benefitted by the hill drainage, *dahri barishi*, is 2,425 *bighas* or 5 per cent. of the whole.

It is obvious therefore that nearly all the hill drainage finds its way out of the tahsil by the four great *nalas* or torrential streams mentioned in paragraph 7.

(g) Streams.

The Ruparel has already been referred to in the remarks on Alwar. It is usually a perennial stream, though the

(1) Ruparel.

volume of water except in the rainy months is small. In this tahsil by means of the temporary dam at Bandipul it irrigates an area of 59 *bighas* in Sariska, where a very fine shooting lodge was erected by the late Maharaja.

The Narainpur *nala*, which carries off the drainage of the north-west of the tahsil through Bansur into the Sahibi, has been also mentioned in Bansur. This tahsil derives no benefit from it, as the channel is deep and narrow and the bed being rocky or sandy is unfit for cultivation.

(2) Narainpur *nala*.

The Partabgarh *nala* rises in Lalpura in an isolated and beautiful valley almost hemmed in by lofty mountains. It runs north-west past the town of Partabgarh, and a mile to the east it is joined by a considerable affluent which has its source in Agar, 8 miles to the north. Up to this point it is a perennial stream even now, and its banks are covered with temples, bathing *ghats*, and picturesque palm groves. From the junction it runs south-east for a distance of 10 miles, receiving the drainage of all the Partabgarh *pargana*, and leaving the State at Kalera enters Jaipur territory, where its waters are utilised for irrigation by means of a dam near Santhal. After a course of 10 or 12 miles through Jaipur it again strikes north-east, and for a distance of 4 miles forms the boundary between Jaipur and Alwar, being finally joined by the Ajabgarh *nala* at Nangal Dasa on the south-east of the Baldeogarh *pargana*. In years of good rainfall when the stream is continuous the villages along its banks utilise it for irrigation by means of *dehrs* or *jhalárs* erected along the bank, but these are now very few and the bed being rocky is not cultivated.

(3) Partabgarh *nala*.

The Ajabgarh or *Kali nadi* rises in a spring at the foot of the hills in Angari in the centre of the tahsil, drains the centre and south of the Thana Ghazi, *pargana*, runs almost due south past Ajabgarh town, and through the narrow rocky defile between Ajabgarh and Bhangarh, where it takes a south easterly course from the temple of Sarsa Devi throughout the Baldeogarh *pargana*, finally after a course of 25 miles joining the Partabgarh stream at Nangal Dasa, whence the combined streams run east to join the Banganga. This stream was formerly in flow throughout the year at least from Ajabgarh southwards, and was tapped for *rabi* irrigation at Bhangarh by means of temporary *bunds* and channels, but owing to the prolonged drought it now holds water only during the rains, though pools are found even in the dry months in the deep creeks close to Ajabgarh town. Here some irrigation is carried on both in the *kharif* and *rabi* by means of *jhalárs*.

(4) Ajabgarh stream.

The construction of a masonry dam at Gawara Kaliana north of Ajabgarh where an affluent from Piplai joins the *nadi* has recently been sanctioned, and there is a larger scheme under consideration for the construction of a dam over the main stream, at a cost of about Rs. 50,000, at Jaitpur, 3 miles north of Ajabgarh.

An ideal scheme, if feasible, would be to throw a masonry dam across the mouth of the narrow valley at Sarsa Devi near Bhangarh where the stream debouches on the Baldeogarh plain, and thereby irrigates by means of channels from the sluices the waterless villages of that *pargana*. The project has been considered by the State Engineer, Mr. Macdonald, but the engineering difficulties are almost insuperable.

A special feature of this tahsil is the large area included in the State *runds* and *bannis*, the primary object of which is to provide fuel and fodder for the

(h) State *runds* and *bannis*.

State and also serve as game preserves.

These are fourteen in number and cover an area of 57,322 *bighas* or 56 square miles. Of these three *runds*, viz., Kalighati or Jodha Bas (23,027 *bighas*), Ajabgarh (1,406) and Lotha Bas (454) are directly managed by the Rund Department, and after the grass required for State uses is cut, the grazing is leased out to the villages. The remaining eleven *runds*, area 29,088 *bighas*, are permanently leased out to the adjoining groups of villages for fixed sums. The amount was fixed prior to last settlement at Rs. 497-8-0 and has not since varied. The great facilities for grazing enjoyed by the zamindars of this tahsil enable them to keep large herds of cattle, sheep, and goats, and it is this resource which enables them in many cases to pay the enormously high rates fixed on the cultivated area.

The vicinity of these great preserves is not, however, an unmixed blessing.

(i) Damage by wild animals. The ravages of the wild animals they harbour—tigers, panthers, hyaenas, antelope, nilgai, pig—are a terrible scourge to the adjoining villages, as they not only prey on the crops and cattle but often endanger human life. In September-October 1898, the population of the villages on the Jaipur border was panic-stricken, and agricultural operations temporarily paralysed by the appearance on the scene of a man-eating tiger which carried off between 40 or 50 people before it was shot by the combined forces of Alwar and Jaipur. The villages around Ajabgarh are the greatest sufferers. In two villages, Kharika and Gawara Bandipul, the cultivation has been abandoned, and the villages have ceased to exist and are now included in the adjoining game preserves. Though the direct loss of revenue is not considerable, the sacrifice of a working agricultural estate is not creditable to the State administration, and every such addition to the already overgrown *rund* area becomes a fresh nucleus for the further spread of the pest. Thus the inclusion in the *rund* of Gawara Bandipul in the Ajabgarh valley has endangered the stability of the two adjoining villages, Gawara Dolawa and Kirathka Bas, and the zamindars threaten to abandon the cultivation unless they are allowed to protect themselves and their cattle and crops by clearing the jungle within their boundaries, which is at present protected by the State as a cover for game.

I have dwelt on this point as it is possible that hereafter overzeal in the interests of sport may lead to the interests of the Zamindars being overlooked or sacrificed.

After Alwar and Rajgarh the tahsil enjoys the best rainfall in the State.

(j) Rainfall. The average for the 24 years since last settlement is 23.10 inches with extremes of 9.98 in 1877-78 and 34.05 in 1892-93. In two years the rainfall was less than 15, and in ten years less than twenty inches, while in four it exceeded thirty inches. The registering station, Thana Ghazi, is fairly central, and as regards rainfall representative of the entire tahsil. The prevalence of hill ranges has a tendency to cause the rain to fall in sudden and excessive deluges which at once run off the sloping surface into the numerous *nalas* or depressions instead of soaking into the soil. The efficiency of the wells is, however, largely dependent on the rainfall being held by small dams or embankments along the field boundaries. These have of recent years been allowed in many places to fall into disrepair, or after being carried away by a sudden flood have not been restored, and this I believe to be one of the main causes for the partial failure of the water-supply in the last two years of drought.

In addition to the natural advantages of a rich soil, sweet and numerous wells, and a good rainfall, the tahsil is also

(k) Agricultural population. favoured in its agricultural population. Of the 120 *khalsa* estates only twenty are held by Rajputs of the Shaikhawat (6) Rajawat, (8) and Chauhan (6) clans, who are the poorest specimens of agriculturists cultivating almost entirely through tenants or domestic slaves (*daroghas*). 31 estates are held by Brahmins of the Hariana (17), Gaur (9) and Bagri *gots* (5); 43 by Minas and 2 by Malis, and all of these classes are here first-class cultivators, though inferior in enterprise and energy to the Ahirs and Jats of the northern tahsils. Gujars, who are here second-class cultivators, hold 23 estates, and only one estate is held by the non-agricultural castes, Kayasths.

Brahmins and Gujars are the most prosperous ; Minas have a lower standard of comfort ; while the Rajputs and especially the Rajawats, where they are dependent on agriculture alone for their livelihood, are the lowest of all.

The tahsil is still very badly off in the way of communications. The northern part connects with Alwar and the railway by means of the recently constructed road through the Ruparel valley which has done much to open up the tahsil, but even this highway is dangerous at night. The distance from Alwar to Thana Ghazi by this route is 25 miles. The southern portions of the tahsil are, however, 50 miles distant from Alwar by this route, and they find an outlet to the railway at Bandikui, Bhankri and Kalwa in Jaipur territory. The routes are, however, both dangerous and difficult. A new road from Thana Ghazi to Partabgarh is now being carried out as a famine work.

The tahsil as a whole though very highly assessed has many elements of prosperity and up to the drought which began in 1898-99, the villages though they made no strides forward held their own and paid the high State demand with marvellous punctuality. The strain of the last two years has, however, seriously crippled them, and the drying up of the wells has cut at the very root of their agricultural resources. A few years of good rainfall will set them on their legs again, while a continuance of the drought for another year will shake them to their foundation.

14. The rainfall has been referred to in the description of the tahsils, but the figures may now be considered in more detail. The annual fall since last settlement is shown in Appendix A and the monthly and annual falls since 1882-83 (the Bansur monthly figures for 1887-88—1890-91 are wanting) in Appendix B. Dividing the 24 years into three periods of eight years each, the averages for each period and the whole series are as follows :—

Tahsil.				1876-77 to 1883-84.	1884-85 to 1891-92.	1892-93 to 1899-1900.	Average of 24 years.	REMARKS.
Alwar	...	...	...	28.33	27.60	25.90	27.30	
Bansur	...	...	...	16.79	20.64	20.61	19.38	
Thana Ghazi	...	...	...	19.17	24.75	25.09	23.10	

The average monthly rainfall for the 24 years since 1882-83 has been—

Tahsil.	April.	May.	June.	July.	August.	September.	Total April to September.	October.	November.	December.	January.	February.	March.	Total October to March.	Total of year.
Alwar	10	08	2.06	8.81	6	4.03	21.30	5.4	23	35	60	35	36	2.13	24.75
Bansur	50	78	2.01	6.01	4.60	3.77	18.77	21	10	39	48	17	17	1.61	20.38
Thana Ghazi	40	43	3	8.28	7.58	4.70	24.30	24	21	32	40	25	15	1.60	26.05

Thus the rainfall is heaviest in Alwar, which is exposed to the influence of both the monsoon currents. Thana Ghazi being shut off from the Bay of Bengal current by the range of high hills intervening would probably have a



much smaller rainfall were it not that the attraction of the enormous mass of hills induces local storms. That this is the case is proved by the Bansur figures. Bansur lying west of the central range, is like Thana Ghazi outside the scope of the rains from the Gangetic valley side, and being less hilly, the rainfall shows a serious contraction both as compared with Alwar and Thana Ghazi. In Bansur and Thana Ghazi the average of the first period has been reduced by the abnormally deficient rains of 1876-77 and 1877-78. In Alwar although the fall in 1877-78 was only half the normal, *viz.*, 13.30 inches, the excessive rain of 1879-80—41.86 inches—makes the average for the period greater than that for the whole series. After the famine year of 1877-78 the next year of abnormally low rainfall in all tahsils was 1886-87, when no tahsil received 20 inches. There was a similar general deficiency in 1891-92, when the fall in all tahsils fell short of 20 inches and Thana Ghazi received only 15 inches.

15. The rainfall of 1895-96 though normal in Thana Ghazi was very poor in

Recent harvests.

Alwar—15.68, and Bansur—13.04 inches, and from that year may be dated the drought in these tahsils, which with a temporary break in 1897-98 has lasted up to date. In 1896-97 the drought extended to Thana Ghazi, which received only 19.25 inches, and the deficiency was intensified by the fact that no tahsil received an inch of rain in September. In 1897-98 the rainfall was above average in all tahsils and very well distributed for the autumn crop and the *rabi* sowings, as it was very heavy in all tahsils in September. The winter rains were, however, short in Bansur and Thana Ghazi where only  $\frac{3}{4}$  of an inch fell from October to March, but they were very abundant though long deferred in Alwar. The crops in both harvests though somewhat damaged by locusts were however above the average.

In 1898-99 the drought returned with increased severity in Alwar and Thana Ghazi, which received only 16.41 and 18.10 inches respectively. Moreover, this was badly distributed as the September rains were poor and there were practically no winter rains, so the *kharif* crop was a bad one especially in Alwar, and the *rabi barani* crops, on which so much depends in Alwar, were almost a total failure. Bansur suffered less as the monsoon rains were above average, and the failure of the winter rains was less felt as *barani* crops are very little grown in the *rabi*.

The beginning of the year 1899-1900 found the agricultural community rather straitened, especially in Thana Ghazi, where the wells had already begun to run dry, and in the stiffer soils in Alwar, including the Bahadurpur *pargana*. The monsoon here as elsewhere opened splendidly with very heavy rain in June and July, and the area sown for the *kharif* was the largest on record as the State made most liberal advances for seed and bullocks to enable the depressed agriculturists to take full advantage of the season. The promise of a bumper crop was however doomed to a cruel disappointment. In August not a single cent of rain fell in Bansur or Thana Ghazi, while Alwar received only a single shower—2.3 inches—towards the end of the month. September showed a slight improvement in Alwar, which received 1.8 inches (though this was not general), but Bansur got none at all, and Thana Ghazi only .20. From October to March not a single drop of rain fell in any tahsil. The *kharif* crop on unirrigated land failed generally, the failure being most marked in the stiff soils of Alwar and Thana Ghazi, while the light *bhur* of Bansur stood the drought more successfully and yielded perhaps a 6-anna crop. The State again came to the aid of the people and advanced very large sums for the sinking of *kacha* and deepening of masonry wells where the water was running short, also for seed and cattle. The full payment of the *kharif* instalment was also not insisted upon, and in these three tahsils from one-half to one-third of the demand was allowed to remain over as unrealised balance. Encouraged by this consideration, the zamindars stuck to their holdings, showing no signs of panic, and exerted all their energies in sowing as large an area as possible for the *rabi* on their wells. The total failure of the winter rains combined with the serious contraction of the water-supply in the wells throughout Thana Ghazi and the hilly portions of Alwar and Bansur again prevented the hopes of an average *rabi* on the well lands from

being realised. The *barani* sowings, which were very inconsiderable, failed utterly, the *dahri* lands yielded from one-third to one-half and the *chahi* from one-half to two-thirds of an average crop on the area sown.

16. The cold weather rains are heavier in Alwar, 2·45 inches, than in Bansur, 1·61, or Thana Ghazi, 1·66 inches, and owing to this cause and the suitability of the Alwar soil for gram and oilseeds unirrigated spring crops are in ordinary years largely grown in Alwar. On an average of years 63 per cent. of the *rabi* in Alwar consists of such crops, gram alone covering 56 per cent. of the area. The failure of the late autumn and winter rains during the last two years has drawn this crop out of the field, and the area has fallen from 39,683 *bighas* in the *rabi* of 1898 to 2,509 *bighas* in the *rabi* of 1900. The failure of the winter rains is less felt in Bansur and Thana Ghazi where unirrigated spring crops are owing to the nature of the soil and the uncertainty of the winter rains sparingly grown. Taking one inch of rain in the three months December to February as the minimum necessary to ensure the success of the unirrigated spring crops, we find that in Alwar during the last 17 years, there have been 9 years when the rainfall fell short of that minimum, in Bansur 12 years and in Thana Ghazi 11 years. No stronger proof could be adduced of the uncertainty of the cold weather rains and the consequent insecurity of the *rabi* dry sowings.

17. Some of the main facts regarding well irrigation have been noticed in the remarks on each tahsil. The following table abstracted from Statement I (a) shows the number of wells working and *chahi* area (a) at last settlement, (b) in 1898-99, (c) in 1899-1900.

Tahsil.	Detail	MASONRY AND KACHA PAKKA.		KACHA.		Dhars and dhenklis.	CHAHY AREA.			AVERAGE.		AVERAGE DEPTH.				REMARKS.	
		Wells.	Laos.	Wells.	Laos.		Permanent.	Temporary.	Total.	Per w. ll.	Per lao.	PAKKA		KACHA.			
												To water.	Water.	To water.	Water.		
Alwar	Last settle- ment.	1,234	1,983	110	...	Unknown	24,162	963	25,125	19	12	...	..	...	...		
	1898-99	...	1,287	2,331	175	...	519	25,926	1,979	27,905	21	11	43	14	...	...	
	1899-1900	...	1,287	2,414	382	...	2,636	...	...	...	...	...	...	...	...	...	
Bansur	Last settle- ment.	1,417½	2,094	570	616	Unknown	32,097	...	32,097	16	12	...	...	...	...	...	
	1898-99	..	1,401½	2,136	521	568	200	33,102	513	33,615	17	12	38	14	36	8	
	1899-1900	...	1,389½	2,080	543	540	421	...	...	...	...	...	...	...	...	...	
Thana Ghazi	Last settle- ment.	1,889	2,491	154	173	Unknown	19,001	...	19,001	9½	7	...	..	...	..		
	1898-99	...	1,928	2,833	184	201	44	20,416	77	20,493	9½	6½	39	10	42	9	
	1899-1900	...	1,903	2,318	206	221	20	...	...	...	...	...	...	..	...	...	

Thus as regards working masonry and *kacha-pakka* wells, i.e., wells worked permanently, comparing the figures of last settlement with those of 1898-99 there is a trifling increase in Alwar and Thana Ghazi, and a trifling decrease in Bansur, while if we take the figures of 1899-1900 we find an increase of 4 per cent. in Alwar, a decrease of 2 per cent. in Bansur, and an enormous falling off of 15 per cent. in Thana Ghazi, due of course to the fact that many wells are temporarily out of work owing to the failure of water supply. If we take the figures of 1898-99 as representing the normal state of things, they show a considerable increase of *laos* at work in Alwar, 19 per cent. and Thana Ghazi, 14 per cent., while in Bansur the number is stationary; and the increase in total *chahi* area is in Alwar 11 per cent., in Bansur and Thana Ghazi 5 per cent. In Alwar where conditions are favourable for the sinking of *kacha* wells and *dhenklis*, their number has been enormously increased in the



last two years to meet the drought, but most of them are only temporary and will be allowed to collapse when the emergency is over. In Bansur there has been a slight decrease and in Thana Ghazi a substantial increase in *kacha* wells which in these tahsils are a permanent source of irrigation. *Dhenklis* are hardly used at all in Thana Ghazi, and in Bansur they are found chiefly in the lowly-*ing kallar* plain around Bansur already described.

Kinds of wells in use.

18. The classes of wells are generally the same as described in paragraph 9 of last

year's report, viz.:—

(1) *Kothi*, in which a masonry cylinder of stone or bricks is first built, and then gradually sunk to the required level, a smaller cylinder of wood (*chakk* or *bachha*) being sometimes inserted as a foundation for the masonry to rest on. (2) *Nalcha*, where the land is first excavated to the required depth and the masonry cylinder built up from below. (3) *Santhra* or *Kora para*, in which the well is first dug out, often through loose stone, and a rough lining of stones without mortar is built up from below. (4) *Papra*, where a layer of stones is found near the surface, and this is excavated by blasting till water is reached, after which the sides are smoothed and dressed, and the upper portion is lined with masonry for greater stability. (5) *Kacha* wells have no masonry lining and can only be sunk where the subsoil is firm and stable. (6) *Kacha pakka* wells have from 10 to 20 feet of masonry at the top, and this adds to their stability.

Wells of the first and second class are most common in the plains of Alwar and Bansur, but rarer in Thana Ghazi owing to the prevalence of stone in the subsoil. They are the most durable but at the same time most expensive, the cost varying from Rs. 400 to 1,500 according to the depth, and as they tap the spring level they are the least liable to failure in a drought. They are deepened in years of drought by means of a powerful iron boring-screw working in a wooden cylinder. The process is slow and rather costly, but very effective. The borers are generally Sikhs from the Punjab, who hire out the machinery and their own services. It is often difficult to obtain them when required, and the State Public Works Department might well, I think, take charge of the operations. Wells of the third and fourth kind are very common all over Thana Ghazi, and *kora para* wells are found in the hilly tracts of Alwar and Bansur. *Papra* wells are also fairly common in Alwar, but in Bansur are only found in Rampur. They cost from Rs. 200 to 600 and are the first to run dry in a drought. To increase the water-supply the rock below has to be blasted with gun-powder at great expense, and this year hundreds of wells in Thana Ghazi may be seen surrounded by enormous heaps of stones or conglomerate recently excavated to deepen the well. *Kacha* and *kacha pakka* wells are most common in Bansur, especially in the Narainpur *pargana*, but they can also be sunk in many parts of Alwar. *Dhers* and *dhenklis* are very common in Alwar along the banks and in the beds of the *Chuhar Sidh* and *Ruparel* and their tributaries, also in Bansur in the beds of the various streams. Their number varies considerably from year to year, as in dry years they are sunk largely in the *dahri* or flooded lands to supplement the natural moisture. A *kacha* well costs from Rs. 15 to Rs. 30, a *dhenkli* from Rs. 1 to Rs. 3.

19. The following table shows the classification of wells (excluding *kacha*

Classification of wells according to quality of water. wells in Alwar but including them in Bansur and Thana Ghazi) according to the quality of the well water.

Quality.						Alwar.	Bansur.	Thana Ghazi.
Sweet (mitha)	...	...	...	...	...	987	1,837	2,071
Hard (matwala)	...	...	...	...	...	3	37	19
Brackish (malwala)	...	...	...	...	...	45	19	13
Slightly brackish (rukala)	..	...	...	...	...	95	...	...
Bitter (khara)	..	...	...	...	...	86	81	7
Oily (teliya)	...	...	...	...	...	16	...	...
Oily and salt (bajar teliya)	...	...	...	...	...	5	4	2
Total						1,237	1,928	2,112

These tahsils have a distinct advantage over the rest of the State—except Rajgarh—in the superior quality of the well water, and this is the main basis of such prosperity as they possess.

20. As the wells represent the most valuable portion of the zamindars' capital, so the maintenance and repair of the old and the sinking of new wells are of the first importance both to the State and the people, and here as elsewhere the Alwar Darbar has pursued a liberal policy in making *takavi* advances free of interest. The total amount of *takavi* advances for different purposes since last settlement with the recoveries and the balances now due are shown in the following table :—

Tahsil.	Details.	Wells.	Irrigation dams and tanks.	Seed and bullocks.	Well gear.	Total.	REMARKS.
Alwar	Advanced	18,541	1,018	5,114	7,576	86,252	(1) Of which Rs. 3,105 was advanced in 1899-1900.
	Recovered	19,693	65	60,139	4,212	64,912	
	Balance	4,941	360	8,700	3,364	17,370 (1)	
Bansur	Advanced	14,818	...	9,873	2,277	26,968	(2) Of which Rs. 7,375 was advanced in 1899-1900.
	Recovered	10,553	...	1,008	1,040	12,641	
	Balance	4,265	...	8,865	1,197	14,327 (2)	
Thana Ghazi	Advanced	8,869	1,391	6,042	12,916	29,218	(3) Of which Rs. 4,647 was advanced in 1899-1900.
	Recovered	5,014	911	8,982	10,232	20,769	
	Balance	8,255	450	2,960	2,084	8,149 (3)	
Total	Advanced	42,231	2,469	75,059	22,769	1,42,468	
	Recovered	29,770	1,569	69,129	15,524	1,02,322	
	Balance	12,491	610	10,630	7,245	40,140	

The large balances are due to the fact that considerable advances have been made within the last few years, the realisation of which is not yet due, or owing to the drought is undesirable. The advances for purchase of seed and bullocks have been very liberal in Alwar, fairly so in Bansur, while the advances for well gear have been sufficient in Thana Ghazi. But the advances for wells which for the three tahsils combined average less than Rs. 2,000 per annum, have, considering the great initial cost of the wells and their importance in agriculture, been quite inadequate, and this is the chief reason why there has been so slight an increase in the number of wells and the irrigated area. In paragraph 12 of last year's report I pointed out that the judicious expenditure of nearly Rs. 60,000 on well *takavi* in Tijara under the orders of the late Maharaja had not only rescued that tahsil from ruin, but enabled me to take an enhancement of nearly Rs. 20,000 in the poorest tract in the State.

The example might with advantage have been followed in these tahsils also as the opportunities of extending wells at least in Alwar and Thana Ghazi, are practically unlimited, the well water being excellent and suited to the land. The necessity for the State taking a stronger initiative in the matter will more clearly appear from the following statistics showing the number of wells out of working at last settlement, in 1898-99, and in 1899-1900.

Tahsil.					WELLS OUT OF WORKING.		
					At last settlement.	1898-99.	1899-1900.
Alwar	...	...	...	...	471	514	509
Bansur	...	...	...	...	280	479	577
Thana Ghazi	...	...	...	...	557	523	914

There have of course been many internal changes due to wells out of working at last settlement having since been restored and wells in work at settlement having since gone out of work, but the main fact remains that the number of wells out of work shows a very decided increase. Now most of these wells are repairable and could be set working to the great advantage of the State and the people, if *takavi* advances were judiciously distributed by a capable tahsildar.

The people have been so straitened in resources by a succession of bad years that they have not in the majority of cases the enterprise or the capital to undertake the repairs themselves, and the State in the interests of its own revenue should now come to their aid. The administration is fully alive to the importance of this measure and is prepared to make *takavi* advances to the extent required, but of course the success of the measure depends on having energetic and capable tahsildars with a knowledge of their tahsils and of the wants of the people to administer it, and in this respect two at least of these tahsils have been unfortunate.

21. The *dahri* area in these tahsils is not important. The classes viz., *dahri maujuda*, *dahri sabika* and *dahri barishi* are the same as described in previous reports. There is also a small area of *nahri* which is irrigated in Alwar by channels from the Siliserh and other *bands*, and in Bansur and Thana Ghazi from natural springs. In the latter two tahsils the *nahri* land will in the future as in the past be assessed as such, no separate water-rate being levied, but in Alwar as a fluctuating water-rate is charged the *nahri* area on the Siliserh and Bara canals will be classed as *dahri-sabika* (as was done in Lachmangarh on the Ghat canal) and assessed accordingly.

Excluding *dahri barishi* which is 5 per cent. of the cultivation in Alwar and Thana Ghazi and only 48 *bighas* in Bansur, the *dahri* area dependent on *bands* is only 3 per cent. in Alwar and 1 per cent. in Bansur and Thana Ghazi. Considering the enormous volume of water which drains away from the hills in the many great streams and *nalas* already described, this may be considered an unsatisfactory result, but there are several explanations for it, viz., (1) owing to the sharp slope from the hills the floods come down with great force, and the cost of retaining dams except in a few favoured sites would be enormous; (2) Alwar cannot interfere with the Ruparel floods during the four rainy months, and the supply for the rest of the year is now a mere trickle; (3) the enormous volume of water held up by the Siliserh *band* is appropriated chiefly to the irrigation of State gardens around the city, and of the lands managed by the Canal Department which are not taken account of in this report.

22. The following table gives details of cost, irrigation for the chief *bands* in each tahsil.

Detail of irrigation dams.

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Number.	Tahsil.	Name of band and village.	When constructed.	Masonry or kacha.	NUMBER OF		Expenditure since last settlement.	PUBLIC WORKS DEPARTMENT ESTIMATE OF IRRIGATION.		DAHRI AREA RECORDED.						Income up to date.	REMARKS.
					Escapes.	Sluices.		Submerged.	Through sluices.	Last settlement.	Now.						
											Maujuda.		Sabika.		Total.		
											Chahl.	Dahri.	Chahl.	Dahri.			
1	Alwar	Babroz	1886	Both	1	2	9,451	...	...	...	...	137	...	...	137	...	Built across a <i>nala</i> which drains the extreme north-west of Alwar and runs into Mandawar. The area of <i>dahri</i> is so far small and poor, irrigates in three villages.
2	"	Chandaoli	1887	Masonry	1	2	6,000	...	...	...	...	192	...	...	192	Nil	Built across a tributary of the Chuhar Sidh and has formed some good <i>dahri</i> in Chandaoli but no charge has yet been made.
3	"	Tehrpur	1897	"	1	1	44,951	516	2,008	...	18	65	...	...	83	Nil	Built recently across a tributary of the Chuhar Sidh, has a large catchment area. The land within the <i>band</i> is chiefly <i>masi</i> and neither this nor the <i>khalsa</i> area flooded has yet paid anything. No sluice irrigation as yet, but its development is under consideration.
4	"	Nangla Banjar and Bagar Meo.	Old	"	...	12	493	...	...	1,570	156	1,493	...	54	1,703	...	An old <i>band</i> across the Chuhar Sidh where it crosses the Ramgarh road, repaired since settlement and enlarged affords good irrigation to 5 villages, which is included in the assessment, the sluices are always kept open.
5	"	Sabilpur	Old	"	...	3	...	...	...	507	85	...	...	...	85	...	This old band has now almost disappeared. It slightly benefits some well land in Nangla Megha.
6	"	Partab (Alwar)	"	"	...	1	1,000	...	...	...	...	...	...	...	...	...	An old band constructed by Maharao Raja Partab Singh across the valley below the Alwar fort, irrigates no <i>khalsa</i> land, but 42 bighas <i>masi</i> .

Number.	Tahsil.	Name of band and village.	When constructed.	Masonry of kacha.	NUMBER OF		Expenditure since last settlement.	PUBLIC WORKS DEPARTMENT ESTIMATE OF IRRIGATION.		Last settlement.	DAHRI AREA RECORDED.					Income up to date.	REMARKS.	
					Escaped.	Sluices.		Submerged.	Through sluices.			Now.						
												Manjuda.		Sabika.				Total.
												Chahl.	Dahri.	Chahl.	Dahri.			
7	Alwar	...	Bhankera	Old	Masonry	...	1	...	...	...	115	...	132	...	...	132	...	This band is formed by the aqueduct of the Siliserh canal, and holds up some hill drainage. Water rate is included in the Jama. Irrigates in two villages, also 67 <i>lighas mafi</i> .
8	"	...	Siliserh (Paitpura)	"	"	1	2	...	...	...	31	...	95	...	15	100	...	Separately mentioned, see paragraph 25.
9	"	...	Manchri	"	"	1	1	...	...	...	375	50	177	33	174	434	...	Built before the Siliserh which now cuts off most of the supply, especially since the escape has been raised.
10	"	...	Baleta	"	"	1	1	...	...	...	338	...	361	...	107	408	...	A very fine work constructed by Maharao Raja Bauni Singh and has some good dahri land in Baleta and Pirthipur; included in the Jama.
11	"	...	Bharkol	"	"	...	...	...	...	...	67	...	66	...	...	66	...	An old band in <i>mafi</i> village, but irrigates in the <i>kholsa</i> village of Maharajpura, well placed, but sadly in want of repairs.
12	"	...	Pinch (Sahari Paitpura)	"	"	...	2	...	...	...	185	20	107	4	160	291	...	A long masonry wall running east from the Siliserh escape by which it is supplied, now wants repairs in places.
	.....	Total masonry bands (State).	...	...	...	...	61,904	...	...	3,188	329	2,755	37	510	3,631	...		
13	Alwar	...	Kamalpur	1878	Kacha	...	2	7,125	...	...	136	...	8	278	4	290	...	Constructed as a famine work. The <i>dahri</i> is of little use owing to <i>Kallar</i> .
14	"	...	Dadhauri	"	"	...	1	447	...	...	...	10	38	...	...	48	...	Ditto ditto ditto ditto.
15	"	...	Bajit (Lili)	Old	"	1	1	...	...	...	64	...	...	...	35	35	...	Irrigation is uncertain.
...	.....	Total kacha bands (State).	...	...	...	...	...	7,572	...	...	200	10	46	278	39	373	...	



16	...	Kacha bands Zamin-	...	...	...	...	...	...	...	372	44	245	...	212	501	...	These zamindari bands are in Ghatla, Salimpur and Bajhit.
17	...	Irrigation from	...	...	...	...	...	...	...	604	103	524	75	179	881	...	
...	Grand total Tahsil	Alwar	...	...	...	...	...	...	...	4,364	486	3,570	390	940	5,386	...	
18	Bansur	Babarya	Old	Masonry	...	...	...	...	...	2,005	...	922	...	383	1,205	...	Drains the north of the Tahsil. Constructed originally in Moghut times, but lately repaired and extended. Cost not known. Water-rate included in Jama. A fairly successful work. Irrigates in two villages. No water rate yet levied.
19	Thana Ghazi	Doharchogan	New 1895	Kacha	...	...	7,617	189	329	...	...	138	...	...	138	..	
20	"	Basri (Kishori)	1893	"	...	...	5,106	45	53	...	...	56	...	...	56	...	
21	"	Karnaka Bas	1895	"	...	...	2,014	20	26	...	...	...	...	...	...	...	These bands are connected. They are near Sariska and were built under the order of the late Maharaja. They have been frequently breached and upto date no <i>dahri</i> area has been formed and no revenue realised.
22	"	Kandalka	"	Masonry	...	...	13,187	51	89	...	...	...	...	...	...	...	
23	"	Gawara Gokli	1898	Kacha	...	...	5,215	35	30	...	...	...	...	...	...	...	
		Total of new bands	...	...	...	...	33,140	340	527	...	...	194	...	...	194	...	Lately constructed under the orders of Colonel Pears, Political Agent, close under the hills near Ajabgarh, has been breached within the last two years, causing some damage to the lands below. So far no <i>dahri</i> area formed and no revenue.
24	Thana Ghazi	Gadh Chaurani	Old	Kacha	...	...	...	...	...	69	...	55	...	...	55	...	
25	"	Malipur	"	"	...	...	...	...	...	34	...	55	...	...	55	...	
26	"	Soma Sagar (Ajabgarh).	"	Masonry	...	...	...	...	...	43	...	16	...	...	16	...	Constructed in Akbar's time at the head of a valley below Ajabgarh by Soma barber. It holds a large volume of water, but is little used as the land is remote, difficult of access and infested by wild beasts
27	"	Pandrol	"	"	...	...	...	...	...	...	...	...	...	...	...	...	
					...	...	...	...	...	...	...	...	...	...	...	...	An old band erected 70 years ago by a mafidar, now breached in several places, but would probably repay the cost of repairs.

23. The new works, *i.e.*, constructed since last settlement, are Nos. 7, 2 and 3 in Alwar, and 19 to 23 in Thana Ghazi.

**Income from new works.**

On the former a sum of over Rs. 60,000 has been expended. The *dahri* area formed up to date is, however, only 412 *bighas* in *khalsa* land, and owing to the negligence of the revenue authorities no charge has yet been made for the improvement effected by the irrigation dams except Rs. 12 realised on the Bahroz *band*. Taking an average of Rs. 1-8-0 per *bigha* as the extra rate that can now be levied, the total income will be Rs. 618 or one per cent on the capital expenditure. Of course if sluice irrigation is developed, especially from the Tehrpur *band* which has cost Rs. 45,000 up to date and irrigates only 83 *bighas* of *khalsa* land, or if the considerable area of *mafi* land within the *band* and benefitted by its action—about 400 *bighas*—is assessed to water rates, the returns will improve. On the other hand the cost of maintenance has to be set off against the income. The two *kacha bands* in Kamalpur and Dadhauri—Nos. 13 and 14—constructed in 1878 as famine works have been of little benefit, as they hold up the drainage from the surrounding *kallar* lands, and the floods in places cause the soil to deteriorate.

The five *bands* constructed in Thana Ghazi within recent years at a cost of Rs. 33,140 have increased the *dahri* area up to date by only 194 *bighas*. This has paid nothing hitherto as the Revenue Department made no demand, but if an extra rate of Rs. 1-8-0 per *bigha* be imposed on this, the income will be only Rs. 291 or less than one per cent. Three of these *bands*, Nos. 21-23, were constructed under the orders of the late Maharaja or Political Agent probably from other considerations than that of promoting cultivation and the money spent on these, over Rs. 20,000, has so far been absolutely thrown away, as they have in no way added to, or improved existing cultivation. In the case of all *bands* except the Siliserh all existing *dahri* land will now be assessed on its merits, and any future extensions of the *dahri* area will pay a separate water rate of Rs. 1-8-0 per *bigha* unless already assessed as *chahi* if within the *band* and Rs. 1 per *bigha* per watering where irrigated through the sluices.

The best sites for *bands* have already been occupied, but there are still some fairly promising projects in the Thana Ghazi tahsil. Those for the utilisation of Ajabgarh stream and its affluents have already been referred to. In Alwar too I think money would be well spent on restoring some of the old *bands* shown in the statement. As I remarked in paragraph 16 of last year's report, a strictly commercial policy in these matters would be out of place. The drought of the last two years has brought into prominence the vital importance of maintaining the old or constructing new *bands*—even where the direct returns are very low—for the sake of the irrigation wells.

24. The *nahri* or canal irrigated area though not considerable requires special mention in connection with the famous Siliserh *band*, an embankment of

**Ruparel irrigation.**

solid masonry 40 feet high and 1,000 feet long constructed by Maharaja Banni Singh about 1845 in place of the earlier *band* at Umran which after standing 11 years was breached in the heavy floods in 1845. This fine dam as shown in the map attached lies 9 miles to the south-west of the city, in *mauza* Paitpura, across a narrow opening in the hills through which the drainage of the long narrow valley running north-west for a distance of 12 miles to Dhamlaka Bas in Bansur found its way south-east to the Ruparel. The construction of the *band* which has a catchment area estimated at 52½ square miles at once reopened the old controversy with Bharatpur as to the respective shares of the two States in the Ruparel irrigation. From the beginning the principle was accepted that the two States had equal rights in the stream. On the construction of the Umran *band*, the Maharaja accepted the opinion of the Engineer Officer Captain Western, deputed in 1837 to settle the dispute, that it held up ⅔ of the Ruparel supply, and he agreed to receive the remaining ⅓ share by means of a canal from the Ruparel at Ghat where works were specially constructed to ensure such a division. Unfortunately these works were carried away by the first flood, the Umran *band* was breached in 1845, and the construction of the Siliserh *band* 4 miles higher up reopened the controversy. In 1854 Sir H. Lawrence, Agent to the Governor-General, accepting Captain Western's data as correct, estimated the new Siliserh *band* to retain the same quantity of water

as the old Umran *band*, viz.,  $\frac{7}{10}$  of the whole, and decided that the remaining  $\frac{3}{10}$  to which Alwar was entitled would be represented by the volume of water which might be collected during the months commencing 10th October and ending 10th June," the Bharatpur  $\frac{1}{10}$  being represented by the uninterrupted flow of the river during the four monsoon months.

Though the Alwar State has again and again challenged the justice of that decision as based on *data* which the more careful surveys subsequently made by the Railway Engineers have shown to be incorrect, Government has refused to re-open the case, and the decision of 1854 is still acted upon.

25. The waters of the Siliserh lake after an average monsoon rainfall cover an area of about 1,000 *bighas*—600 *bighas* in the *jagir* village of Kishenpura and about 400 *bighas* in the *khalsa* village of Paitpura in which the dam and escape are. There is some *rabi* or extra *rabi* cultivation within the *band* which varies in area according to the extent to which the water evaporates or is run off, and is of course greatest in a year of drought. This cultivation, which in Paitpura may extend to 200 *bighas*, has hitherto never been assessed. It will in future be charged on the fluctuating system as in the case of the Deoti lake in Rajgarh (paragraph 18 of last year's report).

Most of the cultivation is, however, outside the *band*, and is irrigated to a small extent in Paitpura by leakage (*jirao*) from the escape, but chiefly by the two masonry ducts from the sluices which run north-east up to Alwar and irrigate in 12 villages lying between the dam, and the Alwar railway station. This irrigation is primarily intended for the great number of large and beautiful State gardens which are so marked and pleasing a feature of Alwar and its vicinity, and for the two canal estates of Sonawa and Khora, but when the supply is abundant water is also given at fixed rates to *khalsa* and *mafi* lands. A similar system is followed on the small canal at Bara. The land so irrigated has now been classed as (1) *nahri hal* if irrigated within the year 1898-99, and (2) *Nahri sabika* if actually irrigated within the previous five years, and the following statement gives details by villages :—

No.	Village.	KHALSA.			MAFI.			STATE PROPERTY.			TOTAL.			Of which chahi.	REMARKS.
		Hal.	Sabika.	Total.	Hal.	Sabika.	Total.	Hal.	Sabika.	Total.	Hal.	Sabika.	Total.		
1	Sahori ...	3	2	5	...	...	...	5	15	20	8	17	25	...	
2	Umran ...	18	...	18	...	...	...	131	71	202	149	71	220	18	
3	Paitpur ...	137	70	213	...	...	...	28	...	28	165	76	241	7	
4	Blankera ...	8	...	8	...	...	...	53	21	74	66	21	77	...	
5	Lowari ...	136	...	136	...	...	...	18	...	18	154	...	151	1	
6	Barkasarpur	79	...	79	...	...	...	57	...	57	136	...	136	...	
7	Bhugor ...	41	41	82	...	10	10	33	...	33	74	51	125	40	
8	Alwar town	...	...	...	51	4	55	802	...	802	853	4	857	15	
9	Sonawa ..	...	...	...	...	...	...	421	...	421	421	...	421	31	State property managed by the Canal Department.
10	Kota ...	...	...	...	9	...	9	199	...	199	208	...	208	20	
11	Nangli Kota	1	...	1	...	...	...	...	...	...	1	...	1	1	
12	Khora Deo	...	...	...	...	...	...	20	...	20	20	...	20	...	
	TOTAL ...	418	119	537	60	14	74	1,707	107	1,874	2,345	210	2,485	133	
16	Dharampura or Bara canal.	14	73	87	...	8	8	...	...	...	14	79	93	...	



Thus the total area irrigated by the Siliserh canals is 2,485 *bighas* in the following detail :—

Details.					Nansi.			Of which chahlt.
					Hal.	Sabika.	Total.	
Khalsa	...	...	...	...	418	119	537	65
Mafi	...	...	...	...	60	14	74	...
State property	...	...	...	...	1,767	107	1,874	68
Total					2,245	240	2,485	133

Of this area no less than 629 *bighas* are under gardens, viz. :—

Mafi gardens	...	...	...	...	60
State gardens	...	...	...	...	569

The rest of the State lands is made up of the whole villages of Sonawa and Khora, the newly formed estate of Sheodanpura cut out of Umran, Paityura and Sahora, and other isolated plots in the different villages adjoining the Siliserh ducts, all of which are under the management of the Canal and Garden Department which leases the land out annually or for a term of years and charges water rates separately.

26. As these State lands are kept outside the assessment their management is only referred to here incidentally. The water rates charged on *khalsa* lands and State lands leased for cultivation are, however, the same and are charged per *kacha bigha* for each watering. Converted into *pakka bighas* the rates are :—

			Rate per bigha.		
			Rs.	A.	P.
(1) Irrigation from the Siliserh escape	...	...	0	15	0
(2) Irrigation from Siliserh canals up to one mile from dam	...	...	1	14	0
(3) Irrigation from Siliserh canals from one to three miles	...	...	2	4	0
(4) Irrigation from Siliserh canals beyond three miles	...	...	2	10	0
(5) Irrigation from Bara canal	...	...	1	8	0

The rates on the Siliserh are very high having been raised by six annas a *bigha* all round in 1892, but as the water is very fertilising and there is always a demand for it when available, the rates cannot be considered prohibitive. The income derived from water rates levied on *khalsa*, *mafi* and State lands on the Siliserh and Bara canals since last settlement is shown in the following table :—

Year.					Siliserh.	Bara.
					Rs.	Rs.
Sambat 1934	...	...	...	...	149	67
" 1935	...	...	...	...	9,589	11
" 1936	...	...	...	...	8,841	53
" 1937	...	...	...	...	7,123	154
" 1938	...	...	...	...	6,947	231
" 1939	...	...	...	...	7,243	239
" 1940	...	...	...	...	7,371	115
" 1941	...	...	...	...	5,072	103
" 1942	...	...	...	...	6,851	99

Year.					Siliserh.	Bara.
					Rs.	Rs.
Sambat 1943	...	...	...	...	6,101	374
" 1944	...	...	...	...	6,981	319
" 1945	...	...	...	...	6,310	278
" 1946	...	...	...	...	6,502	485
" 1947	...	...	...	...	629	291
" 1948	...	...	...	...	133	313
" 1949	...	...	...	...	2,701	319
" 1950	...	...	...	...	3,179	309
" 1951	...	...	...	...	2,624	178
" 1952	...	...	...	...	1,124	329
" 1953	...	...	...	...	.....	222
" 1954	...	...	...	...	4,613	144
" 1955	...	...	...	...	6,109	35
Total 22 years					1,06,522	4,668
Average					4,842	212

The actual area irrigated each year cannot be ascertained as where one *bigha* has taken three waterings the returns show three *bighas* as irrigated. Worked out in this way 2,286 *bighas* have received on the average of years one watering per year at a cost of Rs. 2-4-0 per *bigha*.

There is I believe no record of what the Siliserh *band* cost. It was completed in the interval between two monsoons by forced labour collected from all over the State. The fact that within the last 22 years besides its primary function of watering the State gardens it has brought in an income of Rs. 1,06,500 from water rates would justify an enormous initial expenditure. As already explained the *nahri* land on the Siliserh and Bara canals will be classed as *dahri sabika* for purposes of assessment and a separate water rate levied as hitherto. The small *nahri* area in Indok watered by a cut from the Ruparel made by the zamindars, will be assessed as such and no separate water rate levied, and this rule will also be followed in Bansur and Thana Ghazi.

27. To complete the reference to State lands in Alwar managed by the Canal Department I give below the area and the rental for the year 1898-99.

Detail.					Area.	Rent.	Rate per bigha.
						Rs.	Rs. A. P.
Gardens	...	{	Chahi	...	34	430	12 10 0
			Nahri	...	363	3,109	8 9 0
			Barani	...	13	32	2 8 0
Chahi	...	...	...	...	65	1,206	18 8 0
Nahri	...	...	...	...	350	3,137	9 0 0
Dahri	...	...	...	...	2	9	4 8 0
Barani	...	...	...	...	1	5	5 0 0
Total					828	7,928	9 9 0

High as these rents are owing to the competition for land close to Alwar city, they are said not to include the water rates separately levied in case of irrigation from the Siliserh. The area includes the two whole villages of Khora and Sonawa close to the city. I think that the present system of managing these lands may well be maintained as a rule, though it may be found advisable to include a few of the isolated plots in their respective villages.

28. A good description of the mines and quarries of the State generally will

**Mines and Quarries.**

be found at pages 80—88 of the Alwar Gazetteer. Stone is quarried in all three tahsils, the quarries being leased out by the State to contractors who charge from Rs. 1 to Rs. 2 per 100 maunds of stone quarried, that for State purposes being free of duty. Slates are quarried near Ajabgarh in Thana Ghazi. In Alwar and Bansur no mines are now worked, but in Thana Ghazi the hills are rich in mineral wealth. The white marble found at Jhirri in Thana Ghazi is said to be the finest statuary marble obtainable in India. The marble is found near the surface and not in deep veins. The quarries are worked by Silawats (stone-workers) living in Jhirri and Kishori, who work up the marble into images for idols, saucers, basins, etc., which they export to Jaipur, Agra, Cawnpore, etc. The distance of Jhirri from the railway and the badness of the roads, which are almost impassable for carts, are a bar to the quarries being worked to the extent that the superior quality of the marble would justify. At Raiyanwala in Jaipur some miles to the south of Jhirri, similar marble is found, and this being nearer the railway is worked on a considerable scale, slabs of great size being turned out for export. Copper, iron and lead ores are frequently met with, but are now little worked. The lead mine at Jodha Bas near Thana Ghazi which was reopened in 1873 by Colonel Cadell was given up after a few years as the cost of working was found prohibitive. Copper ore is found in quantities which formerly repaid the cost of working in the hills close to Bhangarh and Partabgarh, but since the substitution of British copper coins for the old local coinage, there is little local demand and the ore is now only worked at Kho Dariba in Rajgarh. Possibly if the recent enormous rise in the price of copper continues it may stimulate the local production. In 1873, Colonel Cadell wrote: "The manufacture of iron was in former times a great industry in the State, as is testified by the large hillocks of slag to be found in all directions, but it has fallen off greatly of late years, the value of the native iron having been greatly lessened by the large quantities imported from Europe." It appears that at one time there were 200 smelting furnaces at work chiefly in Thana Ghazi. When Colonel Cadell wrote the number had fallen to 57, which were calculated to turn out 18,500 *mans* or 660 tons a year. The number has now fallen to 11 furnaces, of which three are in the Rajgarh tahsil, one at Rampur in Bansur and the remainder in Thana Ghazi. The richest ore is found at Dhirora near Bhangarh, but the badness of the roads and the distance from the railway render the cost of carriage such a heavy item in the cost of production that the iron though of excellent quality cannot compete with the imported article. It is estimated that to make a maund of iron—value Rs. 3-8-0—8 maunds of charcoal are consumed, to make which 32 maunds of wood are required. The wood for charcoal is given free by the State, and as Colonel Cadell remarked "if sold would probably realise a larger sum than the profit to the State yielded by the furnaces." The smelting furnaces are leased by the State for sums varying from Rs. 60 to Rs. 100 per annum, but this includes the State royalty. The industry cannot be said to be thriving and is mainly kept going by State support in the form of Takavi advances.

29. The classification of soils in these tahsils is almost the same as that explained in paragraph 19 of last year's report, *viz.*—

**Soil classification.**

- |       |   |   |
|-------|---|---|
| Chahi | { | <ol style="list-style-type: none"> <li>1. From permanent sources irrigated during the year and double cropped (<i>dofasli</i>).</li> <li>2. From permanent sources irrigated during the year and single cropped (<i>ekfasli</i>).</li> <li>3. From permanent sources irrigated but not during the year (<i>chahi sabika</i>).</li> <li>4. From temporary sources, <i>e.g.</i>, <i>dhera</i>, <i>dhinhlis</i>, etc.</li> </ol> |
|-------|---|---|

Nahri 5. Irrigated by springs or canals.

Dahri { 6. Present (*manjuda*) usually inundated.  
7. Former (*sabika*) occasionally but not of recent year.  
8. Bari-shi—land benefitted by hill drainage.

Khatili 9. Lowlying land in the beds of streams or *nalas*.

Barani { 10. Chiknot or clayey land.  
11. Mattiyar—loamy.  
12. Bhur I—sandy.  
13. Bhur II—very sandy.

As compared with last year's classification it will be seen that two new classes have been added, *viz.* (1) *nahri* has been introduced, (2) *chahi* has been subdivided into single and double-cropped, as this distinction throughout Thana Ghazi and in the southern portion of Bansur was recognised at last settlement, and is still acted upon by the people. The distinction between single-cropped and double-cropped *chahi* is an absolute one and permanent at least for the term of settlement. Certain fields, either from the facilities they enjoy for manure and irrigation, or from their natural fertility or other causes, are classed as *dofasli*—or in the local jargon *dosalli*,—because they are recognised as capable of yielding two crops in the year (generally maize followed by wheat or barley) irrespective of the fact that in the actual year of attestation they may have borne only one crop, while all other fields are classed as *ekfasli* though they may occasionally run to two crops in the year. Curiously enough the rate on *dofasli* is generally double and often more than double that on *ekfasli*, which proves that the double-cropping does not deteriorate the soil. One reason for this is the great natural fertility of the land which is periodically renewed by the washings from the hills, another is that the first crop is usually maize, which gives back to the soil in its stalks used for manure, more than it takes out of it, so that wheat or barley grown after a maize crop is superior to the same crop grown on land fallow in the *kharif*.

The above classification of soils was made locally by the two Deputy Collectors, Munshi Gauri Shankar in Alwar and Munshi Ralliya Ram in Bansur and Thana Ghazi who inspected each estate at least twice—once with this express object and again with me. In the course of my village to village inspection I carefully went over every estate (except one in Bansur and one in Thana Ghazi, in which there was no cultivation at the time, and five in Alwar) with the object of noting its condition and resources for assessment purposes, and I found that the soil classification had been so carefully made by the Deputy Collectors that hardly any amendment or revision was necessary.

30. In these tahsils no assessment circles were formed at last settlement, and though the estates were classified as Assessment circles. first-rate, second-rate and third-rate no uniform rates were adopted for each class. In fact each estate was separately assessed according to the actual or assumed rent rates on each class of soil found or believed to prevail.

To form assessment circles now would have unduly protracted the operations and immensely increased the statistical work. No doubt there is a very great difference in the soil and produce of the villages in each tahsil, but these differences are taken account of by the soil classification already described, and with this as a guide supplemented and corrected by the observations of the Deputy Collectors and myself in our village inspections, there will be no difficulty in adapting the standard rates of the *tahsil* to the circumstances of each estate.

31. The following table brings out clearly in the form of percentages the proportion of the various classes of soil, natural and artificial to the total area at last settlement and now, 1898-99.



Tahsil.	Detail.	NATURAL CLASSES.				ARTIFICIAL CLASSES.											
		Chiknot.	Mattiya.	BHUR.		CHAH I.		Chahi II.	Temporary.	Total.	Nahri.	DAHRI.				Khatili.	Barani.
				I.	II.	Ekfasi.	Defasi.					Present.	Former.	Barisbi.	Total.		
Alwar	Last settlement	26	67	5	2	...	...	...	...	15	...	5	...	5	...	80	
	Now	27	64	8	1	13		3	1	16	...	2	1	5	8	76	
Bansur	Last settlement	8	20	43	28	21	1	...	...	22	...	2	...	...	2	1 75	
	Now	4	32	40	24	15	2	4	1	22	...	1	...	...	1	1 76	
Thana Ghazi	Last settlement	21	67	9	3	22	21	...	...	43	1	1	...	...	1	...	55
	Now	37	55	6	2	11	26	0	...	46	1	1	...	5	6	...	47

There has been little change in the natural classes except that (1) the proportion of *bhur* has been reduced in Bansur and Thana Ghazi owing to a more strict classification; (2) the proportion of *chiknot* has risen considerably in Thana Ghazi where the line that separates it from *mattiya* is often a very fine one. The changes in the artificial classes have been already referred to in the remarks on *chahi* and *dahri* and will be further discussed in Chapter III.

## CHAPTER II.

### POLITICAL AND FISCAL HISTORY.

32. A historical sketch of the Alwar State is given in Part I of Major Powlett's Gazetteer, and where necessary this has been supplemented by the remarks in Chapters II of my reports of 1898 and 1899.

The great natural divisions of the State (Part I Gazetteer) are — (1) The Mewat which embraces all the country from the Ruparel east to Dig in Bharatpur and north to Rewari; (2) the Raht on the north-west beyond the central range of hills in which the ruling race was formerly the Chauhan Rajputs who still own many villages; (3) the Wál on the west border up to the Sahibi stream in which Shaikhawat Rajputs who formerly ruled the tract are still the most important tribes; (4) the Rajawat country on the south-west formerly ruled by the Rajawats; (5) the Narukhand or country of the Naruka Rajputs on the south-east. To these may be added the *Kather* (so-called from the light soil with an even surface) or flat plain extending from the east of Lachmangarh through Katumbar to the Banganga in Jaipur.

Alwar tahsil thus lies almost entirely in the Mewat, the southern portion being in the Narukhand. All the north portion of Bansur lies in the Raht, while the southern portion at the foot of the hills included in the old *parganas* of Narainpur and Garhi Mamur lies in the Wál. Thana Ghazi with the exception of the 6 Shaikhawat villages on the extreme north which are also in the Wál, is all part of the Rajawat country, and the western or more hilly portion is known as the *Nahera*.

33. The rise of the Narukha clan and their rapid conquest of the present Alwar State were related in last year's report. The Shaikhawats who formerly held the Bansur tahsil which they wrested from the Chauhans about 350 years ago, and the Rajawats of Thana Ghazi are



like the Narukha branches of the great Rajput Kachwaha tribe which has so long ruled in Jaipur. The old capital of the tribe was Amber near Jaipur. When the Raja of Amber Bihari Mal was defeated by Akbar and compelled to give the Emperor a daughter in marriage, his son Bhagwan Das was given a most prominent position in the Imperial court with the title of "Amir-ul-Umra." About A. D. 1578, he came to the site of Bhangarh in the south of Thana Ghazi to hunt, and being pleased with the natural strength of the place, which has a stream of running water, he founded a city named after him Bhangarh. His eldest son, the famous Raja Man Singh, was recognised as Raja of Amber, his share being calculated as  $\frac{1}{10}$ , while the younger son Madho Singh was installed as Raja of Bhangarh with a share of  $\frac{9}{10}$ . This Madho Singh was the ancestor of the branch of Rajawats who now occupy part of the Thana Ghazi tahsil. It is said that during the absence of Man Singh on his various conquering expeditions from Afghanistan to Bengal, Madho Singh represented him in the Imperial Darbar and received a *sanad* for the grant of the *parganas* of Bhangarh and Thana Ghazi including part of the Rajgarh tahsil and several villages now in Jaipur, with the title of Dewan which since then has been hereditary in the family. In an old kanungo's record the number of inhabited houses in Bhangarh is given as 9,912, and for about 140 years it seems to have been a populous and flourishing city. The descendants of Madho Singh gradually spread over the adjoining country as Jagirdars. One branch of them in Aurangzeb's time embraced Islam and with the aid of the Imperial force took possession of Bhangarh and expelled the Chief Jaswant Singh who took refuge in the walled town of Ajabgarh at the head of the valley and built a fortified wall—marks of which are still visible—across the defile—known as Adakot—to prevent further encroachments. Meantime the elder branch of the Amber family steadily increased in importance owing to its influence at the Delhi court. Taking advantage of these quarrels Sawai Jai Singh of Amber (now named Jaipur after him) advanced against Bhangarh in 1720 A. D., utterly defeated Jaswant Singh—the latter and his Muhamedan supplinters who had joined in the resistance being left dead on the field. Thus fell the last ruling Chief of Bhangarh, and the city was abandoned by its inhabitants. The conquest of this tract by the Narukha Chief Partab Singh in A. D. 1784 completed its desolation and the once famous city is now a dreary mass of ruins, the solitude of which is unbroken save by the chattering of the apes that have made it their home, the occasional visits of a tiger or panther from the adjoining hills to drink at the spring, and the daily visit of a *Jogi* who comes to worship at the shrine. A local proverb says it is now celebrated only for stones, monkeys, evil spirits and unwholesome water.

34. After the conquest by Jaipur the Rajawat descendants of Madho Singh though no longer independent chiefs were allowed to hold several villages in *jagir* from the Jaipur Raj. From A. D. 1774 to 1786 this tract was more than once conquered by the Naruka Chief and reconquered by Jaipur, but in the latter year it finally came into the possession of the Alwar Raja, who occupied the already existing forts of Ajabgarh, etc., and erected new forts of Thana Ghazi, Baldeogarh and Partabgarh. The *jagirs* enjoyed by the Rajawats were at once confiscated, and they were given *istamrari sanads* instead, allowing them to hold their lands on payment of a fixed revenue. In Maharaja Banni Singh's reign these *istamrari sanads* were withdrawn by the Muhamedan Dewans, and the revenue enhanced by 50 per cent. Unable or unwilling to pay this demand the Rajawats gradually relinquished the ownership of their estates retaining only such lands as were in their own cultivation, and at last settlement they were recorded as owning only 7 villages out of the entire tract. In 34 other estates of which they had once been absolute owners they were allotted occupancy rights in small areas, the proprietary rights going to their former retainers and cultivators—Minas, Gujars, and Brahmans—who accepted responsibility for the revenue.

Thus the position of this family has been reduced from that of ruling chiefs by successive revolutions of the wheel of fortune first to that of *jagirdars*, then of *istamrardars*, and finally to that of ordinary agriculturists. At last

settlement Major Powlett in consideration of thier fallen fortunes allowed them to hold the lands still in their possession in *chauthbat*, i.e., a reduction of one-fourth on the ordinary rates, and this concession will be maintained in the present Settlement (see chapter III).

35. The Bansur tahsil like the adjoining northern tahsils of Bahrur and Man-  
 Rise of Shaikhawat Rajputs in dawat was originally in the possession of  
 Bansur. the great Chauhan clan of Rajputs, who ruled independently long before the Shaikhawat Rajputs came on the scene.

These latter are an offshoot of the Kachawa clan, and originally held the chiefship of Shahpura to the south of Jaipur. This was confiscated in A. D. 1440 by the Dehli Emperor it is said, and the chief, Rao Sujaji, was given instead a grant of a *Jagir* in the centre of the present Bansur tahsil and founded a city at Basai on the present site of Bas Thegu. The tract originally allotted contained 42 estates and to this day is known as the "Bialisi." Of his five sons three returned to their own country and their descendants are now the rulers of Shahpura and Khetri as feudatories of Jaipur. The descendants of the remaining two, Bahronji and Chandji, and of Jagmal brother of Sujaji, still hold 27½ villages in this vicinity. The Chauhan Rajputs at this time held the southern portion of the tahsil and were established in two strongholds at Kul and Mamur near Narainpur where two perennial springs issue from the hills, and the ruins of their forts, temples, palaces are still to be seen. From these strongholds they were expelled by the Shaikhawats who founded the town of Narainpur. In this way the Shaikhawats extended their sway over 66½ villages, viz., 60½ in the present Bansur tahsil and 6 in the adjoining part of Thana Ghazi, while the Chauhans were reduced to 6 whole villages and shares in five others.

In 1720 A. D. the Bharatpur Jats overran the northern portion of Bansur annexing the "Bialisi," and about 1721 the Jaipur Chief by the conquest of Bhangarh got possession of the southern portion—the *parganas* of Narainpur and Garhi Mamur—from which he drew a revenue of Rs. 16,000 per annum.

36. Between A. D. 1774 and 1786, Rao Partab Singh of Alwar got  
 Conquest of Bansur by the Naruka possession of this territory by ousting the  
 chief. Jats and overcoming the Jaipur forces.  
 In 1777 he overthrew the Shaikhawats of the "Bialisi," seized and devastated Basai and in its place established the strong fort at Bansur on a neighbouring rock, at the foot of which the present town of Bansur gradually grew up. The resistance of the local Shaikhawat chief was not finally overcome till A. D. 1791, when the forts at Bijapur and Lalpura were occupied. Since then they have been loyal subjects of the Alwar State and when Thakur Lakhdar Singh raised the standard of rebellion in 1866, invaded Alwar territory from Jaipur and took possession of the fort of Lalpura, the Shaikhawats rendered valuable assistance to the State forces which defeated Lakhdar Singh at Bandrol and Kalaka Bas and compelled him to retreat to Jaipur. They assert that when Alwar rule was first established they were allowed to hold the Narainpur and Mamur *parganas* at a fixed rent of Rs. 12,000 or Rs. 4,000 less than they had paid to Jaipur, but after some time this arrangement was set aside, and direct management substituted, the State through its tahsildars taking a share of the produce or leasing out the villages on the cash contract system. At last settlement considerable leniency was shown in assessing their estates as will be explained in Chapter III.

37. The relations of this tract to the Imperial Government during Moghul  
 History of the tract under Moghul rule. rule are not very clear. The turbulent Mewat was down to Akbar's reign a thorn in the side of the central government, and a special officer known as the "Foujdar of the Mewat" was responsible for the repression of disorder down to Aurangzeb's time, after which up to the rise of the Jats it was generally administered by the Jaipur Chief. The Emperor Akbar visited Alwar in 1579, and the town of Akbarpur 10 miles south of Alwar is said to have been founded at this period. From the "Ain-i-Akbari" we gather that the tract

comprised within the present Alwar State was included chiefly in the Alwar Tijara, and Narnaul *Sirkars* or districts of the Agra *Subah* or province, and to a small extent in the Rewari *Sirkar* of the Dehli *subah*. The statistics of area and of revenue levied by the Moghuls as quoted—presumably from the *Ain-i-Akbari*—at page 9 of Powlett's *Gazetteer* were for a long time a puzzle to me, as the revenue seemed to be ridiculously inadequate, and now by reference to Gladwin's translation I find the figures quoted to be quite inaccurate.

38. It may be of some interest to compare the Moghul revenue system at Akbar's land revenue system. its best, as perfected by Raja Todar Mal, and described by Abul Fazl, with latter day revenue management, and this is facilitated by the fact that the standard of measurement in both cases is exactly the same. Akbar's *bigha* followed that of Naushirwan, being the square of a chain 60 yards (the yard or *gaz* was only 33 inches long) in length and thus equal to 3,025 square yards or  $\frac{5}{8}$  of an acre which is the size of Alwar *bigha*.

Abul Fazl in his chapter on "Tribute and taxes" tells us that—

"In former times the monarchs of Hindustan exacted the sixth of the produce of the lands; in the Turkish empire the husbandman paid a fifth, in Turan the sixth and in Iran the tenth. But at the same time there was levied a general poll-tax which was called "kharaj"—Naushirwan instituted a land measure of 60 square *kesery gaz*, and computing the produce of such a quantity of land to be a *kifetz* valued at 3 *dirhams*, he determined that a third part should be the proportion of revenue. When the Khalifat descended to Omar he approved of the wisdom of Naushirwan, but introduced a few innovations. Latterly in Iran and Turan, Government has taken a tenth part of the produce of the soil but at the same time the husbandman is loaded with a number of other taxes, which altogether exceed half the produce. In every kingdom besides the land tax Government exacts something from the property of every individual (details are there given). But this mode of collection is destructive to the country and vexatious to the people. His Majesty abolished all arbitrary taxes. He settled the *gaz* and *tenab* (measuring chain) and the *bigha*. After which he ascertained the value of the lands and fixed the revenue accordingly.

*Poolej* is that land which is cultivated every harvest being never allowed to be fallow.

*Perowty* is that which is kept out of cultivation for a short time in order that the soil may recover its strength.

*Checher* is that which had lain fallow for three or four years.

*Banjar* is that which has not been cultivated for 5 years and upwards.

Both of the two first mentioned kinds of land are of three sorts, viz., best, middling, bad. They add together the produce of a *bigha* of each sort, and a third of that aggregate sum is the medium (mean) produce of one *bigha* of *poolej* land, one third part of which is the revenue settled by his Majesty. What was exacted by Sher Khan exceed the present produce of lands."

Akbar apparently understood the value of being able to quote a precedent in support of the reforms; for he follows Naushirwan not only in fixing the size of the *bigha* but also in fixing the State share as one-third of the produce.

39. The "Ain-i-Akbari" then proceeds to show the rates of produce for the different classes, best, middling and worst, the mean of the three and the State share at one-third of the mean for the leading crops. I will here quote only the assumed outturn per *bigha* in maunds and *seers*, and the State share at one-third.

KHARIF					RAM.				
Name of crop.			Average out-turn in maunds and seers.	State share in maunds and seers.	Name of crop.			Average out-turn in maunds and seers.	State share in maunds and seers.
Gar	...	...	10 13½	3 18	Wheat	...	...	12 38½	4 12½
Cotton	...	...	7 20	2 20	Barley	...	...	12 38½	4 12½
Best rice	...	...	18 30	6 10	Gram	...	...	10 13½	3 18



KHARIF.				RABI.		
Name of crop.		Average out-turn in maunds and sers.	State share in maunds and sers.	Name of crop.	Average out-turn in maunds and sers.	State share in maunds and sers.
Common rice	...	12 38½	4 13	Pease	10 23	3 23
Jowar	...	10 13½	3 18	Linseed	5 7	1 29
Mung	...	5 6½	1 29	Mustard	8 1	2 27
Maah	...	7 30	2 23½	.....	...	...
Til	...	6 0	2 0	.....	...	...

Seeing that the *bigha* is only  $\frac{5}{8}$  of an acre, and that the rates represent average outturn of both irrigated and unirrigated land they strike one as extremely high, especially in the case of cotton, *jowar*, *mung*, *moth* and *til* in the *kharif*, while in the *rabi* no assessing officer would now dare to assume an average yield of  $19\frac{1}{2}$  *mans* per acre for wheat and barley irrigated and unirrigated. Certain crops such as indigo, hemp, betelnuts, waternuts, turmeric and vegetables in the *kharif*, onions, melons and other vegetables in the *rabi* paid at fixed cash rates now known as *zabti*.

The above rates of yield are for *poolej* land, but we are informed that—

“*Perowty* land when cultivated pays the same revenue as *poolej*.”

and that in the case of *chachar* land—

“When either from excessive rain or by reason of inundation it has suffered so much that the husbandman finds difficulty in cultivating it, he is allowed to pay the revenue in the following proportions:—

1st year—two-fifths (of the ordinary share) of the produce.

2nd year—three-fifths,

3rd year } four-fifths  
4th year }

5th year at *poolej* rates,

and according to circumstances the revenue is received either in money or in kind.”

Similar leniency was shown in the case of *banjar* land brought into cultivation.

“There shall be taken from each *bigha* the first year only one or two sers, the second year five sers, the third year the sixth of the produce together with one *dam*, the fourth year a fourth of the produce and after that period as *poolej*. But the indulgence differs according to circumstances. The husbandman may always pay this revenue in money or in kind as he may find most convenient.”

Over and above the share of the produce taken, a uniform cess of 5 per cent. was levied on all fully assessed land as well as one *dam* (one fortieth of a rupee) per *bigha* to remunerate the patwari, the kanungos being paid by the State. All other extra cesses were abolished.

40. So far the “*Ain-i-Akbari*” has only shown us the share taken by Commutation or cash rates per *bigha* the State in kind. Whereas throughout in the *Agra Province* in *Akbar's reign*. *Akbar's reign*, cash assessments were general except in the very backward tracts such as Bikanir, where a sixth or even a seventh of the produce was taken in kind. In the case of cash assessments the State share in kind was commuted into cash according to the current prices of the year as ascertained by specially appointed officers, and this cash demand was then enforced. Thus the demand varied enormously from year to year. This variation is clearly brought out in the tables annexed to the “*Ain-i-Akbari*,” showing the annual cash revenue rates per *bigha* of *poolej* land for the different crops in the *Agra Province* from the 6th to the 24th year of the Emperor's reign. The rates are given in *dams* (of which forty went to the rupee). I quote below the annual rates of assessment for a few of the leading crops in annas per *bigha*.



Name of crop.	6th year.	7th year.	8th year.	9th year.	10th year.	11th year.	12th year.	13th year.	14th year.	15th year.	16th year.	17th year.	18th year.	19th year.	20th year.	21st year.	22nd year.	23rd year.	24th year.
Wheat ...	36	36	34	36	30	22	22	22	21	15	14	14	17	13	16	17	26	16	21
	...	...	to	...	to	to	to	to	to	to	to	to	to	to	to	to	to	to	...
Barley ...	32	32	30	34	15	15	16	16	14	8	8	8	11	8	10	11	10	9	16
	...	...	to	...	to	to	to	to	to	to	to	to	to	to	to	to	to	to	...
Sugarcane	...	...	...	...	72	72	72	72	72	60	60	72	68	69	72	72	72	72	72
	...	...	...	...	to	to	to	to	to	to	to	to	to	to	to	to	to	to	...
Common rice.	31	32	28	28	24	21	21	22	18	14	14	14	14	14	12	10	16	15	18
	...	...	...	...	...	to	to	to	to	to	to	to	to	to	to	to	to	to	...
Cotton ...	45	48	48	52	44	44	44	44	29	36	34	28	25	28	20	30	24	17	17
	...	...	...	...	...	...	...	...	to	...	36	36	36	36	38	...	36	23	24
Jawar ...	30	30	20	24	10	16	16	16	12	10	10	10	10	9	8	9	10	14	14
	...	...	...	...	to	to	to	to	to	to	to	to	to	to	to	to	to	to	...
Moth ...	19	10	19	32	14	18	16	12	8	6	8	6	7	7	5	8	5	5	6
	...	...	...	...	to	to	to	to	to	to	to	to	to	to	to	to	to	to	...

These cash rates per *bigha* represent the result of applying the prices of the year to the weight of the crop assumed to represent the State share of one-third.

41. As the State share then taken is at least double that which is now taken in British territory, and the rates of the rates. yield assumed are much higher than an assessing officer would now dare to assume as the basis of his calculations, it at first seems strange that the actual cash rates per *bigha* of  $\frac{5}{8}$  an acre are comparatively low. The following table shows the lowest and highest rates of assessment per acre on some of the chief crops.

Name of crop.						Lowest.			Highest.		
						Rs.	as.	p.	Rs.	as.	p.
Wheat ...	...	...	...	...	...	1	5	0	4	10	0
Barley ...	...	...	...	...	...	0	13	0	3	10	0
Sugarcane	...	...	...	...	...	6	0	0	8	0	0
Common rice	...	...	...	...	...	1	0	0	3	5	0
Cotton ...	...	...	...	...	...	1	12	0	4	13	0
Jawar ...	...	...	...	...	...	0	13	0	2	6	0
Moth ...	...	...	...	...	...	0	8	0	2	0	0

The explanation of the apparent lowness of the rates is of course to be found in the extraordinary cheapness of prices at that as compared with the present time.

42. The "Ain-i-Akbari" unfortunately does not give the current prices of produce in Akbar's reign year by year from the 6th to the 24th year of Akbar's reign on which the above rates were based. However in Part I is given a detailed list of the current prices of provisions including the chief food grains from which I quote the following in annas per maund :—

Rabi crop.	Annas.	Kharif crop.	Annas.
Wheat... ..	4·8	Rice ... ..	16 as to 44
Barley... ..	3·2	Jawar... ..	4 as
Peas ... ..	2·4	Bajra .. ..	4·8
Sarson... ..	4·8	Mung... ..	7·2
Gram ... ..	3·2	Mash .. ..	6·4
		Moth ... ..	4·8

If we take wheat as now selling at 20 sers per rupee, barley and gram at 30 sers, or Rs. 2 and Rs. 1·8 per maund respectively, the prices of the chief *rabi* crops will be found to be now nearly seven times as high as in the above table, while the chief *kharif* crops with the exception of rice are now from 4 to 6 times dearer by the present rates, assuming these to be 20 to 30 sers per rupee.

To ensure further conviction on this point I quote the prices of a few other chief articles of food from the "Ain-i-Akbari," and compare them with what may be considered very low rates in the present day.

Name of article.	Price per maund.					
	In Ain-i-Akbari.			At present day.		
	Rs.	as.	p.	Rs.	as.	p.
Mutton ... ..	1	10	0	5	0	0
Goat's flesh ... ..	1	5	6	3	12	0
Ghi ... ..	2	10	0	20	0	0
Milk ... ..	0	10	0	2	8	0

from which it will be seen that prices have risen from 200 to 700 per cent. A further but indirect corroboration of the great increase in prices may be found by comparing the rates of unskilled labour then and now in annas per diem.

No.	Kind of labour.	Then (see Ain-i-Akbari).	Now.
1	Coolies to carry earth water, etc. ... ..	·8	2·5
2	Water carriers ... ..	·8 to 1·2	3
3	Beldars ... ..	1·2 to 1·4	3 to 4
4	Carpenters ... ..	·8 to 2·8	4 to 10
5	Bricklayers... ..	1·6 to 2·8	4 to 10
6	Syces per month ... ..	2-8-0 to 4-8-0	6 to 9
7	Farrier ... ..	4-0-0	10-0

The rates quoted from Abul Fazl's works as those paid at the Imperial Court, and are probably higher than those ordinarily paid at the time. They show however that the wages of labour have risen from 150 to 300 per cent., but great as this rise is it is by no means in proportion to the rise in prices.

In the absence of further evidence on the point one cannot help thinking that the prices current quoted by Abul Fazl must be those of a very cheap year, for applying these prices in the case of food grains to the State share of the produce they would bring out only the lowest cash rates of assessment in the 19 years table.

43. A reference to the table will show that the rates per *bigha* for the Agra province from the 6th to the 14th year are as a rule much higher than those from the 15th to the 24th. A probable but partial explanation of this is that cultivation increased enormously owing to the greater security and general improvement in administration, and prices consequently fell. The explanation as given in the "Ain" is:

"When Khajah Abdul Majid was raised to the *Vizarat* in the fourth year of the reign the *jumma* of the lands was only computed, and he increased the *tunkhas* (State demand) just as he thought fit. As at that time the empire was but of small extent, the exigencies (illegal demands) of the servants of the Crown were increasing daily, and the *tunkhas* were levied partly according to the particular views of corrupt and self-seeking men.

"But when this great office was entrusted to the joint management of Raja Todar Mal and Mezuflir Khan in the 15th year of the reign, they appointed ten Canungos to collect the accounts of the provincial Canungos and which were brought to the Royal Exchequer. Then having taken from the Canungos the *taksim mulk* or division of the empire, they estimated the produce of the lands and formed a new *jumma*. This settlement is somewhat less than the former ones, however there had been a wide difference between the former settlement and receipts."

44. As to the working of this settlement which was carried out on the system already described, *viz.*, taking one-third of the produce as a fixed quantity and converting it into cash at the current rates of the year, Abul Fazl writes:

"When through His Majesty's prudent management the bounds of the empire were greatly enlarged, it was found very difficult to procure the current prices every year from all parts of the kingdom, and the delays that this occasioned in making the settlement were productive of many inconveniences. Sometimes the husbandmen would cry out against the exorbitancy of the demands that were made upon them, and on the other hand those who had the *tunkhas* to collect would complain of balances. His Majesty, in order to remedy these evils effectually, directed that a settlement should be concluded for ten years, by which resolution giving ease to the people, he procured for himself their daily blessings. For the above purpose having formed an aggregate of the rates of collection from the commencement of the 15th year of the reign to the 24th inclusive they took a tenth part of that total as the annual rate for ten years to come."

The rates thus arrived at were apparently applied to the existing cultivation in each estate, *mohal* and *jargana* and a fixed assessment thus arrived at for 10 years. But this was worked with a good deal of elasticity, allowance being made for land thrown out of cultivation, while the fixed rates were applied after a certain number of years to lands newly brought into cultivation. Collections in kind were also allowed in the more backward or precarious tracts. This is clear from the "Instructions to Collectors" (*amilguzars*) in which the Collector is warned "not to be covetous of receiving money only, but also to take grain" either by *kankut* or the various kinds of *batat*, if the husbandman prefers to pay in that form, and is given a discretion to temporarily reduce the *general rates of collection* in certain cases.

45. In the opening paragraph of Part II. Abul Fazl states that the revenue of the 12 Subahs into which the empire was divided in the fortieth year of Akbar's reign (excluding Berar, Khandesh and Ahmed-nagar) had been "settled for ten years at the annual rent of 3,62,97,55,246 *dams* or *sikka* Rs. 9,07,43,88,1." The *taksim jama* or list of *sirkars* or districts in each *subah* together with the revenue in *dams*, is given at the conclusion of the work, and as the reference to the subject in the Alwar Gazetteer are misleading

I reproduce below the *sirkars* and *mahals* which can be identified as now situated in Alwar, and show opposite each the revenue in rupees by Akbar's ten years' settlement.

<i>Sirkar</i> Alwar	{	Mahals	...	43
		Area	...	1,662,012
		Revenue	...	Rs. 9,95,806
		Saiyir	...	17,480

Mahals now in Alwar.				Dams.	Rupees.	Present tahsil.
					Rs. A. P.	
Alwar	...	...	...	26,79,820	66,995 8 0	Alwar.
Umran	...	...	...	6,42,453	16,061 5 2	"
Jamsilpur	...	...	...	5,03,840	12,596 0 0	Kishangarh.
Bahrar	...	...	...	26,21,958	65,548 15 3	Alwar and Mandawar.
Bahadurpur	...	...	...	19,51,000	48,775 0 0	Alwar.
Bharkol	...	...	...	6,78,733	16,968 5 2	"
Pinain	...	...	...	1,95,680	4,892 0 0	Rajgarh.
Baroda Meo	...	...	...	1,53,045	3,826 2 0	Lachmangarh.
Rajhera	...	...	...	1,04,890	2,622 4 0	Alwar.
Baleta	...	...	...	1,33,507	3,337 10 9	"
Jalalpur	...	...	...	3,93,499	9,837 7 7	Lachmangarh.
Hasanpur (Khor)	...	...	...	12,59,659	31,491 7 7	"
Hajipur	...	...	...	4,56,799	11,419 15 7	Bansur.
Deoti	...	...	...	16,00,000	40,000 0 0	Rajgarh.
Dadikar	...	...	...	6,95,262	17,381 8 10	Alwar.
Dehra	...	...	...	5,12,613	12,815 5 2	"
Bagan	...	...	...	8,04,262	20,106 8 10	Ramgarh.
* Rata	...	...	...	2,29,741	5,743 8 5	Kishangarh.
Khilaora	...	...	...	14,59,048	36,476 3 2	Ramgarh.
Khairthal	...	...	...	4,56,640	11,416 0 0	Kishangarh.
Ghat	...	...	...	3,57,100	8,927 8 0	Lachmangarh.
Khohrana	...	...	...	1,66,666	4,166 10 5	Bahrar.
Mandawar	...	...	...	18,89,097	47,227 6 10	Mandawar.
Maujpur	...	...	...	6,89,858	15,996 7 2	Lachmangarh.
Moharikpur	...	...	...	5,14,193	12,854 13 2	Ramgarh.
Mungana	...	...	...	4,57,260	11,431 8 0	Alwar.
Naugaun	...	...	...	8,56,212	21,405 4 10	Ramgarh.
Harsara	...	...	...	2,27,096	5,677 6 5	Bansur.
Harsana	...	...	...	2,08,281	5,207 0 5	Lachmangarh.
Total	...	...	...	2,28,48,212	5,71,205 4 9	



Sirkar Tijara

Total Mahals	...	18
Area	...	7,40,001 bighas.
Revenue in Rs	...	
Saiyir	...	17,544

Mahals now in Alwar.				Dams.	Rupees.	Present Tahsil.
					Rs. A. P.	
Indor	...	...	...	19,95,216	49,880 6 5	Tijara.
Fur	...	...	...	5,45,345	13,633 10 0	Kishangarh.
Bambohra	...	...	...	14,16,715	35,417 14 0	
Tijara	...	...	...	30,03,569	91,069 3 7	Tijara.
Kotila	...	...	...	15,52,196	38,804 14 5	
Total				91,13,041	2,27,826 0 5	
FROM SIRKAR NARNAUL.						
Nahra	...	...	...	42,62,837	1,06,570 14 10	Thana Ghazi.
FROM SUBA DELHI SIRKAR REWARI.						
Ghilot	...	...	...	6,56,668	16,417 3 2	Bahrar.
Grand Total				3,08,80,778	9,22,019 7 2	

Thus in Akbar's time the *mahals* which can be identified as now in Alwar paid a revenue of about 9½ lakhs. The comparison is not accurate as on the one hand the present tahsils of Govindgarh and Katumbar and parts of Bahrar, Bansur and Thana Ghazi cannot be identified among the old *mahals*, and on the other it is possible that part of the *mahals* shown above may now be included in adjoining territory.

46. By a rough calculation I would put the land revenue of the area within Comparison of Akbar's assessment with the present State in Akbar's time at between 12 and 14 lakhs or about half what the present demand. it is now if revenue free lands be included. Meantime not only has there been a great development in agricultural resources, but the prices of produce have risen by from 300 to 600 per cent.

In whatever way we regard it, the high rates of yield assumed and the large share (one-third) of the assumed produce taken for the State share must undoubtedly have made the pressure of the assessment in Akbar's time very much greater than it is now in the Alwar State and infinitely heavier than in British districts. His method of assessment by placing the State demand on a regular footing and abolishing all extra dues and cesses (except the 5 per cent. and one dam per bigha for patwaris pay) together with the security attendant on a just and firm rule was an immense improvement on the chaos that preceded it. His return to the methods (actual or mythical) of the famed Naushirwan whose name is a household word in the East shows his desire to gain popular tradition and sentiment to his side.

It is clear, however, both from the high standard of assessment and tenour of his instructions to Collectors, Accountants, etc., that the State dealt direct with the cultivator and absorbed practically all of the profits of cultivation. There is no reference anywhere to an intermediate class of non-cultivating zamindars (the term land-owners would be a misnomer) living on the difference between what they realised from the actual cultivator as rent and what they paid to the State as revenue, nor was there any room for such a class. In fact where native institutions have developed on their own lines unaffected by our revenue system, the distinction between rent and land revenue, where it exists in a more or less concealed form, is never officially recognised and cannot be made intelligible without considerable difficulty.

47. After this lengthy digression the purely fiscal history of the three tahsils may be considered. It will be more easily followed if the local agricultural tribes are first shown. This is done in the following abstracted from Statement IV.

Religion.	Tribes.	NUMBER OF VILLAGES.			Tot.
		Alwar.	Bansur.	Thana Ghazi.	
HINDUS ...	Rajputs ...	Naruka ...	5	1	...
		Chauhan ...	4	9½	½
		Sheikhawat ...	...	60½	6
		Rajawat ...	...	...	8½
		Others ...	5	1½	5
	Total ...	14	72½	20½	
	Brahmin ...	Hariana ...	...	...	17
		Bagri ...	...	...	...
		Gaur ...	...	2	4½
		Others ...	5	6	9½
	Total ...	5	8	30½	
	Minas ...	5	...	42½	
	Gujars ...	13½	30½	23½	
	Ahirs ...	½	15½	...	
	Jats ...	10½	4	...	
	Mallis ...	...	1	2	
	State ...	1	...	...	
	Miscellaneous Hindus.	7½	...	1	
	Total Hindus ...	63½	131½	120	
MUSALMAN	Meos ...	88½	...	...	
	Saiyeds ...	1	...	...	
	Khanzadas ...	4½	...	...	
	Miscellaneous ...	...	2	...	
	Total ...	94	2	...	
TOTAL OF TAHSIL ...		157½	133½	120	

These tribes as regards their agricultural capacity have been described in earlier reports and alluded to in the remarks under each tahsil (paragraphs 11—13). Rajputs hold the largest number of estates, 107 out of 410, and in Bansur own more than half the tahsil. Next come Meos who are confined to the Alwar tahsil, where they own  $88\frac{1}{2}$  out of  $157\frac{1}{2}$  estates. After them come Gujars who hold  $67\frac{1}{2}$  estates scattered over all three tahsils, but are strongest in Bansur. Minas with  $47\frac{2}{3}$  estates are next in order. They are strongest in Thana Ghazi, where they own over one-third, are not found at all in Bansur and have only a few villages in Alwar. Brahmins hold  $4\frac{3}{4}$  estates including  $30\frac{3}{4}$  or over one-fourth of the total number in Thana Ghazi.

Jats and Ahirs, who contribute so materially to the prosperity of the northern tahsils, are rare in this tract, Ahirs hold 16 estates in Bansur, no whole estate elsewhere; while Jats hold  $20\frac{1}{2}$  estates chiefly in Alwar. Excluding the Meos, there is no other Musalman land-owning tribe of any importance. Saiyids own one estate and Khanzadas  $4\frac{1}{2}$  estates in Alwar. In Bansur only 2 estates are held by Musalmans and in Thana Ghazi not even one. Of the total number of estates in the three tahsils more than three-fourths are owned by Hindus. The estate shown as owned by the State is Alwar city, in which for administrative convenience the State has always been recognised as direct owner though it is assessed like other estates and the Kanungo and Malli lambardars or *thekdars* are allowed to enjoy the profits. As agriculturists these tribes may be thus classified: 1st, excellent—Ahirs, Jats, Mallis; 2nd, good,—Meos Minas, Brahmins, Gujars; 3rd, inferior, Rajputs, Saiyids, Khanzadas. Applying this test, Bansur, more than half of which is owned by Rajputs, is at a disadvantage as compared with the other two tahsils. The Rajputs, it is true, hold very little land in their own hands except when they have hereditary slaves (*daroghas*) to work it, but there are numerous Gujar, Brahmin and Chamar tenants in the villages who maintain and even extend the cultivation. Unfortunately the Rajputs, careless though they have been of rights in the land in the past, have now set their faces against the acquisition of occupancy rights by their tenants, whom they are continually changing to the detriment of the soil and of both parties. The rights of the agricultural bodies in the land, and the limitation of the State demand which gave such rights a market value, were discussed in paragraphs 44 and 45 of last year's report and need not be further discussed as regards these tahsils.

48. The old methods of assessment and collection were practically the same here as those already described for other tahsils.

Fixed cash assessments were introduced more or less generally from A. D. 1838 by the Mahomedan Dewans, but the traditional methods of collecting the State demand were (1) taking a share of the crop (*batai*) (2) by fixed cash rates per *bigha* on different soils (*bigheri*), both of which were probably survivals of the Moghul revenue system already described. The *batai* system was most popular in the spring, the *bigheri* in the autumn harvest. The State share of the produce as shown in the old Kanungo records of the Alwar tahsil was

Wheat	} $\frac{1}{2}, \frac{2}{3}, \frac{1}{3}, \frac{1}{3}, \frac{1}{4}$ .
Barley	
Sarshaf	

Gram  $\frac{1}{2}, \frac{1}{4}$ .

Gojra (wheat and barley)  $\frac{2}{3}, \frac{1}{3}, \frac{1}{4}$ .

The ordinary rates were  $\frac{2}{3}$  and  $\frac{1}{3}$ ;  $\frac{1}{3}$  was taken on lands of exceptional fertility or advantage of situation, while certain privileged classes, *e.g.*, Rajputs of certain clans, Brahmins, Kanungos and Killadars, were given a remission of one-fourth on the ordinary rates or allowed to pay one-fourth of the produce, and this is the explanation of the low rates  $\frac{1}{4}$  and  $\frac{1}{3}$ . The same rates applied in Bansur, but in Thana Ghazi  $\frac{1}{3}$  was commonly taken from agricultural tribes and  $\frac{1}{2}$  or  $\frac{1}{4}$  from Rajputs, Kanungos and Killadars.

49. The following table shows the *bigheri* or crop rates generally levied in each tahsil by *parganas*, each of which had its own separate rates.

Cash rates per bigha.

sil.	Pargana.	Detail.	Kharif Crops.									Rabi.					
			Sugarcane.	Cotton, hemp, til.	Maize.	Jawar.	Gawar Charri.	Bajra.	Moth Masina.	Vegetables.	Wheat.	Barley.	Gram.	Sarson.	Tobacco.	Vegetables.	
			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.	Rs.a.p.	Rs.a.p.	Rs.a.p.	Rs.a.p.	Rs.a.p.
...	Alwar ...	Chahi ...	...	3 4 6	...	2 4 0	...	2 1 0	1 11 0	...	4 8 0	4 4 0	...	...	...	...	
		Barani ...	...	2 10 0	...	1 14 0	...	1 12 6	1 9 6	...	...	...	3 0 0	2 4 0	...	...	
...	Bansur ...	Chahi ...	...	4 8 0 to 6 0 0	3 6 0 to 4 8 0	2 4 0 to 3 6 0	0 15 0 to 1 8 0	1 2 0 to 1 4 0	...	...	4 14 0 to 6 12 0	4 8 0 to 6 0 0	...	...	3 0 0	3 0 0	
		Barani ...	...	1 2 0 to 3 6 6	...	1 8 0	0 12 0	0 7 6 to 0 12 0	0 6 0 to 0 15 0	...	1 8 0 to 1 14 0	1 2 0 to 2 4 0	1 2 0 to 1 8 0	1 2 0 to 1 8 0	...	...	
	Rampur...	Chahi ...	...	4 2 0 to 4 14 0	3 0 0 to 3 12 0	2 10 0 to 3 6 0	1 8 0	1 5 0 to 2 4 0	...	...	5 4 0 to 7 8 0	5 4 0 to 6 6 0	...	...	4 2 0 to 4 14 0	4 2 0	
		Barani ...	...	1 8 0 to 3 0 0	...	1 14 0	1 8 0	0 9 0 to 0 15 0	0 9 0 to 0 12 0	...	...	2 4 0	1 2 0 to 1 14 0	1 2 0 to 2 4 0	...	...	
	Hajipur, Hamirpur and Harsora.	Chahi ...	...	3 6 0 to 5 2 6	3 0 0 to 3 12 0	2 4 0 to 3 0 0	0 12 0 to 1 6 6	1 5 0 to 2 4 0	...	...	4 8 0 to 6 0 0	3 12 0 to 5 4 0	...	...	3 12 0	3 0 0 to 6 0 0	
		Barani ...	...	2 4 0 to 4 11 0	...	1 8 0 to 1 14 0	0 9 0 to 1 6 6	0 9 0 to 1 2 0	0 7 6 to 0 10 6	...	1 8 0 to 3 0 0	1 8 0 to 2 4 0	1 2 0 to 1 8 0	1 8 0 to 1 14 0	...	...	
	Narsainpur and Garhi Mamur.	Chahi ...	...	3 12 0 to 4 8 0	3 6 0 to 3 12 0	2 4 0 to 3 0 0	0 12 0 to 1 8 0	1 14 0	...	2 4 0	4 8 0 to 5 10 0	3 12 0 to 5 4 0	...	...	3 12 0 to 4 8 0	2 4 0 to 3 0 0	
		Barani ...	...	1 10 0 to 3 0 0	...	0 12 0 to 2 4 0	0 12 0 to 1 5 0	0 9 0 to 1 2 0	0 6 0 to 0 12 0	...	1 14 0 to 2 4 0	1 8 0 to 1 14 0	1 2 0 to 1 8 0	1 2 0 to 1 8 0	...	...	
hasi ...	Phana Ghazi	Chahi ...	15 8 0	6 0 0 to 10 0 0	6 0 0	4 0 0	3 8 0	4 0 0	...	...	7 0 0 to 14 8 0	5 14 0 to 14 0 0	7 0 0	...	8 8 0 to 14 0 0	5 0 0	
		Barani ...	...	...	...	1 0 0 to 2 0 0	...	1 0 0 to 2 0 0	1 0 0 to 2 0 0	...	...	...	2 0 0	2 0 0	...	...	
	Partabgarh	Chahi ...	15 8 0	6 0 0 to 10 0 0	6 0 0 to 6 12 0	2 8 0	...	2 8 0	...	5 8 0	10 0 0	11 12 0	2 0 0	3 0 0	8 0 0	5 0 0	
		Barani ...	...	...	...	1 0 0	...	1 0 0	1 0 0 to 1 8 0	...	...	...	...	...	...	...	
	Ajabgarh	Chahi ...	16 0 0 to 17 0 0	6 0 0 to 8 0 0	6 0 0	5 0 0	...	5 0 0	...	7 0 0	13 0 0 to 14 0 0	12 0 0 to 14 0 0	6 0 0 to 8 0 0	8 0 0	8 0 0	8 0 0	
		Barani ...	...	...	...	1 2 0 to 1 8 0	1 0 0	1 2 0 to 1 8 0	1 2 0 to 1 8 0	...	...	...	...	...	...	...	
	Baldeogarh	Chahi ...	17 0 0	6 4 0	6 4 0	6 6 0	...	6 0 0	3 0 0	6 0 0	13 0 0 to 17 0 0	12 0 0 to 17 0 0	...	...	10 0 0	10 0 0	
		Barani ...	...	...	...	1 2 0	...	1 2 0	0 10 0 to 1 0 0	...	...	...	...	...	...	...	



I am not quite sure of the accuracy of the Alwar figures, which seem unduly low as compared with Bansur, and the Alwar Kanungos were unable to give any details by *parganas*. In Bansur and Thana Ghazi there is no doubt as to the genuineness of the old records. The first point that strikes one by comparing these rates with those quoted for the Agra provinces from the "Ain-i-Akbari" is the enormous increase all round due no doubt to the great increase in prices. The next point is the extraordinary high rates in Thana Ghazi due to the superior soil and wells of that tahsil. In all tahsils the *barani* rates are moderate as compared with the *chahi*, which if collected in full in Bansur and Thana Ghazi must have been decidedly oppressive at that time, and it is doubtful if they could be paid even at the present day. These *bigha* rates of course represent the cash commutation taken from those agriculturists who paid full *batni* rates varying from  $\frac{1}{2}$  to  $\frac{1}{3}$ , and take no account of the exemptions given to special classes.

50. The abuses which crept into the revenue administration during the reign Introduction of fixed cash assessments of Maharao Raja Bannu Singh owing to the exactions of the Mahomedan Dewans and their creatures, and the remedial measures taken by Captain Impey, who in the three years' settlement (1859-60—1861-62) and the ten years' settlement (1862-63—1871-72) gave a solid and permanent basis to the principle of fixed cash assessments for a term of years, were described in paragraphs 51 to 55 of last year's report for the State as a whole. The summary settlement made by Major Powlett for the four years 1872-73—1875-76, pending the completion of the 16 years' settlement and the principles under which the latter was carried out, have also been described in previous reports. At the three years', ten years', and summary settlements no regular survey was made. The areas accepted were estimated in local *bighas* based upon the papers in possession of the Kanungos, which had been prepared after a rough measurement by the local chains.

The areas of cultivation on which the ten years' settlement was based are given in the note books of last settlement, and in the following table the initial and final demand of each settlement, and the incidence per *bigha* of cultivation according to the figures of the 10 years' settlement are shown.

Tahsil.	Detail.	3 YEARS' SETTLEMENT.		10 YEARS' SETTLEMENT.		SUMMARY SETTLEMENT.		ARREARS.				
		Initial.	Final.	Initial.	Final.	Initial.	Final.	3 years settlement.	10 years settlement.	Summary settlement.	Total.	Realised.
Alwar	Jama	1,41,547	1,43,444	1,80,045	2,01,251	2,23,124	2,27,174	233	8,118	1,900	9,560	8,737,
	Rate per bigha.	1-0-3	1-0-6	1-4-6	1-7-2	1-9-6	1-9-9					
Bansur	Jama	1,19,539	1,30,925	1,41,419	1,41,504	1,45,016		4,396	21,476	199	20,671	3,063
	Rate per bigha.	1-1-5	1-3-1	1-5-1	1-5-2	1-5-2						
Thana Ghazi	Jama	1,14,989	1,17,963	1,35,077	1,40,707	1,42,252		63	10,777	110	10,950	...
	Rate per bigha.	2-9-10	2-11-0	3-1-2	3-3-1	3-5-0	....					

The areas of cultivation on which the rates per *bigha* are calculated are those of the 10 years' settlement, which converted into *pakka bighas* are:—

Alwar	...	...	...	139,002
Bansur	...	...	...	109,651
Thana Ghazi	...	...	...	83,939

But the figures at the best are only an approximation.

51. In spite of the abuses which again crept into the revenue administration from 1864 to 1870 when Maharaja Sheodan Singh ruled in person and the Agency was removed from Alwar, the three and ten years' settlements appeared to have worked very well on the whole. The above table shows that during the currency of the three years' settlement there were practically no arrears in Alwar and Thana Ghazi; while in Bansur they amounted to Rs. 4,396 in 42 estates or a little over one

per cent. of the total demand for the period. During the 10 years' settlement the arrears were inconsiderable in Alwar and Thana Ghazi—less than one-half and one per cent. respectively of the total demand, but in Bansur they were heavier, amounting to  $2\frac{3}{4}$  per cent. Those arrears in all tahsils were chiefly due to the famine of 1868-69, in which and in the year following the arrears in Bansur were Rs. 11,440 and in Thana Ghazi Rs. 5,667, or one-half of the total arrears for the period. The summary settlement made little change in the demand in Bansur and Thana Ghazi, but raised it considerably in Alwar. During its currency the arrears in all three tahsils were inconsiderable. The total arrears in these three tahsils for the three settlements covering a period of 17 years were—Alwar, Rs. 9,560; Bansur, Rs. 29,071; Thana Ghazi, Rs. 10,951, of which Rs. 8,787 were realised in Alwar and Rs. 3,083 in Bansur, and the rest, together with all arrears up to and including the famine year of 1877-78, were remitted in 1881 on the birth of His Highness the present Maharaja. The period from the commencement of the 3 years' settlement in 1859-60 to the expiry of the summary settlement in 1875-76 appears to have been one of fairly steady progress and prosperity; and although the revenue demand was steadily increased by the successive re-assessments, the extension of cultivation and development of agricultural resources enabled the people to bear the increase of burthens with comparative ease.

52. The first regular settlement of the State based on a careful field to-field survey and attended by the preparation of a complete record of rights was undertaken by Major Powlett in 1872 and completed in 1876. The principles of the settlement and the methods of assessment have already been described in detail in paragraphs 33—37 of my report on the four eastern tahsils and need not be recapitulated. Briefly, the State share was taken as two-thirds of the net assets or actual or assumed rent-rates, or as one-fourth of the produce, but reduction on the existing demand was not allowed unless it exceeded three-fourths, and in some special cases more than three-fourths was taken, provided that a substantial reduction was given on what had long been paid. On the other hand, Rajput estates were assessed more leniently, only half assets being often taken, while those persons—Kanungos, certain Brahmins and Mahajans and State servants such as *Killadars*,—who established a claim to hold land on *chauthbat* (one-fourth of the produce) were given a remission of four annas in the rupee, though a full assessment would not have exceeded one-fourth.

53. Of these three tahsils, Alwar was inspected and assessed by Major Powlett himself, Bansur by Captain Abbott, Assistant Settlement Officer, and Thana Ghazi by M. Hira Lal, Superintendent. The proposals of the two latter officers as to the assessment were, however, submitted to, and in some cases modified by, Major Powlett. The following table shows the net assets as calculated for each tahsil; the initial and final demand fixed by Major Powlett and the proportion they bear to the net-assets; the demand of previous settlements and of last year (1898-99) is also shown for purposes of comparison:—

Tahsil.	3 YEARS' SETTLEMENT		10 YEARS' SETTLEMENT.		SUMMARY SETTLEMENT.		Net assets of 16 years' settlement.	JAMA.		PERCENTAGE OF NET ASSETS.		PERCENTAGE OF INCREASE OF 30 YEARS' JAMA.		Present demand, 1898-99.	REMARKS.
	Initial.	Final.	Initial.	Final.	Initial.	Final.		Initial.	Final.	Initial.	Final.	Initial.	Final.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.					Rs.	
Alwar ...	1,41,547	1,43,444	1,60,945	2,01,251	2,23,124	2,27,174	3,58,412	2,35,140	2,42,620	66.6	66.5	19	22	2,74,665	
								3,670	3,780						
								2,39,810	2,46,410						
Bansur ...	1,19,539	1,30,925	1,46,419	1,44,808	1,45,310	2,56,225	2,56,225	1,50,017	1,63,084	56.34	61.6	3.6	12.9	1,68,304	
Thana Ghazi ...	1,14,990	1,17,903	1,35,079	1,40,807	1,42,252	2,29,062	2,29,062	1,49,185	1,51,560	65.12	66.16	9.3	9	1,50,622	

The above figures generally agree with those given in Major Powlett's report and his tahsil revenue statement (page 189, Gazetteer).

The deficiency of Rs. 150 in Bansur and the increase of Rs. 150 in Thana Ghazi in the 16 years' Jama, as compared with Major Powlett's figures, is due to the transfer of a small estate, with a Jama of Rs. 150 from Bansur to Thana Ghazi, and this also explains the slight variation in the net assets. Similarly the addition of Rs 3,670 in the initial and Rs. 3,190 in the final demand in Alwar is due to the inclusion of 5 villages after settlement from other tahsils, the *jama* of which has been added in, so that the *jama* shown consecutively from the 3 years to the 16 years' settlement may apply to the same set of villages, *viz*, 141½. The great variation between the final demand of the 16 years' settlement and the present demand in Alwar is due to subsequent changes, *viz*, resumption of *mafi* villages and *mafi* holdings, which have raised the present number of *khalsa* villages to 157½. In Bansur and Thana Ghazi there has been only the mutual transfer of one village already referred to which has been taken account of, so that the *jamas* shown from the 3 years' settlement up to date represent throughout the demand on the estates included within the present boundaries of these two tahsils. As compared with the 10 years' settlement, the final enhancement in Alwar was high—22 per cent., moderate in Bansur—12·6 per cent., but most of the increase was taken progressively, and comparatively low—3 per cent. in Thana Ghazi. The proportion of the net assets taken was almost exactly two-thirds in Alwar and Thana Ghazi; but if we take account of the favourable assessments to Rajawats and others in Thana Ghazi, the percentage of the net assets taken on fully assessed estate comes to nearly 75 per cent. In Bansur where more than half the estates are owned by Shaikhawat and other Rajputs who were given favourable rates, the proportion of the final demand to the total net assets is only 61·6, so that this tahsil was on the whole leniently assessed.

14. As justifying the enhancement taken in each tahsil, Major Powlett quotes the increase in wells and cultivation (the figures are in *kacha bighas*) which had taken place since the beginning of the 10 years' settlement:—

Tahsil.				Details.		At begin- ning of 10 years' settlement	At end of 10 years' settlement	Increase per cent.
Alwar	...	...	...	Wells	...	688	913	3
				Cultivation	...	134,193	212,530	58
Bansur	...	...	...	Wells	...	1,217	1,271	4·5
				Cultivation	...	158,865	205,830	29·5
Thana Ghazi	...	...	...	Wells	...	1,332	1,852	1·5
				Cultivation	...	58,213	90,924	56

I quote below the salient points in his tahsil notes bearing on the assessment.

#### ALWAR.

"The average rate per cultivated bigha will be Rs. 1-10-0. The good soils largely predominate; the chief crops grown are jawar, bajra, gram, moth, barley and cotton. The percentage of irrigated is 19½. The land irrigated by the canal from the Siliserh is in the hands of the Superintendent of Canals, and its yield does not appear under land revenue. The Chuhar Sidh and Bara *nadi* (Ruparel) produce a few acres of *khatili* in most of the villages along their course and here and there some *dakri*. The village of Nangla Banjir is the best instance of the latter. Formerly the wild animals, more especially pig which were strictly preserved, greatly injured the crops, and I found many villages, especially those to the south, capable of large enhancement. Proximity to Alwar which was the cause of the game-preserving also occasioned the



occupation of most of the hills for Raj purposes, so that, while the value of the cultivation was diminished, the people obtained little compensation from the extensive waste. Outside the hilly tract the large game has been greatly reduced, but within it the old disadvantage remains."

#### BANSUR.

"The average rate per cultivated *bigha* will be Rs 1-1-7.

"In the Bansur tahsil the inferior soils greatly predominate; the chief crops grown are in order of importance—moth, bajra, barley. The percentage of irrigated is 25½."

The following is quoted from Captain Abbott's notes:—

"The surface of the country is for the most part undulating raised bars of sand alternating with loamy hollows. In these parts we have soil varying from a good loam (*mattiyar*) to a very poor sandy soil (Bhur II). The Narainpur *pargana*, with the greater part of the Garhi *pargana* and the eastern portion of the Rampur, Hajipur and Hamirpur *parganas*, have a hard and rich soil generally capable of yielding two harvests.

"The attached table (omitted) gives the rent rates used for the tahsil. To arrive at them was difficult owing to the prevalence of "*batni*," the worthlessness of the Patwari records, and the efforts made by the Zamindars to conceal the rates. The peculiar configuration of the ground above referred to, which results in such variety, necessitated the classification of villages into 1st, 2nd and 3rd class generally as their lands happened to be situated in the loamy hollows or perched on the sandy risers.

"Besides these three classes, an extra first class, as it were, was formed for a few villages situated between or near the hills to the east, which grew good quantities of *dofasli* crops and in which extra high rates were found to prevail. These few villages had a special *dofasli* rate applied. Having been classed, the rates obtained on the spot from the various villages of different classes were applied to the different classes, and these were again compared with the Bahrar rate to the north, the Thana Ghazi rate to the south, as also with the rates taken by the Raj (*bigheri* rate—see paragraph 49) for different produce. It will be found that the value of the village is generally higher by Raj rates than by the above rates which shows they are not overrated. There may be an exception in the case of Bhur II which, though rated at only 14, 12 and 10 annas is frequently found to be let out at such nominal rates as 8 annas and even 6 annas.

"As a rule, great allowance has been made for the Shaikhawat Thakur not because he deserves it, but owing to the fact that in the present condition nothing more can be got out of him. He is a hard bargain to the State. He now receives what I believe to be a fair start and ought not only to right himself, but become well-to-do before the settlement expires. In any case, if he finds himself unable to meet a large enhancement at the next assessment, he will have only himself to blame. Consideration for former lawlessness and imperfect tahsil control which has led to an ignorance of what is expected from them has led to the villages being very gradually dealt with and this accounts for the small increments spread over a number of years to be seen in the present assessments."

#### THANA GHAZI.

"The average rate per cultivated *bigha* will be Rs. 3-5-3. The soil of the Thana Ghazi tahsil is nearly all good. The chief crops grown are barley, Indian corn, jawar, bajra. The Ajabgarh and Partabgarh *nalas* are the principal streams. Both usually run all the year round. They are chiefly valuable for raising the water-level in wells. Much land is not entered as *dahri* in Thana Ghazi. The peculiarity of the *pargana* is the excellence of its well land. It has an extraordinary amount of *dofasli* and this *dofasli* bears an astonishingly high rent-rate. So high was it that I could scarcely believe in the accuracy of the rates fixed by the Superintendent, but on personally visiting the *pargana* I found them correct. The waste land of this *pargana* is also very extensive. Its distance from Alwar renders its utilisation for Darbar purposes difficult. Consequently the people have the use of the Raj Runds at a nominal rental, and an unusual amount of cattle are kept, so that manure is abundant. The grazing lands, besides being so extensive, are exceptionally good and water is generally near the surface."

A good deal of land is held by Rajawat Thakurs, formerly the rulers of the country, but now mere *Zamindars* or cultivators. A liberal allowance has been made for them. From the *nikasi* of their lands a deduction of 50 instead of 33 per cent. has been generally made, and they and the Kanungos of the *pargana* are to pay rent at the rate prevalent during the 10 years' settlement.

53. Before discussing the working of the 16 years' settlement, it will be convenient to link up the demand as

Explanation of alterations in the demand up to date.

fixed by Major Powlett with that of the year 1898-99. This is done in the following table:—

ing table:—



No.	Detail.	Alwar.	Bansur.	Thana Ghazi.	REMARKS.
		Rs.	Rs.	Rs.	
1	Initial demand ...	2,35,149	1,50,167	1,49,035	(a) Barbalandi from Rajgarh, Bahroz, Soheta, Kharita and Khanpur from Mandawar.
2	Progressive Jama ...	7,480	13,067	2,375	(b) Jhagret Khurd to Thana Ghazi from Bansur.
	Total ...	2,42,629	1,63,234	1,51,410	(c) 15 whole villages resumed in Alwar.
	Add—				
3	Villages transferred ...	(a) 6,860	...	(b) 150	(d) Reduction given for diluvion by Sahibi and Hajipur <i>advis</i> , viz., Morori Rs. 252, Ganta Rs. 250, Hajipur Rs. 235, Mancha Rs. 75, Nangal Lakha Rs. 75, Harsora Rs. 20, Chhabribas Rs. 22. On expiry of 16 years' settlement in 1892 this was re-imposed without reason. Rs. 20, moreover, was added in Katariya for land transferred from Hajipur, and no reduction was given to the latter.
4	Resumed mafi and jagir villages ...	(c) 25,063	...	...	(e) These are cases in which settlement Jama broke down and the leases were put up to auction by the State. In Bahadarpur (Alwar) the Jama was reduced by Rs. 1,900.
5	Resumed mafi plots ...	6,439	...	335	
6	Alluvion newly assessed ...	...	997	...	
7	State lands newly assessed ...	61	...	...	
8	New leases of <i>khalsa</i> villages ...	(e) 1,736	(e) 441	(e) 221	(f) In Pirthipura.
					(g) Madarpur in Alwar, Bandipul and Kharikar in Thana Ghazi.
9	Land revenue treated as <i>Abwab</i> at settlement.	(f) 186	...	...	(h) Choreti Jama Rs. 900 was given in 1889 on <i>Istamrari Jama</i> of Rs. 400. Other <i>Istamrari</i> amounts to Rs. 500.
10	<i>Istamrari</i> omitted at settlement	29	...	...	(i) Income of this tax was taken account of at last settlement, and on its remission in 1886 a reduction of Jama was given in certain villages.
	Total increase ...	40,374	1,438	706	
	Deduct—				
11	Villages transferred ...	...	(b) 150	...	(j) Land transferred by action of the Sahibi to Khetri in Jampur.
12	New mafi grants ...	9,929	20	616	(k) Resumed mafis.
13	Diluvion ...	...	(d) 976	...	(l) Of which Rs. 1,022 is for resumed mafis.
14	Land occupied by the State ...	1,102	1	364	
15	Villages included in State Runds ...	(g) 70	...	(g) 250	
16	Villages given in <i>Istamrari</i> ...	(h) 900	...	..	
17	Abolition of house tax ( <i>Jhonpri bachh</i> ).	(i) 437	(i) 524	(e) 377	
18	Errors in old Jama ...	...	...	55	
19	Land transferred to other State ...	...	(i) 17	...	
20	New leases of <i>khalsa</i> villages ...	(e) 1,900	...	(e) 928	
	Total decrease ...	8,338	1,698	2,590	
	Demand of 1898-99 ...	2,74,665	1,62,984	1,49,526	
	Other items of land revenue realised as cesses.	...	(k) 320	(l) 1,096	
	Deduct <i>Istamrari</i> ..	146	...	...	
	Total ...	2,74,519	1,63,304	1,50,622	

In the preceding table I have brought the revenue account up to the year 1898-99, as that is the year to which the statistics of the present settlement relate.

The new assessment coming into force from 1900-1901 should, however, be compared with that of 1899-1900, which in each tahsil is as follows:—

						Rs.
Alwar	...	...	...	...	...	2,73,610
Bansur	...	...	...	...	...	...
Thana Ghazi	...	...	...	...	...	...

The reduction in Alwar is due to the falling off in the leases of estates under direct management (*Kham*).

56. Major Powlett's assessment appears to me to have been a full one in Working of the 10 years' settlement. Alwar,—the more so as 1,300 *bighas* of *barani* land attached to wells under construction or capable of being restored were assessed at *chahi* rates,—heavy in Thana Ghazi, where the leniency shown to Rajawats and other favourably assessed classes was made good at the expense of the other agriculturists, and moderate on the whole in Bansur.

The new assessments came into force in Alwar in the *kharif* of 1875; in Bansur and Thana Ghazi in the *kharif* of 1876. They were accepted in Alwar without demur, but in Bansur the Lambardars of Hajipur and Hamirpur resigned after a year, and in Thana Ghazi the Zamindars of Nathusar, Bichpuri and of a half share in Thana Ghazi refused to accept responsibility, and these estates came under direct management.

The realisation and balances year by year for each tahsil are shown in Statement III.

In 1875-76 the new *Jana* appears to have been realised in full in Alwar. In 1876-77 the rains were deficient in all tahsils. Thana Ghazi receiving less than half the average. Some damage was also caused in Bansur by hail, and Rs. 3,576 remained in arrears in that tahsil, while in Alwar a balance of Rs. 3,225 accrued in five villages, of which Rs. 2,330 was in Bahadarpur alone. In Thana Ghazi where the people however pinched, are always most prompt in payment, the arrears were only Rs. 32.

57. The next year 1877-78 ushered in one of the most disastrous famines on record. Its effects on the State as a whole have been noticed in paragraphs 39—42 of the report on the eastern tahsils. In these three tahsils the rainfall was not only appallingly short—13.3 inches in Alwar, 3.27 inches in Bansur and 9.95 inches in Thana Ghazi, but very badly distributed. The *kharif* crop failed completely, and cattle died in thousands for want of pasture and fodder crops. The *rabi* sowings on the wells were much reduced, and the crop was damaged by high winds and the ravages of insects. Panic spread over the agricultural population, especially among the Meos of Alwar who abandoned their holdings and deserted in great numbers. In Alwar only one-third of the revenue was realised and over 1½ lakhs remained in arrear, while the balances in Bansur were Rs. 43,401 and in Thana Ghazi Rs. 30,003. From the Political Agent's report it appears that Alwar and the eastern tahsils suffered most, and it was from these that the greatest number of desertions took place, while Bansur with its light soil and Thana Ghazi with its abundance of wells were less severely scourged than the rest of the State, and the people, though hard pressed, had the wisdom to keep a grip of their holdings and await the turn of the tide. The prices of wheat, barley and gram, on 31st March 1877 had been at Alwar 26½, 38½ and 36 seers respectively, but had risen on 30th September to 10, 11½ and 11½ seers per rupee.

The State, under the able direction of the Political Agent, Colonel Cadell, V.C., did all that was possible to allay the panic by starting relief works, advancing *takavi* for wells and tanks, encouraging the Sahukars to lend money freely, and opening the State preserves for pasture; but these measures, though they alleviated, could not cope fully with the two most serious forms of the distress, the loss of cattle by starvation, and the loss of the agricultural population by desertion and by disease aggravated by under-feeding.

58. Full statistics of the loss of cattle are not available. The following table shows the number in each tahsil before the famine set in, and the number of deaths in the first two months of the famine :—

Tahsil.	Total number of cattle.	Death in July and August.	Remaining.
Alwar ...	72,539	2,695	70,444
Bansur ...	60,302	1,165	59,137
Thana Ghazi ...	64,180	3,587	60,593

In Alwar the total deaths up to March 1878 were given as 4,347. Great numbers of cattle were also taken away to graze in more favoured tracts, few of which returned. Probably the total losses of cattle in these tahsils during the year did not fall short of one-fourth of the total number.

59. The loss of agricultural population by emigration from 1st July 1877 to 31st December 1878 is shown in the following table taken from the Administration Report for 1878-79, and as showing the probable loss from other causes, disease, etc. I quote also the population according to the census of 1872 preceding and of 1881 succeeding the famine as well as the census of 1891 to show the subsequent recovery :—

Tahsil.	Census of 1872.	Number who left in the famine.	Number who returned.	Loss by emigration.	Census of 1881.	Census of 1891.	REMARKS.
Alwar ..	151,027	7,383	1,634	5,749	121,074	141,157	
Bansur ...	69,379	438	1	434	61,055	65,203	
Thana Ghazi ..	62,119	1,486	25	1,461	50,939	54,561	
Total ...	272,525	9,307	1,660	7,644	233,068	260,921	
Total of State ...	778,598	43,847	8,757	35,090	670,540	760,416	

These figures show that the losses owing to the famine in this tract, though large, were not as heavy as in the rest of the State, and in Thana Ghazi were more than made good before 1891 by the natural growth of the population. In Alwar and Bansur, on the other hand, the depopulation between 1871 and 1881 was serious and was due almost entirely to the famine, and in both the population in 1891 is 6 per cent. less than that of 1871, while for the State, as a whole, it was only 2 per cent. less. The recovery from the disastrous effects of the famine was very gradual, especially in Alwar, where numbers of villages had completely broken down. The general character of the subsequent harvests is described in paragraph 44 of my report on the eastern tahsils.

60. In Alwar the next 5 years were marked by heavy and even excessive rainfall. The crops suffered rather from swamping than from drought, especially in 1879-80 and 1881-82, when the rainfall was 42 and 34 inches respectively; the agricultural population was prostrated with the autumnal malaria usual in

seasons of heavy rainfall, and the crops were in many cases left to rot on the ground, because there was no one to reap them or protect them from birds and beasts. The total arrears that arose in these 5 years 1878-79—1882-83 were Rs. 2,35,741, of which Rs. 1,33,630 were realised in subsequent years, while the old arrears recovered amounted to Rs. 19,589. In Bansur and Thana Ghazi the rainfall was rather below average except in 1882-83 when it was abundant and well distributed, but these two tahsils had been less severely shaken by the drought and were benefitted by the high prices. In Bansur the total new arrears in this period amounted to Rs. 8,563, while Rs. 22,092 of old arrears were paid up, while in Thana Ghazi the new arrears were Rs. 19,064 and the old balances paid up were Rs. 24,166. It should here be noted that the arrears due for the famine year—*viz.*, Alwar Rs. 1,48,557, Bansur Rs. 22,002, Thana Ghazi Rs. 11,358—were remitted in 1881 on the birth of the present Maharaja, but prior to this remission Alwar had paid up Rs. 19,074, Bansur, Rs. 21,399 and Thana Ghazi Rs. 11,358 out of the total arrears.

The next cycle of 5 years 1883-84—1887-88 was a fairly good one, although in 1883-84 there was a local scarcity in Bansur due to short rainfall and 1886-87 was a poor year in all tahsils, the rainfall being—Alwar 19.51, Bansur—12.35 and Thana Ghazi—16.65 inches. The Alwar tahsil, though still in arrears, showed signs of recovery. The total new arrears amounted to Rs. 57,650, of which Rs. 9,429 was subsequently realised, while Rs. 25,416 was collected on account of old arrears. In Bansur and Thana Ghazi the new arrears for this period were Rs. 18,943 and Rs. 7,396 respectively—chiefly on account of the bad harvests in 1883-84 and 1886-87, while the old arrears realised were only Rs. 2,839 in Bansur and Rs. 2,634 in Thana Ghazi.

The next period of 5 years 1888-89—1892-93 was one of average prosperity on the whole, although the year 1891-92 was decidedly below average, the rainfall being less than 20 inches in all tahsils. The effects of the 1877-78 famine now began to disappear in Alwar. The new arrears fell to Rs. 7,759, of which Rs. 1,073 were recovered in subsequent years, while old arrears, amounting to Rs. 52,880, were paid off, so that the tahsil more than paid its way in this period. Bansur fared equally with the new arrears amounting to only Rs. 746, while Rs. 10,379 of old arrears were cleared off. In Thana Ghazi there was almost equilibrium. The balances amounted to Rs. 2,767, while Rs. 3,116 of old arrears were discharged. From this period we may therefore date the return of normal conditions in the whole tract. The term of the 16 years' settlement expired with the spring harvest of 1892; but as no arrangements for a re-settlement had been made, it was extended indefinitely pending the general re-assessment.

The harvests of 1893-94 and 1894-95 were exceptionally good, and though the rains of 1895-96 were very deficient in Alwar and Bansur, the harvests were little below average and the Zamindars had no difficulty in meeting their liabilities. The accumulations of a series of good years and the stocks of fodder in hand even enabled them to tide over the severe drought of 1896-97, which straitened but did not shake them, and the return of average harvests in 1897-98 helped to keep them on their legs.

61. In these years not only was the current demand almost paid in full, but a large amount of old balances was liquidated as the following figures show :—

Name of year.				ALWAR.		BANSUR.		THANA GHAZI.	
				New arrears.	Balance collected.	New arrears.	Balance collected.	New arrears.	Balance collected.
				Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1893-94	...	...	...	39	16,300	...	1,962	137	454
1894-95	...	...	...	42	17,098	235	1,136	162	727
1895-96	...	...	...	41	5,703	...	245	...	409
1896-97	...	...	...	2,714	6,530	1,318	368	466	230
1897-98	...	...	...	726	16,175	121	607	1,544	324
Total	...	...	...	3,562	61,806	1,674	4,318	2,249	2,154



The recovery of the Alwar tahsil within this period is specially marked. Unfortunately the drought and disastrous harvests of the last two years—see paragraph 14—have turned the tide of prosperity, and all three tahsils have begun to go down hill again. In 1898-99 the new arrears increased, while the collection of old balances fell off in all tahsils, viz —

ALWAR.		BANSUR.		THANA GHAZI.	
New arrears.	Balance collected.	New arrears.	Balance collected.	New arrears.	Balance collected.
Rs. 9,232	Rs. 6,917	Rs. 1,128	Rs. 26	Rs. 8,512	Rs. 58

Thana Ghazi shows the worst results, as it suffered most from the contraction of the water-supply in the wells.

62. The complete figures for the year just concluded, 1899-1900, are not available as I write. They will be separately reported on. I may however

#### Famine of 1899-1900.

state here, in order to bring the revenue history up to date, that in Alwar tahsil conditions, as regards the circumstances of the people and the revenue realisation, are much better than in the last famine; in Bansur they are about the same, while in Thana Ghazi they are more critical. One satisfactory feature is that there has been no panic and no desertions. For this the timely measures taken and the liberal relief afforded by the State in the way of *takavi* grants and the opening of relief works is mainly responsible. Within the last year nearly 2 lakhs of rupees have been given in *takavi* advances throughout the State for purchase of seed, bullocks and well gear, sinking *kacha* and repairing or deepening masonry wells. At the same time orders have been issued to the Tahsildars not to collect more than the nature of the harvest, and the general circumstances of the Zamindars justify and confidential lists for each tahsil have been prepared by the Revenue Deputy Collectors showing village by village the extent beyond which collections should not be pressed. Though personally, I think, an open and above board system of suspensions would be more satisfactory to the people and more profitable to the State in the long run, it must be admitted that there are difficulties in suddenly launching a system at variance with past traditions in a Native State. As Alwar is now in possession of all the machinery necessary for that purpose, the State will, I trust, introduce the system of regular suspensions when circumstances may hereafter prevent the enforcement of the full demand.

To complete this reference to the present famine I show below the number of persons relieved by the State on works and otherwise since the scarcity took an acute form :—

Month.	1st WEEK.			2ND WEEK.			3RD WEEK.			4TH WEEK.			5TH WEEK.		
	On relief works.	Gratuitous.	Total.	On relief works.	Gratuitous.	Total.	On relief works.	Gratuitous.	Total.	On relief works.	Gratuitous.	Total.	On relief works.	Gratuitous.	Total.
November	...	...	...	302	...	302	763	...	763	1,595	...	1,595	...	...	...
December	2,210	...	2,210	2,031	149	2,180	2,167	50	2,117	Not reported			...	...	...
January	2,822	513	3,335	3,744	643	4,387	3,134	759	3,893	3,551	825	4,376	...	...	...
February	4,790	1,107	5,897	4,390	1,244	5,634	5,098	1,286	6,373	7,320	1,395	8,715	...	...	...
March	1,483	142	1,625	1,524	162	1,686	1,613	19	1,632	7,175	2,028	9,203	...	...	...
April	8,516	1,857	10,373	11,411	1,977	13,388	6,298	2,343	8,641	...	...	...	...	...	...
May	7,515	2,010	9,525	3,949	2,130	6,079	3,251	2,081	5,332	4,892	2,043	6,935	...	...	...
June	4,767	2,180	6,947	4,918	2,240	7,158	...	...	...	...	...	...	...	...	...