FINAL REPORT

ON THE

SURVEY AND SETTLEMENT OPERATIONS

IN THE

DISTRICT OF GAYA

(1911—1918)



E. L. TANNER, I.C.S., Settlement Officer, South Bihar.



PATNA;

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सन्यमेव जयते

"I don't much pique myself upon orthography!
So that I do not grossly err in facts."

Don Juan, Canto VIII luziv

सन्यमेव जयते

# FINAL REPORT

ON THE

# SURVEY AND SETTLEMENT OPERATIONS

IN THE

### DISTRICT OF GAYA

PART I.

GENERAL.

### CHAPTER I.

### GENERAL DESCRIPTION.

- 1. Gaya district is the south-eastern district of the Patna Division. It is bounded on the north by Patna District, on the south by Hazaribagh and Palamau districts, and on the west by the Sone river which divides it from Shahabad. It is somewhat irregular in shape, the extreme length from east to west being 120 miles and the extreme breadth from north to south being 65 miles. The area as found in the present survey is 4,748 square miles.
- 2. It is divided into four subdivisions—Sadr, Jahanabad, Aurangabad and Nawada. The following table shows the arrangement and areas of the thanas and subdivisions and the number of villages in each:—

Subdivision.	Thans.	Arca in square milos.	Number of villages.	Police-stations (excluding thans bead- quarters).
	Town Gays	.   6	11	
	Mufassal Gaya	. 451	<b>67</b> 6	Wazirganj, Paraiya, Bodh baya.
11	Tikari	283	435	Belagenj.
Sadr ≾	Atri	994	272	Khizer Sarai.
	Sherghati	. 517	865	Gurua, Imamganj, Dumaria.
il	Barachati	. 428	66 :	Fatchpur.
Total of Subdivision		1,809	2,925	1
	Jahanabad .	406	บยช	Kurtha, Hulasganj, Makhdumpur.
Jahanabad	Arwal	200	249	
Total of Subdivision		i vuu	947	
TORK! OF ORDERAISME.	15-12	245	313	Goh.
Aurangabad	A	718	991	Rafiganj, Obra, Parun Madanpur.
11	Nabinagar	309	580	K.tumba.
Total of Subdivision		1,272	1,883	-
1000.	N. mada	436	663	Worslevganj, Gobiad
Nawada {	Pakribarwan .	224	141	Kauskol.
<b>i</b>	Daiml:	270	295	25,000,014
Total of Subdivision		960	1.099	-
Total of District	<del></del>	4,748	6,855	Ì

Note,-Discrepancies in total of areas are due to omission of decimals.

A proposal is at present under consideration to form a new subdivision southern portion of the Sadr Subdivision with headquarters at Sherghati. Parts of the Sadr Subdivision are more than 50 miles by road from Gaya and, as will be seen later, there is great need of closer control in the portion to the south-west of Sherghati. Geographically the new subdivision should consist of thana Sherghati and thana Barachati with the exception, perhaps, of the Fatehpur police-station to which Gaya is more accessible owing to the railway. The difficulty is that this area on the present statistics gives hardly enough work to justify the appointment of a Subdivisional Officer. This could be met, I think, by appointing the Subdivisional Officer to be a Munsif. If necessary his work in this capacity could be limited to cer ain classes of cases such as rent-suits. In this connection it may be pointed out that the jurisdiction of Munsifs in Gaya is arranged according to parganas which gives rise occasionally to difficulty in tracing the connection between civil suits and our records which are classified according to thanas. Now that the survey has been completed and each village can be exactly identified by its thana and thana number, there would appear to be no point in retaining this division in the civil courts, more especially since it has been dropped for all practical purposes in the Collectorate. The parganas contained in the district are shown in the map of Zila Bihar in Mr. James' Final Report on the Survey and Settlement operations in the district of Patna to which reference may be made.

3. The physical features of the district have often been described before,* and it is unnecessary to repeat them in detail. Briefly the district consists of two tracts. The southern one comprising the southern portions of the Sadr, Aurangabad and Nawada Subdivisions consists of high land partly covered with jungle and with a strong slope to the north. It is undulating and the water-sheds between the rivers issuing from the Chota Nagpur plateau are well marked. The northern tract comprising the northern portions of the Sadr, Aurangabad and Nawada Subdivisions and the whole of the Jahanabad Subdivision is an alluvial plain still with a perceptible slope to the north.

Throughout the district spurs from the Chota Nagpur plateau, isolated hills and ridges are met with, the only thanas without a hill being Arwal and Daudnagar. These hills, besides making a pleasant break in the scenery and providing opportunities for sport, perform a useful function in supplying metal for making roads and the permanent way of the railway.

4. The principal river is the Sone which forms the western boundary of the district for a length of 65 miles. Its main importance lies in being the source of the big irrigation canal, the head-works of which are at Barun. The first river, as we go eastward from the Sone, is the Punpun which runs roughly parallel to the Sone in a north-easterly direction. Then we have a series of rivers running almost due north which join the Punpun either in this district or in Patna. These are the Baitarni, Adri, Madar (which is joined by the Dhawa), Morhar (of which Dhadha is an offshoot) and Jamuna, which falls into the Dhadha. The next group of rivers also flowing northward do not reach the Ganges, but in Patna District turn to the east and merge in the big Jhil in Bath Subdivision or fall into the Kiul river. The rivers in this group are the Phalgu (formed by the junction of the Mohana and Lilajan and dividing up-later into the Sone, Phalgu and Mohana), the Paimar, Dhadhar, Tilaiya (which is joined by the Dhanarji and Khuri) and the Sakri.

^{*} Gazetteer, page 2 et seq., Notes on Gaya, Chapter II.

Mr. Stevenson Moore's Final R port on the Survey and Settlement Operations of 1893-98 in the district of Gaya.

Besides this geographical classification of the rivers there is another classification which is important from the point of view of irrigation. The Punpun, Madar, Dhawa, Jamuna and Paimar rise in the plain below the plateau and their beds are of clay, fairly narrow, and with steep banks. The other rivers rise in the hills and bring down large quantities of sand when in flood, with the result that their beds are sandy and wide, with sloping banks and continually rising. This gives rise to the well-known tendency of these rivers to change their course and to form offshoots which generally rejoin the old bed a few miles further on, but sometimes diverge altogether from it. This tendency has in one or two instances been helped by the existence of artificial irrigation channels or pains without proper head-works. Full details of the important rivers have been given in the Gazetteer, pages 4—9.

5. The district is well served by the East Indian Railway, and its branches—
the Patna-Gaya Railway and South
Bihar Railway. The Patna-Gaya line
which is the oldest and formerly a State

Railway, serves Jahanabad and the north of the district. The South Bihar Railway serves Nawada and the east of the district. The Moghalsarai-Gaya line with the Dultonganj branch from Barun serves the west and southwest while the Grand Chord line serves the south-east. The part of the district most in need of railway communication is Arwal thana in the north-east which is difficult of access in the rains. This need would be met by a line from Jahanabad to Arwal or by a line from Gaya to Arwal via Tikari. Either project would be very expansive as the lines would run across the line of drainage. A preliminary survey has been made of a railway to Sherghati in the south.

Another project which had been sanctioned, but has been ahandoned, is the realignment of the railway through Gaya Town. The present station lies north and south as it was originally built for the Patna-Gaya railway so that the important lines from the east to west have to negotiate heavy curves in approaching it. The new scheme provided for a line leaving the Grand Chord at Bandhua and running straight through the town joining up with the present railway about half a mile to the west of the present station. A new station was to be built at this junction and ample accommodation made available for goods traffic which is somewhat congested at present.

The strengthening of the Patna-Gaya line in order to permit fast traffic is also under consideration.

Coving to the nature of the soil generally met with—clay, sand and black cotton soil—and the frequency of unbridged sandy rivers the unmetalled roads in the district are adapted for cart traffic only in the cold weather and are usually impassable in the rains. The carrying traffic of the district is therefore largely done by means of pack bullocks and we find a high proportion of metalled roads. A glance at the map will show that the central and southern parts of the district are well served by metalled road, but there is not a metalled road in the whole of the Jahanabad Subdivision except in Jahanabad itself. The greatest need is a good road between Jahanabad and Arwal. The difficulty of keeping the present road in good order arises from the clay of which it is composed and the amount of waterway required. The first ten miles of this road lie between the Punpun river and the Dhadha. At this point the rivers are 10 miles apart. On the line of the Moghalsarai Gaya Railway they are 35 miles apart so that the flood water is very much concentrated on the road and it is breached in most years.

Another very useful road would be one between Tikari and Arwal, but it would be equally difficult to keep in good order.

The absence of metalled roads in this part of the district will, however, be shortly removed by the metalling of the Patna-Gaya road. The original Patna-Gaya road ran via Khizer Sarai and Hilsa, but in 1821 it was described by the Collector as impassable having in parts been so encroached upon as to have become merely a high embankment with room on the top for a footpath only. In 1790 Law had proposed that Government

should make a new road on the west side of the Phalgu, but the Board had refused owing to lack of funds and suggested that if Law approached the landlords they would contribute. Nothing was done till 1812 when Government sanctioned the construction of the road at an estimated cost of Rs. 19,157. Captain Peck completed the work in 1815 at an actual cost of Rs. 20,236 to which was subsequently added Rs. 14,740 for bridges and repairs. The portion of the road in Patna District could no longer be used when the railway was built on it, but the Gaya portion is still intact though in need of thorough repair. The postal runners used to take 48 hours in carrying letters between Patna and Gaya, a period not unknown even at the present day.

Important works recently carried out are the metalling of the road between Aurangabad and Daudnagar and the making of a new unmetalled road between Sherghati and Imamganj. The present road has no less than five sandy river crossings in 16 miles. The new road takes a course which necessitates only one such crossing and is important in view of the big lae industry near Imamganj. The use of roads has recently been developed by the inauguration of motor car services which run between Gaya and Sherghati and Gaya and Tikari. Both services are proving useful to the public and remunerative to the company which works them.

The following table shows the roads maintained by various authorities:-

### I.—Public Works Department—

```
Metalled roads ... ... ... 67 miles.

Unmetalled roads ... ... ... Nil.
```

The Department, however, keeps up an unmetalled road along the bank of the Patna branch canal which is practicable for a motor in dry weather with care.

### II .- District Board-

Metalled roads	{ I. A.—Bridged and drained throughout I. B.—Partially bridged and drained	Miles. 192 18
	Total metalled roads	210
	II A Unmetalled roads bridged and drained through-	96
Unmetalled roads	out.  II B.—Uumstalled roads partially bridged and drained III.—Roads bunked and surfaced with muram but not drained.  IV.—Roads banked but not surfaced, partially bridged	181 
	and drained.	734
	V.—Roads, cleared, partially bridged and drained VI.—Roads cleared only	69 <b>2</b> 61
	Total unmetalled roads 1	,341

7. Water communications in the district are of minor importance as none water communications.

Of the rivers except the Sone is navigable and that only intermittently. A certain amount of traffic is carried on the Patna Canal, mostly in bamboos, and a small steamer also plies. Ferry boats are available for crossing the bigger rivers when in flood at a few places. The first Collector stationed at Gaya, Thomas Law, endeavoured to stimulate water transit on the Phalgu. He wrote in 1785 to the Board:—

"No Company's servant having ever been appointed to this station I set out with a map in my hand, and traced every river as a source of benefit to my district.

I said to myself—"I will encourage merchants. Old and new articles of commerce shall be transported and the increased habitants shall expend the additional cultivation" but, sad disappointment, I found every river dry, being supplied only in the rainy season by temporary torrents from the hills. Being unwilling, however, to resign the flattering idea, I collected workmen from Patna and the Phalgu has for the first time seen a boat at Gaya. The "Experiment" has also safely gone down the river loaded. As there was great delay and expense in waiting on Sands for the coming stream, and boats built here cannot return, but must be sold with their cargoes, permit me to recommend that you excite a spirit of commercial industry by obtaining a deduction of one-half of the Calcutta duties on all boats both built and loaded in the Phalgu within my district. The road

to Patna is rarely if ever passable for Beparries during the rains; whatever cargoes therefore may be sent on boats from hence, are so much clear benefit to the country that with a desire to see how far encouragement will stimulate, I request authority to collect the remaining half of the duties here on Phalgu exportations. I wish but to try the experiment and look not to advantage I therefore bind myself to bring the whole to account without any deduction for charges, and to pay 500 rupees for every boat that escapes without duty.

The Board, however, did not agree to remit the duties and the experiment failed.

- 8. There are 81 post offices and 12 telegraph offices in the district.

  Another telegraph office is badly needed at Sherghati.
- 9. The principal towns are the Municipalities of Gaya, Daudnagar and Tikari; the Subdivisional headquarters, Jahanabad, Aurangabad, Nawada; and Sherghati. Besides these there are important markets at Arwal, Rafiganj, Fatehpur, Raniganj, Rajauli, Worsleyganj and Haswa.
- 10. The principal articles of trade are the products of agriculture and the industries are very few. The lac and mica industry have increased in importance owing to the war, and it is satisfactory to find that the actual cultivators of lac have participated in the increased prices and the rise in prices has not been wholly due to middlemen. There is undoubtedly a large amount of mineral wealth in Gaya and the exploitation of this sooner or later will develop into a considerable industry. The blanket industry for which Gaya is famous is thriving and advertisements from Obra, one of the centres, are to be seen daily in the Calcutta papers. The sugar industry is one that would appear capable of development. Experience has shown, however, that the manufacture on a small scale of refined sugar cannot compete with imported sugar. It is possible, however, that manufacture on a large scale with modern method would meet with more success.

The figures of exports and imports which are given below are based on railway figures only and take no account of a considerable trade that goes down the Patna branch canal from Daudnagar and Arwal to Khagaul. Also it does not include trade with bazars outside the district but near the borders. This, however, is counterbalanced by trade from outside with bazars just inside the district. The following figures show the export and import in maunds of the principal food-grains from the following sources:—(1) last quinquennial report 1909-10, (2) last report on rail-borne traffic compiled in the Collectorate, 1911-12, (3) figures obtained from the East Indian Railway for the period, November 1916—October 1917.

				190	0-10.	191:	1-12.	191	6-17.
				Import.	Export.	Import.	Export.	Import.	Export.
Rice Paddy Wheat Gram and pulse Other food-grains	***	***	 ···	303,749 122,325 3,117 190,889 194,109	30,958 3,894 71,724 1,41,727 14,682	3,298 674 1,321 53,056 41,725	697,708 39,462 69,510 521,237 32,405	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	111,293 96,182 853,728

In 1909-10 the crops were good but the year followed on a series of bad ones. 1911-12 was a good year also and the effect of the good years in 1909—11 is marked. 1916-17 also followed on a good year. The figures show that in spite of its irrigation system Gaya is in some years dependent on outside help for food. Other articles do not show such violent variations:—

	P				1900	-10.	1911	-12.	1916	3-17.
		<b></b>	-		Import.	Export.	Import.	Export.	Import.	Export.
Sugar Gur Kerosine Gunny be Coal and	gs		*** *** *** *** *** ***	 	751 80,353 96,890 77,087 10,997 1,084,224 236,161	295.091 80.9:31 189.590 3,597 9,713 5,363 2,267	1,019 96,589 94,959 106,814 32,750 1,337,391 226,479	333.197 52,125 345,089 4,082 5,801 6,504 881	80,790 14,277 133,576 201,252	125,100 \$78,159

44,500 maunds was the net export of lac in 1911-12.

An analysis of the last returns prepared in the Collectorate in 1911-12 shows that about 96 per cent. of the paddy is exported as rice and about 60 per cent. of the total goes to Calcutta and about 25 per cent. to Patna. 65 per cent. of the wheat goes to Calcutta and 23 per cent. to Chota Nagpur. 78 per cent. of gram and pulse goes to Calcutta and 9 per cent. to Chota Nagpur. Fractically all the linseed goes to Calcutta. As to sugar the exports of refined and unrefined sugar are more than balanced by the imports. Of gur and jagri 48 per cent. goes to the Central Provinces, the rest being distributed all over Bengal and Bihar, Calcutta the next largest customer taking just about as much as it sends to the district.

- 11. The district is exceedingly well supplied with bungalows for the use of travelless and inspecting officers. In addition to the 24 inspection bungalows and two dak bungalows kept up by the District Board, the Public Work, Department have three bungalows on the Patna Canal and four on the Grand Trunk road. Very few parts of the district are outside a radius of 10 miles from any bungalow. Atri, Kutumba and Dumaria are places where bungalows would be useful.
- Climate and public health. whole as good as that of any district of the Province except those of the Chota Nagpur plateau. A full description of the seasons is given on page 15 of the Gazetteer. Chapter VII of the same work deals with the public health. Plague was the disease which brought itself most to notice during the operations, and it frequently delayed field work owing to the remarkable way in which the policy of evacuation has been adopted. The sight of a whole village camping out in temporary huts was a common one, and in the market towns the richer classes left the place altogether. The recent increase in the income of the District Board will doubtless lead to an extension of medical work in the district, but perhaps the outstanding occurrence since the Gazetteer was written is the remarkable fall in the death-rate in Gaya town since the opening of the water-works.
- 13. The following table shows the average rainfall at the various rain registering stations in the district. There are two other stations, Barachati and Rafiganj, for which averages have not been supplied by the Director-General of Observatories:—

Becording Station.	Jamasy.	February.	March.	April.	May.	June.	Jaly.	August.	September,	October.	November.	December.	Anna.1.
1. Aurangabad 7. Gaya	0-69 0-68 0-71 0-70 0-72 0-60 0-62 0-69 0-93 0-76 0-71	0.72 0.81 0.78 0.73 0.81 0.77 0.69 1.05 1.05 1.60 0.90	0-47 0-41 0-44 0-37 0-44 0-26 0-54 0-67 0-42 0-45 0-47	0°24 0°29 0°26 0°28 0°21 0°17 0°28 0°34 0°16 0°11 0°60 0°26	1.09 1.20 1.62 1.15 1.17 2.93 0.82 1.14 1.18 0.90 0.59 1.21	6-28 6-90 6-43 6-03 5-25 5-69 6-39 5-96 6-97 7-05 6-27	12:11 12:67 11:68 11:49 12:21 11:83 10:65 12:71 11:10 9:93 9:64 11:50	13-16 12-58 1,-79 12-58 10-97 11-39 11-51 12-50 11-45 11-89 11-67 11-59	7-18 7-83 7-01 6-70 7-09 6-23 7-64 8-46 7-35 9-43 10-43 7-73	2:81 8:0 2:12 8:41 1:95 1:72 2:20 1:79 1:30 1:68 0:81 1:e6	0°84 0°85 0°16 0°23 0°18 0°22 0°24 0°15 0°16 0°16	0°15 0°15 0°16 0°19 0°19 0°18 0°18 0°18 0°18 0°18 0°18 0°18 0°14 0°13	44.55 45.47 42.43 42.73 41.17 41.94 45.04 45.89 40.85 43.47 43.84 43.14

The figures show no great variation over the district. Compared with the figures for Patna on the north, we find the rainfall is less in Gaya district in June and July, greater in August and September and less again in October.

14. The universal denominations for weights are maunds, paseris, seers and gandas, but the relation between these denominations varies a good deal. A ganda is the weight of 4 pice or 4 rupees usually the latter, a seer may be anything from 10 to 14 gandas and a paseri anything from 5 to 7 seers, but there are always 8 paseris in a maund.

The local bigha varies greatly. Besides the standard bigha based on the laggi of  $5\frac{1}{4}$  cubits there is prevalent throughout the 9 annas Tikari estate the Lal darwaza "laggi measured by the height of the jamb of the big door at the north entrance of the palace at Tikari. This is 8 feet 9 inches and is generally put at  $5\frac{1}{0}$  cubits though in some villages it is called 6 cubits. In addition to these, laggis of  $6\frac{1}{4}$  cubits and  $5\frac{1}{2}$  cubits were found. The cubit is not an invariable standard and the laggi of  $5\frac{1}{2}$  cubits may measure anything from 8 feet,  $\frac{1}{2}$  inch to 8 feet, 9 inches. In some villages in the south of Nawada thana in measuring the 6 cubits laggi, the cubits were taken in turn to the end of the thumb and each of the fingers and finally to the end of the closed fist. It is clear that care is necessary in dealing with matters involving outturns per bigha, to see that the size of the bigha is known and it is better to work in acres. In the south of the district the Chota Nagpur system of dividing up the area of the villages into annas and pies was occasionally found. An example is village Rajaundha No. 523, thana Barachati.

The measures of length call for no remark. In the south-west of than a Sherghati some curious measures were found such as the use of measures of weight to express distance, a seer being equal to a kos and a kanwa to a furlong.

15. Cultivated land in the record-of-rights is divided into two classes,

dhanhar and bhit. Dhanhar land is

land on which winter rice was grown in

the year of khanapuri or preliminary

record-writing. Bhit land is all the rest. It is obvious that such a classification is very rough since there is in any year a certain amount of land which can and does grow winter rice but happens in that particular year to be growing something else for which it is also suitable. Some lands are used for rice or rabi crops according to the rainfall. The classification is therefore neither exact nor permanent and the supposition that lands recorded as bhit are necessarily dissimilar from lands recorded as dhanhar, has often misled courts.

In Gaya district it was clear that on account of the prevalence of the produce-rent system something more detailed in the way of classification was desirable in order to make the records of any assistance in such matters as cess revaluation or commutation of produce-rents. The attempt to achieve this, which will be dealt with later, was a failure, but it has shown that the kind of soil is not a very important factor in outturn. Good irrigation and careful husbandry will grow an excellent crop on unpromising soil. The following remarks on soils in the district must be read subject to this consideration:—

The principal classes of soil are :-

Reval or Karail, a tenacious clay, becoming extremely hard on drying. It is divided into two classes, telia or kali kewal, a black clay and asli kewal having less organic matter in it and not so black. This soil is usually productive paddy soil and owing to its property of retaining moisture is generally capable of growing a rabi crop, the seeds being simply scattered on the land before the paddy is cut.

Pairu is clay with a small amount of sand and grows paddy and rabi crops. It is also good for sugarcane. This sail is sometimes called paura, but this term is also used to indicate land irrespective of the kind of soil, in which pairu crops are grown.

Doras, half clay and half sand. It grows paddy or rabi crops or bhadoi and rabi, and is suitable for sugarcane.

Balsundri, a sandy soil with some clay, usually grows only rabi crops. Between this and bals, a nearly pure sand, there are various mixtures by the name of balmat, balkas, etc., indicating a large proportion of sand.

Goria or goriaut, a yellow or reddish clay mixed with sand and small stones. It grows usually rabi crops, but can grow paddy when irrigated.

Rehra, a whitish clay with some sand, sometimes but not always impregnated with soda salts. This soil, if well irrigated, will give as good a paddy crop as kewal, but usually it is upland and only grows rabi crops.

Soils with the prefix ankri, such as ankri kewal, are soils containing pebbles such as are found at the foot of hills. They are generally less productive than the soils without the pebbles.

Soil classification is not exact especially as regards the mixtures of clay and sand and it is not uncommon to find a wide diversity of opinion as regards the particular name to be assigned to a soil, some calling it pairu and others balsundri.

- 16. A full account of the famines is given in the Gazetteer, pages 120-25, and it is unnecessary to emphasize the fact that owing to the way in which the district is protected partly by canal irrigation and partly by an extended system of private irrigation, there is very little danger of anything beyond scarcity occurring.
- 17. The northern part of the district around Jahanabad is liable to flood owing to the configuration of the river referred to in paragraph 4, and the fact that there is a slight depression in that part of the country, and floods have been serious in 1905, 1913 and 1917. The 1905 flood is described in the Gazetteer, page 119, and the flood of 1913 was almost similar. The flood of 1896 in the Sakri river and that of 1901 in Arwal than owing to a rise in the Sone and Ganges are also described in the Gazetteer. The noteworthy point about all these floods is their sudden rise and fall, the first being due to the closeness of the country to most of the river sources and the latter to the slope of the country which enables the water to flow rapidly away. In consequence they have caused very little loss of life, and on the whole very little damage to standing crops, while later crops were improved by the deposit of silt. The loss in houses and stored grain was, however, considerable, and in the case of the Sakri flood, owing to the sand brought down and the rush of the water down irrigation channels unprotected with head-works, a considerable area was rendered unculturable and many irrigation works were damaged or destroyed.

The recent flood of August 1917 which took place mainly in the Phalgu and Morhar rivers was the worst known in Gaya for many years. The material damage to houses, bridges, and the bhadoi crops was great, but the loss of life in the circumstances comparatively small. The winter crops were excellent.

### CHAPTER II.

### POPULATION.

18. The following table shows the population by thanas and subdivisions as found at the last census:—

Subdivision and thanas.	Area in	No. of houses.	Populati	он.	Porcentage	population	
and the state of t	miles.		1911.	1901.	1901-11.	1391—1901.	per square mile.
. Sadr Subdivision	1,909	158,499	785,237	749,797	+4.71	-9.68	418
Town Gaya		11,953	40,921	7 ,288 179,821	- 29 07 + 6:60	-11'31 -6'55	6,240 451
Mufassal Gaya	101	\$8,052 18,642	191,484 04,375	91,309	+3.83	- 14.88	419
Tikari	1100	38,151	165,830	148,131	+11.80	-10.78	£87
Dave diget	263	22,679	113,968	107.9 1	+661	-2:35	271
Sherghati	1 517	74.023	369,870	151,527	+ 12.18	-1 43	328
. Nawada Subdivisiou ,	1,0,1	89.37	40 ,509	454,735	+1.49	+3.23	465
Nawala	1110	59,874	205,003	297,673	-0.94	+4 63	631
Rajouli	870	15,414	77,290	73, 02	+4.57	+0.46	26
	226	10,020	₩), ! 55	82,690	+7.24	+1.04	41
	604	79.4 2	432,287	386, 262	+9.33	-1.65 -3.65	69
	408	55,:41	2-41,193	209,590	+14.00	-3.15	65
	,, you	24 371	133,091	116,652 460,649	+4.23	-1.03	28
	I,272	91,6/2	122,394	115,159	+6.58	+6° 6	49
	245	19,625	101,421	103.099	-1.63	-0.50	92
Auronahad	710	52,123	267,163	251,392	+6.53	-4:15	87
Water of Histories	4,748	4/2,120	2,101,010	2,059,933	+4'83	- 3.67	45

19. It is unfortunate that Dr. Buchanan's enquiries in 1812 cannot be utilized so fully in this district as in Population in 1812. Patna and Shahabad owing to the fact that the southern portion of the district was at that time part of Ramgarh an not of Bihar and the thomas of the portions surveyed do not all correspond. Arwal and Daudnagar thanas corresponded fairly, well to their present oundaries but included parts of the present Tikari thana. Nawada thana included not only the present than but Pakribarwan and Rajauli. Gaya thana did not extend so far to the south as it does now but included a good deal of Tikari and Atri thanas and the part of Barac ati thana near Fatehpur. Jahanabad thana included part of Tikari thana and part of Patna district but its present eastern portion formed with the northern part of Atri thana and part of Patna district a thana called Hulasganj which is still the name of the eastern police-station of the Jahanabad thana. Absolute comparison is therefore out of the question but a comparison of density of population can be

Thana of 1812,	Area in sq. m.	Density in 1812.	Density in 1911.	Area in eq. m.	Corresponding present area.
Arwai Daudnagar Jahanabad, Hulasganjand Gaya Nawada.	251 327 1,548 953	430 • 91 553 359	058 498 578 4: 5	210 2 · 5 1, <b>3</b> · 7 9 · 0	Arwal Daudinagar, Jahanabad, Tikari Atri and Gays Nawala, Puk-iberwan and Rajauli
	3,080	· 	1	2,772	

The total population estimated by Buchanan is 1,300,500 for an area 10 per cent larger than that of the present district without thanas Aurangabad, Nabinagar, Sherghati and Barachati; this area had in 1911 a population of 1,508,579.

Except in thanas Arwal and Nawada which were largely waste in 1812 there has been no great increase in density and if Buchanan's figures are as correct here as they have been found elsewhere it would indicate an increase of 12 per cent in the past century. The increase in the whole district is certainly much larger than this owing to the increase in cultivation in the south.

20. The population of the district in 1972 at the time of the first census was 1,947,824. In 1881 it was Variation in population since 1872.

Variation in population since 1872.

2,124,682 and in 1891 it was 2,138,331. In 1901 it had fallen to 2,059,933, but in

1911 again rose to 2,161,010. The variations in area of the district since 1872 have been unimportant. The two main causes at work in impeding the growth of population in Gaya are disease and emigration. The period 1891—1901 was especially unhealthy and its close was marked by a fleavy mortality and panic due to plague. The period 1901—1911 was also marked by plague epidemics which were severe in the years 1904—08. The increase in spite of this and a net emigration of 16,000 since 1891 shows a return to more normal conditions. The increase was shared by all thanas except three. The decrease in thana Town Gaya which consists almost wholly of the Gaya Municipality was due to an outbreak of plague during the census and a consequent large emigration. A later census in June 1911 proved the temporary nature of this. The decline in Nawada is ascribed to a temporary swelling of the population in 1901 by plague refugees. Nabinagar thana is infertile with very few facilities for irrigation.

21. The females slightly outnumber the males, the excess being most marked among the Muhammadans.

Proportion of males to females. Among the higher castes of Hindus the males outnumber the females. The excess of females over males occurs throughout the district except in thanas Arwal and Jahanabad and the Worsleyganj police-station in thana Nawada. These adjoin Patna district in which males outnumber the females.

22. Hindus outnumber Muhammadans by nearly 9 to 1. In only four thanas is this proportion lessened. In thana Town Gaya the proportion is only 3 to 1.

In Aurangabad than the number of Muhammadans is greatest (31,167) partly due to its large total population, only exceeded by Nawada and Jahanabad, and partly to the fact that the proportion of Hindus to Muhammadans is only 76 to 1. The proportion in than Pakribarwan is about the same, while in Sherghati it falls to 6½ to 1. In 1812, Dr. Buchanan estimated that over one-quarter of the population of the northern thanas was Muhammadan. The following table shows the number of Hindus to each Muhammadan in all the thanas for the last three censuses.—

		Thana.		}	1891.	1901.	1911.
lywal		••		)	11.1	11-1	12:3
whansbad	•••	•••	***		8.9	9.1	9.9
Daudnagar	•••	••	•••		10:4	10.1	10.7
hurangabad	•••	•••	•••		7.3	7.7	7.6
Nabinagar	•••	•••	•••		120	12.6	12.9
'ikari	•••	•••	•••		81	8.2	9.1
Aufassal Gaya			•••		9-1	94	9.7
Atri	•••	•••			8.0	9.0	9 0
vawada	•••	•••	•••		8.5	8.9	8.8
akribarwan	•••	•••	•••		78	7 2	7:6
Rajauli					9.1	90	9.2
herghati		•••	•••		6.4	6.4	6.5
Barachati		•••	•••	•••	11.1	0.5	10.1
aya town	•••	•••	•••		3.7	3.2	3.1

The variations from thana to thana show faintly the position of the original Muhammadan centres and although the variation since 1891 would appear to show that Muhammadans were losing ground in the more advanced part of the district and gaining ground in the less advanced part, very little inference can be drawn from this because the figures are obscured by the tendency of Muhammadans to gravitate to the towns. The normal Muhammalan population of Gaya town is as great as that of the whole of thana Mufassal Gaya and in 7 places classified as towns in Gaya district with a total population of 66,592 in 1911, 22,174 were Muhammadans. Plague which has been a large factor in the vital statistics of the district in the last twenty years nature ally has a greater effect in parts of denser population and therefore has affected the Muhammadan population to a greater extent than the Hindu in the mor advanced and more densely populated parts of the district. Elsewhere the general tendency of the Muhammadans to increase slightly faster than the Hindus (Census of India Report 1911, Volume V, Part I, paragraph 415) has prevailed. Although as noted above the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be added to the comparative figures do not should be definitely the original Muhammadan centres the features of the inhabitants c particular areas clearly show their origin. Perhaps the most interesting cas of this is the portion of pargana Narhat around Rasulpur No. 113, than Nawada, where many of the raivats have an Afghan type of face, the Jet raiyat of Rasulpur, a Bakhtiari Pathan, being a striking example. Many of th villages in the neighbourhood have double names, the old Hindu name as no used and the Muhammadan name given at the time of the conquest which survives in the Collectorate registers. Examples are Saraya No. 106 calle Shahbazpur in the Collectorate registers and Lakhaura No. 112 called Chagezpur.

23. The most numerous among the Hindu castes are shown in the following table which compares their numbers with those of 1901:—

Caste.				Nuraber in 1911,	Number in 1901,
Goala or A	Ahir			33d,829	905,846
Eabhan	•••		 •••	170,904	163,108
Koeri			 	153,288	146,343
Bhuivan			 	127,606	111,931
Du adn	•••		 	115,698	108.084
Kahar	***		 •••	12,444	110,099
Rajput		•••	 	111,187	110,949

These all show an increase but, on the other hand, both Brahmans and Kayasthas who form important castes, though not so large, have decreased in number since 1901.

24. The following table shows the number of the two principal Muhammadan castes:—

Caste distribution, Muhammadans.

Emigration.

Caste.					Number in 1911.	Number in 1901.
Sheikh	,,,	***	***	•••	47,944	66,782
Pathan	•••	•••	***	,	28,166	25.9 <b>6</b> 9

The number of Pathans is noteworthy, there being far more of this caste in Gaya than in any other district of the Province. They occur chiefly in thana Sherghati. The decrease in the number of Sheikhs is curious, though it is probably due to a stricter classification. The tendency of other Muhammadan castes to get themselves recorded as Sheikhs is noted in paragraph 837 of the Census Report.

25. The total number of the population engaged in agricultural or pastoral

occupations or dependant on those so engaged is 1,611,449 forming over 74 per cent of the total. Of these 744,725 are

dependants and in addition there are 3,400 who are only partially engaged in agricultural pursuits. They are further classified as follows (inclusive of dependants):—

Ordinary cultivators	•••	•••	***	,	•••	962,881
Farm servants and laboure	rs	•••	•••	•••	•••	521,315
Ront-receivers	••	•••	•••	•••	,,,	<b>5</b> 0,18 <b>0</b>
Agents, Managers, Rent-Co	llectors, et	c	***	***	•••	38,944
Raisers of farm stock		malia of		•,•		34,729
Forestry	56	PERMIY	Ed O.	•••	•••	2,033
Growers of special product	в . 🦋		991a)		•••	1,335
Raisers of silk worms and	other smal	lauimals	3030	•••		2

26. The total number of people born in Gaya district who were found out-

side the district at the time of the 1911 Census was 204,564, an increase of roughly 31,000 since 1901. Nearly one-

third of these (62,506) were enumerated in and around Calcutta. The adjoining districts accounted for 75,195 as follows:—

			The second second	****			
Pat na			***		***	•••	28,187
Shuhahad		***	सह्यम्ब	[집급]	***		10,855
Monghyr	•••		***	•••	•••	•••	8.852
Hazaribagh	•••	•••	•••	,	***	•••	15.092
Polaman			-,,	,	***	•••	11 200

Manbhum and Assam account for about 13,000 each. The chief changes since 1901 are that emigration to Shahabad and Palamau has fallen off while that to Calcutta and Manbhum has increased.

### CHAPTER III.

### REVENUE HISTORY AND PRINCIPAL ESTATES.

27. The district of Gaya in the early days of the English administration of the revenue was not a separate unit and its boundaries varied considerably. The first stage in its formation occurred in 1784 when Thomas Law was appointed Collector of Rohtas with his headquarters at Gaya. The district of Rohtas consisted of the southern portion of the present district of Shahabad (parganas Sasaram, Chainpur and Rohtas) two parganas now in Palamau (Japla and Belaunja) and a portion of Gaya district. I have been able to trace parganas Siris, Kutumba, Sherghati, Charkawan, Gaya, Sanaut, as forming part of district Rohtas, but there were probably others included.

In 1787 there was a re-arrangement and Law became Collector of Bihar which comprised the present districts of Patna and Gaya with a portion of Monghyr lying west of the Kiul river. The headquarters remained at Gaya though the Collector spent part of the time at Bihar and Patna till 1797 when

Hawkins, who was Collector, moved his headquarters to Patna at the request of the people of that place. He explained that Law had stopped at Gaya in order to put the collection of the pilgrim tax on a proper basis and that as this was then working satisfactorily and the accommodation at Gaya was miserable, there was no reason to go back there. The Board of Revenue approved the change, but the Governor-General ordered a return to Gaya. The Collectors were evidently reluctant to move, and possibly to avoid drawing attention to their continued stay at Patna, the address from which they dated their letters was almost invariably "Zillah Behar". In 1805 Ricketts, the Collectors, sent up proposals for either renting or building offices at Gaya, but even by 1817 no move had been made as we find the Collector objecting to be Post-master of Patna. The problem was eventually solved by the posting of an officer as Magistrate and Assistant Collector at Gaya in 1820. The headquarters returned to Gaya when Patna district was separated from Bihar in 1825. Meanwhile in 1800 the so-called Bohar Mahals of Ramghar, which were specified as Chakai, Kendy, Nagpur, Palamau and Ramghar, were made over to Bihar. In 1801 the Governor-General proposed the division of the whole of Bihar into two districts, one north and the other south of the Ganges. The Board agreed, but the Collectors strongly protested in view of the fact that the jama of the south Bihar district would be Rs. 26,98,336, a sum impossible for one man to be responsible for. The project was dropped, but some alterations were made by which the civil and criminal administration of parganas Siris, Kutumba, Charkawan and Sherghati were made over to Ramghar, the revenue administration remaining with Bihar, and at the same time the whole administration of parganas Ancha, Goh and Arwal with the eastern parganas of the present district of Patna was made over to Shahabad. In 1809, however, the parganas transferred to Ramghar, except those between Sherghati and the Sone, were placed under the Assistant Collector of Bihar who was stationed at Ramghar and spent part of the time at Chatra and Sherghati, and in 1812 the parganas transferred to Shahabad were re-transferred owing to the confusion which the transfer had caused. In 1819 Ramghar was made a separate Collectorship containing Sherghati pargana, but there was still an Assistant Collector at Chatra. In 1823 some difficulty was caused by the fact that the Assistant Collector of Bihar stationed at Chatra, administering the Ramghar mahals, was under the jurisdiction of the Western Board whereas his superior officer, the Collector of Bihar, was under the jurisdiction of the Board of Revenue for the Central Provinces which had been created in 1821 replacing the Commissioners who had been appointed in 1820. It was proposed to transfer parganas Siris and Kutumba to Ramghar, but this course was not adopted, and when the whole Province was again under one Board in 1829 the difficulty disappeared. Pargana Sherghati was re-transferred to Bihar in 1835, and in 1825, 1832 and 1865 the formation of the Patna district and successive transfer of parganas from Bihar district to Patna and Monghyr resulted in its becoming the Gaya district. The above account has been given at some length in the hope that it may be useful in future if the early records are examined. Most of the short time at my disposal for the purpose was taken up in finding out where a particular pargana was at any one time, the correspondence being indexed by districts.

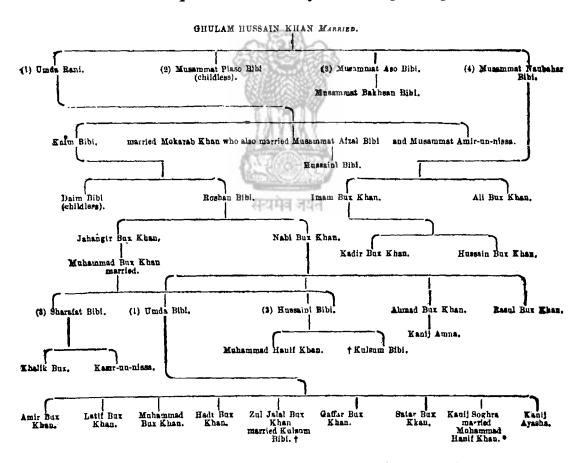
Revenue History.

history of Gaya District is closely bound up with that of Patna District, and this history has been very fully dealt with in Mr. James' Final Report on the Settlement operations in the latter district. It is, therefore, unnecessary for me to discuss it at any length, and this course is also indicated by the fact that owing to the Gaya Collectorate having been burnt in the Mutiny no records tre available locally before that date. The information has all to be got from the Board's Proceedings Volumes, the indexes to which are not very detailed, and was unable without an undue expenditure of time to make anything but a superficial examination.

29. Pargana Sherghati in 1762 was the property of Raja Ghulam Hussain Khan. I need not go into the history of how he got it which is related in Mr. Boddam's account of the zamindars of Bihar (Revenue

Consultations, 3rd October 1792, No. 135). The figures in Grant's Analysis do not show separately the assessment on the pargana in 1766. Shore's settlement in 1783 fixed the revenue at Rs. 53,001, the previous figure according to him having been Rs. 64,002. He reported that even at this reduced figure the pargana was settled with difficulty as the estimated assets exceeded it only by the cost of collection. The Pathan zamindar's influence over the raigats was absolute and operated to the prejudice of any farmer, and it was necessary to place a sazawal over the zamindar to check him and prevent embezzlements. In 1784 we find Law reporting to the Board that Ghulam Hussain Khan among other zamindars deemed it an infringement of a general rule to pay up the revenue without coercive measures, and it was recommended that the estate should be farmed. Accordingly a farming settlement was made from 1787 to 1791 with Mr. Ghulam Haidar, the sazawal of Charkawan, on a jama rising annually from Rs. 49,000 to Rs. 53,000.

In sending up the Decennial Settlement proposals Seton, then Collector of Bihar, made the jama Rs. 64,070 which was a large increase (Revenue Consultations, 26th August 1790), but apparently the zamindar took the settlement at this revenue. Soon after this Ghulam Hussain Khan died leaving two sons by his fourth wife, Imam Bux Khan and Ali Bux Khan. In 1799 Imam Bux Khan died and his widow married Ali Bux Khan from whose clutches, after her sudden death, the two minor orphans of Imam Bux Khan named Kadir Bux Khan and Husain Bux Khan had to be rescued by the Collector. At this point it is necessary to have a genealogical table.



When Ghulam Hussain Khan died he devised his estate in three parts, the Sarwan taluka to Umda Rani, the Pakardih Malihari taluka to Musammat Aso Bibi and Gurua taluka to the sons of his fourth wife. The revenue was still joint and owing to dissensions the Collector had, under Regulation VIII of 1793, to appoint a joint manager. The estate was soon in difficulties, and on the death of Ali Bux Khan in 1804, after the attachment of his elephants, camels and hawks, it was taken under the Court of Wards. During the incumbency of the Court the partition of the whole estate on the above mentioned lines took place in 1808. The total jama of the

undivided estate was Rs. 44,994 for an area of 62,077 bighas, the assets being estimated at Rs. 59,565. It is clear that a good deal of the estate had been alienated since 1703 (in fact the estate was referred to as the Afzalpur taluka) and that the assets had considerably increased and there was no danger of default if properly managed. In 1809 on Kadir Bux Khan attaining his majority the Gurua taluka was released from the Court of Wards and owing to the profligacy of Kadir Bux was heavily mortgaged and eventually sold at a sale for arrears of revenue in 1512 to Raja Mitarjit Singh of Tikari for Rs. 1,30000. Most of this estate fell into the share eventually of the 7-anna Tikari estate as the 9-anna estate has only three villages in pargana Sherghati. Kadir Bux died insane and Hussain Bux died a pauper in receipt of a pension from Government.

In 1815 Bakhsan Bibi mortgaged the Pakardih Malihari taluka to Mokarab Khan for ten years at a jama of Rs. 15,100. In 1822 Mokarab Khan died, and his heirs being all women, the Sarwan and Pakardih Malihari talukas were brought under the Court of Wards. In 1826 on these ladies petitioning that they had male protectors in the shape of brothers or husbands and being skilled in writing were able to manage the estate themselves, it was released. The subsequent history of the Pakardih Malihari taluka or mahal as it is now called is one of consistent subdivision and at the time of the present operations no less than 397 separate accounts existed. Most of these in no way correspond to the assets, many separate accounts existing in villages where the revenue-payers are in possession of no land at all. The Collector is, I understand, taking steps to close all these separate accounts and re-open them on the basis of existing facts.

Taluka Sarwan having been released from the Court of Wards was partitioned in the year 1828. Daim Bibi took the Azamgarh mahal one-third share, Roshan Bibi took the Khaira mahal one-third share, and the remaining one-third was divided between the three remaining sharers—Musammat Afzal Bibi, Musammat Amir-unissa Bibi and Musammat Hussaini Bibi.

Musammat Hussaini Bibi besides her own share Mani Chak mahal, got by inheritance her mother's share Kundil mahal. These were, however, gradually sold off, the principal purchaser being the grandfather of Irshad Ali Khan of Bhadeya, who now holds most of these mahals as well as villages in the other portions of the estate. Daim Bibi being childless adopted a son and his daughter married Nahi Bux Khan. Most of her property was dissipated by her adopted son, but what she had kept for herself went principally to Roshan Bibi and Musammat Hussaini Bibi, the latter of whom gave her share to Jahangir Bux Khan, so that about half of the Azamgarh mahal returned to the holders of the Khaira mahal. The Khaira Mahal has recently been partitioned (vide paragraph 91) and the principal proprietors are Doman Lal, Kirpal Singh, Irshad Ali Khan and the Mahanth of Bodh Gaya, all outside the family of the original proprietors who now hold very small shares. The partition of the Azamgarh mahal which is now going on will probably disclose a similar state of affairs. What is now known as the Sarwan mahal comprises the villages of Sarwan taluka which were waste at the time of the Decennial Settlement and not included in that settlement. The history of these is dealt with in Chapter XII. The revenue of the whole pargana in 1819 was Rs. 68,002

30. The two parganas of Siris and Kutumba, which are always dealt with together in the early papers, were in 1765 in possession of Narain Singh, the zamindar.

Their subsequent history is related by Law in a letter, dated 3rd September 1785 (Revenue Consultations, 3rd November 1785).

"Shortly after Shahmull was appointed Aumil of the pargana, Narraine Sing opposed him in consequence of which Colonel Barker marched into his country and destroyed all the forts. Narraine Sing fled and remained two years in the Hills. In 1174 the pargana was farmed to Mootesa Kooly Khan, when Rajah Narraine Sing returned from the Hills, but in 1175 fled to Ramnagur a fort at the foot of the Hills in Cheyt Sing's territories, but towards the end of the year he fell into the Aumil's hands. Upon being confined, he caused all the raiyats of the pargana to abscord; and entering into a confederacy with Raja Golam Hussein Khan, Zemindar of Shehergau'y, Raja Chutterputtee of Chercowun; Bhader Khan Baloo

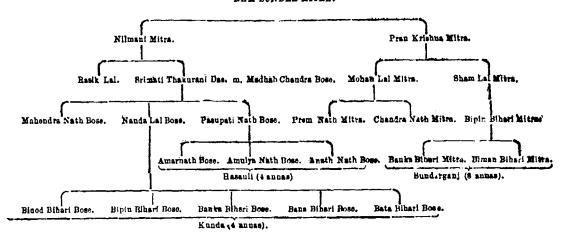
jeher, etc., took arms against the Aumil upon which troops were sent by Government to his assistance and the rebels were dispersed. In 1176 he was again permitted to have the management of his pargana and Sayid Golaum Hussein Khan (the Historian not the Zemindar of Shehergauty) was appointed Sezawul. The same Saiyid Golaum Hussein Khan farmed the pargana in 1182, but from the bad conduct of the Raja suffered a heavy loss. From 1183 to 1185 the pargana was returned into the hands of Raja Narain Singh, but falling in balance he was again thrown into confinement at Patna. In 1186 he was released upon Gopaul Singh becoming security for his balances, but he dying Mr. Bright went out to settle the pargana, upon which Narain Sing again fled to the Mountains. In 1187, upon the Soubah being farmed by Kullian Singh and Kyaleram, he descended from the Hills, but when he visited the Aumil was always attended with a large body of armed men. In 1189 during the Benares Rebellion he obstructed Major Crawford's passage to Beegagur and again fled. Major Crawford upon his return was ordered to pursue him, and after stopping up all the Gauts, the Raja finding himself unable to escape came into Patna and delivered himself up, upon which the Board ordered him to be kept in confinement till further orders"

The assessed revenue in 1778 was Rs. 1,75,000 which was probably too high as Mr. Bright's khas settlement in 1779 was for Rs. 1,53,037. Revenue Chief in 1781 tried to settle a part of the estate but to no effect. He then proposed a farming Settlement with Raja Gopal Singh for Rs. 1,40,000 together with the balance of arrears but this was not approved by the Governor-General in Council on account of the great diminution in revenue. The revenue in 1782 when the estate was again held khas was Rs. 1,37,214. Shore proposed to settle the parganas with Kamal Ulla Beg for Rs. 1,50,000 in 1783; but they were finally settled with Babar Ali Khan who, however, fell into arrears in the first year and the parganas again had to be held khas. At the time of the Decennial Settlement Seton reported that there was a difficulty in concluding the settlement owing to the fact that it was uncertain if Narain Singh's zamindari had been forfeited or not. In connection also with the settlement it was reported that Saiyid Ghulam Hussain Khan (the historian) had an outstanding decree against Narain Singh for Rs. 30,381 on account of advances made for revenue. Seton suggested that part of the estate should be made over to Ghulam Hussain Khan. The Governor-General in Council decided that sufficient land of the estate should be sold to pay off Ghulam Hussain Khan and the arrears of revenue and the remainder held khas till Narain Singh's release. This was done, and when Narain Singh was released in 1790, he got the settlement of the balance for the remainder of Decennial Settlement which in 1793 became permanent. सत्यमव जयत

It is noteworthy that during the investigation it was found that several villages geographically in the parganas were recorded as being in pargana Sanaut as they belonged to Raja Mitarjit Singh who paid revenue for that pargana. The parganas were as much a fiscal division as a geographical one, and this is probably the reason why one often finds villages of one pargana as islands in an adjoining one which renders it difficult to compare areas and revenue.

The revenue fixed at the Decennial Settlement for the whole of the parganas of Siris and Kutumba was Rs. 1,60,450. In 1819 the pargana kistbandi of land revenue in zilla Bihar (Revenue Consultations, 7th May, 1819, No. 11A) shows the revenue for Siris and Kutumba as Rs. 1,59,471. In 1801 the estate was partitioned into three shares, taluka Mali Dali to Raja Dirgbijay Singh known as Raja of Mali, the nephew of Raja Narain Singh, taluka Pawai to Jainath Singh and a third share which was still held jointly. At the same time an estate called Mudeen Khap, the property of Udit Narain Singh, which was really separate was given a separate jama. Taluka Mali Dali was then sold for arrears of revenue in 1803, the revenue being Rs. 42,000. It was purchased by 17 persons jointly who in 1805 again partitioned it. Frauds were, however, discovered and the partition was cancelled in 1807. In 1812 it was again sold for default and purchased by Rai Ram Sunder Mitra, Diwan of the Patna Factory. His descendants still hold it though it has been divided into three portions known as the Hasauli, Kunda and Sundarganj estates and collectively as the Bengali estates. The following is the genealogical tree of the family:—

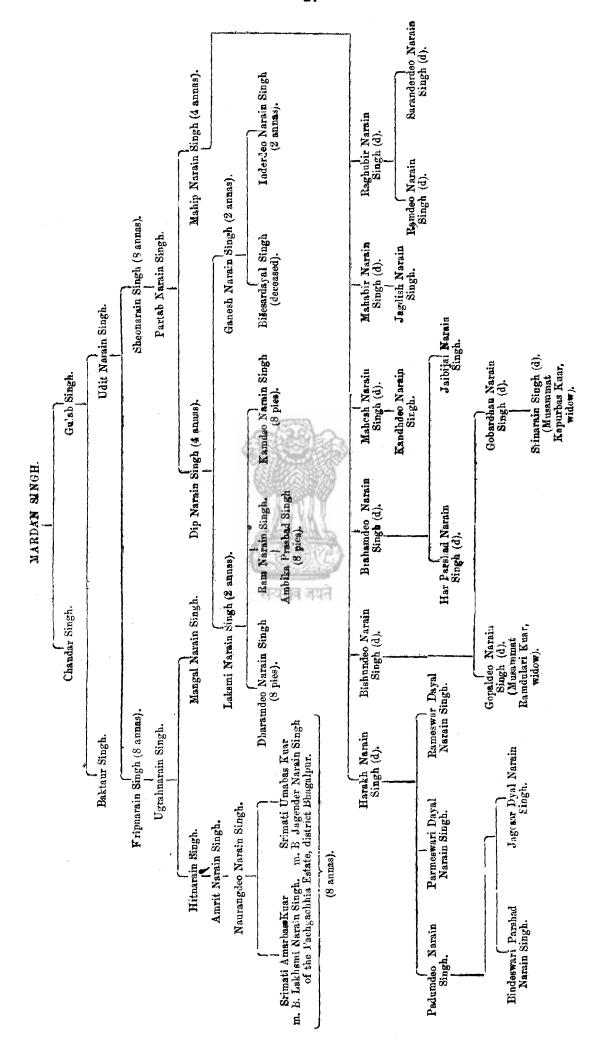
#### RAM SUNDAR MITRA



On the death of Ram Sundar Mitra, Nilmani Mitra got  $8\frac{1}{2}$  annas and Pran Krishna got  $7\frac{1}{2}$  annas. There was a certain amount of litigation between the second generation of the two branches, but this was finally settled in 1873 when by a deed of exchange the odd half anna was given up by the Bose branch to the Mitra branch: there had been no actual partition of the lands which were managed jointly up to 1897.

Mahendra Nath Bose on his death left his share in equal portions to his brothers and widow, the latter having restricted rights, but in 1897, when the partition between the two branches took place a simultaneous partition took place between Nand Lal Bose and Pasupati Nath Bose. The Mitras kept the original kachhari at Sundarganj while Nand Lal Bose established himself at Kunda and Pasupati Nath Bose at Hasauli. Nistarni Dasi, widow of Mahendra Nath Bose, brought a title suit against her brothers-in-law who had taken between them the whole of the 8 annas share. She was successful even in Privy Council appeal, but eventually the case was compromised in 1910 and she relinquished her right.

Taluka Powai has practically disappeared as a separate estate, but Madeen Khap has descended to Udit Narayan Singh's heirs who are known as the Chandargarh family from their place of residence where their ancestor coming from Mewar is said to have established himself about 1700 A.D. Their genealogical tree is as follows:—



The first partition took place in 1846. The two ladies of the elder branch still hold their 8 annas share jointly. There have been numerous partitions among the younger branch some of which have been indicated in the table. Mahip Narain Singh's share of 4 annas was partitioned among his six sous in 1898, each getting 8 pies. Subsequently Jagdis Narain Singh and Sunderdeo Narain Singh each purchased a 4 pies share from Musammat Kapurbas Kuar and Musammat Ramdulari Kuar.

All the members of this branch are heavily involved in debt except Inderdeo Narain Singh whose estate was for some time prior to 1903 under the Court of Wards during his minority.

31. Pargana Charkawan according to Boddam (Revenue Consulations, 3rd October 1792, No. 135) consisted of Pargana Charkawan.

Dugul, Deo and Umga. The two latter were the property of Rajput zamindars of very old standing, in fact Boddam remarks that—

"the Rajas of Chirkawan and Serris Kutumba are the only original zemindars in this district, those of the other parganas being of a modern date."

The part taken by Raja Chaterpati Singhand his son Fatch Narain Singh in helping to repress Chait Singh's rebellion has been told by Hand in his "Early English Administration of Bihar". For this he got a remission of Rs. 10,461 in revenue and 11 nankar villages. Havelis Charkawan and Dugul belonged to certain Pathans who had been put in possession by Maharaja Shitab Rai in 1766 but, being very badly managed, were mostly sold off.

Grant in his Analysis lumps together the reveaue of this pargana with those of Siris and Kutumba, Sherghati and other parganas, but in 1781 we find the demand for revenue standing at Rs. (9,065. Shore reported when making his settlement that in 1782 when the pargana had been held khas the net realizations were Rs. 47,864 and the highest realization in the previous eleven years had been Rs. 68,000. The pargana was hilly and liable to drought and he accordingly fixed the jama at Rs. 49,001 and settled the pargana with one Santokhi Rai. The latter gave it up in the following year as one taluk had been excluded; it is not clear which taluk this was, but it is clear from later correspondence that it was not that of Fatch Narain Singh. The result was that in 1781 the varganas (presumably less this taluk) was farmed to Hafiz Karim Ali who although punctual at first in his payments fell into arrears with the result that a fresh farming settlement was made with Mir Ghulam Haidar sazawal for five years 1785--89 at a jama rising from Rs. 49,001 to Rs. 63,001. The revenue at the Decennial Settlement was fixed at Rs. 63,282 which was presumably for the whole pargana. The whole of Fateh Narain Singh's zamindari was settled with him and the remainder with various proprietors notably Imam Bax Khan (of Charkawan and Dugul) and Raja Narain Singh of Siris Kutumba, who had eleven villages in this pargana. Twenty-six villages were settled with one Jaswan Singh whose further history I have been unable to trace. Imam Bux Khan's villages were mostly sold for default soon after the permanent settlement and the only large estate that survived was that of Raja Fatch Narain Singh, now known as the Deo estate. Even this got into difficulties because in 1709 the Collector forwarded a petition from Fatch Narain Singh and recommended a reduction of revenue (Revenue Consultations, 15th November, 1799, No. 17 and 22nd August, 1800, No. 25). The Collector forwarded figures which showed that for the 51 villages originally in the estate and the 31 villages acquired by purchase since the Decennial Settlement, the average gress produce after deducting 10 per cent. for malikana and 5 per cent. expenses of collection was Rs. 16,241, whereas the revenue at the Decennial Settlement was Rs. 14,604 for the original estate and Rs. 8,238 for the villages purchased since, a total of Rs. 22,842. The gross produce for the ten years subsequent to the settlement after deducting malikana and collection expenses was Rs. 0,616. The decrease in produce was ascribed to rack-renting by the farmer Ghulam Haidar. Mr. Leycester, the Collector, said in submitting the case that this man-

possessing talents and activity was very high in the confidence of Mr. Law and like many others in confidence he ab sed that trust and by imposing a heavy rack-rent on the estate created an actificial improvement but in fact impoverished it.

It appears to have been one of the principal objects of the Decennial Settlement to prevent the general decay of the country from the exactions of those farmers, the oppressions which they practised to realize their rents are well known to the Board. This man farmed the whole Pargana of Chercawan and I never heard him spoken of by any inhabitant of the place without execution."

The Board at first demurred, but eventually Government sanctioned the settlement at the lower revenue of Rs. 9,616. This accounts for the fact that in 1819 the revenue of the parganas was only Rs. 57,693.

The further history of the estate will be found in Mr. Coupland's Final Report on the Settlement of the Deo estate in 1901-04. The estate was released from the Court of Wards in 1912 when the present proprietor Raja Jagannath Prasad Singh attained his majority.

32. Pargana Arwal was associated with pargana Masaurha, now in Patna district, and has accordingly been dealt Pargana Arwal. with by Mr. James in paragraph 116 of the Patna Final Report. Revenue Consultations, 21st May, 1790, No. 26, show that the pargana was held khas in 1789 and the Assistant Collector Mr. Seton spont Rs. 4,000 on gilandazi. In the following year it was reported by Seton who had then become Collector that as the collections in 1789 had been only Rs. 64,057 of which Rs. 4,600 was spent on gilandazi and the rated jama was Rs. 90,001, Law had proposed to keep the parganas khas till the rovenue was worked up. Apparently, however, the parganas were soon after settled with Raja Jaswant Singh and others. The revenue of Arwal pargana alone in 1819 was Rs. 51,288 as compared with Rs. 51,747 at the Permanent Settlement. The subsequent history of the Belkhara mahal the estate of Jaswant Singh will be found in Mr. Stevenson-Moore's Settlement Report. I need only add with reference to paragraph 51 of that report that the founder of the Arwal indigo factory was a Mr. Lionel Cane, who obtained a license to build it in 1796.

33. The original holders of pargana Manaura were, according to Boddam. Chaudhari Dal Singh and Tej Singh who Parganas Manaura, Ancha, and Goh. also held land in Ancha and Goh. They were assisted by one Abu Tarab, the son of Abu Talib alias Dan Sahay who had been brought up by Daud Khan, the founder of Daudaagar. Abu Turab had a good many villages of his own and eventually on the default of Chaudhari Dal Singh got the whole of the latter's zamindari. After his death his two sons, Nasrulla and Jamululla, fell into arrears in 1743 and the jagirdars Ahmad Khan and Shukurulla Khan, who held most of parganas Ancha and Goh as jugir rented pargana Manaura except that portion which was the jagir of Nawab Mozaffar Jung. Kudrat Ulla, the nephew of Nasrulla, however, succeeded in regaining the estates in 1749 despite the efforts of the descendants of Dal Singh and Tej Singh. His cousin Ghulam Chaus, the son of Nasrulla, succeeded him in 1787. Ghutam Ghaus got the settlement of his zamindari at the time of the Decennial Settlement, the revenue for pargana Manaura being Rs. 5,884. This was in addition to Rs. 2,000 which had to be paid on necount of the altanglia of Rahim-un-nissa Bigum, the widow of Ahul Kasim Khan, half of whose altangha had been resumed in 1767 by Nawab Mozaffar Jung. The parganas of Aucha and Gob are not mentioned by Selon in the Decennial Settlement proposals. In 1798 Gliulam Ghaus became insane and his estate was taken under the Court of Wards. The estate then consisted of 58 villages measuring 37,294 bighas, the revenue assessed being Rs. 16,505 which the Collector said, in forwarding his proposals, was very high. After the release it was gradually broken up and disappeared.

In 1797 Nawab Mozaffar Jung's jagir in Manaura was resumed, the 43,434 bighas being assessed at Rs. 17,300. The revenue in 1819 stood as follows:—

Ancha	•••	• • •	• • •	 		20,913
Coh				 •••		21,357
Managra				 	•••	20,403

It appears that the jugica in Angles and Gob must have been resumed in the interval, but I could find no record of this.

The principal estate in these parganas now is the Kara estate owned by several proprietors, the principal ones being Syed Abul Barkat alias Zaffar Nawab and Syed Abdul Rashid. The founder of this estate was Syed Amir Ali who flourished about 100 years ago and acquired his villages by purchase at sales for revenue arrears. The estate is principally managed by letting the villages on thika lease.

Parganas Dadar and Kabar.

Parganas Dadar and Kabar.

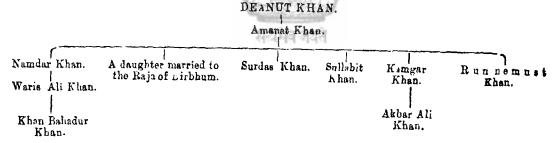
Parganas Dadar and Kabar.

Mozaffar Jung. They are not mentioned separately by Seton in his account of the Decennial Settlement and were probably included in the "bazee zamin or resumed lands" In 1794 the jagirs of Nawab Mozaffar Jung in these parganas were resumed with the following results:—

		Par	gana.	Ares in hig	bas.	Jama in ropees.			
Kabar Dedur	•••		>> <b>4</b>	•••		95,4 38,0			R ₃ . 45,553 14,5 <b>5</b> 0
Th	e <b>rev</b> en	ue in 18	19 was	as follow	7s :	**************************************	············		<del></del>
₩.	r.v								Ra.
	Cabar Oadar	***	***	•••	•••	•••	***	***	45,743
		***	***	***	•••	***	***	•••	14,385

It is clear that no more resumptions had up to then taken place. The parganas are now mostly in the hands of petty zamindars though the 9 annas Tikari estate has 20 villages in Kabar.

35. The denomination Narhat Samai was used generally to include the Parganas Narhat and Samai. whole of the Haswa zamindari which besides the two parganas of Narhat and Samai contained among other parganas Roh, Pachrukhi, Järra and half of Maher. Boddam's account of the Mayi family does not agree with that of Dr. Buchanan which is used by Mr. James. Boddam gives the following genealogical tree which is confirmed by the enquiries of the Assistant Settlement Officer working in the area before I had discovered Boddam's account:—



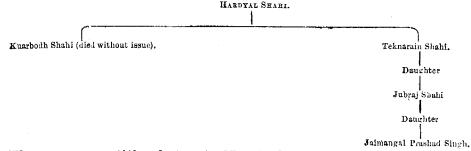
Namdar Khan when he succeeded his father, being indolent, appointed Kamgar Khan as his manager. After the death of Waris Ali Khan in 1771, Akbar Ali Khan took possession of the estate and held it till 1773 when the Governor-General on the recommendation of Council at Patna allowed the claim of the widow of Waris Ali Khan and gave a sanad to Khan Bahadur Khan Akbar Ali went to Birbhum but returned on the death of Khan Bahadui Khan and managed to get a sanad in 1778 from Mr. Ewan Law, then Chie: of Patna. Boddam doubts if this should have been done, because Akbar Al was not the legitimate son of Kamgar Khan and his reputed father was not the Raja. In 1751 occurred Chait Singh's rebellion followed by the escape o Akhar Ali from Patna where he was confined for arrears of revenue, his rebel lion and the murder of Mr. Hotchkiss. After his defeat he escaped to Delh and got the ear of the Emperor who wrote to Warren Hastings on his behalf Hastings informed him that if he stood his trial for the murder and was ac quitted, his zamindari would be restored. Though he did not accept the offe he apparently returned to the pargana and took possession of his nanka villages, but they were soon attached. He took the mukarrari lease of thes villages in 1789 under Law's plan, but managed them so badly, that he had sell them to pay the revenue. He finally died a vagabond.

The state of the parganas in 1781 was bad, but it soon became very much Four aumils were sent one after the other and failed to collect the revenue which was assessed at Rs. 1,54,113. In 1783, Imam Bux Khan who was probably the man of that name mentioned by Boddam in the genealogical tree of Deanut Khan as being the latter's great-grandson, offered to take the pargana for four years 1783—1786 at a revenue rising from Rs. 1,15,000 to Rs. 1,54,000 This was not accepted by Shore who settled the parganas with one Rai Mohan Lal for five years on a revenue rising from Rs. 1,05,000 to Rs. 1,54,113. This man died soon after and his nephews Hemnarain and Ramnarain were appointed aumils. They did not succeed, however, in collecting the full revenue because when Law was reporting on the application of his mukarrari plan to the pargana: the revenue in 1787 was put at Rs. 1,11,032 and a sazawal was appointed in 1788 who realized the full revenue of Rs. 1,54,113. Under Law's plan the revenue rose to Rs. 1,63,985. In comparing these settlements with the Decennial Settlement one meets with the difficulty referred to above that it is uncertain what parganas are included. In Seton's report on the juma of the district on conclusion of the Decennial Settlement (Revenue Consultations, 26th August, 1790) he puts the revenue for pargana Narhat Samai (including that portion of Amerthu not in mukarrari to Mohammad Yahia, which accounts for Rs. 5,000 only) at Rs. 1,99,108. The jama of the settlement of 1196F., (1788-89) he puts at Rs. 1,88,238, so he is obviously including something in addition to what was settled by Shore and Law. Parganas Jarra, Pachrukhi, Roh and Maher are not mentioned separately by him. On the other hand, some of these must have been included in Law's settlement, because the figures given in Vanderheyden's report quoted in paragraph 122 of Mr. James' Patna Settlement Report show that the revenues in parganas Narhat and Samai alone amounted to Rs. 98,858 only. The discrepancy is probably due to the fact that Seton included the whole of Maher under Narhat Samai, whereas only half of it was in Ekhal Ali's estate (Grant's Analysis). The revenue for Maher was about Rs. 50,000 and the half of this about accounts for the discrepancy.

In 1819 the revenue for Narhat and Samai alone was Rs. 1,09,076, that for Narhat, Samai, Pachrukhi, Roh, Jarra and Maher Rs. 2,01,116.

The old proprietors in this area have practically all disappeared. The principal estates apart from those of the 9 annas and 7 annas Tikari estates who, still with their connections, hold half of Pargana Maher (Laru and Lakhaipur mahals) are those of the Mahanth of Budhauli and the Haswa Babus. The latter were formerly traders and settled in the district early in the nineteenth century. The former has acquired by gift and purchase a very large number of villages on the south of thanas Nawada and Pakribarwan (Pargana Roh). Mahal Dibo Baserha in Pargana Maher is held by the Hussainabad family of Monghyr district, but is very much subdivided.

The Singar estate in Pargana Pachrukhi was formed out of villages originally waste and was first of all temporarily settled. It was permanently settled about 1860. The following is the genealogical tree of the present proprietor:—



There was a partition between Kuarbodh Shahi and Teknarain Shahi, the former getting tauzi No. 2577 (Mahal Sankar Narain) and the latter tauzi No. 2576 (Mahal Singar Narain). After Kuarbodh's death, however, the estate came into the hands of one person and except in the villages which were assigned wholly to one tauzi or the other, the tauzis could not be separated.

The Mahanth of Bodh-Gaya and the Bengali estates have a number of villages in these parganas acquired by purchase. The former holds the Paharpur

and Fatehpur Mahals in pargana Maher the former zamindar of which, Narain Singh, is still living in poverty at Fatehpur.

The Maksudpur estate has a number of villages north of Rajauli. These were various villages settled with Pitambar Singh in 1815, because other farmers could not get possession,

Pargana Sanaut, Boddam includes the whole of the Pargana Sanaut.

Pargana Sanaut.

Pargana Sanaut.

Pargana Sanaut.

Pargana Sanaut.

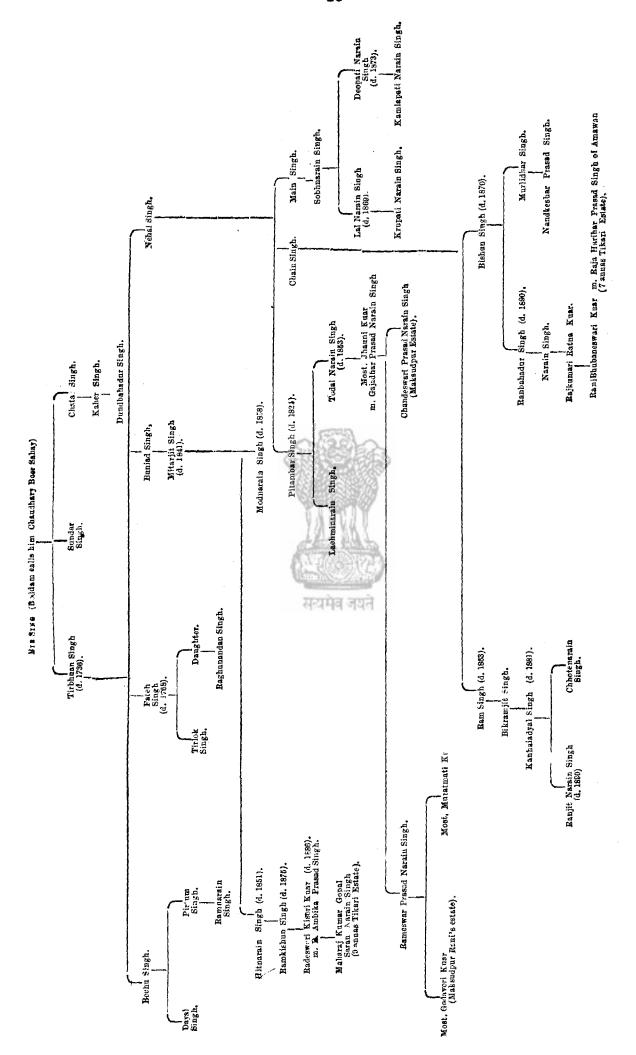
Pargana Sanaut, Atri, Pahra, Dakhner and half of Okri, Ekil and Bhelawar. The history of these parganas is largely that of the Tikari estate. Boddam gives a history of the Estate during the eighteenth century which it is unnecessary for me to repeat. It is difficult to compare the revenue at various times, as prior to the Decennial Settlement it included a lot of sayers such as the redlead duty and pilgrim taxes.

Shore's settlement according to Mr. James was with Katab Ali Beg for Rs. 3,10,000, but it appears from Revenue Consultations, 26th August, 1784, Nos. 12—15, that Kalab Ali Khan was the renter of the portions other than the Tikari estate, because in that year it was reported that Mitarjit Singh had taken possession of 52 villages in addition to the 61 entered in his sanad, whereupon Mr. Bathurst the Thief ordered these 52 villages to be delivered over to Kalab Ali Khan "to be annexed to the Nezamut rents". Maima Chand, the renter of the villages belonging to Mitarjit Singh, therefore resigned his farm and it was given to Kalab Ali Khan at Rs. 25,000 per annum for the 61 villages. Mitarjit Singh got back the settlement of his zamindari at the Decennial Settlement.

The Decennial Settlement revenue as compared with that of 1819 in these parganas is as follows:—

		argana.	· · · · · · · · · · · · · · · · · · ·		Decennial Settlement.	1819.	
Sanaut					Rs.	• Rs.	Rs.
	•••	•••	•••	•••	)	1,11,004	)
\t _! i		•••	•••	•••	1,42,978	4,371	2 40 001
ahia	•••	•••	•••	••• {	(1,12,070	26,995	1,48,093
lakhner –	•••	•••	•••		)	5,726	)
)kii		•••	•••		) (	57,117	<b>`</b>
ikil .		•••	•••	•••	} 1,62,530	74,440	1,78,805
Shei. war	•••	• • •	•••	[	)	47,248	2,.0,000

The largest estates in these parganas are the 9 annas and 7 annas Tikari estates, the Maksudpur estate and that of the Pandui Babus. The later history of the Tikari estate is given in Mr Stevenson-Moore's Report. I give below a genealogical tree of the Tikari family showing the connection between the two Tikari estates and the Maksudpur estate. This differs in the early portion from that given in Mr. Stevenson-Moore's Report and that given in Mr. Coupland's report on the settlement of the Maksudpur estate in 1900-01, but it is the one given by Boddam in 1792:—



The division of the estate took place on the death of Mitarjit Singh, Hitnarain getting 9 annas and Modnarain 7 annas. The subsequent history of Modnarain's share is given in paragraphs 38 and 39 of Mr. Stevenson-Moore's Report. Ran Bahadur Singh was adopted by the widow of Modnarain and the 7 annas estate thus passed into this line.

Since Mr. Stevenson-Moore's Report the 9 annas estate has been released from the Court of Wards. The immense improvement in the system of management of the estate which had taken place during the time it was under the Court of Wards is shown by the following table:—

					Villages held Khas.	Villages per- matently temporarily leased. 10ased.	
Before After	•••	•••	•••	•••	65 750	29 <b>3</b> 286	638 289

The difference in the total number is due to the difference in the village unit, but the figures sufficiently show how the *thikadari* system has been replaced. During the Court of Wards' management rental rose from Rs. 6,30,513 per annum to Rs. 7,47,975 per annum, an increase of Rs. 1,17,462. The income from *bhaoli* rents increased by Rs. 1,26,635 and that from cash-rents decreased by Rs. 9,173. This result is due to three causes:—

- (1) The change from thika system to khas management resulting in bhaoli rents being collected direct in place of a cash-rent from the thikadar.
- (2) Rise in prices involving an increase in the value of bhaoli rents accompanied by more check on appraisement.
  - (3) Conversion of bhaoli rents into cash or chakath rents.
- (4) Abolition of abwab amounting to Rs. 75,514 per annum owing to the settlement operations in 1893-98. This was counterbalanced to some extent by enhancement of rents during the same settlement.

How far each of the causes accounts for the net rise in the bhaoli rent is difficult to say.

It is interesting to note that the cost to the estate of the previous settlement operations was Rs. 2,92,647. This cost includes that of villages in other districts. If we take a proportional figure on the area the cost for Gaya district would be Rs. 2,79,165 as compared with Rs. 75,235 in the present operations. Recently the estate has been made into a trust for the promotion of female education. It will require careful management if without raising the rents any considerable sum of money is to be made available for this purpose.

The seven annas Tikari estate has now by the marriage of the proprietress with Raja Harihar Prasad of Amawan come under a vigorous management, the two estates combined forming a large and improving property. The estate had long been managed on the thikadari system, but now leases are not renewed as they fall in and soon, except for the villages in permanent lease, all will be under khas management.

Subsequently to the settlement of the Maksudpur estate the litigation between Chaudreswar Prasad Singh and his elder brother's widow and daughters ended in a partition, the widow and daughters taking those villages which had been acquired by Raja Pameswar Prasad Narain Singh between 1884 and 1902. The latter estate was released from the Court of Wards which had taken over the whole estate in 1907. The remainder of the estate is still under the Court, and is very heavily indebted so that many villages have had to be sold in the attempt to reduce the debt to manageable proportions.

The Pandui estate is of modern growth but is rapidly increasing. The principal villages of the estate lie round Pandui which is a few miles southwest of Jahanabad, but recent acquisitions have been made near Sherghati.

37. Pargana Gaya is very small and is practically coincident with the town of Gaya. Boddam does not mention any proprietors of this pargana. In 1793 Seton made a proposal to the Board (Revenue Consultation, 23rd January, 1793, No. 8) that the land should be let out in small parcels to any persons who would engage to dig wells and make plantations. He wrote:—

The land contiguous to the city of Gaya consists partly of barren hills, almost without soil, and partly of an arid plain, some part of which has, with infinite labour, been brought into cultivation. With respect to the remaining part of this plain, it is so very sterile, and water is so far from the surface of the soil (being in many places 70 feet) that I really despair of ever stering it improved (since it holds out no prospect of advantage to the cultivatir), unless some means be adopted to animate exertion and excite industry. The land to which I now allude, is the immediate projectly of Government; but from the above circumstances, it cannot be considered as a source of revenue, while at the same time from its waste state, it yields no protection to the city from the dreadfully hot winds from the bare rocky hills, which harass the inhabitants in the summer season. The heat of this winds would be greatly mitigated, and the climate in general improved, if the space in question, instead of being naked as at present, contained gardens and plantations."

The Board enquired how these lands came into possession of Government, and it appeared that Raja Mitarjit Singh claimed these villages as his and demanded malikana not only on the land revenue but on the sayers and pilgrim duties. He was, however, willing to give up his claim to the land, for he said:—

"I see with pleasure the increase in the town of the plantations, etc., which contribute to the comfort of the community. As my family has now been attached to the English during two generations, I readily and voluntarily declare that I wish to see the town and improvements increase, nor shall I ever plead loss on that account. I freely make over to the English Company the ground in question for the purposes of increasing the town and plantations, and extending cultivation."

The Collector reported that no malikana had been paid for 20 years and doubted whether the Raja had any claims to the malikana on the sayers. However, as the land was now made over to Government, the Board approved of Seton's proposals and he let out several pieces of land in the way suggested. These grants are evidently the origin of the holdings in Gaya town which were claimed during the Municipal survey as proprietary holdings (vide Appendix XXIX). The principal grant was made to one Gopal Das, an Uriya, who cleared 101 bighas in Murarpur and planted nearly 6,000 trees, partly in groves and partly along the roads and near Murli Hill. He also planted 135 trees and dug 20 wells at Singratan. He was given this land in Murarpur at 5 annas a bigha for 7 years, the unexpired portion of the Deconnial settlement. At the and of that period the grantees evidently continued to hold because in 1801 the revenue was Rs. 109 and in 1802 Rs. 110. In the latter year the Collector, Mr. Graham, proposed to hand back the village to Mitarjit Singh and it was accordingly settled with him together with village Pahsi which contains Ramsila Hill at a jama of Rs. 151.

In 1808 the villages, Sahebganj and Alamgirpur, were settled with one Sher Chand. These settlements were permanent, but Sipahi Lain (which contains the Collector's bungalow and the Police lines) was not permanently settled till 1860.

38. The taxes collected at Gaya from pilgrims octroi, and other sources were of considerable importance in the latter part of the revenue of pargana Sanaut. The first mention of them found in the records is an objection in 1782 by Raja Kallian Singh, the Diwan, to the revenue assessed on this account owing to the frequent remissions of taxes granted by Government to pilgrims of high standing: a similar objection was raised by Raja Mitarjit Singh. Mr. Duncan, who was sent to enquire into the adjustment of the claims of Kallian Singh on Mitarjit Singh, reported the following facts:—

"Every pilgrim on foot who designs to visit only a part of the holy places and is thence denominated Daishani, pays—

	Formerly,	Increase in 1154-F. (1776 A. D.)	Total at present.	
1. At Murarpur, near Gaya 2. At Gaya 3. At the Chokies of Phalgu and Cetermanoosh.	Rs. a. p. 1 10 0	Rs. a. p. 3 6 6 0 9 9 4 0 9	Rs. t. p. 5 0 6 . 9 9 0 0 9	
Total	1 10 0	4 1 0	5 11 0	

Every such pilgrim on foot who designs to visit all the holy places and is thence denominated Cauppher, pays—

	Formëriy,	Increase in 1184F, (1776 A. D.)	Total at present.
<ol> <li>At Murarpur, near Gaya</li> <li>At Gaya</li> <li>At the abovementioned Chokies</li> </ol> Total	 Rs. a. p. 8 6 9  8 6 0	Rs. a. p. 4 5 3 0 11 6 0 0 9 5 1 6	Rs. a. p. 12 11 3 0 11 6 0 0 9

Every one on horseback or in a palanquin or otherwise than on foot pays whether Darshans or Cauppher double the above at Murarpar and triple of those at Gaya and the two Chokies."

These two classes of pilgrims are still recognized, viz., darshani—those who visit only 35 places, and khapar—those who visit all the 45 places. There is a third class, possibly a modern creation, of those who only visit three places who are called ekodista. It appears that in addition to the above charges the farmer of these taxes in 1775 Zahur Alla Beg added a charge of Re. 1-6-0 for those who bathed in the Phalgu and Rs. 2-10-0 for those who joined in the ceremony of offering at Bishunpad. He also increased the charge of the ceremony called Camertee from Rs. 6-4-6 to Rs. 9-2-6.

In addition to these taxes, however, the zamindar of Sanaut or the farmer for the time being had other sources of profit. First, there were the "gunge" duties or octroi on articles coming into Gaya market, including the Buniadganj market on the eastern bank of the Phalgu. These duties were minutely specified for every kind of commodity and a full list of them occupies 37 pages of the Board's proceedings.

Another part of the profits consisted of the sums derived by the zamindar or the farmer for the administration of justice in Gaya especially among the pilgrims. There were demands for a remission of revenue owing to the decrease of income from this source consequent upon the establishmen of a Criminal Court at Gaya in 1780. The dues from this source in 1185 F (1776) and 1189 F. (1782) were as follows:—

					1185F.	1189F.
					$\mathbf{Rs}_{r}$	Rs.
Talbana		***	179	117	1,023	435
Chowtal or 4 8	annas paid o	n decision i	n civil case	4 ***	375	605
Shookama er of any per	gift to Magi			avour	<b>5</b> 25	•••
Heftem or 1 Brahmins	-7th part is and pilgrim	n deciding s as to fees	causes bet	tween	2,7∉8	76
Jereemana Cinature.	r mulets an	d fines fo	r acts of a cri	minal	•••	312
					4,661	1,428

Besides these more or less authorized sources of profit, the farmer had many others, and in 1784 Mr. Law mentions the fact that Kutab Ali Beg, the

farmer had created various positions which he let annually. Thus the position of head of the bearers in Gaya was let for Rs. 500. The holder of this position performed no useful function. He merely recouped his expenditure and made as much profit as possible by exactions from the bearers in Gaya.

The result of these exactions by the farmer was that considerable discontent existed. The farmer had stated his annual income from these source for the ten years 1774—1783 as follows:—

					Rs.
Mahal Sayer Mura: pur	***	171	•••	***	80,342
Pargana Gaya	•••	•••	•••	114	24,745
Sayer Booniyadgange	•••	***	***		21,891
			Total	***	<b>1,26</b> .978

Law estimated that at the utmost the income should have been Rs. 85,000 He therefore proposed, and Government approved, that the collection of these taxes should be taken out of the hands of the farmer of pargana Sanaut and dealt with directly by Collector. The immediate effect was a diminution in the revenue as that for 1789 amounted only to Rs. 1,01,000; but afterwards a steady increase took place, the average for the ten years 1797—1818 being Rs. 1,86,016. The taxes on the administration of justice ceased when the Collector took charge and gunge duties were abolished in 1790 on the Decennial Settlement so that this increase is entirely due to the increase in the number of pilgrims. The pilgrim taxes were finally abolished in 1839.

Resumption settlements and settlement of entirely wanting since the records have been destroyed and all that can be gathered is a few general facts in isolated cases. The resumption of Nawab Mozaffer Jung's jagirs in parganas Manaura, Kabar and Dadar has already been mentioned, but, generally speaking, resumption proceedings for the reasons given by Mr. James in the Patna Final Report languished till special Deputy Collectors were appointed.

The first efforts of the Collectors were mainly directed to the wairani villages which were villages waste at the time of the Decennial Settlement and omitted, but which had subsequently become fit for settlement by extension of cultivation, and taufir villages which had been annexed by landlords to their estates subsequent to the settlement without paying revenue. This was slow work as the Collector was already burdened with the number of estates which had to be managed khas owing to their failing to find bidders when put up for sale for arrears of revenue. In 1819 Mr. J.T. Reade was put on special duty to complete the settlement of resumed and wairani villages and to ascertain the value and scale of rent payable by the raiyats in the forfeited estates of Akbar Ali Khan which had become the property of Government. The instructions issued to him with reference to the latter part of his work are interesting, as they were the subject of a controversy between the senior and junior Commissioners of the Central Provinces Board (Revenue Consultations, Central Provinces Board, 19th October, 1819, No. 12). The Junior Commissioner, Mr. E. S. Waring, had drafted the instructions so as to contain a statement of what he considered the rights of khudkasht raiyats to hold their lands at fixed rents. The view of senior Commissioner, however, prevailed and the instructions issued were much on the lines of section 9, Regulation VII of 1822, with additional details.

40. The first settlement made by Mr. Reade was that of the Kawa Kol Kawa Kol Mahal.

Kawa Kol Mahal.

mahal, a resumed ghatwali tenure. His report will be found in Revenue Consultations, Central Provinces Board, 10th March, 1820, No. 9. This mahal consisted of 52 villages, of which Mr. Reade settled 47 with the Tikaits who had been the previous holders. The grant was hereditary and non-alienable, and Government reserved power to step in and manage if necessary. The Tikaits

and their descendants soon got into debt and the question of alienability came up in 1867 when the Commissioner proposed under the sanad to step in and manage. Finally the legal advisers of Government held that the conditions in the grant applied to the original holders only, and there was no power to interfere with alienation by subsequent holders. It was then announced to the Tikaits that their villages would be in future regarded as an ordinary zamindari. Since then the property has all been alienated to various creditors, largely pleaders, and the present representative of the Tikait family is now extremely poor. During the present operations when it was thought that there might be a chance of re-establishing the Tikait it was wonderful to see the way in which the raiyats supported him: they went so far as to refuse parchas with the names of other landlords recorded. Under section 103-A Government raised an objection that for 47 villages of the mahal the recorded proprietors should be treated as mukarraridars under Government and that the five villages not settled by Mr. Reade should be recorded as khas mahals. I tried this case myself. There was a certain amount of difficulty in identifying the villages at present contained in the mahal with those mentioned by Mr. Reade, but as the recorded proprietors were in possession, and Government had recognized their position as proprietors by entering their names in the Land Registration registers, I disallowed the objection as being one more properly for a later stage. Subsequently, I understand, there has been a compromise by which Government recognizes the present holders as proprietors and the holders of the five unassessed villages are to receive permanent settlement at a revenue equal to half the assets. The matter is still pending as the assets are considerably larger than anticipated by those claiming as proprietors.

41. Mr. Reade's report on the rents and customs in 27 of the 30 Government estates was submitted on 9th Mr. Reade's report on Government estates. February, 1820 (Revenue Consultations, Central Provinces Board, 21st March, 1820, No. 18). These 27 estates were those in parganas Narhat, Samai, Roh, Pachrukhi, Maher and Jarra, and the report contains a most interesting account of the respective rights of landlords and tenants at that time. He begins with the rights of the zamindars who have the whole right in jalkar. Tar and khajur trees belong wholly to the zamindar, but other trees depended on circumstances. In bhaoli lands the produce of trees was divided equally, but where the raiyat had taken a lease on money rent for land to plant a grove he got the whole produce. Of mahua trees the zamindar took half the produce except in the jungle. From contractors who took bamboos and timber from the jungle 2 or 3 annas per cart-load was taken. The zamindar had the right to levy mutarfa or ground rent on non-agricultural inhabitants of the villages. Pasturage fees were only charged to Goalas who had buffaloes. As to water rights, the zamindar could sell any surplus water to other villages and was supposed to keep up the irrigation works in repair though this was optional; but if the village was let in farm. the proprietor had to pay  $\frac{1}{10}$ th of the cost of improvement.

The rights of the resident raiyats, Mr. Reade said, were not easy to define precisely, but, as a general rule, he found that they were entitled to hold possession of the lands they cultivated as long as they continued to pay the stipulated revenue on nakdi lands or the established hakmi hissa of the produce in bhaoli lands. If, however, a raiyat could not for any reason cultivate his lands, the zamindar could make them over to a more effectual cultivator. If the latter was a pahikast raiyat the original raiyat's occupancy right remained in abeyance only and was not extinguished. If new raiyats came to the village all resident raiyats had to give up land in proportion to their holding to make room for him. Raiyats were allowed rentfree a few kathas as gharbari and had free pasturage except those who were Goalas and kept buffaloes. The right of paying the rent for bhaoli lands in cash at market rates existed but was rarely used, and in some instances a remission of 2 seers a maund on the appraised grain (doseri) was allowed. The rate of rent for nakdi land could not be increased without the raiyat's consent: Mr. Reade gives full grounds for this proposition and thus contirms the view of the junior Commissioner. The quantity of nakdi lands in the village could not be increased without the cultivators. Each

man held by custom a certain amount per plough which rarely exceeded 2 bighas. From this and other remarks in the report, it is clear that the cashrents at that time were high compared to the produce-rents.

As to cash-rents, pargana rates were stated by the Kanungos to exist except in Narbat and Samai, but they varied a good deal, the highest being Rs. 11 per bigha for first class sugarcane land in pargana Maher. The same abwab were found as are paid now, viz., batta, amin-kharach and hujjatana. In produce rents, Mr. Reade says, the established proprietary share was a half. but in addition certain cesses were taken. Mr. Reade appeared to regard these as legal, but in view of the fact that they had not been consolidated with the rent they were clearly illegal as similar demands have been long since held to be by the courts. These cesses were amin-kharach or expenses of appraisement, dahiak and mangan. In addition 5 seers per maund were paid to the weighman and gorait but did not appear in the village accounts. In batai lands the amin-kharach went to the man who watched the crops and 5 seers pachua was also taken in addition to dahiak. This five seers was taken in an ingenious way. The grain was weighed 10 paseris at a time, but only a 5 paseri weight was used, the balance being made up by 5 seers of grain which the proprietor took when the weighing was finished. Dahiak, which Mr. Reade spells dehyek, was according to him originally 5 seers per maund, but was found varying from  $1\frac{1}{2}$  seers for the better class to 3 seers for the lower class raiyats. It was also called neg or kharach. Its meaning is not discussed, but Mr. Reade notes it was only paid by resident raiyats and never by publikast raiyals which confirms to some extent Baden Powell's derivation of the word from dehi haq.

I give in Appendix XXII the account of one village given by Mr. Reade and a comparison with the present state of affairs.

42. Mr. Reade's enquiries into the boundaries of mairani villages were not very successful (Revenue Consultations, 24th March, 1820, Nos. 14-16). Many of the villages could not be found and a number had been annexed by the neighbouring zamindars. Many of them had probably been added by Rai Bishundutt Chaudhari, formerly Kanungo of pargana Roh, who had taken settlement of it and whose descendants still live at Semri No. 494, thana Nawada. Soon after the Decennial Settlement most of the pargana was sold for arrears and the purchasers had taken over the original villages with the waste lands which had been annexed to them by the Kanungo and had been in possession for 20 years. It was decided not to be worth while pressing the bulk of these cases and in only eleven were proceedings under Regulation II of 1819 taken.

43. In 1834, Mr. A. Reid, Deputy Collector, in a report to the Commissioner of Patna (Revenue Consultations, 11th July, 1834), gave the following details of the suits then pending in his file:

Class of suits.		Number.	Dotails.			Area in bighas.	Expected revenue.
Moend-lumi Moentreri	140	100 26	Mocuddumi Mocurreri Bishunprit Khairat		 27   } 81   }	2,202 64,376	R∢. 3,217 55, .59
Milkiat of Zulfikaralli		2:1 {	Bhobut Neaz Jageer Ingu Bishunprit Brahmotter Khairat Kharij Jumma		2 16 57 9 33 23 16	2,805	 2,805   
Jagir of Kallian Singh		132	Aima Maddu imash Neaz Durga Sheottur Jaigeer Ultumgha Mafee	]	25   } 19 13   1		•••

Class of suits.	Number.	Details,		Ares in bighas.	Expected revenue.
Kanungo Nankar Wairanna Kharij Jammah of Mr. Trotter's	26 4 62	Mocdomanah Nankar Wairannah Ki arij Jummah Jaigeer U'tamgha Aima Muddutmash	1   18	4,130 12,763 28,657 3,290	Rs. 6,288 13,631 24.271 7,996
Miscellaneous	72 {	Khairat Nerz Dershikan Kharij Jamma Inam Nankar Sheoprit Lishunprit Mafee Auz Malikana	17 8 1 4 6 2 3 1 1	} 7::,109	71,303
Cases under Regulation IX of 1825	38 {	Madut Khurch Mafee  Neaz Durgah Aima Ultumgha Minhyee Billanam Inam Muddatmash Sheottur Bai metter Khairat	1 4 17 3 5 1 3 4	2,454	4,1 <b>71</b>
Total				1,925,576	1.89,051

The Deputy Collector thought that the expected jama which was based on kanungos' reports was probably underestimated by Rs. 50,000.

The mocuddumi cases referred to the lands of Akbar Ali Khan, in pargana Narhat and Samai. In these parganas the forerunner of Akbar Ali Khan (Kamgar Khan) had not only taken malikana of 10 per cent. on the rent collections but had also the right to 10 bighas in every 100 of the minhai lands and this right extended to actual possession. When Akbar Ali's lands were forfeited these lands which were known as mocuddumi zamin were also forfeited, but though collections appear to have been made after 1793, these had only been made in 22 villages of the whole 100 under investigation and in those probably full collections had not been made.

The mukurrari cases do not refer to those of Mr. Law's creation but to mukarrari leases granted by proprietors or farmers. Those dating from before the Permanent Settlement would be decided under the Resumption laws. Those subsequent would be governed by sections 16—18 of the Decennial Settlement Regulation (VIII of 1793). It is not clear in what part of the district these cases arose.

Zulfikaralli Khan is probably the son of Ghulam Ghaus, the zamind r of pargana Manaura (vide paragraph 33), as the letter refers to his predecessors Kudrat Ulla and Amirulla.

The wairani villages referred to lay mostly in parganas Narhat, Samai, Jarra, and Pachrukhi. After the investigations in 1820 they were farmed to one Nagri Das and after his death to his son, Bansidhar. The farmer was, however, unable to obtain possession as the villages had been annexed by neighbouring zamindars. The Collector in 1825 finding that the process of regaining possession through the courts was slow proceeded with the Board's sanction under Regulation II of 1819, which was the origin of these cases. It does not seem, however, to have been much quicker, and these cases by no means covered all the wairani villages in the district as will be seen below.

Mr. Trotter's kharij jama suits refer to lands sold or granted by proprietors subsequent to the acquisition of the *Divani* and before the Permanent Settlement, which had escaped from assessment. They were added to the file in 1831 by Mr. Trotter, then Collector.

The cases under Regulation IX of 1825 numbered 300 in all, but were all concerned with areas under 10 bighas except the 38 selected for investigation which mostly related to jagirs in parganas Telhara and Bihar and wairani villages in Roh and Samai.

The Deputy Collector finishes his report by stating that as he had 465 khas estates to settle and manage, the disposal of these cases was likely to take some time.

In 1837 a list prepared by Mr. Reid, who had then become Special Deputy Collector, showed the following wairani and taufir villages recorded in the parganas now forming the Gaya District:—

			Pargana.				No. of villages.	Area in bighas,
Kutumba			•••	211			477	26,547
Saris	••	•••					86	14,687
Sherghati	***	•••	***	•••		,	112	28,749
Arwal		•••		•••	•••		23	5,486
Kabar	***	•••			•••		4	751
Ekil			•••	•••			14	Area not specified
Pahra		•••		•••	•••		10	3,350
Narhat				•••			43	29,152
Sımai			,,,	•••	•••	,,,,	12	5,181
Roh	•••			•••	•••		109	50,700
Pachrukhi	***	•••	,	•••	•••	]	20	5,28 <b>5</b>
Jarra	***	***	•••	***	***		30	8,546
Maher		•••	•••	\$	THE STATE OF		23	11,528

In addition an almost equal area was reported by informers and was also under investigation principally in parganas Sanaut, Samai and Charkawan. The enquiries were not finally completed till about 1850.

44. The increase of revenue as a whole due to the resumptions is shown by comparing the revenue in 1819 which was Rs. 13,80,528. The land revenue varies slightly from year to year owing to the variation in the rents in Government estates and the revenue of temporarily-settled estates. In 1916-17 the revenue was Rs. 14,83,775 made up as follows:—

					Rs.
Permanently-settled estates	•••	***	***	•••	13,39,030
Temporarily-settled estates	•••	•••	***	***	40,175
Government estates		***		***	1,04,570

Out of this revenue, however, Rs. 9,717 is paid in malikana to proprietors who have not got settlement of their estates. The incidence works out to Rs. 512 per square mile or 7 annas 9 pies per acre which is heavier than any district in Bihar, except Muzaffarpur, Saran and Patna. The incidence in the permanently-settled area alone is 7 annas 3 pies per acre and in the temporarily-settled area is Re. 1-1-0 per acre. The following table shows the areas of the various classes of land:—

					Acres.
Permanently-settled	***	***	•••	***	2,866,405
Temporarily-set:led	***	•••	•••	***	36,631
Government estates (experimently-settle	xeluding those led proprietors	held o <b>n <i>mu</i></b> ).	<i>karr<b>a</b>ri</i> leas	e under	82,566
Revenue-free		•••	***		£0,933

45. The number of estates shown by the numbers in the tauzi roll are steadily increasing as shown by the following table:—

	Year.		Permanently-settled estates.	Temporarily-rettled estatus.	Government estates.	Total.
1869-70			Not керага	tely shown.		4,411
1879-80	•••		5,373	20	40	5, 33
1889-90	•••		5,850	23	41	5,914
1899-1900		•••	7,398	16	3.5	7,446
1909-10			8,220	il	24	8,255
1916-17	•••		8,099	14	22	9,026

The number of separate estates has therefore about doubled in the last 50 years.

46. Since 1902, 447 estates have been partitioned, and the following figures show how these are spread over the last three quinquennial periods:—

		l'erfod.		İ	Number of cases instituted.	Number disposed of.
1902-07 1907-12	••• ,	•••			129 221	146 125
1912-17	***	•••	•••	*** {	102	176

There were 91 cases pending at the end of 1916-17. A comparison of these figures with those of the previous paragraph indicates that each partition case means on the average an addition of seven estates to the tauzi roll. In addition to this, of course, there are a large number of private partitions and civil court partitions which, owing to the lightness of the revenue, act when separate accounts are opened practically as a Collectorate partition. In 1916-17 there were 9,702 separate accounts under section 10, Act XI of 1859, 331 under section 11 of the same Act and 3,839 under section 70, Act VII of 1876.

It does not follow that the holders of estates are increasing in any thing like the same proportion as the number of estates. Most of the big proprietors have lands bearing several tauzi numbers and this must be the case with every property acquired gradually by purchase.

47. As we have seen, in the early days of the Permanent Settlement ries

Revenue sales.

Were frequent and bidders not always forthcoming owing to the high proportion which the revenue hore to the assets. Nowadays sales for arrears are usually due to the impoverishment of the proprietors, not to the inability of the estates to hear the revenue. This is clearly shown by the prices realized. In the last five years the sales have been as follows:

			Усат.		Number of cetates sold,	Revenue demand,	Price obtained.
1912-13 1913-14 1914-15 1915-16 1916-17	•••	*** *** ***		  	  20 32 25 26 39	Rs. 825 815 1,069 1,323 5,312	Rs. 11,142 17,92.) 28,820 . 8,131 49,677
		, Δ,	erage per at	num	 28	1,969	23 810

The average price realized is therefore nearly twelve times the revenue.

48. The amount of registration of proprietary rights has been fairly constant of recent years. The following table snows the number of cases:—

		Number of cases instituted.	Number disposed of					
							i	
<b>19</b> 02-0 <b>7</b>		***	•••	•••			16,574	17,535
1908-12	•••	•••	•••	•••	•••		18,379	18,ศช9
1912-17	•••	•••	***	•••	•••	•••	1 1.250	14,276
							<u></u>	

The advent of the present operations has disclosed no general movement on the part of new proprietors to get their names registered. If anything, the figures show the reverse. This was not in any way due to the fact that Register D was in accord with the facts of present possession, because it was not. The next quinquennial period when the re-writing of Register D will take place will doubtless show a large increase of cases.

# PART II. THE PRESENT OPERATIONS.

# CHAPTER IV.

### SURVEY AND PRELIMINARY RECORD-WRITING.

- (I) AREA COVERED BY THE OPERATIONS AND CONTROL.
- 49. The notifications which are specified in Appendix I initiating the present operations covered the whole of the district excluding a few villages which, Area of the operations. as Government estates, had been very recently surveyed (vide Appendix XXX, Lists I and II). These villages (20 whole villages and parts of two others) include an area of 12:59 square miles in which only topographical survey was done. The whole of the rest of the district was surveyed in detail except the congested urban area of the Dandnagar and Tikari municipalities. The Tikari Municipality was surveyed in detail on the 64-inch scale in the operations of 1894-98 when the Tikari Wards estate was under survey and the municipality did not require this to be revised. The Daudnagar Municipality was unable to pay for a detailed survey. In the present operations, therefore, the urban area of these municipalities has been surveyed in blocks, only the principal streets being shown. A detailed survey of the Gaya Municipality was undertaken under the provisions of the Calcutta Survey Act, but at the same time a survey was made of the agricultural land in each revenue survey village included in the municipality, the congested area being shown in blocks. Practically speaking, therefore, the operations covered the entire district. Gaya is the only district dealt with in the Bihar Survey besides Champaran in which no Ganges diara is included and the difficulty arising from that has not confused the area question.
- 50. Work began in November 1911. At that time Mr. J. A. Hubback,

  Control.

  Control.

  Control.

  Control.

  Bihar. Mr. P. W. Murphy, I c.s., relieved
  him on December 8th, 1912, and remained till I took over charge on September
  17th, 1913. I was in charge till February 20th, 1918, when the work was nearly
  complete, except for the period from April 11th, 1914, to September 9th, 1914,
  when Mr. A. B. Duncan, I c.s., acted for me. Babu Sudhanshu Bhusan Mitra,
  Deputy Collector and Assistant Settlement Officer, was posted on the closing of
  the office to the headquarters of the Gaya district to dispose of any cases that
  might arise after the final closing of the office on 8th March, 1918.

#### (II) TRAVERSE SURVEY.

51. The traverse survey began in the season 1911-12 and finished in 1913-14. It was originally intended to divide the district into four blocks, but

for various reasons the programme was accelerated and the district taken up in three blocks as follows:—

Year.	Thanas traversed,	Number of viliages.	Area in square miles.	Number of pillars,	Stones.	Number of clay cy inders.	Number of Pegs.	Other marks.
1911-12	Arwal, Daudnagar, Aurangabad aud Nabinagar.	1,845	1,080	442	2,888	418	15,251	1,004
1912-13	Jahanabad, Tik ri. Atri, Nawada, Pakribarwan.	1,895	1,370	82	2,845	1,378	17,803	962
1913-14	Mufassal Gaya, Town Gaya, Rajauli, Sher- ghati, Bara- chatti.	1,386	2,177	146	3,153	9,625	7,525	8,017

I shall have frequent occasion to refer to these three groups of thanas and it will be convenient to speak of them as the first, second, and third years' areas respectively.

The reason wby the number of villages and area traversed is less than those figures for the whole district is that the villages previously surveyed in the operations of 1893—97, 1901-02 and 1902-03 were not traversed again, the present survey being based on the old traverse to which the new traverse had been connected. The only unsatisfactory feature of the traverse was the large substitution of wooden pegs for clay cylinders in the first two years' areas. A large number of these had disappeared when detailed survey began and a lot of time was spent in relaying the stations. This was discovered in the first year of cadastral survey 1912-13 in time for it to be remedied in the third year of traverse survey.

In season 1913-14 a traverse survey was also carried out in the Gaya Municipality to form a basis for the detailed survey under the Calcutta Survey Act. The number of traverse stations was 1,561 in an area of 8 square miles.

The district origin of the traverse survey was the intersection of Lat. 24 45' 00" N. and Long. 85° 00' 00" E. Connection was made with ten Great Trigonometrical survey stations. These have all been shown on the 16" village maps and a complete list given to the Collector.

- 52. As usual, the Revenue Survey village was primarily taken as the unit but advantage was taken of section 3 (10)

  (b) of the Bengal Tenancy Act to alter this unit where it was inconveniently small or large. A preliminary examination of the jurisdiction list map was made and amalgamations proposed on the following principle:—
  - (1) Where a village less than 100 acres in area was entirely surrounded by another village they were amalgamated.
  - (2) Where a village was less than 30 acres in area it was amalgamated with the most convenient adjoining village. This limit was extended up to 100 acres if the two villages formed part of the same estate.
  - (3) Villages of different thanas and parganas were not amalgamated.

The effect of these preliminary proposals which were made before traverse was that the traverse party surveyed the amalgamated villages as one village. At the time of Cadastral Survey notices were issued to all the landlords inviting objections. The objections were usually based on the misapprehension that as a result of the amalgamation the rights of the proprietors of the smaller village would be extinguished. When it was explained that the boundaries of the component revenue survey villages would be clearly shown in the village map, and that the khewals and khatians would be separate although in the same volume, the objections were not pressed. In several cases it was found that amalgamation of Revenue Survey villages had been carried out in the previous survey of 1593—98. These were treated as new cases of amalgamation in order to legalize them.

Out of 364 cases originally proposed, 360 were finally submitted to the Board of Revenue and duly sanctioned. The cases struck off were mostly cases where the jurisdiction list map proved to be wrong or where one of the villages concerned was found to be a Government estate or temporarily-settled estate. In view of the different procedure for the settlement of rents in this class of village, it is not convenient to amalgamate. In one case where it was proposed to amalgamate Paroria, thana No. 39, and Arghu Chak, thana No. 296, of thana Rajauli, it was found that there was a longstanding quarrel between the two villages as to irrigation rights. It was therefore thought desirable to keep the two village records separate.

Only 19 cases of subdivision were found to be necessary. The principal was in Kauakol Mahal, Revenue Survey No. 2, Pargana Roh, containing an area of 38,779 acres which had been surveyed as one village at the time of the Revenue Survey. It had 52 tolas and has been subdivided into 13 settlement villages, each village containing an integral number of tolas.

The village of Koch, Revenue Survey No. 16, Pargana Kabar, which had been surveyed in 1893-94 was found to have been subdivided into five villages. It was discovered on this occasion that a portion called Tola Egana had been left out of the previous survey. The subdivision was duly legalized and the additional portion made into a separate village.

The following statement shows the effect of these changes:—

	Thana.								
				050	32				
Arwal		•••	•••	ALTERNATION OF THE PARTY OF THE			1	274	249
Daudnagar	•••	•••		16 K 1 1 1				321	313
Aurangabad	•••			75157	HERSEL.	***	}	1,048	991
Nabinagar		***	***		88976	•••		593	580
Iahanabad	•••	***		0.0655	35809		1	929	691
m:1 .		•••		W. IT 19	96,11,46,	•••	]	<b>44</b> 6	435
Atri	• • • •	•••		3.05.17	Gil II.	***	1	301	272
Nawada	•••	•••		440.7	20.7	***	i	761	663
Pakribarwan		•••	,	10° 45° 23°	St. 2512.		}	132	141
Mufassal Gaya		•••	•••	#E 3117875	1000	• 6 •	}	700	676
fown Gaya	•••	***	***	40000			}	11	11
Rajauli		•••	•••	TREE STATE		***		<b>29</b> .	295
Sherghati	•••	•••	***		111			887	865
Barachati	***	•••	***	सन्दर्भ	व जयत			679	666
						Total	[	7,381	6,855

53. The occasional difficulty of identifying villages in a jungle area unless the whole area is being surveyed is illustrated by the case of Nawadih Basaria, No. 333, thana Barachati. This village belongs to the nine annas Tikari estate and was supposed to have been surveyed in 1893—98. It was found, however, that what had actually been surveyed was a tola called Basaria of a village Masaundha, Ivo. 224, thana Barachati, some way to the south. This village belongs to the seven annas Tikari estate. The mistake has now been

(III) CADASTRAL SURVEY.

54. The following table shows the amount of work taken up in each year:—

Progress.

put right.

Year.	:	Thanas.	Area in square miles.	No. of villages	No. of plots,	Remarks.
1912-13		Arwal, Daudnagar,	(*) 1174	1,812	1,324,211	(i) Refers to the area nowly surveyed.
		Aurangabad, Nabinagar.	(ii) 295	311	411,316	(ii) Refers to the area under revision.
1913-14		Jahanabad, Tikari, Atri,	1,600	2,202	2,612,775	aron under revisions
1914-15	•••	Nawada, Pakriburwan. Gaya, Rajauli, Sherghati, Barachati.	1,666	2,507	1,389,020	

The number of plots in the revision area is greater than the real number as will be shown in paragraph 61.

55. In 1912-13, Mr. A. B. Duncan, i.e.s., had charge of four camps including one revision camp and I had charge of eight camps including three revision camps. In 1913-14, Mr. Duncan the charge of one camp. Mr. W. H. Boyce, i.e.s. of two and Mr. I.A.

had charge of one camp, Mr. W. H. Boyce, I.C.s., of two and Mr. J. A. Saunders, I.C.s., of eleven. In 1914-15, Mr. Duncan had charge of three camps and Mr. W. H. Peck, I.C.s., of eleven. Mr. J. H. Murphy was Professional Adviser and Assistant Settlement Officer, Headquarters, in 1912-13 and was succeeded by Babu Manoranjan Singh. The Headquarters were throughout at Gaya.

56. The following table shows the staff employed in each of the three years of Cadastral Survey and Khanapuri:—

	Y сат,	No. of Camps.	No. of Assistant Settlement Officers.	No. of Kanunges.	No. of Head Losy cotors.	No. of Inspec-	No. of Audus.
1912-13 1913-14 1914-15	***	 11 14 14	11 18 16	10 12 12	4 2 2	35 56 56	501 690 728

The reason for there being more Assistant Settlement Officers than camps in the latter two years was the introduction of the new arrangement for training junior Civilians and Police Officers, who each had charge of a camp with another Assistant Settlement Officer to help them. was a shortage of Kanungos in the second and third years owing partly to the increase of programme and partly to the starting of the revision settlement in North Uihar in 1913-14. When Kauungos were not available they were replaced by Head Inspectors in circles where the number of disputes was not likely to be too large for an Assistant Settlement Officer to dispose of himself. Most of these Head Inspectors were transferred to North Bihar in 1913, and the system up to then in use by which one Head Inspector acted as a sort of Professional Adviser to the Assistant Settlement Officers of two circles in addition to the ordinary staff had to be dropped. They were perhaps a luxury when experienced Kanungos were available but their help would have been very welcome in the third year when out of 28 Assistant Settlement Officers and Kanungos 19 were without previous experience. For the same reason as in the case of Kanungos a large number of new Amins were required in 1913-14 and 1914-15. 258 new Amins were trained in 1913-14 and 151 in 1914-15.

57. The check of the cadastral survey is shown in the following Check of Survey.

		Check in line	ear miles per se survey.	quare mile of				Linear miles
Year. Area in square trices.		I	'ersonal partai	•	Independent	Total.	Block partal in seres.	of independent survey of the outer
		Assistant Fettl ment Officers,	Kanungos and Head Inspector.	Inspectors.	parter.			boundary,
1912-13 1913-14 1914-15	1,174 1,600 1,666	0·26 0·33 0·27	0 6 <b>3</b> 0 45 0 42	1.48 1.88 1.60	1 25 1·11 0·93	3·93 3·77 3·22	177 378 255	133 102 39

In 1912-13 in addition to the area shown, 295 square miles was the subject of revision survey and in this area 5.3 per cent. or the new plots surveyed were checked, 1.1 per cent. by Assistant Settlement Officers, 1.6 per cent. by Kanungos and 2.6 per cent. by Inspectors.

The reason for the decrease in the second year was the abolition of the posts of Head Inspector. The third year's area was largely hill and jungle, the survey of which did not necessitate the same amount of check. The figures show that the check was up to standard.

- 58. The principal question that had to be dealt with was that of the method to be adopted in surveying the Revision survey. villages which had been previously surveyed, and in which it had been decided that the record should be revised and brought up-to-date. Mr. J. A. Hubback, I.c.s., who was then Settlement Officer, after examination of the system in use in Orissa drew up a set of rules for survey and record-writing in these villages. The villages in the first year's area were scattered all over the area but were divided into three circles each comprising about 100 square miles in charge of an experienced Assistant Settlement Officer. The organisation of each of these circles was on the same lines as that of an ordinary cadastral circle. The method of survey was as follows. The Amin was supplied with a copy of the original map and a skeleton copy of the original khatians and khasra showing only plot numbers and raiyats' names. Starting with plot number I he would see if this had changed at all and whether the same raiyat was still in possession. If any change had taken place on the ground it was surveyed in the usual way by taking offsets from a line joining two points which had not changed. The new lines so surveyed were shown on the map in red. New numbers were given to new plots where found but the old numbers were retained for the old plots and not cancelled otherwise the serial numbering in the record would have been destroyed. Corresponding changes were made in violet ink in the entries in the skeleton record and the blank columns were at the same time filled up in accordance with the usual rules. The usual check by the Assistant Settlement Officer Kanungo and Inspectors was carried out.
- 59. Difficulties were not long in making themselves felt. The first operation was to make reproductions of the old map. The maps to be utilized were of four classes:—
- I.—Maps on the 32" scale prepared at the time of the Canal Survey in 1875 and revised during Mr. Stevenson-Moore's Settlement in 1893-98.
- II.—Maps on the 16" scale of the villages of the Tikari Wards estate, the Belkhara Mahal and the Government estates surveyed for the first time in 1893-98.
- III.—Maps on the 16" scale of the villages of the Deo estate surveyed in 1901-4.
- IV Map on the 16" scale of the villages of the Maksudpur estate surveyed in 1900-08.

It was impossible to reproduce any of these maps directly by the Vandyke process. The paper was thick and in maps of class I the erasure of boundaries during the survey in 1893-98 had been done with white lead. In the other maps slips for indexing purposes had been pasted on the back. It was therefore necessary to trace the maps first and make reproductions from the traces. It is not easy at any time to make an absolutely accurate trace bud it was specially difficult in the case of maps of class I as these were old and had been folded and in many cases had cracked at the fold. The work of tracing required therefore very careful supervision and in the hands of Mr. J. H. Murphy, the Professional Adviser, the work was as capably done as was possible. It was due partly to this cause and partly to the shrinkage in the old maps that the permissible limit of error had to be raised from 2 links to 4 links per chain.

60. At the beginning of the season each Assistant Settlement Officer of the three revision camps was given a staff of one Inspector and 13 Amins. The idea was that each Amin would complete the survey and record-writing of 120 plots a day, this number including both old plots and new plots found in the course of the work, an increase of 10 per cent. in the number of plots being expected. After completing a village the Amin had to extract the areas of the plots and

enter them in the area slips attached to the khatlans and distribute them. The record was then to be sent to head-quarters for check of the area extraction and other recess work and sent out for attestation later in the same season. It was soon found however that the changes were so extensive, not merely consisting of simple subdivision and amalgamation, that 60 plots a day was all that could be managed. The non-cancellation of old numbers also meant a 40 per cent. increase in the number of plots instead of the 10 per cent. estimated and this was accompanied by increased complications in record-writing and area extraction. The idea of attestation in the same season had therefore to be dropped although 52 villages were attested as an experiment to see how the attestation work in such records compared with that in ordinary circumstances. As a result of abandoning this the necessity for area extraction in the field no longer existed. With experience it was also possible to lessen the supervision by increasing the number of Amins in each camp so that the field work finished in April, 1913.

**61.** The results, especially in the older maps, were not very satisfactory as the revised maps were clumsy, containing many unnecessary lines and unnecessary plot numbers. The extent to which this was the case is illustrated by the experiment which was made in five of the revision villages of doing a new survey and khanapuri and comparing the results both as to cost and appearance of the maps and records. The total number of plots in these villages according to the old maps was 1758. The total number as found by the revision survey was 3090 and as found by the new survey was 1930. The original estimate of a 10 per cent. increase in the number of plots was therefore very near the mark, and the swollen total in the revised maps was due to adhering to the numbering of the old record with the corollary of non-cancellation of old The result is somewhat exaggerated as these villages were exceptional. If the whole revision area is compared with the area newly surveyed in 1912-13 the figures are 1409 and 1181 plots to the square mile respectively, whereas seeing that the revision villages were distributed all over the area the numbers would probably have been much the same if the revision villages had been surveyed afresh. The general argument is however unaffected.

The two sets of maps agreed very well, though the revised maps were much less clear owing to the unnecessary boundaries, and in some cases were almost illegible. As to the record itself besides the complications introduced by the unnecessarily large number of extra plots it was found that where the record was more than ten years old, changes in the name of the raiyats and other details were required in a large majority of the khatians.

The conclusions to be drawn were clear, namely, that the old numbering of plots should be dropped and that if possible the old boundaries no longer existing on the ground should be excluded from the map, provided that this could be done without making the operation a new survey instead of a revision and so increasing the cost. For reasons to be given later it was eventually decided to resurvey the previously surveyed villages in the rest of the Gaya district so that the attempt as far as this district is concerned was not wholly successful. Its importance lay in the fact that it was necessary to get some experience of revision survey in Bihar before the North Bihar revison work began in 1913-14 and it was successful in indicating the problems to be solved. The solution of these problems by the reproduction of the original maps in blue and the inking only of the new boundaries and those old boundaries which remained, so that on final reproduction only the existing boundaries were shown, is due, I believe, to a suggestion of Major (now Colonel) Crichton, formerly Superintendent of Provincial Surveys.

62. The experimental survey of the five villages referred to above was also undertaken with a view to comparing the costs of the two systems. These showed the following results for the direct cost omitting supervision:—

	-		1	Cost per 100 acres.		
				Rs. a. p.		
Revision	•••	***	••••	5 13 0		
New survey	•••		 ***	5 15 0		

A comparison was also made between the costs of the whole area revised and the area newly surveyed in 1912-13. In this it was possible to include the cost of field supervision. These results were as follows, the cost rate being per 100 acres:—

,,,,,,	 Direct sost.	Supervision,	Total.
Bevision New Survey	 Rs a. p. 7 11 0 8 5 0	Rs. a. p. 4 13 0 3 13 0	Rs. a. p. 12 8 0 12 2 0

As to these figures Mr. P. W. Murphy, r.c.s., then Settlement Officer, wrote as follows:—

"In drawing conclusions from these figures and applying them to North Bihar revision, allowance must be made for the peculiar circumstances of this season's work. In the beginning each Assistant Settlement Officer was put to supervise one Inspector and thirteen recorders only. Although the number of Inspectors and recorders was afterwards increased, it was impossible on account of the villages being scattered to allot to each Assistant Settlement Officer the same number of Amins and Inspectors as in ordinary revision work. The average area of each revision circle was in fact only 93 square miles as against 140 square miles for each khanapuri circle. This has greatly increased the cost of revision. In dealing with a continuous area the supervising staff of Assistant Settlement Officers and Inspectors should, I think, be somewhat less in proportion to the number of Amins employed than in ordinary original work. I do not however think that the number of Amins supervised by one Inspector can be raised to any considerable extent, but the comparative scarcity of boundary disputes which may be anticipated should enable an Assistant Settlement Officer to supervise at least five or six inspectors in place of the usual four. Even assuming that revision take the same time as a new survey and khanapuri this would render its supervision less costly by about 333 per cent. In the past season's work, however, the supervision of revision work has been for the reasons given above far more costly than that of survey and khanapuri. If revision is found to be quicker than a fresh survey and khanapuri the cost of supervising will be still further reduced. In fact the average rate of progress of the recorders is the most important factor in the case. On this depends the amount to be paid to the recorders as remuneration for their work, for the rate must be so fixed as to paid to the recorders as remuneration for their work, for the rate must be so fixed as so give them the same average earnings per month (Rs. 25) as are now earned by Amins employed on survey and khanapuri. An Amin surveys and khanapuris in four months an area of 1583 acres containing 2900 plots and earns of Rs. 100. This is based on the actual results of last season's working and gives an average daily outturn per Amin of 24 plots. He surveys 100 plots in 3 days and does the khanapuri of the same plots in 1 day, completing the work in four days. The average daily outturn of work of the recorders employed on revision in the past season was 45 plots per day 2 104 recorder days work having been required to complete the revision of 408.771 per day, 9,104, recorder days work having been required to complete the revision of 408,771 plots. This shows that revision can be done a good more quickly and therefore more cheaply than a new survey and khanapuri, a conclusion which is directly opposed to that which one might draw from the result of the experiment in the villages which were dealt with in both ways. I place more reliance on the figures for the whole area than in the result of this experiment, for two reasons. The first is that the Amins who resurveyed those villages, the area of which is two square miles found 1,980 plots only, whereas the recorders found 3,090. The difference is extraordinarily great and indicates that the villages chosen are not typical of the area as a whole, for in the revision area the average number of plots per square mile was 1,409 as against 1,181 in the area surveyed and khanapuried for the first time. The second reason is that the amins employed to resurvey and khanapuri the experimental villages worked at the rate of 32 plots per day, the usual rate of progress for similar work being only 24. I fancy it is possible that the men employed were anxious to show how quickly the work could be done and to make out a good case for resurvey and khanapuri".

After discussing how the preliminary costs of copying the records and maps could be reduced Mr. Murphy arrived at the possible figure of Rs. 5-3-0 per 100 acres for direct cost of revision. He continued:—

"It remains to compare the cost of supervision. In the past season the cost of supervision of the 1,113 square miles surveyed and khanapuried for the first time was Rs. 27,276. The work supervised represents 1,592 months work for one Amin, the supervising staff being one Assistant Settlement Officer, one Kanungo and four Inspectors to every 48 amins. On the same standard the cost of supervising the survey and khanapuri of 290 square miles would be approximately Rs. 7,107 or less than half the direct cost. The cost of supervising revision would, if the supervising staff bore the same proportion to the number of Amins employed, be less than this in the proportion of 11,899 to 7,587. If the supervising staff is reduced so that one Assistant Settlement Officer and six Inspectors and one Head Inspector supervise 72 amins the cost of supervision will be further reduced in the proportion of 3 to 2. The cost of supervision would therefore be approximately Rs. 3,000.

The total costs to be compared are therefore :-

			_	Bevision Surve	y and Kharapu	rf
			Ran	rision.	Fresh Survey and Khanapur	
			Total	Coat por aquare mile.	Total.	Cost per
Direct Supervision	  •••	•••	  Rs. 9,647 3,600	Rs. 33	Rs. 15,096 7,107	Rs 52 24
		Total	 12,667	43	22,206	76

These figures indicate that the field cost of revision is somewhat over half that of a resh survey and kharapuri, the rates per square mile being Rs. 43.5 and Rs. 76.5 respectively. The assumptions on which these figures are based, are:

- (1) That the record m's average rate of progress will be 45 plots per day.
- (2) That they will be paid at the rate of Re. 1-14-0 per 100 plots so as to make their earnings average Rs. 25 per month.
- (3) That the average earnings of Amins employed on survey and khanapuri are Rs 25 per month.

If the average outturn per day of the recorders can be raised, the rate per hundred plots can be proportionately lowered and the recorders' remuneration, the cost of crolies and the cost of supervision which, together come to Rs. 41 per square mile or 94 per cent. of the total cost can be reduced proportionately. In these calculations the cost of supervision by the Settlement Officer, Assistant Settlement Officer in charge and the cost of the Headquarters Office has not been taken into account. The cost however will undoubtedly be less in revision than in original work, for the number of Amins, Inspectors and Assistant Settlement Officers required to complete the revision of an area in a given period being less than the number required for a fresh Survey and khanapuri, one Settlement Officer, one Assistant Settlement Officer in charge and the usual Headquarters staff can supervise a much larger area."

It will be interesting to see how these conclusions are borne out by results in North Bihar.

63. An investigation was also made during recess as to the possibility of reducing the an ount of work required and it was shown that the ordinary recess work could not be abridged without great sacrifice of accuracy. The position therefore was that in the rest of Gaya where these previously surveyed villages were scattered there would be no saving in the cost of supervision and the other costs of revision would be very little smaller than those of a new survey. As revision work necessarily involves some sacrifice of accuracy it was not thought worth while to incur this in order to save such a small amount. The Board of Revenue in their letter No. 17—133-4, dated the 7th August, 1914, approved of the proposals to carry out a fresh survey in these previously-surveyed villages instead of attempting to revise the maps and records.

64. An innovation introduced into the survey procedure in 1913-14 was the surveying of adopted stations. Features of survey work. One of the difficulties of revision survey was that of finding the original traverse stations. Even when these were marked by clay cylinders as were used in the 1893-98 survey it was often necessary to dig before they were found. When wooden pegs have been used as in the present traverse over the greater part of the district they will have disappeared by the time the revision survey takes place. The resurvey will have to be based on points which from their nature can be presumed to have kept their position unchanged on the ground, such as corners of buildings, trees, etc. These points are however surveyed by offsets in original survey and any slight error in their position, though unimportant for ordinary purposes, becomes serious when they are to be used as a basis for new survey. The only method of overcoming this is to ser et such points at the time of original survey and to survey them accurately in position by means of triangulation. Such points are known as adopted stations and are indicated by a circle with projecting radii.

The orders were issued late in the second year's season so that these stations will only be found in part of the second year's area and the whole of the third

year's area and not at all in the first year's area. When surveyed they are distributed as far as possible as traverse stations would be, that is to say, around the boundary and across the village in cases where a sub-traverse would be run. The system was improved by insisting on an adequate check of the triangulations. The accuracy with which these points have been surveyed can only be fully tested when the revision survey occurs. The general tendency of the Amins was to select trees as adopted stations even where more suitable objects were available.

In the absence of such stations difficulty was encountered in resurveying previously surveyed villages. As already noted, the revision had been abandoned, and these villages were surveyed on the basis of the old traverse plots. It was difficult to find the old traverse stations and in most cases they had to be relaid. Where the village was entirely surrounded by newly-traversed villages the difficulty was surmounted by pricking off on to the sheet the traverse stations of the surrounding villages, and this was often assisted by the fact that some of the old traverse stations had been utilized by the traverse party as new stations. Where, however, previously surveyed villages occurred in a block, this plan was not workable and it was found necessary to relay all the traverse stations in the block and to distribute errors before detailed survey was begun in any village.

Two large previously surveyed villages, Chatkari in thans Rajauli and Chakarbandha in thana Sherghati, which were largely jungle, had to be retraversed before cadastral survey could be done.

Boundary disputes.

Survey Act. It is more convenient to show this by thanas than by seasons for though the bulk of the disputes were raised during cadastral survey, a certain number were raised at attestation. Such cases mostly occurred in previously surveyed villages the proprietors of which had during the intervals between khanapuri and attestation got preliminary copies of the new map and after comparing it with the old one raised disputes when differences were found:—

Thana.	Number	Number of Boundary Dispute cases.	2014	Appeals to Set	tlement Office	r <b>.</b>	Application
	of villages.		Upheld.	Modified.	Reversed.	Remanded.	to Commis- sioner.
Arwal	249	66	13	3	1	1	1
Daudnagar	313	59	15	2		· ,.,	
Aurangabad	990	203	59	12	• • • •		1
Nabinigar	084	151	33	11	1		$ar{f 2}$
Jahanabad	698	248	41	17	1	5	
l'ikari	435	129	27	9	1	2	•••
Atri	272	88	17	6		1	1
Nawada	6⊍3	182	34	8	2	2	
Pakribarwan	141	61	.9	5	,	2	***
Mufassal and Town Gaya	687	172	40	9	1	6	•••
Rajauli	295	98	20	1 1	****	2 3	***
Sherghati	845	269	43	11	2	3	
Barachatti	666	128	25	. 8	2	2	
I otal	6,854	1,854	376	102	10	26	6

The number of disputes per 100 villages is 27 which is lower than anywhere in South Bihar except Shahabad.

Some of the first appeals had to be remanded for further enquiry before final decision. Many of them were cases where the evidence afforded by the Revenue Survey map had been unintelligently used. It frequently happened that both sides agreed to adopt the Revenue Survey boundary as the boundary without having the least idea where it lay on the ground or whether it differed from the boundary about which they were disputing. For various reasons it is extremely difficult and in most cases impossible to show with any guarantee of accuracy the Revenue Survey boundaries on the 16" maps without an elaborate process which would hardly justify the time and expense. It was more over unnecessary where evidence of actual possession at the present time was

available since that has to be the criterion, and a mistake often made was to accept a compromise on the basis of an inaccurately relaid Revenue Survey boundary when good evidence of possessson was available. It might be thought that if the proprietors agreed to the boundary however inaccurate, that should be accepted but when the said boundary cuts across a raiyat's holding or runs through the middle of a house, it is clear that others are affected and that actual possession must be considered. In cases where no evidence of possession was available, or where it was not conclusive, all that could be done was to relay the Revenue Survey boundary on our maps as accurately as possible and to follow the indication it gave. Thus if the land was jungle it was followed exactly. If the land was cultivated or waste the parties were usually induced to modify the compromise so as to make the boundary follow natural marks approximating to the position of the Revenue Survey line. They soon appreciated that it would be far more convenient to have an easily distinguished boundary than one which consisted of an imaginary line. In five cases, at the request of parties, boundary pillars were put down under section 46 of the Survey Act.

One difficulty in giving effect to decisions in boundary disputes arose during 1912-13, namely, in the particular class of cases when the dispute arose between villages separated by a hill which each village claimed. In most of these cases, especially if the hill was at all steep, the actual boundary was what one might expect it naturally to be, viz., the crest of the hill. It was impossible, however, to show this on the maps as the traverse had been run along the base of the hill on either side. It was therefore decided to teach inspectors how to survey topographically the crests of hills from known points in the plain below, by means of the sight vane and the theory of the triangle of error. This knowledge was utilized in mapping subsequent boundaries of a similar nature that occurred.

When the embankment of an ahar lay on the boundary between two villages, the pet or belly of the ahar in which water is stored being in one village, and the pith or back of the ahar over which the water is distributed being in the other village, there was generally a dispute as to which village contained the embankment. The landlord of the village in which the pith lay based his claim on the fact that as he benefitted chiefly from the ahar the embankment must be inside his village so as to give him full control over the repairs. He even in some cases claimed the bed of the ahar on this ground. In most cases the Revenue Survey map gave no help, since a narrow strip like an embankment was well within the limits of error subject to which we could plot the Revenue Survey boundary on our maps. Unless the embankment was actually shown in the Revenue Survey map there was usually no evidence to show which landlord was in possession. The repairing of the embankment is more properly regarded in this connection as a right of easement rather than an act of possession. Occasionally there were palm trees on the embankment which were proved to be in the possession of one side or the other and in such cases the possession of the embankment was held to go with the trees, but where no evidence was available the usual course was to put the embankment half in one village and half in the other. The rights of easement were fully recorded in the village irrigation record so that no difficulty need arise on this account.

66. The two boundary dispute cases of most importance were those in which village Donda, thana No. 211, thana Nabinagar and Chatkari, thana No. 290, thana Rajauli, were respectively concerned.

Village Donda is situated on the borders of district Palamau and its area as shown in the Revenue Survey was 25 acres. The Palamau Revenue Survey followed in 1865-66 and the boundary then shown was very little different from the boundary of 1844 but the work of this survey was impugned and in 1869 a Deputy Collector was deputed to demarcate again the boundaries of villages in the north of pargana Palamau including those adjoining Donda. This boundary the marks of which are still in existence was very different from the Revenue Survey boundary and gave Donda an area of 1,460 acres. It appeared on enquiry that the boundary at the time of the Palamau Revenue Survey had not been surveyed but had been enlarged from the one inch

lithographed maps of Gaya. The fact discovered by the demarcation officer in 1869 that a large area belonged to Donda which had not been assigned to it by the Revenue Survey was confirmed by the discovery of the same thing in 1908 during the balwara of an adjoining village Karma Lahang. The present boundary dispute case was raised by the proprietor of Donda, a purdanashin lady, in the season 1912-13. No evidence of actual possession was available and the Khanapuri Officer decided the case on the basis of the Revenue Survey boundary of 1814. Before attestation the village had changed bands and the new proprietor having secured a good deal of the evidence mentioned above applied to have the case re-opened, and Mr. Duncan, Assistant Settlement Officer in charge, made an exhaustive enquiry. The reason why this area had not been claimed before was that it was hilly jungle of no value, and it is probable that the Revenue Survey Amin saved himself the trouble of climbing hills. Mr. Duncan proposed that the boundary should be aligned along that demarcated by the Deputy Collector in 1869 and this was done. The Commissioner in appeal upheld this decision.

67. The second case arose in the season 1914-15. Chatkari is a Government estate in thana Rajauli which was surveyed in 1893-98 and the disputed boundary is the western boundary. At this point the adjoining village to the north is Karanpur, and to the west Delha. Both these villages were surveyed in 190-01 at the time of the survey of the Maksudpur estate. The adjoining village on the south is Belan which had not previously been surveyed in detail. The difficulty arose from the fact that the boundaries as settled at the two previous surveys did not agree, the discrepancy between them being large. This area was mainly jungle, but such evidence of possession as could be proved lay

The difficulty arose from the fact that the boundaries as settled at the two previous surveys did not agree, the discrepancy between them being large. This area was mainly jungle, but such evidence of possession as could be proved lay with Government who had leased out the two mica mines lying therein. The Khanapuri officer proposed, therefore, to decide the case in favour of Government as proprietor of Chatkari. When the case came to me for final decision it was noticed that the two previously surveyed boundaries though differing widely in position were exactly the same in shape and had river crossings marked on them which corresponded exactly. It was clear therefore that they represented the same line on the ground. A local enquiry showed that to ascertain which was the actual position of the line would require detailed survey. This was undertaken by the attestation officer, Babu Madhab Chandra Misra, in the following season. He showed that the real position of the boundary in order to make the river crossings correspond must be that claimed by Chatkari. He also got hold of documentary evidence which completely confirmed this. There was a boundary dispute case about the same boundary in 1894-95 the records of which were not, however, forthcoming. This was decided in favour of Chatkari. The boundary dispute was renewed in 1902 when Delha and Karanpur were under survey and the previous boundary dispute was referred to and upheld. Whether by accident or design, however, the decided boundary was wrongly put on to the maps of Delha and Karanpur and was not discovered owing to no boundary comparison being done. The mistake was favoured by a curious natural mark. At one place where the true boundary takes a sharp right angled turn in a large tree, there is an equally large tree half a mile to the east and in the Karanpur and Delha maps this point of the boundary has been transferred to the latter tree. The facts were further confirmed by land marks found on the border between Karanpur and Chatkari referred to in the boundary dispute case of 1902.

There could be, therefore, no doubt as to the correctness of the claim of Chatkari and the case was decided accordingly.

the time of survey any found missing were replaced and each stone was made over to the charge of a chaukidar. Again, in the following year at attestation, all the stones were checked by a Munsarim deputed for the purpose and a certain proportion by the Attestation Officer. The daffadars were given lists of the stones in their circles with the names of the chaukidars responsible. Similar lists with maps showing the numbers of stones were made over to the Collector.

# (IV) KHANAPURI.

69. The following table shows the progress in preliminary record.

Progress. writing:

Year.	No. of plots.	No. of Khatians.	No. of plots to square mile.	No. of plots per Khatian.	
1912-13	 1,742,997	214,659	1,'81	8·1	
19:3-14	2,612,775	40:,068	1,033	8·4	
1914-15	1,181,920	217,643	≥31	6·3	

The higher number of plots per *khatian* in the first year's area is due to the fact that in the revision villages land held by one *raiyat* on different systems of rent was all entered in one *khatian* as had been done at the previous survey.

70. The check of the khanapuri or preliminary record-writing is shown

Check of khanapuri.

in the following table:-

Year.		Percentage of pla	ts completely checked.		Romanda
1 621.	Assistant Settlement Officers.	Kanungos.	Inspectors.	Total.	Percentage of Khara may check.
1912-13 1913-14 1914-15	0.98 ".76 1.31	2·70 1·10 1·79	12·42 11·54 11·99	16·1- 13·40 15·09	0:45 0.03 0:02

The low amount of check in the second year was due to the large incidence of plots to the square mile. An officer cannot check more than a certain number and if the number of plots in his circle is large, the percentage of check goes down. In South Monghyr when the Settlement Department had for the first time full charge of the preliminary record-writing the percentage of check was 15 per cent. Mr. Murphy in paragraph 59 of his report on the Settlement of that district compares this with the percentage of check carried out by the Survey Department and found it not inadequate. Apart from the second year's area the check may be therefore regarded as satisfactory.

71. Khewat-writing began on the basis of the Collectorate Register D while survey was going on. It was essential that the khewat should be ready before

khanapuri began because the arrangement of the khotians depends on the khewat. As usual the existing state of things was found very different from that recorded in register D and it is to be regretted that the Ekhetelaf khewats which show how the difference between Register D and the khewat arose were not properly and completely written up, as they would have been of help in the revision of Register D. In order to keep some check over inspectors it was ordered after the first season that each Assistant Settlement Officer and Kanungo should each write about 10 per cent. of the khewats in their circles and check 20 per cent. besides. In order to ensure their ability to do this, they were required at the examination after their training to write out a fairly complicated khewat from given details.

72. The following table shows the number of internal disputes:—
Internal disputes.

	Year.		T	ians.	ĺ	No. of disputes.
			Arwal Daudnagar Aurangabad Nabinagar		••• }	11,647
		,	Daudnagar	•••	•••	11,467
1912-13	•••	3	Aurangahad	***		12,323
014-10	••	(	Nabinagar	***	•••	9,580
		ŕ	Jahanabad	•••		18,699*
		1	Tikari			12,756
913-14		∤	Atri	•••		7,902
819-14	•••	}	Nawada	***		13,920
		ì	Pakribarwan	•••	[	5,004
		>	Mufassil and Tow	zn Gavo	}	11,3%5
		(	Rajanli		1	2,420
1914-15	***	.,, {	Rajauli Shergbati Barachati	•••	•••	7,425
4022		1	Deschali	•••	••• {	7,950 9 K C 1
		(	Darachati	***	•••	3,561
			Total	•••		127,439

This gives an incidence of 27 disputes to the square mile or 1 dispute for every 45 plots which is lower than any other South Bihar district except Shahahad. The average in the thanas bordering on Patna is 40 disputes per square mile.

Nature of disputes.

Nature of disputes between landlords. The most tidar villages between landlords. The most difficulty arises are put in difficulty all different khatians.

The system adopted in the operations of 1894-98 in this district of putting all the land held by one raiyat into one khatian had been dropped many years ago as it was not found to be satisfactory. In the cases of villages where the record was revised however, we adhered to this arrangement not realizing how unsatisfactory it was. The main difficulty arises from the fact that in plots held on ordinary cash-rent no entry is made in column 8 of the khatian and this leaves an opening for tampering with the record apart from the liability of clerical errors: it is difficult also to get the details of areas of the land paying different kinds of rent accurate.

There were three classes of these disputes, first, whether the rent was a cashrent or produce-rent; secondly, whether in the former case it was a permanent cash-rent or merely a temporarily commuted produce-rent, and thirdly, whether the produce-rent was batai (division) or danabandi (appraisement). These disputes were in general difficult to decide. The tenants had no evidence, as rent receipts are seldom given even for cash rents, but the landlords had no better evidence, their assertion being supported by the production of village papers usually manufactured for the purpose. In the 9 annas Tikari estate and the Doo estate where there had been previous settlements while the estates were under the Court of Wards there was no difficulty, and in fact no dispute on the subject. It was in the smaller estates that the question was troublesome. The landlord was as usual called upon to prove his claim and in the cases where he failed to do so the tenant's claim was recorded in the absence of any other evidence. The bulk of these disputes were raised again at attestation when they were decided after a more detailed enquiry.

74. An important duty of the *khanapuri* officer is to see that landlords are not claiming land as their *bakasht* which is really cultivated by raiyats.

This is more easily discovered at khanapuri when visits are made to the villages than in the following year at attestation. One of the worst cases detected was in the village of Oriar Khurd, thana No. 574, thana Mufassal Gaya. The area of the village was 200 acres out of which over half including all the cultivated land was claimed by the landlord (the Mahanth of Narhat). The khanapuri officer on reaching the village began to make enquiries because there were a number of cultivators in the village. After some trouble he discovered the rayals of 28 plots and as they were then speaking freely the Amin was left to record the rest. The following day, hearing that matters were not going satisfactorily, he returned and found that the patwari after his departure had forbidden the raiyats to point out their fields and on the arrival of the Mahanth in the evening the raiyats had been threatened with dire penalties and had gone into hiding. The Assistant Settlement Officer managed to find a few and after four hours succeeded in finding the actual cultivators of about 180 plots. They were all settled raiyats except two. The work had been so thoroughly well done that it was not contested by the landlord at attestation. Even so the landlord had managed to retain 55 acres as his bakasht land, but it is impossible to believe that he cultivated it all himself. Such claims were very common except in the large estates.

75. At the previous settlement the custom as to trees in the 9 annas Tikari estate and Government estates was that trees in cash rented or rent-free lands belonged wholly to the tenant. Trees in produce-rent lands belonged half to the landlord and half to the tenant as regards both timber and fruit. Trees in

waste lands belonged wholly to the landlord unless they had been planted by the tenant in which case the tenant had some share, somtimes half the fruit and sometimes half the fruit and timber.

In the Belkhara Mahal the cutting of trees was found by Mr. Stevenson-Moore to be entirely at the option of the landlord though when cut the tenants had the usual half share.

These rights were the subject of considerable dispute at khanapuri. It was found that the general statement above which is taken from the final report was not altogether borne out by the records except as regards cash rented lands. In respect of trees in bhaoli lands and waste lands there appeared to be no general custom. The officer working in the revision camp in Nabinagar and the west of Aurangabad than a reported that usually the tenants took all the fruit even in bhaoli lands, except in a few cases where thikadare demanded a half share. The result was that except in cash rented lands where the tenant's right was well established every case had to be gone into on its merits.

Rights in trees are of two kinds, first the right to cut down and secondly the right in the fruit and in the timber when the tree is cut. The first right is provided for by section 23, Bengal Tenancy Act, which lays down that the tenant is not entitled to cut down any trees in contravention of any local custom. Usually landlords claim that it is a local custom that trees shall not be cut down without their permission but the only estate where this is really enforced is the Belkhara Mahal This custom where it exists is supposed to be recorded in the village notes but in a number of cases this had not been done. Usually what happens is that if the landlord wants timber he enforces this custom but otherwise he does not bother about it and with the connivance of the village officials the raiyat cuts his trees when he likes and appropriates most of the timber. As to the rights in the produce and timber the landlord could usually produce papers showing the division of the produce if the produce was divided. It was usually more difficult to decide as to the timber. The record only shows the rights in fruit-bearing trees; in the case of non-fruit-bearing trees only the number of such in each plot is shown without any specification of the rights.

76. The lands at the sides of the District Board roads were the source of some dispute. Most of the land forming the District Board roads has not been acquired but has been given by the zamindars. A year or so before the survey operations began the Board had boundary marks put down alongside all their roads to show the boundaries of the land over which they claimed rights. These claims as defined in a resolution at the meeting held on 27th September, 1912, extended over 22 feet of land on each side of the 1st, 2nd, 3rd and 4th class roads and over 12 feet on each side of 5th and 6th class roads.

The claims were (1) a right to keep the first two feet from the bottom of slope on each side of the road uncultivated, and (2) a right to take earth at any time from the remainder for repairing the road.

Prior to this, however, the Board had been claiming that the whole of the road between the boundaries laid down should be entered in their khatian. This was clearly not maintainable in the case of roads acquired by gift because nothing more than the roadway had been given. As to roads acquired by purchase it had to be shown that the stones put down by the District Board agreed with the acquisition plans. The right to keep two feet uncultivated was not, I think, proved anywhere except in roads acquired by purchase and the general right to take earth to a uniform distance of 22 feet also was not proved because the pillars put down by the Board were not uniformly at this distance from the roadway and where the road crossed embankments or irrigation channels or passed through village sites the right was not claimed.

The procedure adopted in non-acquired lands which was accepted by all concerned was as follows: The actual roadway was recorded in the District Board khewat and khatian. The boundary line of pillars was shown by a dotted line. The plots falling between this dotted line and the roadway were

recorded in the landlord's khewat and the appropriate khatian it being noted in the remarks column that the District Board had the right to take earth if required for mending the road.

The Gaya-Dobhi road was first treated in this way but the District Board were subsequently able to produce papers showing that it, like the Gaya-Patna road, had been acquired and the boundary was resurveyed on the basis of plans prepared in 1876.

Some trouble arose about roadside land on the Grand Trunk Road in village Surujmandal, than No. 148, than Barachatti. The landlord had let out the land to tenants and claimed that the land had never been acquired and that all the right the Public Works Department had was a right to take earth for repairing the road. The land was eventually recorded in the Kaiser-i-Hind khatian with a note of the possession of the tenants.

77. A system was introduced in 1913-14 of comparing the settlement maps with the land acquisition plans of lands Railway lands. acquired for the East Indian Railway. In the first year's area the work had all to be done after attestation but for the remainder of the district the following plan was adopted. During recess after khunapuri the village maps which contained any railway land were compared with the land acquisition plans. It was necessary to use the plans in the office of the Board of Revenue because it is only on these plans that subsequent changes are recorded; the copies in the Collectorate are not kept up-todate. The plans are not on the same scale as the maps but the land usually consists of long strips of uniform width and comparison was easily made by means of the proportional compass. Where differences were found, a trace was made on the 16" scale showing the cadastral survey in black and the land acquisition survey in red. These traces were sent to the Attestation Officer in whose area they lay in the next season for determination, after local enquiry in company with representatives of all concerned, of the correct boundary. After final publication the records and maps were again examined by the Railway Engineer and any mistakes were corrected under section 108 A. The result is, I am informed by the Railway Engineer, that the records and maps in this district are more correct in respect of railway land than in any other district of which he has experience.

Railway B. class lands, which are acquired lands sold revenue-free when no longer required, were as usual entered revenue-free if found in the Collector's Register B. Many cases were discovered where the purchaser held the sale certificate showing that he had bought the land revenue-free but the land was not found in Register B.

78. In connection with the comparison of land acquisition plans it was noticed that the difference in scale caused Scale of land acquisition plans. a good deal of difficulty, and practically prevented the use of Settlement maps in the acquisition of railway land. The scale used by the Settlement Department is 16" to the mile or 330 feet to the inch, while that prescribed by the Railway Board for railway acquisition work is 400 feet to the inch. An experiment was carried out in 1914 to see how far the Settlement maps could be used for acquisition purposes if the scale laid down for railway land acquisition was altered to that of the Settlement maps. With the assistance of the District Engineer, East India Railway, a small length of suppositious new line near Rafiganj was surveyed. It was first surveyed in the usual way by the Railway surveyor followed by the land acquisition amin. Then the centre line and outside limits of the land required which had been marked by the Railway surveyor, were surveyed on the cadastral maps in the same way as new boundaries are surveyed in revision. One of the villages in which the railway was being surveyed was one that had been surveyed in 1901 and the old map was used. When the centre line and outside limits had been put in the maps the portion between the outside limits was corrected, where necessary, to show changes that had occurred since 1901. The result was compared with the work done on the land acquisition system.

A full report of the result of the experiment was submitted to the Board of Revenue, and Mr. Duncan, who was then acting as Settlement Officer,

expressed the opinion that the adoption of the method of surveying the lines by the Railway surveyor on the cadastral map would improve the land acquisition work by making the comparison with the record of rights easy and simplifying the work of area extraction. The work would be still easier if the scale used by the Railway surveyors, viz., 400 feet to the inch was changed to the scale used in the Settlement maps, but a proposal made by the Local Government to this effect was not accepted by the Railway Board. The enlarging of the scale to one of 100 feet to the mile for land acquisition survey appears to be entirely unnecessary.

79. The only special feature of khanapuri that calls for remark during the season of 1912-13 is the treatment of the land forming the bed of the Sone river. Two questions arose. The first was as to the boundaries of villages on the banks of the river. Owing to the omission of the Revenue Surveyor to compare boundaries it was found that the Revenue Survey boundaries of the villages on the Gaya side did not agree with those on the Shahabad side, there being several gaps and overlaps. It was decided, and to this none of the parties had any objection, to divide the gaps and overlaps equally between the adjoining villages. A similar course had been adopted in the case of the

villages on the Gaya side did not agree with those on the Shahabad side, there being several gaps and overlaps. It was decided, and to this none of the parties had any objection, to divide the gaps and overlaps equally between the adjoining villages. A similar course had been adopted in the case of the portion of the river flowing between Patna and Shahabad districts in 1910. The second question was more difficult and related to the ownership of the bed of the river, i.e., the portion between the high banks. Mr. Duncan held an enquiry into this taking a number of villages along the bank as test cases. He found that no general principle could be applied. The history of each village would have to be examined to see if the river bed had been included in the estates permanently settled and when this history had been ascertained the question was not easy to decide, owing to the difficulty of apportioning the area among the various estates in the village. There was a general claim by Government that the bed of the river was public domain. It was eventually agreed by all concerned that in view of the valueless nature of the land at present it would be a waste of money to undertake the expensive enquiry necessary to ascertain the rights of the parties and it was accordingly decided to enter all this land in a separate khewat with the entry "Nadi Son" in the column for proprietor's name. This course leaves it perfectly open to the parties (including Government) if the land in future does become valuable to advance their claims without having any binding entry against them in the record-ofrights.

In 1913-14 a modification was introduced into the system of working khanapuri circles. It was arranged that each officer should as the work progressed decide which two of his four halkas were likely to finish first and to make a special effort to finish one by February 1st and the other by February 15th. The object of this was to make records and Inspectors available for starting the preliminary recess work in February so that the amins returning in March and April would be able to begin the later stages at once. The idea though not fully carried out resulted in a considerable improvement and there was a complete avoidance of any rush at the end of recess to get records ready for attestation although the programme was a large one.

The new system of training junior civilians was tried for the first time in this year. Instead of being more or less spectators of the operations without responsibility, the officers on training were each put in charge of a cadastral circle having for assistance a competent Kanungo and a Sub-Deputy Collector who eventually took charge of the circle. The system worked well and with a few alterations in detail proved even more valuable in the following year. It was found advantageous for the officers to put in a fortnight or three weeks at an attestation camp after doing cadastral survey for a month and a halt before beginning to supervise khanapuri. The attestation work gave an insight into the record and thus showed the way in which disputes should be decided.

In 1914-15 was carried out the survey of the Gaya Municipality under the Calcutta Survey Act. The report on this will be found in Appendix XXIX. The experience gained enabled us to give a better arranged record when the subsequent survey of the Monghyr Municipality was done.

80. The usual system was followed in the matter of getting village names spelt correctly. The khanapuri Inspectors had to make a list of villages in their

tors had to make a list of villages in their halkas. These were examined during recess by a Head Inspector with a knowledge of English and the Hunterian system of transliteration. He drew up a complete list of village names with their transliteration which was passed by the Assistant Settlement Officer in charge before being used for printing the map headings. In the following year at attestation one of the duties of the Attestation Officer was to enquire into the correctness of the village names and report for orders any changes which he thought necessary. In a few cases the correct spelling has been departed from in view of custom. Tikari which is so spelt in the Civil List should really be Tekari. This was ascertained late in the second year's attestation when the change would have involved entries in every village map of thana Tikari. As the existing spelling was well established it was decided to leave it. Sherghati is another interesting example. In the vernacular village papers the name is almost invariably spelt Shaharghati (the town on the pass). The District Board on the bungalow furniture prefers to spell it Shairghati. The form Sherghati with its suggestion of tigers was well established and it was decided to retain it.

Gaya itself was the subject of some discussion. In the record it is spelt Gea by the amins that being the nearest they could get in Kaithi to the usual pronunciation. This pronunciation, approximately the same as the comparative of the adjective 'gay', is much nearer the one in actual use than the modern English pronunciation which rhymes with 'higher', In he old days when the town was first made a Civil station the Board of Revenue were very uncertain as to the spelling. The Collectors almost invariably used Gya but the following have allbeen found in the Board's letters about 1800:—Gya, Gyah, Gaya, Gayah and even Guyah! The spelling used by the Railway Company in the station is Gya which is an exact transliteration of the Devanagri. We have retained the well established form Gaya. If in doubt to the pronunciation, travellers in the district will do well to ask for Sahebganj.

A common termination to village names is the word Bigha meaning a hamlet. This word has no connexion with the common measure of area as the G and the H are separate letters. It should more properly have been written Bigaha but here again custom was too strong.

A recurring difficulty was met in names embodying Persian words where the English transliteration of the Persian and accepted Hindi equivalent differed. Again in trying to ascertain the name of a village as pronounced by educated persons it was not always easy to find one of this class. The spelling is therefore often a compromise.

81. Up to the present the record has been written in the Kaithi script and the printed headings have been in the same form this being the only script which can be read by 90 per cent. of the literate raiyats. For a similar reason all forms and vernacular rules have been printed in Kaithi as the majority of amins and safai muharrirs are unable to read Devanagri. Some years ago rules printed by oversight in Devanagri had to be replaced as they were useless. The use of Devanagri in printed forms and rules will give rise to difficulty and render the printed headings of the record and notices unintelligible to the majority of those for whose use they are intended.

# CHAPTER V.

# ATTESTATION AND COMPLETION OF RECORDS.

Progress of attestation. Since the revision villages were attested in 1913-14, in the usual course with those which had been surveyed for the first time in 1912-13. The following table shows the progress of the work:—

Year.		No. of Camps.	No. of villages.	No. of plots.	No. of Khatiana.	No. of disputes	
1912-13	•••	1	52	55,386	4,883	.76	
1913-14		19	2,074	1,687,611	209,776	22, <b>2</b> 57	
1914-15		27	2,202	2,627,138	409,068	2 <b>8,77</b> 0	
1915-16		16	2,507	1,384,445	217,643	16, <b>2</b> 5	

83. I was in charge of the one attestation camp in 1912-13. Mr. Duncan had charge of 10 camps and Mr. Boyce of 9 camps in 1913-14. Mr. Duncan had charge of 12 camps. Mr. Dain of 14 and Mr. Peck of one in 1914-15. In



thikadar to batai the system of rent was recorded as danabardi with a note in the special incidents column that during the period of the least the system had been temporarily changed to batai. This was the method of entry used in 1913-14 and 1914-15. In 1915-16 on the suggestion of the Commissioner the entry in these cases was changed. Batai was entered as the system of rent and a note made in the special incidents column that at the end of the time the proprietor had the option of reverting to danabardi. The principle is the same and only the method of entry has been changed. A similar course was followed where the thikadar had changed the rent from produce rent to cash rent without the consent of the proprietor. In this case the change was usually more clearly against the interest of the proprietor because the general practice was to take a large salami and fix a low rent. In these cases the cash rent was entered as chakath for the period of the case.

85. In trying rent disputes a good deal of discussion arose over the exact effect of a Civil Court decision in a rent Question of resjudicata in cent cuits. suit as to the rent payable. This was brought into prominence by the prevalence of produce rents. In the case of cash rents the question usually for decision is "what is the rent legally payable" and in the case of a cash rent t is can be defined with certainty so that the tenant-defendant knows what is claimed against him. In produce rent cases the position is different. All the tenant knows is that a certain number of maunds of grain or their equivalent value is claimed from him. An elaborate examination of the landlords' papers is required to see how it has been arrived at. A mere attack on the calculation, e.g., of the shares is of no use because even if it succeeded it would only make a small deduction in the rent. What is wrong in most of these claims is that the estimated produce is grossly exaggerated. I have no doubt that many of these suits are brought to coerce recalcitrant tenants and that in such cases the estimated produce is always overstated. This is the only point usually worth attack when the case is contested. As the District Judge points out, however, recently the tendency has been to contest shares. I regard this, however, a temporary condition of things due to the desire to get a decision on the point which can be put in as evidence before Assistant Settlement Officers. When the question of produce is not contested the maliks' papers are accepted and the questions of shares, etc., are not gone into. When rent questions are gone into at attestation, however, the position is different. Here the actual amount of produce rent is not in question and it is the system of arriving at the amount from the gross produce that is important. Apart, therefore, from any legal aspect of the case it is clearly inexpedient that we should be bound by Civil Court judgements in which these now very important considerations, which were not important in the rent suits, were not gone into at all.

To turn to the legal aspect, the question is whether decisions in rent suits are res judicata in a suit for rent of a subsequent year. I take first the special case of abwab. If in a suit for rent the tenant has not raised the plea that part of the amount sued for is abwab and therefore not recoverable, is he barred from raising this plea in a subsequent rent suit or proceeding to determine what the legally payable rent is? It has been held that he is not so precluded under the authority of the ruling given in Umesh Chandra Maitra versus Barola D.s Maitra, I. L. R., 28 Cal. 17. In that case it was held that where abwab were definitely shown to be included in the landlords' claim for rent, the tenant was not stopped from proving this, because in a previous rent suit the question had not been raised. The reasons given were that abwab were definitely prohibited by law and not recoverable. It was also said that explanation II to section 13 (now explanation IV of section 11) of the Civil Procedure Code did not bear out the contention that the raiyat was barred from raising the plea.

I now consider the more general question as to how far rent suits are res judicata. In O'Kinealy and Rampini's Civil Procedure Code this point is discussed under section 11 (p. 105, Edn. 1908). It is shown that the cases are conflicting. Some courts have held that explanation IV does not apply to rent suits as the subject-matters of the two cases being the rents of different years

are different. Other courts have held that it does apply. The law is therefore unsettled, but the authors of the commentary add that the former view would appear to be the correct one. The Calcutta cases are generally in favour of this. It is true in Bakshi vs. Nazamuddin, 20 Cal., 505, it was laid down that where in a rent suit a Judge tries and gives a judgement on the question "what is the yearly rent" and makes that the foundation of his judgement that becomes res judicata between the parties and one Judge (Norris, J.) added that even if it were not res judicata it would be some evidence. In a later case, however (Kailash Mandal vs. Baroda Sundari Dasi, 24 Cal., 711), Maclean, Chief Justice, said, "a decree in a former suit by a landlord against a tenant for rent then due does not constitute res judicata in a subsequent suit for rent subsequently accrued by the same plaintiff against the same defendant." Banarji, J., said that even if issues might and ought to have been raised in the previous case, it did not follow that they were heard and finally decided. This case was referred to and approved in Umesh Chandra Maitra's case, 25 Cal., 17, above.

The view taken in deciding rent disputes was as follows. The principle of res judicata is designed to give finality to litigation. Where there is no finality in litigation from the nature of the case as in recurring liabilities the principle must obviously have its limitations. Rent is a recurring liability which is subject to changes both in its nature and amount. In what sense, therefore, can it be said that a decision as to what the rent is for any year is res judicata? It cannot mean that it fixes the rent for ever. It can only, therefore, be absolutely reviduata as regards the rent for the particular years in suit. As regards subsequent years its effect is indicated by section 51 of the Bengal Tenancy Act, and all that can be said is that it raises a presumption that rent in subsequent years continues unchanged, unless the contrary is proved. That is to say, in cases where a matter is res judicata, an unrebuttable presumption is raised. A decision in a rent suit raises a presumption which is rebuttable. Section 51 of the Bengal Tenancy Act is a special provision regarding rents and, therefore, by the well-known rule of law overrides the more general provision. The application of this principle is simple in cash-rent suits and its effect is of course to throw the onus on the raivat of showing that the rent claimed is not that decided in the previous suit. Thus supposing in the original suit the annual rent was claimed to be Rs. 6 and the raiyat having raised the point that Re. 1 was illegal abwab, this point was decided against him. In a subsequent suit for rent at Rs. 6 if the riayat raised the same point on the same evidence it should be held res judicata or to put it in another way the presumption under section 51, Bengal Tenancy Act, had not been rebutted. But suppose he had got hold of papers which proved that for the years for which rent was claimed in the second suit Re. 1 of the rent was abwab, would be debarred from proving this by the principle of res judicata? I think not.

The question of cash-rent is, however, principally covered by the ruling as to abwab. It is when we get to produce-rents that the necessity of clearness on the point of resjudicata is greater.

Take a very common case in Gaya. The system of rent in a village is batai. Some tenants get a little refractory. A coercive suit for arrears of rent is put in the landlord claiming danabandi because if he admits batai the onus is on him to show that he has not received the rent. To support this he files danabandi papers made for the purpose of the case or, what is a common practice, made yearly, although batai is done, to provide for these contingencies. The court decides that danabandi is the system of rent in the village and bases the decree on this. Would this be res judicata in a suit against the same ranyats for subsequent years? I think not, if fresh evidence could be produced. The raiyat in the subsequent suit might be able to produce the genuine butai chitta and show that actually batai had been done in the years to which the second suit referred. They had not this evidence at the time of the first suit as it was not in existence; how, therefore, could this point have been raised? Under the principle I have suggested, it is quite clear that the raiyats could produce this evidence to prove that the rent in the years of the second suit was not what had been previously decided. Of course if the raiyats could not produce at the second suit any more evidence than they produce at the first suit the decision of danabandi thus would have to be followed whether we argue from the principle of res judicata or from the suggested principle. A similar argument applies to the question of shares in the grain when divided, and as to actual amount there can, of course, be no question of res judicata, where the amount depends on the total crop.

It is true that systems of rent in the villages are becoming far more stereotyped now than formerly, and changes in the nature of rent are not so frequent. But we still find a larger number of cases where there is no fixed system, the question being settled by mutual arrangement at the beginning of each year or some time before the harvest. It is clear that to apply the principle of res judicata to such cases would be a farce and might souse gross injustice.

The question was considered recently in III, P. L. J., 372, when it was held that a decree in a rent suit was not res judicata except for the rent of the years in suit unless the rent was payable at a rate stipulated by a contract.

86. The greatest obstacle to the ascertainment of legal rents was the habit so ancient, constant and notorious that Forgery of papers. it might be almost held a custom, of the production of false papers by the landlords and I suggest that this is a matter to which the attention of the various landlords' associations should be directed in order that this blot on zamindari management should be removed. In various parts of this report will be found examples showing the use made of forged papers and I need only give two instances here. The first occurred in the village of Kurkihar No. 592, than Mufassal Gaya. In this village there was a dispute between the landlord Rai Hari Prashad Lal and his tenants about rent, both as to the amount of cash rent and as to the system of produce rent, the landlord claiming danabandi nausat and the tenants batai nisf. Some time ago 17 tenants sued in the civil court to obtain a declaration that the system of rent was batai but eventually it was finally held by the High Court on the basis of papers produced by the landlord that the system was danabandi. These papers were produced before the Attestation Officer. At the same time another set of papers was produced from the Munsif's court where they had been filed in connexion with rent suits.

A comparison of the papers disclosed the fact that they purported to be for the same years 1312-1321 and therefore both could not be originals and moreover in many cases they differed in detail. The landlord on being asked to explain this, admitted that they were both copies of the original which had been made as the original papers were being destroyed by white ants. The difference between the two copies was not satisfactorily explained. Neither of these sets of papers was complete as they did not include the dhadhas, the paper in which abwabs are usually found if they exist. The Attestation Officer had called for these dhadhas and they were produced piece-meal as well as the papers from 1307-1310. These dhadhas were clearly forged and in one case, that of 1317 which the patwari swore had not been copied, the dhadha was written partly in blue black ink which was still blue.

The Attestation Officer succeeded in getting hold of some genuine siaha and a few laggits for years prior to 1316 and a mofarad of a private measurement of 1281. A comparison of these siahas showed that they agreed with the copied siahas in detail but showed a smaller balance indicating that in the "copies" the balance had been increased to agree with the bigger realization shown in the laggits. After a full examination of the papers it was ordered that batai nisf according to the raiyats' claim was to be recorded except (1) for the 17 tenants in whose cases the order of Civil Court was resjudicata and (2) for certain tenants who in giving evidence on the side of the landlord in the above case and in rent suits stated on eath that their holdings were danabandi.

As to the cash rents the present rents agree with the entries in the Road Cess returns that the mofarad of 1281 Fashi showed very much lower rates.

Some later papers of 1297 Fasli showed the same rates as the mofarad so that the enhancement which took place prior to 1305F., the first year of the Road Cess return, must have taken place after 1297-F., corresponding to 1890 and it is therefore governed by section 29 of the Bengal Tenancy Act. The present holdings could in nearly all cases be identified with those in the mofarad and on the basis of this the old rents were attested. In the case of holdings that could not be identified or in the case of new settlements rents were attested at the present rates.

The second case I shall mention is that of Barma Chak No. 692, thana Sherghati. The maliks filed sets of siahas and laggits from 1312 to 1323. All the papers from 1317 onwards were genuine but of these from 1312 to 1316 the laggits were certainly forged while the siahas and mulhakis were genuine but contained interpolated entries and pages. The appearance of the entries in the mulhakis and siahas first created suspicion and on testing the cases of several raiyats it was found that on removing suspected entries from both siahas and mulhakis the balances agreed. There was one case in particular where a difference of 0-2-0 was found between the siaha total and the mulhaki total. On examination this was found to be due to the fact that 16-12 had been added to the mulhaki in two sums of 8-6 each. The same amount had been added to the siaha by altering an amount of 0-2-0 to 15-12 by changing the two annas into the figure 6, adding a 1 before it and twelve annas after it. The patwari forgot that he had lost 0-2-0 by this process. Further, one or two kachha receipts were obtained and the totals of these agreed with the mulhaki entries less the sums paid subsequently to the date of the receipt and the interpolated entries. The interpolations were moreover done carelessly so that the sighas did not run in chronological order. The object of the forgery was to conceal a large illegal enhancement that had taken place in 1316.

87. Apart from the ordinary disputes between raiyats as to the possession of a particular plot there were a number Possession disputes, village Umga. of disputes between landlords as to the proprietary possession of lands in a village of which I select the following. In 1913-14 a dispute arose about the possession of tola Badam of village Umga, thana Aurangabad, No 986, about which there had been litigation. The inssession of this tola, which was described in the plaint and decrees of the civil suit by a number of vague boundaries, such as nalas and hills had been the subject of disputes between members of the Deo family ! ultimate | 11 was bought pendente lite by the present Muhammadan proprietors. After winning a title suit up to the High Court the Muhammadans were put in possession of the tola shortly before attestation but there was immediately a dispute as to the limits of the tola and the land of which they had been put in physical possession. During the survey of the Deo Wards Estate in 1903-04 the whole of mauza Umga was divided up into a number of tolas. Some of these corresponded and some did not correspond to old Collectorate mauzas. Unfortunately no attempt was made to bring the Collectorate register into line with the record-of-rights then prepared. The Muhammadan claimants had had themselves recorded as the 16 anna proprietors of this tola in the Collectorate registers. If the Collectorate registers had agreed with the old record-of-rights there would have been no question that the area for which the Muhammadans had themselves recorded was the tola as described in the record-of-rights: unfortunately this is not so, and an attempt had to be made to identify the tola from the description of it given in the decree. If the map and records of the village had been referred to by the various Civil Courts as they should have been, the decree-holder would have been put in possession of a definite piece of land and further litigation would probably have been saved, since the main reason the Deo estate is persisting in the case is that the area given to the decree-holder includes some valuable land which really belongs to other tolas. The Deo estate has appealed to the Privy Council but no decision will be of any value until the identity of the property in dispute is made out.

88. A satisfactory ending to a long standing series of disputes was effected in village Khakhari, than No. 5, than Pakribarwan. There had been a lot of litigation between the landlord and the tenants (civil, criminal and revenue)

and the landlords were reported to have spent about Rs. 40,000 and the tenants about Rs. 10,000 on their cases. In 1913, both the landlords and the tenants filed petitions before the Subdivisional Officer of Nawada and the Munsif of Gaya before whom several cases were pending asking that they should be allowed to have all their disputes settled by panchayat, and stipulating among other things that all produce rent should be made cash rent at rates to be fixed by the panchayat with effect from 1321F. (1913-14). Two panches were selected by the tenants and two by the landlords. The khanapuri of the village took place before the panches gave their award and all the produce rent lands were recorded with the consent of both the parties as being held on cash rent. The panches gave their award after khanapuri, but the tenants refused to accept it as the rent fixed was considered high. The Munsif accepted the award in spite of the tenants' chiections in respect of the rent suits pending before him. The tenants moved the High Court and the case was pending before that court when the attestation proceedings commenced. The tenants put in disputes that the produce rent lands should be recorded as such and as the case was pending in the High Court this was accepted by the Attestation Officer. The tenants were divided into two parties; one set apparently siding with the matik filed section 103-A objections, claiming that the bhaoli lands should be recorded nukdi at the rates fixed by the panchayat, and the other set did nothing. The landlords on the other hand filed section 103-A objections claiming that all bhaoli lands should be recorded nakdi at the rates fixed by the panches. The section 103-A officer roent two days going through the papers and finally succeeded in getting the rties to compromise at rates somewhat lower than those fixed by the para-

89. A curious case of confusion of parties was found in 1914-15 in village Umta, thana No. 261, thana Jahanabad. Villege Umta. The village had been partitioned in 1832 into four tauxis which did not form compact blocks, but were scattered all over the illage. Subsequently there was a private partition of each tauzi and in order to get this made permanent, applications were filed in 1890 and subsequent years for a Collectorate partition. Proceedings were taken and in 1901 parchas were distributed to the landlords and raiyats. When the proceedings came before the Collector he refused to confirm them on the ground that the safety of the Revenue would be endangered. The proceedings dropped and matters continued on the lines of the private partition. In 1907 a dispute arose about the possession of a field. The raiyat in actual possession (A) was not the same as the holder of the batwara parcha (B). There was a quarrel between one co-sharer malik C, in whose takhta according to the private partition the field lay and D, another malik. D induced A to stop paying rent to C whereupon C prevented A from ploughing the field. A brought a case against C who, in order to save himself, set up the defence that the raiyat really in possession was B. The Subdivisional Officer believed this defence on the basis of B's butwara parcha. The value of the butwara parchas which had hitherto been regarded as scraps of paper became apparent, and the resulting scramble on the part of both landlords and raiyats to get hold of their butwara land if they had kept their parchas and to keep possession of what they had already, resulted in considerable confusion. The khanapuri officer treated the whole village as ijmal and recorded actual possession. The actual state of affairs was not realized until attestation when it was described as follows by the Attestation

"From 1315-F. (1908) there has been no fixity of raiyats and maliks Raiyats have been changing their maliks at will and have paid rent in one year to one malik and in the next to another. Some of the maliks who have been able to win over raiyats to their side have been treating the village as ijmal as this was to their advantage since they would appropriate the whole rent without paying their co-sharers anything. The other maliks who, though they have been paying Government revenue regularly, have now no bakasht land in the village and do not collect a pice of rent."

In the circumstances there was nothing to do but to record the facts and treat the village as *ijmal*. Even the old division of tauzis has been obliterated.

90. A favourable opportunity of enhancing rents is presented by partitions and landlords in Gaya have not been slow to take advantage of it. This

is especially the case with civil court partitions to which the raiyats are not parties so there is ample opportunity for overstating rents. Even in Collectorate partitions when rents are attested prior to the partition there are sometimes undetected enhancements. An instance of this is to be found in Chilaur, thana No. 617, thana Sherghati. The attestation prior to partition had been done in 1321 F. (1913) and rents had been attested on the statement of the parties. During settlement attestation however when the village papers were examined it was found that the papers of 1321 F. showed a less rent than had been attested at partition and subsequent to the partition there had been a further enhancement. Thus a raiyat whose rent according to the village papers was Rs. 31-7-4 had his rent attested during batwara at Rs. 35-8-6. The rent claimed during settlement attestation was Rs. 42-7-0. Both these enhancements were illegal being more than 2 annas in the rupee and the second was within 15 years of the first.

The chief difficulty however in dealing with villages which have been partitioned is the fact that subsequent to the partition there is a general re-shuffling of holdings so that each raivat has all his land in one takhta, usually that in which his house lies if the basti has also been partitioned. It is of course a great advantage to the raiyat to have to deal with one landlord or instead of several and he is made to pay for it by having his rent enha though it is equally to the landlords' advantage. What happens if the raiyat objects is illustrated by village Madhupur, than No. 27, than Pakribarwan. In this case a pleader was one of the landlords who got a separate takhta and two of the raiyats Jiulal Mahto and Mahto Gope objected to giving up their land in the pleaders' takhta in exchange for land in another takhta. The pleader Gopi Nath thereupon set up one Sukhan Mahto to bring false cases against them for money lent. He himself looked after the cases and arranged that notices were not served on the defendants who lost the cases. Their lands were sold up and bought nominally by Sukhan Mahto who never got the sale certificates which were all the time with the malik's patwari. No attempt was made to get possession until khanapuri when it was too late for Jiulal and Mahto to object. Before the Attestation Officer, Sukhan Mahto admitted the falsity of the money claim, and the raivats were duly recorded in possession of of the money claim and the raiyats were duly recorded in possession of their holdings. The case was reported to the Collector to see if action could be taken against the pleader, but he was dead, and his heirs had dropped the claim against the tenants. Perhaps the worst case, illustrating the tendency of this re-shuffling process to obscure rights and render it impossible tendency of this re-shufiling process to obscure rights and render it impossible to ascertain the rents, occurred in Patak Bigha, thana No. 850, thana Sherghati. Subsequent to survey and khanapuri there had been a Civil court partition which was disposed of before attestation. When the attestation officer came to deal with the village he found that it had been entirely ploughed up and re-allotted so that the old field boundaries had disappeared and the village had to be re-surveyed. The tenants were afraid to say what their rents had been before partition and the partition records gave no help. No road cess return had been filed at the last revaluation. The rents claimed by the landlords were very high and illegal enhancements The rents claimed by the landlords were very high and illegal enhancements had been found in other villages in which they had shares. The landlords were asked to file the village papers for the years before the partition. This was done but it was found that the pieces of paper on which the jamabandis for different years had been written fitted together to form one sheet, leading to the conclusion that they had been written out at the same time and were fraudulent. The new rents had not been realized and as it was impossible to say what the legal rents were the holdings of the raiyats except those admittedly on produce rent were recorded as kabil lagan, i.e., assessable to rent. This re-shuffling of holdings takes place after Collectorate partitions also, with the result that the partition map and records so far as the raiyats are concerned become obsolete in a few years. In villages

Assuming that each of Mr. McNeile's chaukidars correspond to a village we have succeeded in tracing just half of these lands. Mr. McNeile in his report does not give the distribution of the lands he found. It is impossible to say therefore if the deficit is due specially to the western thanas or spread generally all over the district. In the large majority of cases these lands are no longer in possession of the present chaukidar though frequently in possession of a descendant of a former chaukidar The area of such land is usually  $2\frac{1}{2}$  highas and it was not unusual to find that the former chaukidar had also been the village gorait in virtue of which post he held another  $2\frac{1}{2}$  bighas free of rent. The combined holding of 5 bighas could be easily identified but it was impossible to say which half was chankidari chakran land. This had to be decided arbitrarily but no unfairness was caused as the land was invariably of uniformly poor quality.

94. In the first year's area, jungle rights in the south of Nabinagar and

Jungle rights.

Aurangabad thanas were recorded in a general record for the village called a fard rewaj jungle which was attested and finally published. It was on the same

lines as the record prepared in the south of Shahahad (Final Report of Shahahad, paragraph 170). In the second year's area, as the Board of Revenue had objected to a general village record in the case of produce rent customs, it was decided to discontinue this record of jungle rights and to record the rights as special incidents in the khatian of landlords' uncultivated land. In this column were entered the following details:—

- (1) Rights of tenants of the village or mahal to take fuel and wood for household and agricultural purposes.
- (2) Rights of tenants of the village or mahal to take other products, e.g., limestone.
- (3) Rights of the tenants of the village or mahal to graze cattle.
- (4) Any other rights possessed by the tenants of the village or mahal.

it was often found that tenants of a village had rights in the jungle of other villages contained in the mahal and it was necessary to specify this.

It is clear that people outside the village or mahal could not claim such rights as customary and in fact fees were usually charged for the taking of jungle produce by outsiders. These fees have been noted in the village note.

In the large majority of cases the raiyats had the free right of grazing and of taking wood required for agricultural and building purposes though not for sale. Certain specified classes of trees were sometimes excepted. I do not remember any important case in which these customs were disputed. Very often they were the inducement held out by the landlord to attract settlers.

95. The question of proprietary interests has been dealt with in Chapter III. The number of estates shown by the khewats is entirely misleading since

Proprietary interests.

a large estate has a separate khewat for every village or share of a village

owned by it. No statistics have therefore been compiled from the settlement records in this connexion. A case in which proprietors had altogether disappeared came to notice. In villages Pesh No. 1, than Nawada, and Rarhui No. 213, than Atri, the proprietors recorded in the Collectorate registers were respectively Mr. Albert and Mr. Albert Kalberer (probably the same person) of whom no trace could be found. The two villages bear one tauzi number 3602 the revenue of which had been regularly paid by the mukarraridars in possession. Each village had its own mukarraridars but some of each set were the same. No mukarrari patta was forthcoming and the mukarrari rents as stated by the mukarrarid irs were attested. It was found later that they had been stated correctly in Pes'i but understated in Rarhui. Eventually the full details were discovered partly in an old partition case and partly in a Civil Court decree

regarding rents. From the first the names of the landlords appear to be-

- (1) Mr Alexander.
- (2) Mr. Albert Kalberer.
- (3) Mr. Teapis (Theophilus?) Kalberer.
- (4) Meri Jhon Debber (Mary Janvier?).
- (5) Mr. Lys Kalberer.

The Civil Court decree shows what the true mukarrari rents were, namely Rs. 777-8-0 with cess Rs. 136-12-0 as against Rs. 468-12-8 including cess as stated by the mukarraridars. The case has been reported to the Collector.

96. The tenures found were of the usual kind and call for no special remarks. The amount of sub-infeudation was not great though in one village in than Rajauli mukarrari tenures of the sixth degree were found.

An interesting point was raised by Musammat Dulhin Bhagwat Kuer of the Lakhmipur Mahal. Her interest had been recorded as mukarrari istimrari and she wanted something added to show that it was a permanent hereditary tenure. In support of this request various rulings were quoted to the effect that the word istimrari did not mean permanently heritable. The view taken by the Privy Council was that the word istimrari did mean permanent if the surrounding circumstances indicated it. Now in the South Bihar Settlement as far as my experience goes the word istimrari has always been used as a translation of the word "permanent" in section 3(8) of the Bengal Tenancy Act. If a mukarrari lease is not permanent and hereditary it is described in the record as mukarrari lekin istimrari nahin. A particular instance of this which is often met with is the mukarrari hinahyats lease or a lease on fixed rent during the life of the lessee. There is no doubt therefore that in the record-of-rights the word istimrari means permanent and to add to it in the way desired in a particular case would east an unnecessary doubt on the permanency of the other tenures described in the same way.

97. During the operations the District Judge expressed a doubt as to whether the action of the Settlement Specification of shares and record of women's in specifying shares in Department names as coparceners. joint property and recording women's names as coparceners in the khewats and khatians was justified under the law and considered that it might lead to an undesirable amount of litigation. The two questions are connected but the specification of shares will be first considered. The argument was that there could be no share in a Hindu joint family property and if shares were specified it raised an implication that there had been a partition. To get over this the words ijmal khandan were added in the third year's area after the specification of shares to show that that specification would not imply partition, and although these words were not used earlier it does not mean that any partition is implied when they are omitted. As the Mitakshara law is in force in Gaya the difficulty that shares are constantly varying as new members are born or die does not arise because partition goes per stirpes and not per capita.

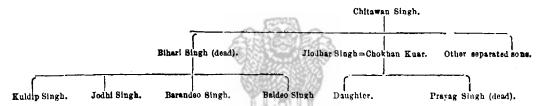
This objection is based on the assumption that Hindu law is an immutable code. This is a common fallacy among lawyers and is well illustrated by Mayne in paragraph 260 of his Hindu Law (6th edition) in discussing the Daya Bhaga doctrine of a son's right in property. He shows how Jimuta Vahana and Vijnaneswara arrived at opposite conclusions on the same texts, the fact being that each was trying to reconcile the texts with the facts as they existed. Owing to the change of usage in Bengal we get the different conclusion and Mayne remarks, "if no law books of a later tone than the Mitakshara had been in existence when our Courts were established there can be little doubt that the conscientious logic of English Judges would have refused to recognize that the revolution had ever taken place."

It seems inevitable that, as time goes on and the idea of partition becomes more and more common, the conception of a joint family with none of the members having any specific share in the property must lose a lot of its reality.

In my opinion it has lost a lot already in Gaya. Whatever may be the theory of a Mitakshara joint family there is no doubt that each member of the Gaya joint family, at least each stem, has a well defined knowledge of what his or its share in the property is. They are always ready and in some cases anxious to have the shares specified and the reason given is that in case of a private partition there will be no room to dispute about the shares. The shares specified in the record are the shares of the stems which do not vary unless one stem dies out. If one is goin; to push the joint family theory to its logical conclusion the name of every coparcener should be entered in column 2 insteal of the highest living members of each stem. The omission to do this has not, as far as I am aware, led to any difficulty and I do not see that the specification of shares will either.

A particular case o curs when a woman is left as the sole representative of one stem. This happens, for example, when one of the heads of the stems dies leaving a sonless widow. Is she to be recorded as a coparcener having her late husband's share? In larger properties such as proprietary rights recorded in khewats it was usually denied by the co-sharers that the widow had any right but one of maintenance, and if she actually enjoyed as a matter of fact her late husband's share it was merely because that was a suitable way in which to fix her maintenance. This is according to strict Mitakshara law and the widow's name was omitted though in justice perhaps her right to maintenance should have been recorded in the remarks column.

An exception to this was found in village Karma, No. 555, thana Barachati. The tree was as follows:—



The entry in the *khewat* at *khanapuri* when Jiodhar Singh was alive was Jiodhar Singh one share, Kuldip Singh, Jodha Singh, Barandeo Singh and Baldeo Singh one share equally divided, *ijmal khandan*.

Jiodhar Singh died before attestation and his widow Chokhan applied to the Collector for registration of her name and this was done as the others did not oppose. In such a case we are bound to recognize the fact and enter the woman's name for if we did not we should be omitting the name of a person admitted to have a defined right in the property. The co-sharers also admitted that after Chokhan's death her widowed daughter-in-law would succeed to her share.

In raiyali holdings the succession of the widow to her husband is more widely recognized and it was often admitted that a widow had a greater right than mere maintenance. It is doubtful if the effect in general on her position would be different because according to the usual practice on her death the share would return to her husband's co-sharers by survivorship. But whether it is merely maintenance or not there was among the lower castes a general opinion that a sonless widow's name should not be omitted, because if it was, the husband's brothers would be tempted to force her into a second marriage in order to get hold of her share.

Probably therefore the best plan is that which has always been adopted namely to enter the widow's name as long as the co-sharers agree. As she is described as the widow of so and so and the words *ijmal khandan* are at the end indicating that the family is joint, the facts are clear, and if a legal point is raised subsequently it is only necessary to apply the law to them.

98. When the operations began it was decided that some attempt should be made to get a certain amount of information as to the outturn of produce rent lands in each village and other assets in

order to give some check on road cess returns when the cess revaluation, which

was shortly due, took place. The information collected will be found in three forms for each village (vide Appendix XX). In schedule III are given the names of all the kittas or badhs, portions of more or less similar soil and couditions into which the village is divided. Opposite each kitta is given the cash or chakath rent, if any, which is most prevalent, and the average outturn of crops of each harvest. The cash rates were put in partly as a check on the estimate of outturn and partly to be of assistance in commutation cases in finding cash rents paid for similar land with similar advantages. At first an attempt was made by the attestation officer by whom these schedules were drawn up to arrive after enquiry at an approximate statement of the average outturn. This was found to take a good deal of time and the dependability on the results was not in any way comparable with the trouble. As this information was merely required to check the landlords' subsequent statements it was decided that it would be sufficient merely to take the landlords' statements as to the outturn. Courts will have to remember therefore in using these schedules that the statements can for this reason only be used against the landlords and not in their favour. Curiously enough, although it was explained to the landlords that these papers were being compiled for cess purposes, there was no tendency to underestimate. In fact all the Assistant Settlement Officers reported a tendency to overestimate because it was thought that this would be of use in commutation cases which were a more immediate danger than cess revaluation. I made it a practice when inspecting attestation camps to compare the outturn shown in these schedules with the crop cutting experiments made and my experience was that in at least half the cases they agreed well having regard to the character of the year and the fact that the amounts in the schedule were supposed to be average ones. I quote one of my inspection notes referring to this comparison in villages in thana Mufassal Gaya.

				37		Outturn in	maunds per sere.	
Viliage and Than-	a No.		Kita.	Normal according to schedule.	Actual in 1915-16 according to average of four experiments.			
Inglis, No. 121		Sukal Ahri Goraia than		<b></b>	.4.	19 23	24 20	
Paraiys, No. 122 Uprahuli, No. 130	•••	Sot Sihora Ahri Ahrabadh	पेव जयने	•••	•••	23 20 17	30 20 15	
		Pari Chahar	•••	•••	***	19 24	18 8*	

In fact if any landlord considered the matter he must have seen that there was no need to overestimate. He had merely to state the correct outturn and his theoretical share of this, worked out on the basis of the record-of-rights, would come to far more than he ever realized in practice (vide paragraph 182). If this fact is, as it ought to be, taken into consideration against the landlord when dealing with commutation cases or rent suits it must in equity be considered in his favour when cess revaluation takes place and my own opinion is that  $\frac{1}{4}$ th of the value of the outturn shown in these schedules is the maximum that should be considered as rent in using them to check the landlord's returns.

The first schedule shows the motar/a and the annual value of the land-lord's rights in trees in the village. This has been taken from the khatians and shows all fruit trees in which the landlord has a half or full right in the fruit. The value of the timber is neglected. Enquiries were made by all attestation officers as to the annual value of the various kinds of such trees and on the basis of these a value was fixed for each kind of tree for each thana. Thus if a landlord had full rights in twenty-four mango trees and half rights in thirty-three and the annual value of a mango tree in that thana had been put at eight annas, the total annual value of those trees would be Rs. 20-4-0. Where the rights in all the trees of a class or certain trees had been let to a lessee as is often done in the case of toddy trees the fee charged was entered as the annual value. The second schedule shows the annual value of various miscellaneous assets such as fisheries, bazars, jungle, etc., and includes the total of

the motarfa and tree values as calculated from the details in the first schedule.

99. Kamias are labourers who have entered into an agreement to serve one master only. They are found all over the district but principally in the southern parts where there is a large number of low caste peoples who find that such a position suits them. Landfords and high caste raiyats who do not care to do the actual work of cultivation themselves are often in difficulties for labour at the times when cultivators require their own labour for their own cultivation. The kamia system solves this difficulty to a certain extent by providing a permanent supply of labour.

The business starts when a labourer hitherto free wants a loan for any purpose such as a marriage. He has no land and the only thing he can pledge is his labour. He accordingly sells to any one who likes to buy it, the right to his labour in the future, and sometimes not only pledges his own labour but that of his wife and his descendants until such time as the loan is repaid.

The contract is drawn up sometimes on stamped paper to give it a legal look, and one instance was found in Fatehpur No. 427, than Sherghati where such a bond had been registered. I give two specimens of these kamiauti or kamiagiri bonds in Appendix XXIII. The first was executed in 1262F. (1855) and the second bond was executed as late as 1914. Many similar contracts are being constantly made though absolutely illegal.

The bonds, as said above, usually bind the executor and his descendants to serve. Under the first bond in Appendix XXIII the executor and his son served and died. His grandson also served for some time but ran away a few years ago. Theoretically a kamia can free himself by repayment of the money advanced: he can never do so by mere service, no matter for how long. His wages are small, however, and being of a festive disposition any savings go in drinking and feasting. To make more certain that the money will never be repaid some bonds have a condition unless t is paid on a certain day, usually sometime in Jyeth, when funds are low, it is optional for the master to refuse acceptance. The bond specifies penalties for running away or refusing to work, usually the addition of a certain amount to the amount of the bond. The advance is usually without interest though in some cases interest is provided for if the kamia runs away. The wages paid to the kamia are nearly always below those paid to ordinary labourers. Thus in Rajauli thana the ordinary labourer gets 3 seers (kachha) and 1 seer jalpan whereas the kamia gets  $2\frac{1}{2}$  seers as wages and 1 seer jalpan. Curiously enough, at harvest time the kamias wages exceed those of the ordinary labourer and they get 1 sheaf out of every 10 or 15 sheaves of grain whereas the ordinary labourers only get 1 in every 21 or so. No explanation has been given of this but it is possible that in fixing the incidents of produce rent landlords have been inclined to give larger remissions on account of labour in cases when the raiyat does his harvesting himself or through the agency of his kamias than when he employs outside labour, so that there should be an inducement to leave this outside labour for the use of the landlord at a time when it is badly needed.

The kamia, however, has several advantages denied to the ordinary labourer. He is assured of constant employment and gets fed in times of scarcity. He and his wife get clothes and he always has a free house with a few kathas of land attached for which he pays no rent. In addition, whenever he requires money for ceremonies, such as his son's marriage, his master can always be depended upon. The advance is added to the amount of the bond, but that troubles the kamia little. The kamia is too valuable to be ill-treated and generally speaking he is well treated. If he is not, he runs away sometimes to Calcutta or the coalfields but generally only to another village, his idea being not total emancipation but merely a change of masters. Various customs attach to this action of running away. In some villages the first raiyat who, seeing that he is a runaway, gives him a meal has the right to him. In other cases he takes an advance from anyone who will give it and executes a bond.

If the former master finds out where he is, he can come and reclaim him on payment of any advance which the new master may have made.

Kamias are occasionally sold, the process being that the new master pays off the advance given by the old one but this rarely occurs since the sale of kamias is regarded as derogatory and is always postponed as long as possible. Sometimes the transfer depends on the kamia, the latter having the option of refusing if he does not like the new master.

The record of the *gharbari* land and houses in occupation of *kamias* was the cause of several disputes during attestation. When a raiyat gets a new *kamia* and has to provide him with a house and some land, he either does so out of his own land or asks the landlord for a house and some land for the purpose. In the former case the *kamia* is clearly a service jagirdar of the raiyat. In the latter case he is also if the landlord settles the land in question with the raiyat, but if, as is sometimes done, the landlord gives over the land direct to the *kamia* reserving a right of calling on the services of the latter, then the land is clearly not the raiyat's and the *kamia* was treated in the record as a non-agricultural tenant of the village and not given a separate *khatian*. The land in such cases appears in the *khatian* of landlord's uncultivated land. Once the facts were ascertained it was easy to make the record. The difficulty lay in ascertaining the facts and the importance of the *kamia* to the economics of the district can be gauged from the amount of dispute that went on about his land.

However contented the kamia may be and however necessary the system is to the agriculture of the district it is impossible to shut one's eyes to the fact that his position is very much that of a slave and that similar arguments were used in justifying Negro slavery. It is useless to attack the evil from above except by penal legislation until the kamias are taught that freedom is worth having.

100. It is disappointing that not much use was made of section 109C, Bengal Tenancy Act. It was only used in 573 Section 109C, Bengal Tenamcy Act. cash rent tenancies and 363 produce rent tenancies. Attempts were made to use it in many other cases but failed because one or other of the parties did not agree. In the cash rent tenancies the claim of the landlords amounted to Rs. 9,562 and the rents eventually settled amounted to Rs. 9,253. The most successful case was that of Keal, thana No. 184, thana Arwal. In this village the landlord who had purchased it some years ago had been unable to collect any rent. The raiyats had divided their crops and the half share was put into a fund administered by the head raiyat for fighting cases. From the beginning of the operations there was a general rent dispute, the landlord claiming that the cent was produce rent on the danabandi system and the raivats claiming that the rent was cash-rent. There was in the circumstances no evidence of actual payment and all the documents that were produced as evidence had been without excaption disbelieved at some time or other in the course of litigation. Attempts had been made by the Subdivisional Officer, Jahanabad, to arrive at a compromise without success. Finally after some trouble the parties agreed to have cash ronts fixed by the settlement department, but while they agreed as to the proportion between the rates for different parts of the village they could not agree as to the ab-olute amounts. An extensive series of crop-cutting experiments was made all over the village in the cold weather of 1914-15 and on the basis of this rates were proposed to the parties. Three hundred and fifty-seven raigats out of three hundred and seventy-two accepted the rates proposed and these were accordingly settled under section 109C as fair. I have no doubt that the remaining raiyats will in course of time come into line also. In addition to the above cases the section was used in four villages in thana Atri in which Government had a half share. The half share was held jointly by Government with the other proprietor and had been leased to him. When the rents were settled under section 104 in the Government half, the other proprietor wanted similar enhancements in his rents. The enhancements were in some cases more than 2 annas in the rupee so that a compromise on this basis would be illegal. It was clear that if the co-proprietor had to make an application under section 105 he would get the same enhancements as those given by the section 104 officer and to avoid the necessity of this an agreement was made to this effect and it was accepted under section 1090.

101. Draft publication was carried out as usual in the attestation camps,

In the second year (1914-15) most of the records had to be draft published twice owing to the decision of the Board not to sanction the publication of the fard rewaj bhaoli (vide paragraph 175). The system of publication in camp and not in the villages which was introduced in Shahabad worked well.

102. Objectors under section 103A in most cases wrote their own petitions on the forms supplied but for those who did not, a fee of four annas paid by court-fee stamp was charged. The writing of these petitions was usually done by one of the camp clerks who was remunerated according to a sliding scale. If the number of petitions was large a separate petition-writer was sent out. In some cases objections under this head were general and affected the whole village, e.g., general entries in the record of the produce rent system. Strictly speaking a separate petition should be filed against each person affected but where the matter could be disposed of in one order, though it might involve corrections in various parts of the record, a consolidated fee of Rs. 5 was charged.

103. The following table shows the distribution of the objections and the

Number of objections.

number per square mile:-

			Thana				Number of objections.	Number per squar mile.
Arwal	,				19		6,932	35
Daudnager			***	7.74 Y V.	(f), ?	•••	5,979	24
Aurangabad			.,.	11114	Milwe	•••	7,360	10
Vabinagar		••	***	Part Co.	WEED TOTAL	•••	3,104	10
lahanabad		•••		Por The Sale	337744	***	10,662	26
likari	•			Hell March		•••	5,863	21
Ltri :.		•••	•••		***************************************	•••	3,759	ייי
Vawada	•	•••	•••	गणांग्व	ਕਾਰਤੇ	•••	10,782	23
kribarwan			, , ,	स्ताल लाज	세역의		3,302	15
Mufassal and Tow	n Gaya						8,121	18
Rajauli		•••	*** "	***	***	•••	2,325	[ 8
Sherghati	•	***	***	***	***		5,002	10
Barachati	•		***	***	•••	•••	1,685	4.
				Total	,		74,878	17

Of these cases 11,273 or 15 per cent were allowed.

As will be seen from the details given in Appendix IX, possession disputes and disputes as to money rent occupy the chief place, these two classes accounting for 60 per cent. of the cases. Disputes as to the system of produce rent and as to shares in produce rent were comparatively few at this stage but it has to be remembered that a number of these were general disputes covering whole villages and affected more tenancies than appears from their number. The status disputes were largely concerned with claims to jagir. The adequacy and correctness of these decisions were checked to a certain extent by inspection of camps. It is not however always possible to do an adequate amount of inspection. Unless the programmes of attestation camps are reduced the work under section 103A will last into the rains as it did every year in Gaya and touring is not convenient. A certain check on these decisions is also ensured by the special selection of the officers for this work. This lengthens the work and some limitation on the selection is enforced by the element of time. Thus in the second year's area in order to finish the work by August one or two officers had to be put on who would not in ordinary years have been utilized. In many cases, however, parties dissatisfied with

the decisions applied to the Settlement Officer for revision. The result of these applications is shown as follows:—

Year,			Number of applications	Percentage of total cases,	Res	Returned for fresh			
					for revision.	C# BEN	Allowed. Rejected.		enquiry.
1913-14 1944-15 1915-16	•••	•••	•••	•••	196 260 128	0°9/ 0·8/ 0°7	]5 6 4	179 <b>2</b> 01 101	9 58 23

I do not think therefore that there can be much ground for complaint against the decisions.

104. The office work calls for little remark since no change of importance The sudden increase of was made. Check and fair copying. programme coupled with the transfer of some of the staff to North Bihar, however, tried our resources greatly. In the recess work of the second year's area 26½ lakhs of plots had to be dealt with as well as 400 irrigation records. The usual arrangement for copying is that one muharrir makes first the Collectorate copy or record-of-rights and from that the landlord's copy and from that the raiyat's copy. Owing to the dearth of good copyists we were unable to restrict our selection to men who have been classed as good in the examination, and in order to ensure that at least the Collectorate copies were well written we had to keep all the good copyists for making the first copies which were then handed over to others for making other two copies. The rates had to be raised in order to cover the extra work involved in copying the incidents of produce rent in the khatians. With the decreased work in 1915-16 an attempt was made to return to the old system but it had again to be

The usual percentage of recomparison or bala is 10 per cent. In view of the inferiority of the check in the second year this was increased to 16 per cent. and again to 18 per cent. in the third year. The plan was adopted of giving part of a village for re-comparison and if the work was found not good the whole of it was done. By this means it was possible to check a far larger proportion of the work than is shown by the percentage of plots.

105. The system of having final publication done in central camps within easy reach of the villages worked well and there was little difficulty in procuring the attendance of parties. The normal number of mistakes discovered at final publication is one per village. This figure rose in the first year's area to 2 and in the second year's area to 5, partly due to bad check and partly to increased interest. It was reduced to 2 per village in the last year. I do not regard the final publication as a useless technicality. It is a useful opportunity, convenient to the parties, of correcting small errors and gives them a definite idea of the date from which the period of limitation for filing cases under section 105 and 106 begins to run.

The following shows the progress of final publication:

	Year.							Number of plot
1913-14		****		<del></del>			1,139	918,924
1914-15	•••	•••	•••	•••	• • • •		685	783,137
1915-16	•••		•••		•••	•••	2,292	2,547,665
1916-17	***	•••	•••	• * *	•••		2,418	1,474,475 389
19 7-18	•••	•••	•••	•••	•••	•••	1	389
					Total		6,8.5	5,754,580

## CHAPTER VI.

#### CASE WORK UNDER SECTIONS 105 AND 106.

106. The result of the disposal of applications under section 105 is given in Appendix X. The work was, after allowing for cases withdrawn, fairly uniform over the district. The number is

at first sight low compared to other districts but it has to be remembered that the area held on cash rent is also low. The following shows the comparison of the number of holdings for which applications were made with the cash rented areas of the surrounding districts:—

District.				Number of holdings for which applications were made.	Area on each rent in scres.	
South Monghyr	***	***		15,001 4.254	<b>5</b> 5,938 502,21 <b>5</b>	
Patna Shahabad	•••	***	***	63,927	980,625	
Guga	***	•••		14 86 <b>1</b>	<b>5</b> 5,539	

The incidence of cases is not therefore remarkably low as it was in Patna. In Shahabad the large number was mainly due, I believe, to the number of applications filed by the Dumraon estate. The big estates in Gaya did not make much use of this section except the nine annas l'ikari estate, the Deo estate and the Maksudpur estate. The nine annas Tikari estate in the second and third year adopted the policy of applying in the case of a few principal tenants and using the result as a lever for compromising out of court with the rest. It had to be pointed out that any enhancements so made by contract were subject to section 29 and that this was not cured by the fact that in the case of some tenants an enhancement of more than two annas in the rapee had been given by the court for the rise in prices. When the estate realized this it was too late to remedy the mistake as the period of two months limitation had passed. In the Deo estate applications were filed but many were rejected or withdrawn because fifteen years currency could not be proved. This was partly due to the fact that some tenants had had their rents settled under section 105 at the previous settlement in 1903 and in the other cases there had been an increase of rent immediately prior to attestation in 1902. It was not till after the rejection of these cases and the withdrawal of others in consequence that the Special Judge in Shahabad ruled in a similar case that section 37, Bengal Tenancy Act, which referred to suits did not apply to applications under section 105 and that in consequence applications within fifteen years of a previous enhancement could be entertained. If the previous enhancement had been made by a revenue court then section 113 applied but by delaying the case till the last year of the fifteen, the provisions of section 110 would enable the new rent to be settled. It is to be observed that neither of the provisos of section 110 applied to these cases. In the cases where the previous enhancement had been made by contract the Special Judge held that it might be equitable to give a somewhat reduced enhancement if the currency of the existing rent approached but had not reached 15 years. The principles were applied in the cases of the Maksudpur estate and accounts for the delay in taking up these cases so that they should not be decided till 1325F. which began on 1st October, 1917, thus ensuring that the settled rents ran from 1326-F. fifteen years after the previously settled rents had begun.

197. Apart from these estates the cases were very few and as far as I can find there have been no enhancement suits in the civil courts. The reason is that landlords in Gaya have no

difficulty in enhancing rents by contract whether legal or illegal and, if the raiyat objects, a simple way of enhancing through the civil courts is by a rent suit. To support his claim the landlord can produce any amount of village papers and the raiyat has no rent receipts to rebut the presumption. It is to be hoped however that the record of rights will put a stop to this in future at any rate in the case of raiyats who refuse to pay the enhancement.

108. In assessing increased rents for excess area the landlord was as usual called on to prove that his jamabandis were based on measurement. Most of them were not, except in the estates

which had been previously surveyed. The usual allowance of 10 per cent. was made partly to allow for the fact that the area of field boundaries is not included in jamabandi measurement and partly to allow for inaccuracies in the rough measurement made. Where the est ites had been previously surveyed it was found that many claims were made because there was a difference in area between the previous and the present record. In all such cases a comparison of the maps were made and it was often found that such increases were not real but only apparent owing to a mistake in the area extraction at the original settlement. Where there was a real difference an allowance of 5 per cent. was made to cover possible inaccuracies.

109. The enhancement per rupee permissible under section 30(b) on the ground of rise in prices was as follows in the four subdivisions of the district:—

						Dhanha lands		Bhit l	ands,
Aurangabad Jahanahad	•••	•••	***	***	 	Ú i	2 5	I e	a. j
Nawada Badr	****	•••	•••	AME		0 (	3 4	0 <b>0</b>	5

The extraordinary rise in prices in Nawada is probably due to the opening of the South Bihar Railway and the consequent raising of previously low prices to the district level. As a matter of fact in no application .did the landlords in this subdivision ask for more than 4 annay in the rupee and most of the cases were compromised at an enhancement of 3 annas in the rupee. The actual enhancement on the ground of rise in prices over all the holdings concerned including the cases where the existing rent was settled works out to about 1 anna 3 pies per rupee. In addition rent was settled for excess area and for holdings previously unassessed. The average rate settled for the latter was Rs. 4-12-0 per acre which is below the district average but aproximates to that of thanas Aurangabad and Mufassal Gaya in which the bulk of these cases occurred.

Some claims for reduction of rent on the ground of decrease in area were made by raiyats and such reductions were also allowed in some cases where a decrease in area had actually taken place though the landlord had claimed an increased rent for excess area or an enhancement on the ground of a rise in prices. The question whether an officer acting under section 105 has power to go outside the landlord's application has often been discussed and I believe has been held in Chota Nagpur under the corresponding provisions of the Chota Nagpur Tenancy Act not to be permissible. It seems to be clear however from the wording of the first clause of section 105 that the Revenue Officer must settle a fair and equitable rent. If the landlord has applied for the settlement of a fair rent asking for an enhancement on the ground of a rise in prices but appears that half the tenant's holding has disappeared I cannot see how a fair rent can be settled without taking this latter point into consideration. This was done and as far as I am aware has not been upset by the Special Judge. Only one case was instituted by rawats for a reduction on the ground that the rent was too high. This was in village Malhari, No. 227, thana Sherghati The rents had been admitted by the raiyats at attestation though it was suspected that they had been illegally enhanced seeing that they amounted to about Rs. 18 per bigha. Mr. Dain who attested the village himself noted. "The rents were exorbitant, some of the rates being almost unknown

in the district and quite unknown in the south of it. The whole of the malik's papers were forged and the raiyats were too oppressed to say anything except what they were told by the maliks" Subsequently it appeared that there had been a civil court partition some years previously at which the rates were enhanced but the raiyats though they brought a case under section 103-A were unable to show what the previous rates were. The raiyats then filed an application under section 105 but when it was taken up they withdrew it. The legal rents were probably at the rates which were prevalent all over Sherghati pargana up to recent years, viz., Rs 3, 5, 7, and 8 per bigha, the last being for dih or posta lands.

An interesting claim was raised by the 9 annas Tikari estate in connexion with the settlement of rents of unassessed lands. It was asked that produce rent should be settled. If these had been cases of small encroachments added to lands already paying produce rent not separated by any division from the original holding there would be something to say for the claim, but in such circumstances the extra area would not have been separated from the old plot but attested with it under the same system of rent. The cases in question were new plots which had escaped assessment by the connivance of the village officials. There is of course no bar to settling a produce rent under section 105 but if the raiyat wanted a cash rent as he always did there was no reason why he should not have one and thus save the bother of a subsequent case under section 40 with the possibility of having it rejected.

The net result of all the cases was an addition of Rs. 20,982 to the cash rents of the district, an increase of 0.06 per cent.

110. The method of testing the fairness of the existing rents and their capability of standing enhancement was Test of the fairness of rent. that adopted in Shahabad, namely, a comparison with one-fifth of the gross produce. This comparison was not made for each holding but for all the holdings together and the result compared with the average incidence of rent. If, as usually happened, the rent was the lower of the two, enhancement was allowed it being assumed in the absence of special circumstances that the ratio of existing rents was fair inter se. If the average rent was higher than one-fifth of the gross produce an examination was made into the reason for this and it was unusually discovered. In only a few cases was enhancement refused on this ground, and in most of these there were other reasons for believing the rent to be too high. Thus in some it was found that the rent had not been current for 15 years and in one a miscalculation by the Assistant Settlement Officer of the value of the gross produce was set right under section 108. In one case it was found that the action of the Poonpoon river had been gradually causing deterioration of the soil by the deposit of sand. In another a large illegal enhancement was found which had not been detected at attestation.

The Special Julge was somewhat dubious at first as to the propriety of the test because in one of the first judgements which came before him on appeal the Assistant Settlement Officer had referred to one-fifth of the gross produce as a "standard of fair rent". This was incorrect as no attempt had ever been made to regard it as a standard which would imply that all rents differing from this amount would be levelled up or down to it as the case might be. What was done was to enhance rents below at the usual rates permissible for the rise in prices and to leave rents above unaltered. Later on, however, the Special Judge recognized the necessity of some test and the equity of the one used. In an appeal during 1917 he wrote:—

"As to the Assistant Settlement Officer's principle that the rents should not be allowed to go beyond one-lifth of the value of the gross produce, he does not, as the learned pleader seems to imply, lay this down as an inflexible rule but quite rightly he let us know what is passing in his mind when estimating what rent is fair and equitable. This principle seems to me in view of the increased cost of labour, materials, food, transportage, and so forth, to be unobjectionable; and the As istant Settlement Officer's opinion must be given due weight, in view of the fact that he has made a careful enquiry on the spot and in doing so he has the aid of his expert knowledge. The memorandum of appeal targes that the landlord's cash rents should extend to at least one-half of the total produce. In his arguments the learned pleader

seems to rely by an analogy on se tion 34 of the Bengal Tenancy Act, but a reference to that section will show that it has been entirely misunder-tood. Unless a moiety was the measure at the original settlement why should it now be taken as the measure? After all the landlor l's jant sidt is a constant quantity, so his need for enhanced rents is not so urgent as the need of the tenantry for a reasonable rental."

# In another appeal he wrote:-

"Any one acquainted with the opinions of experts who have gone into the question in the last 20 or 30 years will concede that a rent which exceeds one-fifth of the gross produce should be looked upon with suspicion."

The above facts render it unnecessary to advance any more arguments in favour of the test which has been ably defended by Mr. Hubback in the Shahabad Final Report (paragraphs 415 to 420). It is necessary, however, to notice one attack on it made by Mr. Ogilvy, Manager of the 9 annas Tikari estate, which was forwarded to the Board of Revenue, through the Bihar Landholders' Association. The main points were that—

- (1) the customary share of the landlord was half the produce so that to fix one-fifth as the maximum of a fair rent was grossly unfair;
- (2) the deduction of three times the canal rate from the gross produce of canal-irrigated lands before taking one-fifth for comparison was denying the landlord any benefit from the canal.

As to the first point I shall show in paragraph 182 that produce rents do not give the landlord anything like half the produce and more nearly approximate in actual practice to the level of cash rents than most people imagine. The fact remains, whatever Mr. Ogilvy may say, that cash rents in Gaya are as a rule below one-tifth of the gross produce, and any attempt on the part of landlords to raise them to half would be as disastrous to them as to the tenants.

The second point as to the canal rate has been dealt with at length by Mr. Hubback but it may be pointed out that as long as the increase in the avarage gross produce on the introduction of canal irrigation exceeds three times the canal rate, which it usually does, the landlord is not barred from any benefit. Thus if the gross produce per acre before canal irrigation is Rs. 30, rents above Rs. 6 per acre would not ordinarily be enhanced. If after canal irrigation the gross produce increases to Rs. 45 per acre, the canal rate being Rs. :-8-0 per acre, the limit rises to Rs. 6-14-0 per acre, thus permitting an enhancement of rent though the increased outturn is due solely to the payment by the tenant of canal rate and without any expenditure by the landlord.

In connection with this question it is interesting to note that it has, I believe, been found during the revision settlement in Saran that in cases where at the previous settlement rents were at or above one-fifth of the gross produce they have been found to have, if anything, decreased at the present settlement.

- 111. No cases occurred in Gaya in which the ruling Upendra Nath Ghosh Use of section 105A by applicant under versus Jamini Mohan Pal, XVIII, C. W. 80., 268, was quoted. The question whether an issue can be raised under section 105A by the applicant in a section 105 case is dealt with in paragraph 262 of the Shahabad Final Report.
- 112. Only 79 appeals were filed against the orders passed under section 105.

  Of these in sixty the orders were upheld, in eight modified and in seven remanded for fresh enquiry. These results are satisfactory. The details are given in Appendix XI.
- 113. The cases under section 103 numbered 1,724 and the classification of them is given in Appendix XII. Over half were cases about rent. 459 were allowed or about 26 per cent which is a lower percentage than usual. Here, as

elsewhere, landlords prefer to go to the civil courts where there is a greater chance of success though it is more expensive.

There was only one important case which concerned an irrigation right in the Matwalwa pain. The Maksudpur estate brought a suit for declaration of certain rights in the pain which had not been recorded and the cancellation of others which had been recorded in favour of the 7 annas Tikari estate, and other minor alterations in the record. The only defendant was the 7 annas Tikari estate and the first difficulty that arose was the fact that the tenants of the villages concerned whose rights were equally affected were not made parties. The Assistant Settlement Officer therefore proceeded under order I. rule 8, Civil Procedure Code. Accordingly some of the leading tenants appeared and asked to be made parties as their interests were not identical with those of the landlords who could not therefore acr as their representatives. These tenants were made parties but owing to non-service of notices all the tenants affected could not be brought under the order and the suit had to proceed with a reservation of the rights of these tenants which rendered much of the decree nugatory in The Assistant Settlement Officer eventually decreed the suit in part. The Special Judge professed himself in appeal unable to deal with the case without a large scale map, being apparently unaware that the trace of the pain in the record-of-rights is merely an index to the 16" village maps which are on about as big a scale as anyone could wish. He also wanted levels, the necessity of which was doubtful, seeing that there was no question raised as to which way water would flow if it was allowed but only a question as to whether it was allowed to flow in a particular way. He suggested, in remanding it for these materials, that the case might well be transferred to the civil court under section 106(3). As both the parties joined in a petition that this should be done it was done, and there are doubtless many years of litigation to follow probably without any reference to tenants' rights since the Special Judge remarked that the landlords were the only necessary parties.

A difficulty in these cases is that of limitation. All the cases are taken up long after the period of three months' limitation has expired and it is impossible to get plaints, which are often drawn up very carelessly, properly checked so as to ensure that no necessary party has been left out. If this is subsequently found to have been the case it is too late to add him as a party when the case is taken up. When the Act is amended it should be provided that this limitation of three months applies only to the date of instituting suits and not to the jurisdiction of the court for adding necessary parties.

114. Appeals were instituted in 318 cases. The details of their disposal are given in Appendix XIII. In 132 cases the orders were upheld, in 16 modified, in 116 reversed and in 51 remanded. These results do not look satisfactory but the bulk of the cases reversed consisted of 4 groups of cases from thanas Aurangabad, Nawada, Mufassal Gaya and Barachati. These cases were each of one village and in each case the cases had been decided together in one judgement.

115. Cases under section 108 were as usual very few, only 7 being instituted altogether. The following table shows the results. There were no appeals.

<del></del>	<del></del>	Thana,			Number of cases,	Allowed.	Disaliowed.
Arwal Auvangab d Nawada Mufassal Gaya Sherghati	***		•••		1 8 1 1 1	2  	1 1 1 1
			Total	0 01	7	2	Б

The cases under section 108A, however, were more numerous amounting to 647 of which the details will be found in Appendix XIV. Most of these related to mistakes discovered in the record regarding lands belonging to the East Indian Railway. Attempts were often made to use the section as a means of maintaining the record by requests that changes which had taken place subsequent to final publication should be noted. Attempts were also made to revive former disputes but this was not allowed.

There were two appeals against these orders one of which was allowed and the other disallowed. The one which was allowed raised a difficult point. The case concerned the Burha Burhi pain which originates in Sherghati thana and runs into Aurangabad thana. The Aurangabad portion was dealt with in 1914. The record of the pain was not attested since that had to wait till attestation in Sherghati thona but the village fard abpashi of the villages on the pain in Aurangabad one of which was Baraunda, No. 945, were duly attested and finally published in 1914. During khanapuri in Sherghati thana it was discovered that there were rights in the earlier part of the pain which might modify what had been recorded lower down. Accordingly a proceeding under section 108A was started as regards the fard abpashi affected and kept pending for attestation in the following year. At attestation the record of the whole pain was prepared after examination of the persons concerned and the settlement of disputes. It was then found that the fard abpashi of village Baraunda, which had been prepared when all the persons affected by the pain were not present, required correction, to agree with what had now been found to be the correct state of affairs. This was done under the section 108A case which had been started in anticipation. The Baraunda landlord appealed since the alteration of entries was against him. The case must have been very badly argued because the Special Judge missed the point and on the false assumption that the landlord of the Sherghati villages had instituted the section 108-A case said it was one which should have been brought under section 106. On the ground he allowed the appeal with the result that the record-of-rights is inconsistent, the pain record showing one state of things and the fard abpashi of Baraunda another. In considering to which the presumption of correctness should be applied it will have to be remembered that the pain record was prepared after hearing all parties and the Baraunda fard abpashi ex parte. The case has however been taken to the High Court.

116. The results of the cases and the appeals have been duly noted in the record-of-rights in accordance with of results of cases in record-Entry section 107 and section 109D of the Bengal Tenancy Act. A point which of rights. came to notice in Shahabad is that no provision is made for noting the results in the copies which are distributed to the landlords and raiyats. These copies are distributed at the time of the recovery of costs. Any decisions prior to that time are under the rules noted not only in the record-of-rights but in the landlords' and raiyats' copies. If recovery takes place before case work is finished, necessarily many copies are issued without showing the results of the cases. One solution is to postpone recovery. As case work invariably is the last portion of the work to finish this would mean undue delay and moreover it is advisable to get the copies into the hands of the parties as soon after final publication as possible so that errors, if any, can be brought to light and corrected under section 108A. The only other solution is to have a system of calling for the copies for correction and this was adopted in Gaya. When the noting officer had passed the notes made in the record-of-rights and indicated this on the order sheet of the case he at the same time passed an order (if the copies of the record-of-rights had been distributed) to call on the holders of copies of such parts of the record as were affected to bring them on a fixed date for correction. On that date he would see how many khatians or other papers were brought in and, after estimating the time that would be taken, fix a date on which they should be called for. On that date the copies with a certified copy of the note duly entered were returned and it was noted in the order sheet that this had been done. In practically every case parties brought in their copies for correction.

#### CHAPTER VII.

# EXPENDITURE AND RECOVERY OF COST.

117. The total cost of the operations was Rs. 18, 38, 356 or Rs. 388 per square mile which is fairly low compared to other districts of South Bihar. The total expenditure in Shahabad was exactly the same, viz., Rs. 383 per square mile.

The receipts amounted to Rs. 3,18,110, or Rs. 67 per square mile, made up as follows:—

								Rs.
Cash	•••		•••	•••	•••	•••	•••	1,05,035
Stamps	• • • .		•••	•••	•••	•••		1,85,717
Book cre	edit for	transfer of su	rplus forms,	tents and	furniture	to other	dopart-	
ments							-	27.358

The allocation of this cost to the various heads is shown in the table below:—

					Rate per se	uare mile
					-	Rs.
Traverse	•••	•••	•••	•••	•••	29
Cadastral Survey and Khanapuri		•••	}	• • •	•••	147
Settlement.—						
Attestation	•••	•••	•••	•••	•••	48
Section 103A	•••	• • •	•••	***	•••	12
Office work and final publication	•••	•••	•••	•	•••	55
Case work (including section 104)	•••	•••	***	•••	***	11
Computation and recovery	,,	***	***	•••	•••	_6
Supplies and contingencies and mis	scellaneons	•••	•••	•••	•••	39
Control.—	500	TEST.				
Director of Land Records	L 14/19		***	•••	417	4
Local	A LANG			•••		26
Contribution for pension	VOICE TO SERVICE TO SE	***	y	***	***	11
	(法) 图数			Total	•••	388
	4040			Receipts	•••	66
	1/1/	188	1	Vet cost	184	322
	100000000000000000000000000000000000000	Street Street,				

118. The net cost after deducting receipts was thus Rs. 15,20,246. Of this Rs. 24,465 was due from the Provincial Government on account of the

work done in estates under revenue settlement and Government estates not under revenue settlement but surveyed. This has been taken at the cost of the ordinary operations less that portion subsequent to final publication but with the addition of the actual cost of the work under section 104. The balance was on account of permanently-settled estates. These however were of two kinds; in some the settlement was an original settlement but in others it was a revision settlement. It is only in the former class that the Government of India agreed to hear one-foruth of the cost. In the latter class the whole of the cost is borne by the landlords and tenants of the villages concerned. Owing to the fact that after the first year's area the previously surveyed villages were dealt with in the same way as others no separate accounts were kept for the two classes and the costs have to be apportioned between them. In order to do this it was decided that, apart from variations between one thana and another, all villages whether previously surveyed or not should pay at the same rate per acre. Distinctions would be invidious and the work in the revised villages was cheaper because no new traverse was done and the existence of the previous record made the decision of rent disputes easy. Also in the first year's area the new record and map prepared for the revised villages were certainly inferior to those in the villages surveyed for the first time. This decision involved the assumption that the work in revision villages cost only three-fourths of the cost of the work in the others. The area of the previously surveyed villages was 703 square miles, and that of the others was 3,871. Calculation shows that of the net cost less that payable by the Provincial Government, Rs. 13,23,361 should be allocated to newly surveyed villages and Rs. 1,72,420 to previously surveyed villages. It is only on the first that the 1th contributed by the Government of India will be calculated. Deducting this we are

left with the amount of Rs. 11,64,941 as recoverable from private parties. To this has to be added Rs. 17,100 the cost of keeping up boundary marks and Rs. 81,163 the cost of maps. This gives a total of Rs. 12,63,204 recoverable from private parties.

119. The following rates were worked out so as to produce this and at the same time to apportion the cost in the fairest way over the district:—

		Name o	f thans.			Total rate per acre-	Payable by landlords.	Payable by tenants;
<del></del>						Annas.	Annas.	Appas
Arwal		•••	•••		··· }	10	54	41
Daudnagar	•••		•••	•••		10.	5 1 5	41
Aurangibad	•••		•••	•••		9		4 3 3
			••	***	••• }	7	4	3
Jahanabad	•••		•••	•••	•••	9 [	5	· 4
<b>F</b> ikari			•••	•••		9	5	4
Atri	•••	***	•••			7	4	3
Nawada	•••	•••	•••	•••		7	4	8
Pakribai wa	n		•••	•••		6	3 1	21
l'own and l	Iufassal	Gaya	•••	***	1	7	4	8.
Rajauli	•••	•	•••	••		ď	3 1 3 3 1 3 3 1 3 1 3 1 3 1 3 1 3 1 3 1	4 3 2 3 3 2 1 2 1 2 2 1 2 2 1 2 2 2 2 2 2
Sherghati	•••	***	•••	•••		6	3 1	2 <u>i</u>
Barachati		***	•••	•••		6	3 1 1	$2\frac{1}{3}$

In thanas Aurangabad, Nabinagar, Atri, Nawada, Pakribarwan Rajauli, Sherghati and Barachati only two annas per acre was to be recovered on land recorded as jungle or hill. This amount was to be divided equally between the landlord and the tenant. These rates were sanctioned by Government in Notifications No.  $\frac{7323 \cdot R}{8.211}$ , dated the 30th October, 1915, and No.  $\frac{8037 \cdot R}{8.175}$ , dated the 11th September, 1916.

The rates in the first four thanas had to be worked out on an estimated cost in 1915 and were somewhat higher than they would have been if the calculation had been delayed till later when the actual recoverable amounts could be more nearly estimated.

It had been originally my intention that recovery should wait till the total cost could be accurately estimated but owing to the war it was found desirable to take up recovery earlier. In Shahabad where the work travelled from north to south it was practicable to propose separate rates for the northern thanas and the southern thanas since the two areas were distinct. In Gaya however the work each year contained thanas of varying fertility to which it would have been unfair to apply the same rate.

The problem of the best arrangements for recovery is not an easy one. It is desirable that it should be made as late as possible so that the estimation of the recoverable amount shall be as accurate as possible but on the other hand, as parties do not get their copies of the records till recovery, it is desirable that it should be made early. It is not easy to arrange for many recovery eamps at one time owing to the dearth of reliable tahsildars and cashiers. There are other matters also to be considered in this connection such as are noted in paragraph 116.

120. The demand as it worked out according to the above rates amounted to Rs. 13,15,646. The excess is due to the fact that the recoverable amount had to be estimated nearly two years before the operations closed, the introduction of a special rate for jungle and hills of which the area was not exactly known at the time caused some uncertainty, and receipts in the last two years were much in excess of anticipations.

The recovery began in the cold weather of 1915-16 and finished in June, 1917. Altogether Rs. 12,94,506 or 98 per cent of the demand was recovered without recourse to the certificate procedure. The balance was

brought under certificate and when the office closed in March, 1918, only 91 cases involving Rs. 517 were left to be made over to the Collector for disposal. The cost of computing and recovering this large amount was 2 per cent of the demand.

## CHAPTER VIII.

#### STATISTICS.

121. The total area of the district is 4,747.89 square miles and a record has been prepared or a former record revised for 4,735.30 square miles at the present operations. The remaining 12.59 square miles was omitted for the reason given in paragraph 49. At the time the villages in this area were surveyed, however, the usual statistics were compiled and these have been incorporated with the statistics of the present operations as far as possible.

that they vary considerably. The thana, as an administrative unit, is practically obsolete, the police-station taking its place. These are much more uniform in size and average 135 square miles. It would in many ways be more convenient for the Collector if statistics, especially the crop statistics, were compiled for police-stations. It is however difficult to base the records ab initio on the police-station as a unit because the whole of Bihar has now been surveyed and to do so would necessitate the changing of the thana numbers of villages. By making out a table of the villages included in each police-station we have given the Collector the total area in each police-station under each of the principal crops in the crop statement form, and it will be easy to get the area under any other crop from the general thana statistics.

The average size of villages in the various thanas is fairly uniform varying from 341 acres in Nabinagar to 583 acres in Rajauli, Pakribarwan being an exception with an average village area of 1,018 acres. The smallest village is Umedchak No. 31 of Sherghati with an area of 8.69 acres. This would have been amalgamated with the adjoining village if it had not been a temporarily-settled estate. The largest village is Chakarbandha No. 2, thana Sherghati with an area of 15,107.69 acres.

123. The area of 3,030,592 acres or 4,735 square miles for which a recordof-rights was prepared contained \$43,392* Holdings and plots. holdings and 5,754,580 plots. The average size of the holdings is thus 3.6 acres and of a plot 0.5 acre. In considering the area of a helding it must be remembered that this does not represent the average area of land held by a single raiyat or joint family. Holding is defined in section 3 (9), Bengal Tenancy Act, as meaning the parcel or parcels of land held by a raiyat and forming the subject of a separate tenancy. In Gaya it may happen that a single raiyat holds land in four different ways in the same village, some on fixed rent, some on ordinary cash rent, some on chakath rent and some on produce rent; it is quite common for a raiyat to hold both cash-rented and produce-rented lands. Again, if a raiyat holds land under two landlords in the same village who have separate pattis he is shown as having two holdings. It is clear therefore that the number of holdings in the district as shown by the number of khatians is very much greater than the number of holdings in the popular sense of the word and it is only the size of the holding in the latter sense that is of any practical use.

To arrive at this we must first examine the area figures a little more closely because these include the zirat and bakasht holdings of landlords and tenure-holders. Taking the figures for raiyats of all classes including rent-free holders we get an area of 1,739,387 acres occupied by 757,612 holdings giving an average area of 2.3 acres per holding. At the previous settlement in 1893-97 of the Tikari Wards Estate and Government estates the average

^{*} Note.—This figure differs from the number of holdings in paragraph 143 and Appendix IV because it does not include holdings in villages not surveyed at this settlement and does include Kaisri-Hind holdings.

holding was found to be between four and five acres. At that settlement, however, as already explained, both produce-rent lands and cash-rented lands were shown in one khatian so that we get more nearly the average holding in the popular sense. This seems to indicate that the average aggregate holdings are about two to three times the size of the average holding. In addition to this it has to be remembered that the average includes a lot of small holdings belonging to artisans and traders whose chief interest is not agriculture so that the size of the average aggregate holding of the man who subsists entirely by cultivation or cultivation and labour may be put at a good deal more than five acres.

The figure may be arrived at in another way. Although a raiyat may get more than one khatian he only gets one copy of the village map. The number of copies of the maps prepared for distribution to raiyats should give us the number of holdings in the popular sense. It is impossible to get this figure accurately as in village maps where there are more than one sheet we cannot tell how many raiyats get only one sheet and how many get all. In such villages by merely counting the sheet of which the largest number had been reproduced we get a figure something below the true number. The total is 308,370 which is something under half the number of khatians. On the other hand the Census of 1911 gives 448,926 as the number of cultivators (not including dependants). This is probably in excess of the true number because brothers though holding jointly may have got themselves recorded as actual workers. Taking a mean between these two, one can put the average aggregate holding of all classes of raiyats at about 5 acres.

124. The following statements were compiled for the area for which the

The statistical registers.

record-of-rights was prepared: -

- (I) The Milan Khasra showing the details of cultivated and uncultivated culturable and unculturable areas.
- (2) The Jinswar or crop statement showing the area under each crop on the year of survey and details of the irrigated area.
- (3) The Fard Hawala or statement of agricultural stock.
- (4) The Goshwara or abstract of the record-of-rights showing the number of different kinds of tenancies, the area of the land included in each class, details of rents, etc.
- (5) Statistics of the transfers of proprietary rights.
- (6) Statistics of transfers of occupancy holdings by sale or usufructuary mortgage.

The registers made over to the Collector are arranged by thanas and the figures for each village are shown, the villages being arranged in the serial order of thana number. As already explained in paragraph 122, special crop statement registers showing police-station totals have also been prepared for the Collector.

125. The figures of cropped area for each thana and for the district will be found in Appendix III and the following statement shows how the district com-

pares with others in Bihar in respect of cultivation:—

		Percentage of	Percentage on net cropped area of areas.										
District.		net cropped area on total area.	Under Bhadai.	Under Aghaui	Under rabi.	Under other crops.	Twice cropped.	Irrigated					
Champaran Muzaffarpur Saran Darbhanga Purnea North Monghyr North Bhagalpur South Bhagalpur South Monghyr	***	70 80 79 80 61 59 77 56 53	46 33 41 28 34 43 34 18	38 48 34 63 56 29 60 69 54	55 60 62 47 39 66 36 48 50	    3	39 46 37 38 29 38 33 36 24	2 3 15 6 1 3 4 35 42					
Patna Shahabad Gaya		81 64 60	13 10 9	41 43 55	75 78 60	2 2 1	31 33 24	60 42 55					

In considering how far cultivation can be extended, column 6 of the above statement is the most important. Allowing for a certain proportion of old fallow which is always found even in the most highly cultivated areas it will be seen that there is not much room for extension of cultivation except in the south where there is a large amount of culturable jungle. In these thanas however it is probable that the figures in column 6 are not very exact as jungle and hills which are surveyed in large plots often contain culturable area though the whole may be classified as unculturable. On the other hand an amin's idea of what is culturable is not always correct. In 1812 according to Dr. Buchanan the percentage of cultivated area varied from 62 in thana Nawada (which corresponds to the present Nawada subdivision) to 87 and 90 in thanas Hulasganj and Jahanabad (corresponding to Atri and Jahanabad thanas without the Atri hills). These are probably too high even if he included current fallow. The figures for previous surveys are as follows:

			Percentage t	o total area of—	
Year	Estate.	Net cropped area.	Current fallow.	Culturable area,	Unoniturable.
1893-98	Tikari estate Government and temporarily-setttled estates	69·6 4(r.5	2:5 0 9 0:8	15 6 29 0 97	12·3 29·6
1900-04 1901-04	Belkhara mahal	80°6 42°6 46°6	6·0 4·4	25·8 20 9	8 9 25 6 28 1

It is not easy to draw any conclusions from these. The Belkhara Mahal lies almost entirely in Arwal thana and the figures show that there has been no extension of cultivation there. The large percentage of culturable area not cultivated is almost entirely old fallow. The Government and temporarily-settled estates which lie largely in the south, the Maksudpur estate in thanas Atri and Rajauli and the Deo estate in the south of Aurangabad show low figures for cultivated area as might be expected. Perhaps the best indication of the extension that is going on is to be found on a comparison of the uncultivated area in Government estates which have been complied from the records prepared under section 104 (vide Appendix XVIII). The total area shown as uncultivated in these villages at the last settlement in 1893-98 is 36,569 acres of which 21,535 acres is in pargana Sherghati. At this settlement the uncultivated area in the same villages is found to be 35,134 acres of which 21,135 acres is in pargana Sherghati. This does not show increase of cultivation to any extent except in pargana Jarra which accounts for most of the increased cultivation outside Sherghati, In pargana Jarra the uncultivated area has decreased by about 7 per cent.

high proportion of old fallow : clearing jungle lands and aban to the fact that produce rent hole latter reason also explains the cropped area. This factor howev proportion of uncultivated produc vated land owing to the raigats 1

## 127. It has generally been

Effect of rent system on cultivation.

figures bear this out. In the ter be found the total area held respe with separate figures for the c These were not totalled for statist taking those from selected village cally by taking villages whose the

No doubt in time as population increases and raiyats are available there will be an extension of cultivation but it will be slow as the land is poor and irrigation facilities are lacking. Utless some scheme is devised for irrigating the high watersheds between the rivers no rapid extension will take place. The the south is due partly to the practice of ing them after taking one crop and partly are not always wholly cultivated. This percentage 7.5 of current fallow on net asked by the probability that a large land was recorded as landlord's uncultiaire it.

> nat the bhaoli system is uneconomic use it does not stimulate cultivation n is interesting to see how far the record-of-rights of each village will n eash, chakath and produce rents and uncultivated areas in each class. ses so I have had to get figures by ection was made entirely mechaniwere 25, 75, 125, 175 and so on

The districts respectively north and south of Ganges have been grouped together Gaya shows very markedly the characteristics of the south Bihar districts, viz., the small bhadai area and the low double-cropped area. Like the other south Bihar districts, except Patna, the percentage of net cropped area on total area is low owing to the presence of a large area of jungle and hill.

The figures for the thanas in the district are as follows:-

			}	Percentage on net cropped area of areas under-									
	Thans.			Bhadai.	Aghaui.	Raabi.	Other crops,	Twice excepted					
Arwal			}	8.8	73·3	66.8	1.6	50.6					
Jahanabad	***	***		10 4	61.2	73 5	1.1	46.2					
Dandnagar			}	5.8	47.6	75 6	1.0	30.0					
Nabinagar	***	•••	••• {	5.3	42.3	64.8	0.4	12.8					
Aurangabad	***		• {	5.6	40.7	68.8	0.6	15.7					
Town Gaya	•••	•••	••• [	40 7	45.5	41.4	9.5	37 1					
Mufassal Gaya	•••			5.3	55.5	49.5	1.1	11.5					
Tikari	***	•••		5.4	<b>4</b> 6·7	74 5	1.1	27.					
Atri	***	•••	•••	6.5	610	52.7	0.8	20.7					
Barachati	***	•••	[	14.1	60.6	84.1	0.8	9.9					
Sherghati	,	***	•••	18.3	52.2	45:	0.6	16.6					
Nawada	***	•••	••• }	11.9	67.5	48.0	0.6	27.5					
Pakribarwan	.,,	***	•••	10.0	60.5	<b>54</b> ·8	0.3	25 06					
Rajauli				17:9	' 58·7 {	40.9	0.6	18.1					

The principal rice growing area is in the north along the Patna border and it is here also we find the highest twice-cropped area which largely consists of rice land sown broadcast with rabi crops, such as khesari and linseed, before the rice is reaped. Even in thanas Barachati and Sherghati, with the highest percentage under bhadai crops, the percentages of rabi crops and twice-cropped area are low. Thana Town Gaya which consists largely of garden lands is naturally exceptional.

126. The following table shows the percentages of net cropped area and of the various kinds of uncultivated area to the total area in the various thanas:—

					11	Perce	ntage o	n total a	ren of-				_
	<del>, = , ·</del>		<del></del>	Area cu	turable b	ut uncul	ivated.			Uncultur	able area	•	ated
Name of thans	١.	Caltivated area,	Carrent fallow.	Old fallow.	Groves not fruit- bearing and bam- boos.	Calturable Jangle	Other kind.	Total.	House sites.	Water.	Other kind.	Total,	Total of uncultivated area.
Jahanabad Sub	divi-								1				
Arwal Jahanabad	•••	78 <b>4</b> 5 81 59	1·09 2·31	4·23 3·58	·08	1.02 05	24 32	5.37 3.99	1·23 4·08	10·79 6·53	2.87	14.89	21.55 18 41
Total	***	80.56	1.90	3.79	.06	•37	29	4.51	1 42	7.93	3.68	13.03	19.44
Aurangabad division.	Sub-												
Nabinagar Daudnagar Aurangabad	***	60.65 80.42 63.60	8:06 1:88 5:80	12·43 5·20 8·03	·02 •04 04	2·66 0·50 3·89	& B 6	15·43 5·93 12·42	.83 1 02 .80	7.73 6.34 5.50	7:30 4:41 11:88	15 86 11.77 18.18	39·35 19·58 36 40
Total	**1	66.12	5.59	8.55	.04	3.₺	- ∮8	11.91	.85	6.50	9.33	16.38	33.88
Sadr Subdivi		50.74					-	10.05					
Town Gaya Mufassal Gaya Tikari Atri Parachati Sherghati	•••	22·74 62·14 80·86 60 12 32·87 38·65	1.72 8.64 2.46 5.49 5.19 3.83	6·10 12·49 4·40 11·74 10·95 9 36	3·27 ·06 ·06 ·02 ·02 ·05		84 58	10.05 13.58 4.75 14.99 41.53 23.54	20.35 1.00 1.37 .89 .66	11·80 6·42 5·80 5·47 4·99 4·89	33·34 8·22 4·76 13·04 14·76 28·12	65.49 15.64 11.93 19.40 20.41 33.98	77·26 37·86 19·14 39·88 67·13 61·35
Total	•••	51.61	5.32	9 99	•06		ī	21:39	1.02	<b>5·5</b> 0	15.23	21 75	48.39
Nawada Subdiva Nawada Pakribarwan Rajauli	ision. 	70.82 54.77 33.20	2·80 2·65 4·49	7:04 6:61 9:48	0.0		2 9	9·48 11·21 19·58	1 26 ·69 ·59	6·85 3·29 4·04	8·79 27·39 30·10	16·90 31·37 43·73	29·18 45·23 66·80
Total	•••	56.20	3.25	7.63	-		6	12.72	.94	5.22	21.37	27.53	43.50
		A0-19	4.57	8.84			3	14.94	1.01	5.95	13.41	20.37	39.82

in each thana. The percentage of uncultivated area in each class worked out as follows:—

Cash rented area 5.4

Chahath rented area. 2.8

Produce rented area.

As a check to see that these figures did represent generally the state of things, similar figures were compiled for villages with than numbers 1, 51, 101, 151 and so on. These gave results as follows:—

Cash rented area.

Ohakath rented area.

Produce rented area.

9.6

We may therefore take these figures which agree very well as typical of the district. The effect of the bhaoli system on cultivation is clearly marked and it is even more marked than these figures indicate because it is certain that a good deal of uncultivated bhaoli land was recorded as landlord's waste land owing to no claim being put in by the raiyat. In the south of the district especially, very few raiyats realize that they have occupancy rights in produce-rented lands. It is safe to say that at least 10 per cent of the bhaoli land of the district is uncultivated.

128. The following table shows the proportion of the area under the principal crops.

Area under principal crops.

cipal crops in the thanas and subdivisions and also the proportion of the total cropped area which is under food crops:—

					Percenta	ige of net	cropped	area un	der <del></del>			
•			Rice.						,			Percentage to total cropped area of area under food
		Aghani,	Bhadai.	Total.	Wheat,	Barley.	Marua.	Maize.	Gram.	Sugarcane,	Oilseeds.	crops.
Jahanabad Subdivise	on.				da		87					
Arwal		66.73	1.69	68.42	3.40	6.05	2.20	4.37	17.87	3.53	2.57	95.58
Jahanabad	•••	57.01	.74	57.75	4.19	6.2	4.54	4.57	9 28	2.93	5.34	94-22
Total	•••	60.13	1.03	61.16	3 90	6.57	3.80	4.57	12.04	3.12	4 45	94.68
Aurangabad Subdivi	sion.			i	id:		54					
Daudnagar		40.35	.77	41.13	9.47	4.20	1.06	3.37	29.03	1.65	4.66	94.31
Nabinagar		37.31	•97	38 28	11.37	2.91	1.35	1.84	20.11	105	8.00	91.96
Aurangabad	•••	85.02	.73	35.75	10.80	2.48	.083	3.15	29.45	0.79	<b>5</b> ·26	94.73
Total	•••	36.97	0.78	37.75	10.59	2 99	1.00	2.88	27.27	1.05	5.73	94.03
Sadr Subdivision				}			- <del></del>					
Town Gaya		41.69	0.24	41.93	4 56	2.69	.75	36.49	3.20	0.00	1.70	97:91
Mufassal Gaya		49.09	34	49.43	9 46	2.74	2.77	181	7.89	1.34	7.53	91.85
Tikari		42.68	•23	42 91	14.18	6.30	2 57	2.23	12.23	2.49	8.47	91.37
Atri		56.76	.13	56.39	11.76	4.15	3.83	2.27	5.03	2.06	7.21	92.33
Barachati	•••	63.22	⋅83	54.39	3.99	4:80	4.76	7.8€	8.33	0.82	4 73	94.92
Shorghatti	•••	42.26	1.29	43.47	8.09	5.98	2 32	12.88	13.18	1 96	8.34	91 08
Total	•••	47.89	•53	48.43	9.80	4.71	3.06	5.14	9.62	1.75	7.45	92.07
Nawada Subdivisi	on.				1					·		
Nawada		63.76	.51	64.27	8.10	4.69	9.62	1.20	4.34	1.95	6.14	93.58
Pakribarwan		57.58	.57	58-15	14.85	1 91	6.59	2.49	8.44	0.97	7.71	92-42
Rajauli	•••	50.25	3.07	53.32	5.94	3.78	8.74	5.44	7.52	1.12	5.24	94.54
Total	,	60 16	. 95	61.11	9.28	3.91	8.79	2.19	5.80	1.62	6.35	98.78
Total of the district	•••	49.10	•78	49.88	8.94	4.37	3.67	3 81	14.51	1.76	6 22	93.4

129. The following table shows the comparisons of the proportion of crops as found at the present survey with those of previous surveys:—

Year of survey.		Estate-			Percentag	ge to net erop	ped areas un	der	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
1641 015	divey.		Winter rice,	Wheat,	Barley,	Grám.	Maize.	Marua.	Sugarcane,	Oilseeds.
1893—05 1893—05 1893—95 1893—95 1900—02 1901—02 1912—15	   	Tikari 9-as. estate Belkhara Mahal. Government estates Maksulpur estate Deo estate Whole district	46.4 58.3 41.1 48.4 48.2 49.1	9*3 2*9 7*3 6*5 2*5 8*9	4·8 4·1 5·3 6·5 6·0 4·4	11:3 18:0 7:2 11:2 18:5 14:5	0°8 2°1 3°9 3°7 5°7 3°8	1.6 2.1 3.6 6.4 3.0 3.7	1.8 2.1 2.9 2.1 2.6 1.7	6·2 2·9 8·6 5·6 5·4 6·4

It is clear that no great change is occurring in the comparative area under various crops.

130. The following table shows how the extent of cultivation of food grains in the district compares with that in other districts:—

				1	Percentage on not cropped area of area under-										
		District,			Rico.	Wheat.	Barley.	Maize.	Marus.	Gram.	Other ford grains.				
Champaran					54	7	15	1	8	3	25 29 33 10 57 8 26 24 39 37				
Saran		•••	•••	1	34	6	20	3	17	. 5	29				
Muzaffarpur		•••	•••	]	40	4	19	5	11	3	33				
Darbbanga		•••			61	3	9	] 5	- 6	2	10				
North Mongb	y F	•••	•••		21	] 16	0	6	21 2	10	57				
Purnea			•••		73	4	1	, 1	2	1	1 8				
Bhagalpur		•••			59	6	4	8	7	] 6	26				
South Mongh	77	•••		1	43	В	8	2	12	18	25				
Patna			• • •	{	86	5	7	8	2	23	] 89				
Bhahabad			•••		39	13	6	1	<b>j</b> 3	19	37				
Gaya	•••	• • •	***	[	50	9	4	4	4	15	80				

Gaya has a larger proportion of its cropped area under rice than any other South Bihar district.

131. The most important of the bhadai crops is maize which covers 69,732 acres which is closely followed by marua, 67,119 acres. The latter is the more important crop in Nawada subdivision where it covers about four times the area under maize.

Bhadai rice is comparatively unimportant covering only 14,211 acres. It is grown to the largest extent in Rajauli thana.

132. Winter rice is of course the most important of the aghani crops and Aghani crops. covers 897,961 acres or 49.1 per cent of the net cropped area. Thana Arwal as might be expected shows the highest percentage and Aurangabad the lowest. The Aurangabad subdivision shows the lowest percentage among the subdivisions as it contains a large proportion of high tanr land on which gram is grown.

133. Sugarcane covers 32,131 acres or 1.7 per cent. of the net cropped area.

It had not before the war been increasing in area to any great extent but doubtless the high price of sugar will produce an effect. It requires too much labour and capital to be popular with the ordinary raiyat and there is not a large proportion of the land in the district which is suitable for the crop. The percentage of net cropped area under sugarcane in Aurangabad subdivision is only 1.1.

134. The most important rabi crop from the point of view of area is gram which covers 14.5 per cent of the net cropped area. It is unfortunate that no separate statistics were prepared for khesari. The

survey of 1893-95 showed that in the Tikari estate 15.4 per cent of the net cropped area was under *khesari* but it is principally grown as a second or paira crop after rice, the seed being scattered in the rice at the end of October. It probably accounts for well over half the 422,804 acres under other rabi cereals and pulses. Gram, on the other hand, is principally grown in uplands frequently mixed with wheat or linseed. It is specially important in the Aurangabad subdivision where it occupies no less than 27.3 per cent. of the net cropped area.

135. The next most important crop is wheat occupying 8.9 per cent of the net cropped area. It is principally found (2) Wheat. in the centre and south of the district where suitable upland is available. Some experiments were made in 1916-17 in Government estate villages in the south of Gaya thana with Pusa No. 12, but the outturn does not seem to be an improvement on the ordinary wheat. It requires however a cycle of good and bad years before a definite comparison can be made. In Nawada thana considerable success has been obtained from this variety which has been introduced through co-operative Nawada Bank societies. The Central started 1914-15 to distribute this wheat, 63 maunds being disposed of in that

year. In 1917-18, the Bank stocked 500 maunds of seed, 246 maunds of which were disposed of in the subdivision and the balance in the rest of the district. This is in addition to what the *raiyats* themselves reserved for seed. The yield of the wheat has been found well above that of the ordinary country variety and it sells at a better price.

136 Barley occupies 4.4 per cent of the net cropped area, about half that occupied by wheat. It is more grown than wheat in thanas Arwal and Jahanabad probably because it stands excessive water better (see also the figures for the Belkhara Mahal). A certain amount of wheat and barley is grown as a mixed crop called "Gojai". We have no statistics as to these mixed crops. If in any particular plot wheat and barley mixed were recorded as having been grown the area was proportionately divided between them. In Mr. Stevenson-Moore's Settlement, statistics were collected and these showed that the area under mixed wheat and barley was only 1-23rd part of the area under the two crops unmixed. I am inclined to think that this proportion has considerably increased because we find in the crop cutting experiments, which were made more or less at random, the following were the number made:—

 Wheat alone
 ...
 1,053

 Barley alone
 ...
 475

 Wheat and Barley mixed
 ...
 463

The experiments on wheat alone are about twice as many as on barley which corresponds approximately to their area and it would seem therefore as if the area under the mixed crops was at least comparable with that under barley alone. The reason for the increase is probably due to its value as an insurance crop. In view of its importance statistics should be prepared of it at the next settlement.

- 137. Oilseeds occupy 6.4 per cent of the net cropped area and the area would appear to be increasing. In 1916Oilseeds. 17 the officer doing settlement of revenue in Government and temporarily-settled estates in the south of the district noticed a large extension in linseed cultivation. Til, the only bhadai oilseed crop, is practically confined to the poor lands adjoining the jungle in the south of the district. Linseed is the most important of the oilseeds and is frequently grown as a paira crop after rice, as well as mixed with wheat or gram in the ordinary way.
- Other crops.

  Shown in the statistics are due to the inclusion of the statistics of Government estate villages surveyed before the cultivation had stopped and not surveyed during the present operations. The land on which opium was grown is now used for growing ordinary bhadai and rabi crops or special crops such as chillies or vegetables. Although the value of the outturn from these lands is less than what it was when opium was grown the rent remains unchanged and is often at a very high figure.
- 139. In Gaya owing to the prevalence of the produce-rent system it is obviously desirable for various purposes, notably cess revaluation, to get some general idea of the outturn of the various kinds of crops in the district. The usual method of cutting  $\frac{1}{10}$ th acre took a good deal of time and preparation and the result was that each officer could do only a very few experiments. It was, therefore, necessary to devise some means of getting a large number of experiments so as to spread them over a larger area. The system adopted was that invented by Mr. J. A. Hubback, i.e.s., late Settlement Officer, South Bihar, under which the area cut was  $\frac{1}{100}$ th of an acre in the shape of an equilateral triangle. The triangle had sides of wooden rods with a simple arrangement for putting them together accurately in position. The whole apparatus was easily carried by a coolie and six or eight experiments could be made in an hour

and the separate bundles required no special arrangements for threshing. By judicious distribution of experiments over fields and areas more or less uniform it was hoped to get an average indicating the outturn of that area. Before adopting the system I had experiments made by first laying out to the an acre and then making experiments with the triangle in ide this. It was found that the results from the triangle agreed very well with those obtained by cutting the whole area. The points to be careful of are—

- (1) the triangle must be set up correctly;
- (2) at least two experiments should be made in places selected so as to avoid errors in judging which part of the crop was average;
- (3) a correction has to be made on account of the ails or uncultivated embankments which divide fields. Five per cent was found by actual measurement to be a sufficiently accurate allowance for this

The instructions for using the triangle varied from year to year mainly in the matter, however, of classification of land. The latest instructions are reproduced in Appendix XIX.

Results of experiments.

Results of experiments.

Results of experiments.

The first year's area an attempt was made to reduce all the results to a 16-anna crop by estimating what the actual crop was in terms of a humper crop (16 annas). The results were so inaccurate that this was dropped and only actual results recorded. It has to be remembered by courts using these results that the printed register of experiments in thanas Arwal, Daudnagar, Aurangabad and Nabinagar show the estimated 16-anna outturn. The Collector has, however, been supplied with copies of the registers of these thanas showing the actual outturns in the remarks column. In all other thanas actual outturns have been shown and in giving the results of the experiments only actual outturns have been used. The following table gives these results:—

			Pac	idy.	_					W	eat										
Thana.		Brou		Tran plan		Who	eat.	Ba	rley.	41	le <b>y</b>	Kh		Ļinse	ęā.	Gram,	Sa	r#On .	Ман	gri,	P
wal udna ar rangahad bi nayar hanabad kari i kari i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i i	2 1. 5 2 3 6 3	7 0 2 2 3 2 5 4	101 81 101 7 6	358 28 233 40 888 670 1,132 375 +23 583 672 962	16 17 16) 17 14 12 13 13 13 13 13 11 12	1 17 47 65 84 110 54 312 38 121 117 71 26	14 10) 13 11 10) 8) 11 10 9 11 10 11) 8)	9 8 78 70 16 76 	6 9 12; 10; 13 9 9 10;	1  53 22 26 58 193  84 36	14  1113 10 111 111 12 14 13 13	9 13 5 94 72 48 55 8 22 	377 973 44 69 41	4 31 12 6 48 3 6	6 33 6 3 24 2 3 3	6 8 2 19 27 10 16 16 16 16 16 16 16 16 16 16 16 16 16	20 16 57 8 24 14	11	 4 16 6 89 20 29 31 16 70  14	10 8 9 7 5 8 4 5 4 8	9 10 52 12 4
Whole district	. 30	3	7	7,669	13	1,053	101	475	10	463	12	301	61	152	3	291	177	8	53	5	90

Note. -Under each crop the first column shows the number of experiments and the second column in thick type the average outturn per acre in manuals to the nearest half manual.

The experiments extend over the years 1912-13 to 1916-17 and are fairly well distributed, except in the case of the less important crops, all over the district. The western area is not very strongly represented because the triangle was not used to any extent in 1912-13 and the high results in the case of paddy in that area are probably due to inexperience in the use of the instrument. For instance, the figure of 17 maunds per acre in Nabinagar is clearly too high an average for the thana. The figures for the whole district which are got by dividing the total outturns by the number of experiments, and not by taking the mean of the average outturn of the thanas, do, I think, give a reliable basis to work upon. They represent the result of a large number of experiments on all sorts of land by a large number of different officers. The one factor that is not eliminated is any personal equation in the matter of selection. If, as I hope, a systematic crop-cutting is done annually for

testing the crop forecast figures this factor should be eliminated as far as possible on the American system by deciding the fields to be cut on some mechanical plan. By taking a police station as the unit and selecting a number of villages in it and specified field in each village a good comparison between different years should be available and in course of time a very accurate set of figures would be obtained.

In applying these figures to the cropped area to ascertain the gross outturn it must be remembered that they do not provide for the cases where a crop has been sown but has failed and my own impression is that there was a tendency to over-estimate the average field, that is to say, experiments were made in fields better than average. This appears to have been specially the case in the first year's area but it is counteracted in the case of rice to some extent by the probability that experiments on broadcast rice were included as experiments on transplanted rice in the third year's area.

The following table shows the comparison of the various estimates made from time to time of the outturn in maunds per acre over the whole cropped area:—

		Paddy	·			Rabi	i. ,	
<del></del>	I,	II.	III.	IV.	I.	11.	111.	IV.
1000								
<ul> <li>Mr. McDone'l's estimate in 1876</li> <li>† Mr. Grierson's estimate in 1893</li> <li>Mr. Stevenson-Moore's estimate in 1895</li> </ul>	10·8 14·95	$\begin{array}{c c} 12 \\ 8.6 \\ 12.95 \end{array}$	$\begin{bmatrix} 7\cdot2\\10\ 96 \end{bmatrix}$	6·2 8·63	5·1 8·67	7:4	$\frac{4}{7.67}$	4·31
Estimate taken for crop forecasts Crop cutting experiments	15	15 13	121/2	12	101	10	10	101

The figures I, II, III and IV refer to the tracts into which the district was divided by Mr. Grierson and are roughly as follows:—

- I. Jahanabad, Arwal and part of Daudnagar thanas.
- II. Gaya, Tikari, Atri and Nabinagar thanas.
- III. Nawada, Pakribarwan, Rajauli, Aurangabad and part of Daudnagar thanas.
- IV. Sherghati and Barachati thanas.

In the last two lines of the estimates of rabi crop, wheat alone has been taken. If other rabi crops which give a lower outturn had been considered the results of our experiments would probably have approximated more closely to Mr. Stevenson-Moore's figures. The estimate taken for crop forecasts in the case of paddy refers to cleaned paddy.

In comparing the estimates for the rice outturn we are at once met by a factor which crop-cutting experiments do not take into account. A certain proportion of the area planted fails in most years owing to unfavourable weather and this proportion is greater or less according to the amount of protection afforded by irrigation. No account is taken of failed crops in crop-cutting experiments. In the first two tracts which are, with the exception of Nabinagar thana, well protected, we find the crop-cutting results agreeing with those of Mr. Stevenson-Moore derived from other considerations. In the third and fourth tracts, however, where this factor comes into play we find, as we might expect, the crop-cutting experiments giving too high a figure. I think it is fairly evident that the figures of outturn taken for the forecasts are too high and should be reduced. I should estimate 12 maunds to the acre for paddy and 9 maunds to the acre for wheat as the outturn of an average crop all over the district including areas where the crop had failed.

The estimate for wheat would apply to barley and wheat and barley mixed.

^{*} Food grain supply and Famine Relief in Bihar and Bengal, page 116.

[†] Notes on Gay1, pages 83-85,

[#] Material condition of small agriculturists and labourers in Gaya.

The average outturn of the other rabi crops in default of better evidence might be put as follows:—

maunds per acre. Gram, 7

Sarson, 7 ditto.

ditto. Khesari, 6

ditto.  $Masuri, 4\frac{1}{2}$ 

Linseed, 3 ditto.

Comparison of outturn for nagdi and bhaoti

141. The following table which has been compiled from the crop-cutting registers after classification of the plots from the record-of-rights snows the comparative outturn of the two principal crops,

paddy and wheat, on nagdi and bhaoli lands :-

						Pa	iddy.			Wh	eat.	
				1	Nag	gdi.	Bh	aoli.	Na	gdi.	Bh	aoli.
Arwal					151	18	210	13	ı	14		
Daudnagar	*** 1	•••			46 18	19	128	17	10	18	25	7 114
Aurangabad	***	• • • •	•••	***	10	21	120	17	18	12	33	112
Nadinacer	• • •	***	• • •	***					111	10	66	11
Jahanabad		•••	•••	***	266	$\delta_{\frac{1}{2}}$	554	$12\frac{1}{2}$		1 1	32	10
Tikari	•••	•••		***	157	123	465	11 1	165	102		9
$m{A}tri$	•••	•••	444-	***	102	20	361	12	72	11	28	30
Nawada		•••			253	131	785	111	321	101	142	9
Pakribarwan				•••	71	] 11	261	10	22	$[-1 \cup ]$	28	6 <del>4</del>
Mufassal Gay	a.	•••			445	13	508	$11\frac{1}{2}$	547	101	324	8§ 9
Rajunli				, CON	14:	163	397	111	133	124	30	9
Sherghati	•••			438	184	12	385	10 3	159	13	30	10
Barachati	•••	Whole o	listrict		$\frac{286}{2,121}$	13 14·3	480 4,560	$1\frac{1}{2}$	11- 1,582	9	15 554	8 <u>1</u> 8 7

Note. - The first column under each class shows the number of experiments the second the average outturn per acre.

Whatever may be the value of the triangle as an instrument for measuring the absolute outturn there can be no doubt of its value in a comparative test of this kind and I think it clearly shows that over the district year-in yearout the crops on nagdi land are better than those in bhaoli land by about 16 per cent. This difference is not wholly explained by the argument that the nagdi land is always the best land in the village because it is not, and even where it is, the quality of the soil is not the most important factor in Gaya in determining the outturn as has been clear from experience in trying to classify soils by outturn. The two most important factors, where the soil is not extremely had, are irrigation and husbandry. In several instances it has been found that landlords first irrigate the bhaoli lands and after that the nagdi lands so that a good proportion of the difference must be due to the difference in cultivation which is what one would naturally suppose. In paragraph 33 of his report on the material condition of small agriculturists in Gaya, Mr. Stevenson-Moore took the difference to be 25 per cent; it is safe to say that at least 10 per cent. is the average all over the district of the difference due to indifferent husbandry.

142. A census of the agricultural stock was made during the operations and the result is given in Appendix V. This does not include the stock of the 12 villages not surveyed during the present operations. These figures give a total of 66 head of livestock per 100 persons which is a very high figure, the only other two districts to approach it being Bhagalpur with 64 and Shahabad with 53. It is interesting to compare the figures with those of the cattle census taken in 1913-14. The comparative results are as follows :--

					Census figures.	Settlement figures,
Bulls and	bullocks	***	***		452,715	449,146
Cows					273,71	: 32,21 <i>5</i>
Mal : Bott				•••	1 2,766	120~680
Young sto	ok (includi	ng buffalo c	alves)		36,304	302 340
Fuecp				•••	118,10 <b>3</b>	72,616
Goars			***	•••	266,589	184,146
Porses an	d ponies				8,279	7,787
Males					37	312
Donkeys					540	1.9.1
Camels		***	,	,	25	111
I loughs	***			•••	185,964	201.1:0
Carts	111	•••	***		4,582	5,∵5₫

In everything except the last five items the census figures exceed the settlement figures. In considering the value of the two sets of figures the method of recording has to be examined. The census figures are derived from chaukidars who give the figures for their respective villages probably on an estimate. The settlement figures are compiled by adding together the figures ascertained from each person. The latter are therefore probably more reliable as far as they go but it has to be remembered that they only refer to the stock owned by persons who have khewats or khatians. the stock of a goala who held no land and the sheep of a gareri in the same position escape enumeration. This is well illustrated in the case of bulls of which the enumeration in the settlement statistics is obviously faulty. The majority of such animals belong to nobody in particular. The enumeration of male buffalos in the first year's area was defective owing to a misprint in the form which resulted in all buffalos other than bulls being classed a In that area also buffalo calves were included with other young stock. As far as livestock is concerned, therefore, I think the census figures where they exceed the settlement figures are probably nearer the truth as regards the total stock and not merely as regards what belongs to agriculturists. The census was taken in the cold weather when the settlement figures are compiled so no discrepancy due to migration for grazing need be considered. As regards ploughs, however, the settlement figures are certainly more dependable since every one owning a plough holds lands. As to carts also the settlement figure is the better though probably still too low because there are numbers of cartmen who are not raiyats. The thana Town Gaya where there are 361 carts has not been included in the census figures.

The number of bullocks is more than sufficient to give a pair for every plough and cart in the district. The number of carts is small and a large number of bullocks are used as pack bullocks. On the other hand in the south buffalos are used both for ploughing and for carts. A buffalo cart can take a load over the Sherghati-Imamganj road that would require two bullock carts though of course it is slower.

There is one plough to every nine acres of cropped area. This agree closely with the figures found from the Maksudpur estate and Deo estate in 1900 but is much smaller than those found in the Tikari estate, Belkhara mahal and Government estates surveyed in 1993-98 where one plough went to every  $13\frac{1}{2}$  acres of net cropped area.

143. If the total area of 3,038,645 acres of the district 1,035,389 acres or 34% has been found unoccupied area.

Occupied area.

Occupied area.

Occupied area.

Occupied land consists of all uncultivated land except that which forms part of a raiyat's holding. It includes roads and railways. The distribution of the occupied land among the various classes of holders as compared with other South Bihar districts is as follows:—

		Percentage of occupied area hold by-							
District.	Proprietor and tenure- holders.	Raiyats at fixed rents and rent-free raiyats	Settled and occupancy	Non-occupancy raigats.					
South Shagalpur South Monghyr Patha Shahabad Gaya	11.0 11.7 13.6 16.1 13.2	1:4 2:21 2:2 15:5 2:9	85.6 83.6 83.9 67.5 83.2	2 0 2·5 0·3 0 9 0·7					

The figures for Gaya are remarkably similar to those of Patna. Settled and occupancy raisets as usual hold the bulk of the occupied area. The following table shows how the occupied and unoccupied area is distributed over the subdivisions of the district.

		Jahannba	d.			Aurangal	ad.			Sadr.				Nawa	da.		$\int$	Tota	1.	_
	Number of holdings.	Arcs.	Parcentage of total occupied area.	Average size of ho'd-	Number of holdings	Area.	Percentage of total	Averege size of hold-ings.	Number of holdings.	Area,	Percentage of total	Average size of hold-	Number of holdings.	Area.	Percentage of total	Average size of hold- ings.	Aumber of holdings.	Area.	age od ar	Average size of hold-
Zirat Held by proprietors but not Zirat.	111 6158	397:46 27 77:13	0·12 8·45	3.28 4.44	4499	58344-20	9,00	11.88	1 4212	24·33 44156·38	6°21	24·33 0·48	15 82 <b>0</b> 2	301:53 25347:88	0:08 6 79	20-10 7-91	127 18071	729·32 150827·59	-08	_
In cultivating possession of tenure-holders Raiyate at fixed rent. Settled or occupancy	2879 3422 152 <del>9</del> 07	3590 97 271089 1	3·63 1·09 8× 40	4·10 1·03 1·77	3705 1693 130486	36661·82 3101·74 483093·12	6·19 0·52 8!:48	9 66 1.56 3.70	5121 8786 250241	49039*87 10259*38 590043-53	6·89 1·44 8·31	9.77 1.17 2.82	551	706:25 323518:51	4°06 () 19 8÷54	6·45 1·27 2·01	14169 14785 694:11		5.63 88 88.25	7-96 1-19 2-40
raiyats. Non-occupancy raiyats. Rent-free holders	818 10038	2232-69 8507-28	0 69 2 62	2.64 0.85	1067 10432	4277 2 12400 96	0·72 2·09	4·01 1·19	1473 13922	43 99 · 19 13038 · 50	0.63	2.98 0.98	1952 8937	2308 : 7 6299 79	0.61 1.70	1°16 0°70	5337 43329	13218·17 40846·59	0 68 2.05	2.47
Total occupied area.		325014:42				592879116		.,.		711503:18				373802:39	:			2003259 15		-
Under raiyats	1376	1631-18			2219	2301.44			8312	2890.87			1755	1202-33			8662	7825-52		
Waste land unoccupied, Kaisar-i-Hind		55887-91 7/36:53				201213:46 +9841-41				50069 <b>7</b> :07 9858:83				237111.83 3649.28				994000°27 40486°05		
Total unoccupied area.		63021-41				221054.87			•••	510545.90	ļ			240761-11	·		·	1035386 32		

144. Only 723 acres were recorded as proprietor's zirat. In the settlement of 1893-98, 4.6 acres were recorded as zirat of the 9 annas Tikarı estate. The additional zirat found is principally in village Bhadeni, thana No. 91, thana Nawada, where the proprietors were able to show that they had been in cultivating possession continuously since a long time previous to the passing of the Tenancy Act.

145. The area in cultivating possession of proprietors which is not true zirat amounts to 150,328 acres, or 7.5 per cent of the occupied area. This is a very much lower proportion than was found in Shahabad or Patna, but about the same as in South Monghyr. The highest proportion is found in Daudnagar than 12 per cent, and the lowest in Atri, 1 per cent, but the variations between the subdivisions are not great.

146. The area in cultivating possession of tenure-holders is 112,821 acres or 5.6 per cent of the occupied area. Here the figure is higher than that in Shahabad and Patna and about the same as that in South Monghyr. In Gaya and South Monghyr we have large estates prevailing with a good deal of leasing; Patna and Shahabal on the other hand are districts of small estates and leasing is not practiced to the same extent. The total percentage of occupied area held by landlords is 1.16 which is an average figure for South Bihar.

are raigats of the 9 annas Tikari estate so it would appear as if a good many of such tenancies escaped notice in 1893-98 when only 3,024 acres in the estate were found held on fixed rates.

Raiyats at fixed rents.

147 Seventeen thousand five hundred and ninety-eight acres are held

by raiyats at fixed rents. The bulk of these

This, however, is explained by Mr. Stevenson-Moore in paragraph 108 of his report which makes it probable that only those raiyats who held only land on fixed rents were recorded with this status. It is stated in paragraph 170 of the same report that 23 1 per cent of the cash paying area in the estate is shikam (fixed rents). The cash paying area given in Appendix XII to that report is 43,483 acres; 23.1 per cent of this 10,045 acres and adding the 3,024 acres at fixed rents we have 13,069 acres which is probably near the truth and leaves only about 4.500 acres of such land in the district outside the estate. I have no doubt that a large number of shikam rents in other estates were really fixed rents but the raiyals were not in a position to prove it and there was no general presumption attaching to the term as to guzastha in Shahabad and the rights have now been lost. In a few Government estates a small area was found which had been recorded as held on fixed rents in the settlement made in 1880. Where the successors in interest of the original holders were in possession they were given the status sharah muaiyan after consultation with the Collector, the entry of kacmi in the settlement of 1893-97 having been clearly wrong. These cases were evidently exceptions to the general decision referred to in paragraph 109 of Mr. Stevenson-Moore's report.

- 148. The bulk of the tenants are settled and occupancy raiyats holding 87.7 per cent of the holdings and 88.2 per cent of the occupied area. In villages in the south it was sometimes found that occupancy rights were given at once in cash rented lands taken up by a new-comer in order to induce him to stay.
- 149. The rent-free holdings are not of great importance being usually small grants made for religious purposes or on account of services. In village Sihora, No. 164, thana Atri, Basan Kumar, the deity who guards the village from tigers has a khatian in his own name in return for his services.
- 150. Non-occupancy raiyats hold 13,218 acres or only 0.7 per cent of the occupied area. They are either raiyats of neighbouring villages who have held land for less than 12 years or raiyats brought in to reclaim land. A certain number in Government estates are settled raiyats who have been given land to reclaim on a specially low rent and who are temporarily barred by the action of proviso (1) to section 178, Bengal Tenancy Act, from acquiring occupancy rights.
- 151. The statistics of the transfer of proprietary rights in the last 10 years are given in Appendix VI. They are not complete because it is impossible to make them so. Their only interest is in showing the average price paid for proprietary rights in lands and the proportion which the land revenue bears to the value of the land. The value of land is highest in Arwal and Jahanabad and lowest in Sherghati. The average value is Rs. 76-9 per acre, more than double that in Shahabad and about 50 per cent greater than in South Monghyr. The land revenue transferred is about 0.8 per cent of the price. Taking this at 20 years' purchase the land revenue is about 16 per cent of the annual value.
- 152. The statistics of sales of occupancy rights will be found in Appendix VII. These are also very incomplete and usually only come to light if a mutation of names in the landlord's jamabandi has not taken place. How incomplete they are is shown by examination in the villages in which a previous survey had taken place. A comparison of the present record and the previous one and the laborious process of tracing all the changes that had taken place, invariably showed that many more sales had taken place than those originally mentioned. Another point has to be noted. Whole holdings are those consisting of all the land in one khatian and do not necessarily mean the whole of the raiyat's land. The average price per acre realized comes to Rs. 56-14 per acre It is satisfactory that over 93 per cent. of the transfers were to other raiyats.
- probably a little nearer the truth than those of sales because it is to the interest of the mortgagees to see that they are recorded. This, however, is not always the case because it was generally found in the case of produce-rent lands that the name of the mortgagee, if the mortgage was one with possession, was automatically entered in the landlord's papers because he was cultivating the land when appraisement took place, or took his share of the crop when divided. So his name would naturally appear in the danabandi khasras or batai chittas. As in other automatic machines this process was doubtless assisted by the transfer of money.

As in the case of sales the bulk of transfers by mortgage took, place to raiyats, 90.4 per cent of the area being held by mortgages of this class. The average rate was 60.3 per acre. The excess over the sale rate is principally due to the heavy mortgage rate in Gaya town. Elsewhere the two rates are very close. The reason for this is firstly that probably at least half of the mortgages

are never redeemed and are practically sales, and secondly, a certain number are mortgages of landlord's bakasht land, the rate for which is very high because it pays no rent and is usually the best land in the village. All cases of bakasht lands mortgaged to raiyats were carefully examined to see that they were really what they purported to be and not merely a method of making a settlement of land on such a way as to prevent the accrual of occupancy rights. Only a few cases were found which were not bona fide mortgages and the practice mentioned in the Patna Final Report, paragraph 91, has evidently not extended as yet to Gaya.

The mortgages recorded are only those accompanied by possession. A certain amount of mortgaging without possession occurs. One case was found in the portion of Barachati thana, south of Tankuppa station, where raiyats were in the habit of mortgaging their crops. In 1914-15 the crops partially failed with the result that in 1915-16 the raiyats found it very difficult to get any money in this way.

154. The custom of the transferability of occupancy rights without the landlord's consent sometimes exists and sometimes does not. This is the case occasionally even in the same estate. One Assistant Settlement Officer who worked in all parts of the district gave it as his opinion that in any camp, if the landlords of the first few villages dealt with admitted the custom, most of the others followed suit. The custom is therefore clearly not one about which people worry very much.

The salamis and fees taken by landlords for recognizing transfers differ considerably and details will usually be found in the village note. In some cases 20 per cent. or 25 per cent. of the purchase money is taken, in others Re. 1 per bigha or Re. 1 per transfer. The smaller fees usually go into the patwari's pocket so that the realization of them does not necessarily imply that the landlord's consent is necessary. That the patwari always takes something is clear from the fact of the slowness of mutation in the 9 annas Tikari estate and Government estates though the free right of transfer is admitted.

In only one case was it found that a landlord refused to allow mutation of names on payment of the usual salami. Other cases can be imagined but these are exceptions and there being no real restrictions on transfers the only effect of taking salami is to reduce the price which the raiyat gets for his land. An examination of some selected villages which had been previously surveyed in 1893-98 and a comparison of the previous with the present record-of-rights showed that the existence of the right of free transfer has not had the effect of changing the economic conditions in the village for the worse. The statistics as far as they go show that there has been no tendency for the raiyat to be ousted by the lawyer or money-lender.

There would, therefore, appear to be no objection to legislating to provide for a right of transfer subject to the payment of such fee as the landlord mi l.t demand not exceeding 1/4th of the purchase money except where a free right of transfer has been proved. It would be well, however, to wait till some experience has been obtained of the similar enactment in Orissa. Although the present state of things does not suggest that any alteration would be caused by the proposed legislation, which would in practice only apply to isolated cases, it is a fact that in most cases if a landlord did object to a purchaser the latter has no remedy but an expensive suit to try and prove the custom of transferability without the landlord's consent, an exceedingly difficult matter, because the entry in the village notes is not part of the record-of-rights and has no presumptive correctness. Under the proposed legislation this difficulty would be removed and we might have an increased number of cases such as the one in Ghonghawa, No. 801, thana Sherghati, where a stamp-vendor at Gaya bought some raiyati land at a sale in execution of a decree He has got symbolical possession but has not been able to get actual possession and probably never

will. At present such speculators usually confine their attentions to proprietary rights but legislation as to transfers of raiyati rights may induce them to change their sphere of operations.

It is pity that the record of the custom in each village or patti was not made part of the record-of-rights. The courts would then have something to go upon in every case instead of having to find out the custom for themselves. Admittedly it is difficult to ascertain the custom when no transfers are known to have taken place, but in such cases it would be fair to assume that the right of transfer without the landlord's consent did not exist. The difficulty will, however, not occur at subsequent settlements for by looking to the present record one can find how many whole holdings have changed hands and with this information it should not be difficult to find out what was done at the time of mutation of names in the landlord's jamabandi.

It is to be noted that this question only arises in the case of whole holdings the transfer of which are less than a quarter of the whole number recorded. Over the transfers of part holdings the landlord has absolute control in virtue of section 88 of the Bengal Tenancy Act.

# CHAPTER IX.

#### RENTS.

155. The prevalence of produce-rents which is characteristic of South Bihar reaches its maximum in Gaya. Out of a total area of 1,667,725 acres held by settled and occupancy raiyats, 1,098,265 acres or 65.9 per cent is held on rent in kind. If we add the 33,920 acres held on chakath rent which is produce-rent temporarily commuted into eash the percentage rises to 67.9 per cent.

The percentage in other South Bihar districts is as follows:-

		AL II AATER	0.767			
South Bhagalpur	•••	V H-iffC	H II	***	***	16
South Monghyr	•••	144.15	M.\	•••	•••	32
Patna	•••	ALC: NO.	CE 20	•••		44
Shahabad	,		NP FA			21

The following table shows how the proportion varies inside the district:-

•	Thana,	Arwal,	Jahanabad.	Daudnagar	Nabinagar,	Aurangabad.	Томп бауа.	Mufassal Gaya.	Tikari.	Atri.	Barachati.	Sherghati.	Navada,	Pakribarwan.	Rajauli.
settled and c	area held on produce-rent by necupa my raivats. net cropped area irrigated neources.	39 23	68 65	68	87 35	83 27	20 42	57 49	65 41	69 56	48 50	49	63 63	66 52	56 53

The figures in the lower line are only approximate as they have been got by adding the percentages of irrigation from private canals and ahars, the bulk of which are under the control of the landlords. It will be seen that the figures of produce-rent vary a good deal and do not appear to depend to any extent on the amount of private irrigation. The Aurangabad subdivision shows the largest proportion of produce-rent, the percentage being 81 for the whole subdivision, yet it has the smallest percentage of private irrigation. The low percentage of produce-rent in Arwal is of course due to the fact that the whole than a practically is irrigated by the Son Canal. Apart from this we have the most advanced parts of the district in the north showing a higher percentage than the south where Sherghati and Barachati than show the lowest percentage except Arwal.

156. Dr. Buchanan made an estimate of the proportion of produce-rent paid in various thanas in 1812. It is only possible to compare his estimate roughly with modern conditions as the boundaries of his thanas do not agree with those as now constituted. The

following comparison may however be made :-

	ras of 312.	Or. Buchanan's estimata of percentage produce rent.	Present statistice.	Corresponding Thana.
Arwal Dandnagar Nawada Hulasganj Jahanabad Gaya	•••	 94 75 87 75 97 94	39 68 63 69 63 60	Arwal. Dandnagar. Nawada Subdivision. Atti. Jahanabad. Gaya and Tikari

If Buchanan's estimates are to be trusted there has been a considerable decrease in the area on produce-rent.

157. In the Settlement of 1893-98 the proportion of the area neld by settled and occupancy rainats under produce-rent Proportion in previous Settlements. was found to be as follows:-

		11 202 10				
Tikari estate	 	***	***	+44	***	74
Bolkhara Mahal	 		***	•••	101	26
Comment astatas			***	•••		20

The figure in the Government estates is not to be taken as typical because the statistics in the previous settlement were drawn up after commutation had taken place. The percentage for thana Sherghati where very little commutation was done was 62 per cent. In the Belkhara Mahal private commutation has been carried on to a considerable extent which accounts for the percentage being lower than that now shown in Arwal thana.

In the settlements of the Deo and Maksudpur estates the percentages of the land held by settled and occupancy raivats on produce-rent were 67 and 75 respectively. The high percentage in Maksudpur is due to the fact that for some time before the settlement the Raja had been converting eash-rents into produce-

Considering all these figures I doubt if it can be said with confidence that there has been of recent years any marked decrease in the amount of producerents, such conversions as have taken place being counteracted by changes in the opposite direction. It is a common practice on the part of new proprietors by purchase to change nagdi lands into bhaoli. I understand that in Bengal it is proposed to prohibit this when the Bengal Tenancy Act is next amended. I am certainly of opinion that at least it should not be permitted to be done by socalled private contract. There are some cases where it might arguably be an equitable arrangement, e.g., where owing to river encreachments the soil has become unfertile. Theoretically such a case might be dealt with under section 37, Bengal Tenancy Act, but the raiyat would probably find any reduction of rent obtained would be more than balanced by his law expenses, and opportunities for utilizing the cheaper procedure under section 105 do not often occur. I consider therefore that changes from eash to produce-rents should be declared illegal except where made by an order of a Revenue court on the joint application of both the parties and on the c urt being satisfied that it is in the interest of both sides.

In considering the present statistics it must be remembered that they take no account of commutation done during the operations. The statistics are based on the records as finally published and all the commutation was done subsequently. As the result of the 2,739 cases under section 40 disposed of by the Settlement Department 11,100 acres were commuted. This reduces the percentage of produce-rent land to 65.2 per cent. The 10,592 cases made over to the Collector will probably not result in the commutation of so large an area proportionately but will certainly reduce the percentage to under 65 per cent.

158. Early in the khanapuri season of 1912-13 the question of the precise significance to be attached to the terms Shikam and Chakath rents. shik m and chakath argse. These rents had been met with during the previous settlement of the Tikari estate in

1893-98 and are discussed by Mr. Stevenson-Moore in paragraph 67 of his Report. As found by him shikam rents were fixed eash-rents and chakath rents were temporarily commuted produce-rents. These were the meanings attached to the terms in the 9 annas Tikari estate, but Mr. Stevenson-Moore noted that

other proprietors did not accept this meaning of the term shikam while, as Dr. Grierson had noted, the term chakath was also applied to waste lands settled for a term of years with a view to reclamation. Our experience shows that the tendency is for the landford to call all ordinary cash-rents chakath, the idea being that chakath rents are variable at the will of the landlord and lands held on such rents carry no occupancy rights.

Neither of the derivations of the word shikam given by Mr. Stevenson-Moore carries much conviction but I was not able to come across any other that did. In the third year Mr. Dain however found a fair amount of evidence as to the origin of the word chakath. In the south of the district it is used to refer to the rents of land settled for reclamation as a chak, i.e., roughly by boundaries without any measurement of area, and on a lump rental. When the land has been reclaimed it is then measured and settled at rates according to its capabilities. The rent is then known as shikam and the land as kurauti from kura which means a bigha.

159. Whatever may be the derivation of these terms and whatever may be the significance attached to them by the Record of shikum rents. persons who use them it was soon evident that before any special record could be made of them it was necessary to examine them to see how far they differed from ordinary cash-rents subject to the Bengal Tenancy Act.

As far as shikam rents were concerned the 9 annas Tikari estate admitted that they meant fixed rents, so that holdings on these rents were put into separate khalians with the status sharah muniyan. In the case of other landlords where this connotation of shikam was not admitted the reats were recorded as ordinary cash-rents unless the raiyats could raise the necessary presumption under section 50 of the Bengal Tenancy Act. If this presumption was raised and unrebutted the rents were attested as fixed. The term shilkam does not therefore appear in the records and the difficulty foreseen by Mr. Stevenson-Moore in paragraph 103 of his report does not arise.

160. The rents called chakath on examination fell into three classes:

· Record of chukath rents.

(1) Ordinary cash-rents.

(2) Cash-rents settled for a limited term for the reclamation of waste land.

(3) Cash rents which were temporarily commuted to produce-rents.

The first class were treated as ordinary cash-rents. To second class are the rents in cases contemplated by proviso (1) to section 178, Bengal Tenancy Act. Under that provise the restrictions on contract imposed by section 178 are waived in the case of leases granted bonafide for the reclamation of wasteland except that, if on the expiration of the lease the lessee would in the ordinary course be entitled to an occupancy right, the lease cannot prevent him from acquiring that right. When the conditions of this provise are not satisfied the rent is an ordinary cash-rent. The large majority of chakath rents falling apparently in this class were found on examination to be rents for the settlefunent of land which was not really waste but merely abandoned land of another raight, or rents which had been changed once or more since the original bettlement. The first time the ront is changed on resettlement the lessee, if he is settled raight of the village, as is usually the case, at once requires occupancy rights and section 29 of the Act restricts further cahancements. If the proviso is satisfied the proper way to record these holdings is in a separate khatian with the status non-occupancy with a note in the special incidents column as to the accornal of occupancy rights on resettlement on the expiry of

Incidentally it may be observed that it is extremely difficult to escertain if this proviso applies unless the lease is in writing. Most of the cases where it was found in action and recorded, occurred in the Government and temporarilysettled estates in Sherghati thana and even there the patta given was not very explicit and the fact that the proviso was intended to apply could only be gathered from surrounding circumstances. I think it should be provided when the Act is amended that this proviso should not be applicable unless the lease is in writing and definitely states the provisions of section 173 which are waived. or refers to the proviso.

The more usual method however among private landlords is an initial settlement on produce-rent and this brings us to the third class.

If land is held on a produce-rent there is nothing to bar an agreement between the landlord and tenant whereby the produce-rent is temporarily commuted into a cash-rent with liberty for either party to revert to produce rent at the end of a period or at any time. It is, I think, clear that in such an arrangement section 29 of the Act has no practical application because whether the temporary cash-rent is held to be a money-rent so as to bring it under section 29 or not, a landlord can, at the end of the given period, say he will revert to produce-rent and then make a fresh agreement for a temporary commutation unfettered by any limits. This kind of chakath rent can clearly not be treated as an ordinary cash-rent and holdings on this rent have therefore to be recorded in a separate khatian. It is for this reason that the term chakath has been used in a restricted sense in the records and as so used it means a produce-rent temporarily commuted to cash. In most cases a period is fixed which is specified in addition to the word chakath, e.g., chakath panchsala. Sometimes however no period is specified, the arrangement being that at any time either party can revert to produce-rent. In such cases the rent is called chakath bemiadi. The essential points to which Attestation Officers had to look before recording any rent as chakath were—

- (1) that the holding must originally have been held on a produce-rent,
- (2) that the conversion was temporary, i.e., that it was at the option of either party to revert to produce-rent at the end of the stated period or at any time, as the case might be.

In the special incidents column of chakath khatians are specified the details of the period if any and the system of produce-rent to which reversion will be made, or, if there is no agreement as to this, then the system in force before the temporary commutation which of course will, unless there be any subsequent agreement to the contrary, be the one to which reversion will be made.

A particular case of chakath which has been referred to in paragraph 84 should be noted. When a temporary lease-holder has during his lease converted produce-rents to cash-rents without the consent of the preprietor the arrangement is not binding on the preprietor unless of course it has been done under section 40, Bengal Tenancy Act, when the landlord would be a party. In such cases the rents have been recorded as chakath rents for the period of the lease since they obviously satisfy the conditions laid down. This is hard on the raiyats who have probably paid a large salami to get low or moderate cash-rents fixed but that is one of the evils of the thikadari system and cannot be checked unless the proprietor insists on the thikadar filing yearly jamabandis. If this is done, as it is in well-managed estates, the landlord cannot plead want of knowledge.

In the Maksudpur estate some rents were found to be *chakath*, the period being for as long as the estate was under the Court of Wards. Apparently the idea was that there was no harm in commuting as long as there was some assurance that irrigation would be kept up.

161. Disputes as to chakath rents were only of importance in the first year's area where some uncertainty existed as to the way to deal with them. The principal disputes arose in the 9 annas Tikari estate owing to the use of the word chakath in the previous records. The raiyats in many cases denied that the commutation was of a temporary nature though the rent had been recorded in the previous record as chakath. In some cases it was found that rent recorded as chakath had been amalgamated in the jamabandi with admittedly permanent cash-rent, in some cases chakath rents had been enhanced under section 104 of the Act as it stood before 1898 (now section 105), in some cases the rent paid was found entered as nagdi in the rent receipts and not chakath, and in nearly all cases the rent had been paid continuously for twenty years. In those cases where there was no proof that the rent had originally been produce-rent the rents were recorded as ordinary nagdi rents. No

objections under section 103A were filed in the usual time but on a complaint by the then Manager to the Director of Land Records the estate was allowed to file objections. No fresh evidence was forthcoming and Mr. Ogilvy, who had in the meantime again become Manager, on being referred to, admitted that the cash-rents to which objection had been taken were permanent cash-rents and that the previous record-of-rights was wrong in recording them as chakath. Before the attestation season of 1914-15, Mr. Ogilvy drew up a statement of the claims and admissions of the estate as far as rents recorded as shikam and chakath at the previous settlement were concerned on the basis of which the following principles were adopted:—

- (1) All plots recorded as *shikam* at the previous settlement were to be entered in a separate *khatian* with the status *sharah muaiyan*.
- (2) All plots which were recorded as chakath at the last settlement but had been paying rent in money ever since without reversion to produce-rent or any fresh contract, and which had been paying cash-rent before the previous settlement as long as could be remembered were to be recorded as ordinary nagdi with status kaemi.
- (3) Plots recorded as chakath at the last settlement which were originally held on produce rent within memory and in which there had been no reversion to produce rent were still to be recorded as chakath (for a period or bemeadi as the case may be) unless the raiyuts could produce evidence that the conversion was meant to be a permanent one, the onus being on them to prove the incorrectness, if any, of the previous record.
- (4) Plots recorded as chakath in the last settlement in which there had been a subsequent reversion to produce-rent were to be recorded according to the conditions under which they were now held.

This simplified matters a good deal and the only point which gave any trouble was the determination in some cases whether a commutation since the last settlement had been permanent or temporary. One of such cases occurred in village Sagarpur, than a No 21, than Atri. In this case the tenant showed that the produce-rent of his holding was commuted by means of two hukumnamas from the 9 annas Tikari estate office in 1899 and 1900. These documents made no mention of anything temporary in the nature of the commutation. Subsequently in 1907 and 1912 agreements or daulas were drawn up by the estate and signed by the tenant settling the plots on a chakath rent from 1319-F. to 1323-F. The jamabandis had all along classed the rents as chekath, but there are no separate columns in these documents to show the ordinary nagdi, only shikam, chakath and paran being provided for. The rent receipts showed hal nagdi. The Attestation and Section 103-A. Officers held that the intention in 1900 had been to make a permanent commutation and the subsequent agreement in 1912 could not affect this. The lands were therefore recorded as being held on cash-rent. The estate brought a case under section 106 and the trying officer held that the original intention had been to make the commutation temporary but that even if the tenant was unaware of this there was nothing illegal in the subsquent agreements to prevent their overriding the original one. He held the rent to be chakath and the Special Judge on appeal upheld the orders.

162. It is clear that by the use of the chakath system an oppressive land-lord is able to enhance rents to any degree Desirability of legislation as to chakath rents. Without interference and steps should be taken to provide against this when the Tenancy Act is next amended. It is not an easy matter to legislate upon. The essential point, I think is, to get rid of the chakath bemeadi. This should be treated as an ordinary eash-rent so as to be subject to section 29, and the best way of securing this would be to prescribe that all chakath rents must be settled for a definite period. If no period is mentioned they should be presumed to be permanently commuted rents. The difficult point is to decide whether there should be any limitation on the periods and the increase of rent

at the end of those periods. We do not want to make the periods too long, as that would discourage landlords from commuting in this way, though as a matter of fact very little such commutation has been done except in the 9 annas Tikari and Maksudpur estates. On the other hand if short periods are allowed, there is the liability of frequent enhancements. I think on the whole that no restriction should be placed on the period but it might be prescribed that the total enhancements in any 15 years should not exceed 2 annas in the rupee. This would bring these rents into the same position as ordinary cash rents.

163. The system of paran rent is described by Sir George Grierson in his "Notes on Gaya". According to him the land fit for sugarcane in a village is divided into three parts, in each of which

every tenant has a share. Each is in turn planted with sugarcane, poppy and rice. The two portions in which in any year sugarcane and poppy are being grown pay cash rent and the rice crop in the third portion is divided or appraised. Mr. Stevenson-Moore in his report on the operations of 1893-98 writes as follows:—

"I am inclined to think that Dr. Grierson, in his endeavour to carry out his classification of cultivating tenures to a logical conclusion, has fallen into error; for the zaisan d'etre of paran does not. I think, lie in the requirements of the soil, but in the prescriptive rights of the parties. The land probably grew rice for generations before sugarcane was heard of, and it would pay the landlord better for rice always to be grown on it. On the other hand sugarcane is largely grown by the tenants as an insurance against distress in times of drought, and it is not essential that the rotat on crop should be rice, because land so well cultivated and which enjoys such facilities for irrigation from wells would grow almost any crop. I very much doubt, therefore, if the raiyats require the co-operation of their landlord at all in land of this nature, but the landlords possess certain rights on which they insist. The paran tenure, therefore, appears to me to be more in the nature of a compromise between rival interests than of an agreement based on reciprocal requirements. I should note, too, that Dr Grierson's definition of paran assumes that poppy is always grown with sugarcane as a rotation crop, but such a practice, to a very large extent is not followed. In fact sugarcane grows best on aghaniand poppy on rabi land so that much of the sugarcane land would not grow keeppy.

Whatever may be the correctness of these theories the system has now almost disappeared. In paragraph 170 for his report Mr. Stevenson-Moore states that only 0.7 per cent of the cash paying area in the 9 annas Tikari estate is held on this system and the percentage must be even less now as it was only found in a few villages. For instance in village Mahuawan, thana No. 315, thana Tikari, holdings were found which grew rice in one year on the danabandi system. In the second year sugarcane was grown and a cash rent paid which varied according to the holding from Rs. 12 to Rs. 16 an acre. In the third year cotton used to be grown but this has been now replaced by ordinary crops, and the cash rent paid varies from Rs. 10-6-0 to Rs. 13 an acre. This completed the rotation which was repeated again.

In Barheta, No. 343, thana Sherghati, there is an instance of a cash-reat alternating with two years on batai nisf while in Choar, No. 661, thana Mufassal Gaya, a variety known as paran khutiapher is met with, in which the rent in all three years is cash but of varying amount. This had apparently been customary for a very long time past. In Barawan, No. 420, thana Sherghati, there are cases where the rotation is:—sugarcane at special rates, rabi crops at ordinary rates and the third year fallow at no rent. In calculating the rent in the first two years a remission of 2 kathas per bigha is given before applying the rate to the area.

The normal practice now is for the raiyat to grow what crops he likes. If, however, he grows sugarcane or some other crop unsuitable for division such as vegetables or chillis in produce-rent land he pays a cash-rent for that year. This is fixed sometimes according to a rate for the whole village and sometimes according to a rate for each kitta or division of the village. It is always higher than the average cash-rent of similar lands for obvious reasons. The sugarcane crop occupies the land for more than a year and in the following year the ordinary crop which follows is poor owing to the exhaustion of the land. The result is that the rent charge for sugarcane land is about  $1\frac{1}{2}$  years' ordinary rent and gives a fairly good

guide as to the maximum limit or the rent which should be fixed on commutation. The Commissioner however differed from this view and on the second appeal on the commutation case of village Raipura, thana No. 10, thana Aurangabad, wrote as follows:—

The Settlement Officer further quotes a sugarcane rate of Rs. 6-6-0 per acre as showing the commutation rates to be much too high. It looks as if he were regarding the sugarcane rent as a produce rent. This is a cash rent. If the Assistant Settlement Officer had taken the sugarcane rent to represent the eash rents payable for lands similar to those under commutation the average rent payable on commutation as fixed by him would have come to over Rs. 10 instead of about Rs. 8-7-9 per acre. The Assistant Settlement Officer has very properly disregarded the sugarcane rent. A sugarcane rent is not a proper criterion at all. The fact is that a sugarcane rent is altogether a special rent payable for a special crop that occupies the ground for more than a year and involves very heavy expenditure on labourers, cultivation and on manure. Nobody with experience of agrarian conditions in South Bihar would maintain that a sugarcane rent was a proper criterion of a rent for good paddy lands."

These reasons are conclusive against using such rents as a standard but they seem equally conclusive in favour of using them as limits. In the instances of paran given, the cash rent has always been highest for the year when sugarcane is grown, and in one village, Barheta, thana No. 343, thana Sherghati, the sugarcane rate for bhaoli lands was fixed at 14 annas a bigha above the cash-rent of lands in the vicinity. It is in fact clear that the sugarcane rate has been fixed so as roughly to give the landlord as much as he would get if the ordinary crops had been grown and divided. The extra cost of cultivation is repaid to the tenant by the extra value of the crop.

Only one case was found in which the sugarcane crop was divided. The tenant paid all the expenses of cultivation while the landlord paid the expenses of harvesting and the manufacture of the *gur* which was equally divided.

164. The only other form of eash-rent that requires notice is sanbarhua.

Sanbarhua rent.

Under this system waste land is settled for a gradually increasing rent reaching its maximum usually in 5 years. When such settlements were bona fide settlements for reclamation, which was, I think, always the case, such a rent is in view of the proviso (1) to section 178, Bengal Tenancy Act, perfectly legal. Sometimes the agreement was that at the end of five years produce-rent should be introduced. The rent in this case was called sanbarhua chakath.

ohi rent. Villages some Goala raiyats were found paying rent in Ghi. In the first instance this was probably a house or profession tax. Some of the raiyats originally had nothing but houses and this rent was formerly paid only by Goalas who had cattle. Now, however, it has become an agricultural rent and is assessed on land and the rent is paid even by Goalas who have no cattle. The jamabandi contains a separate heading for these rents, "erazi bandobasti ghi" showing the areas for which this rent is paid usually at the rate of one seer per katha. It is admitted that the raiyat can pay his rent in cash at the local market prices and the parties appear content with the arrangement. Separate khatians have been prepared for such holdings.

166. The incidence of the cash-rent of settled and occupancy raivats is

Rs. 6-1-1 per acre which is higher than in any district in Bihar, except Patna. The comparison is shown in the following table:—

						n	ss.	а.	р.
Champaran		•••	•••	•••	•••	•••		15	0
Saran	•••	•••	• • •		•••	•••	4	. 5	0
Muzaffarpur		•••		•••	***	•••			0
Darbhanga		•••	•••	•••	•••	•••		12	
North Mong	ghyr	•••	•••	***	•••	•••	2	_	ñ
Purnoa '		***	•••	•••	•••	• • • •	_	15	0
Bhagalpur		•••	•••	***	•••	•••		lū	6
South Mong	hyr	•••	•••	•••	•••	•••	3	8	0
Patna -		***	•••	•••	•••	• • • •	7	8	ö
Shahabad	•••	***	•••	•••	•••	•••	4	1	0
Gaya		•••	***	***	***		6	Ţ	0

The reason for the high incidence of cash-rents on the south of the river though the land is not so fertile as in the north is partly explained by the fact that the

high percentage of produce-rent lands absorbs most of the poor land and there has undoubtedly been an increase of recent years, the landlords raising the cashrents irrespective of section 29, Bengal Tenancy Act, to conform to the increase in bhaoli rents owing to the rise in prices.

It should be noted that rents in Gaya are often expressed in rupees, annas and dams. The number of dams is entered by the ordinary numerical notation which distinguishes these cases from ones where the rent contains pies. Thus the second in pies.

167. The incidence of chakath rents is Rs. 5-9-0 per acre and is everywhere lower than the incidence of ordinary cashrents except in thanas Arwal, Aurangabad, Pakribarwan and Rajauli. The difference is most marked in the last two. In Pakribarwan the area in chakath rent is very small. The difference in Rajauli may be principally attributed to the high chakath rents of the Maksudpur estate which has in this thana 592 bighas or about 400 acres on a total chakath rent of Rs. 6,757.

Taking the district as a whole it has to be remembered that the average produce of bhaoli lands is below that of cash-rented lands and a certain proportion of the chakath rents are collusively low rents settled by thikadars after taking a large salami. Even admitting all this however the figures tend to show, I think, that the cash-rents are almost reaching their limit. No separate statistics were published of chakath lands in the previous settlement but in paragraph 170 of his report Mr. Stevenson-Moore states that of the cash-rent paying area in the 9 annas Tikari estate 171.6 per cent was chakath, 0.7 per cent paran and 4.6 per cent. ordinary cash-rents. The statistics in Appendix XII to that report show 43,483 acres held by occupancy raisets on cash-rent. This gives 31,134 acres on chakath. We know however that the large portion of this was wrongly recorded as chakath being ordinary cash-rented land. On the other hand the estate during the Court of Wards' time converted 29,314 bighas from bhaoli to cash-rent, a large part of which was chakath. It would therefore appear as if the present area recorded as on chakath is largely in this estate. The only other estate which goes in for this kind of rent to any extent is the Maksudpur estate which has about 1,200 acres on chakath rent.

168. Only 6,381 acres are held by non-occupancy raiyats, the average rent being Rs. 4-2-8 per acre. It is only Incidence of rent of non-occupancy raiyats. in Daudnagar than that the non-occupancy raiyat pays more on the average than the occupancy raiyals. In the Government and temporarily-settled estates dealt with under section 104 the average rent of the non-occupancy raiyar at the previous settlement in 1893-98 was Rs. 1-12-0 per acre. In the same villages it is now Rs. 1-10-0 and the area has largely decreased. The bulk of these raiyats are in Sherghati and the cause of the low rent is the difficulty of getting raiyats to extend the cultivation. Another noteworthy point is the fact that less land is held by non-occupancy raiyats on produce-rent than on cash-rent. Even if we exclude the Government estates where the policy has been to settle raiyats on cash-rent the percentage of land held by non-occupancy raiyats on produce-rent is only 52 per cent, which appears to indicate that produce-rent is not particularly attractive to raigats either in well or poorly irrigated areas.

169. The average rent of under-raiyats is Rs. 6-4-0 an acre which is very little greater than that of settled raiyats. The reason for this is the comparatively low rent of this class of raiyats in thana Arwal where over one-third of the area occurs. These mostly consist of the men who hold under Mr. Solano in the lands where he has raiyati rights and they are really in the same position as ordinary raiyats. This fact also explains the reason why the proportion of land held by under-raiyats on produce-rent is not much higher than that held by settled and occupancy raiyats. If we exclude Arwal thana the proportion rises to 78 per cent. It was very rarely that the provisions of section 48, Bengal Tenancy Act, could be applied since in the majority of eases it was only a part holding that was let to an under-raiyat.

170. The provisions of the Bengal Tenancy Act relating to rent receipts

were generally ignored except in the bigger estates. More especially was this

so in respect of produce-rents for which it was not customary even to give the kachha receipt that sometimes did duty in the case of cash rents. These last mentioned receipts never complied with the law because the area and demand were omitted. 383 cases were reported to the Collector of offences under section 58, Bengal Tenancy Act, and 336 ended in conviction the aggregate amount of fines imposed being Bs. 7,461. The result of all the cases sent up was not reported so that the total number of convictions is probably greater. Practically every landlord in the district could have been proceeded against if it had been desired but we only reported the worst of the cases where owing to the failure of the landlord to give receipts difficulty was experienced in ascertaining the existing rent.

In one of the earliest cases reported which went up on appeal to the Commissioner he held that more than one case of refusal to give receipts could not be tried in one preceding (Appeal No. 106 of 1913). The wording of clause (ii) of section 234, Criminal Procedure Code, seems to be wide enough to cover offences under section 58 of Bengal Tenancy Act. If not it should be amended. The Commissioner went on to add—

"I cannot think however, that it was the intention of the legislature that a separate (maximum) penutty should be imposable in the case of every instance in which a formal receipt had not been granted. If this were conceded it would conceivably be possible in the case of a landlord with very large estates to impose fines aggregating half a lakh or even a lakh of rupees."

If this view of the law is correct then I suggest that it be altered because it is well worth a landlord's while to pay Rs. 50 once for all or even Rs. 50 per annum for the privilege of being allowed to refuse to give rent receipts. Until a vigorous campaign under section 58 is carried out in Gaya there will be no security for the raigats against false suits for arrears of rent.

There is no excuse for a landlord failing to give a proper receipt for cash The form of receipt given in schedule II of the Bengal Tenancy Act contemplates the various instalments being entered on one receipt. There is no difficulty in making raiyats in the Gaya district, I think, bring in their receipt for entry of subsequent payments and it is somewhat surprising to find that the big estates such as the 9 annas Tikari estate, the Maksudpur Wards estate and Government estates give a separate receipt for each payment. In the Maksudpur and Government estates the counterfoil and receipts are written at the same time by means of carbon paper. The question of keeping to one receipt for the year has, I believe, been discussed but the reason it was not adopted was, I understand, the inability to rely on the honesty of the patwaris. If a patwari has to give a separate receipt for each payment he is tinable to deny the authenticity of the tenant's receipt or to explain discrepancies between it and the counterfoil especially if one is a carbon copy of the other. This, however, does not apply to subsequent entries which he may omit to copy in the counterfoil and subsequently repudiate. The way to deal with this appears to be a vigorous inspection by responsible officers. I doubt if a patwari could repudiate such receipts to any extent without being discovered and the tenants could be warned to see that they should see him copy the entries of subsequent payments on the counterfoil to make themselves secure. The labour of writing out full details of demand, etc., every time is a waste of energy.

My subsequent proposals as to forms of receipt are based on the assumption that the system of keeping all payments of the current year on one receipt is introduced. The adoption of this method would have the advantage that if a raiyat produces a receipt for a particular year all the payments made in that year will be found in it. If payments are scattered over several receipts it is not easy to trace them in the landlord's counterfoils and the raiyat may not produce them all. If receipts are arranged in this way the jamabands can be written up direct from the counterfoils, and the Awarja register (vide

paragraph 177) will be unnecessary. If the other method is adhered to, then all I can suggest is that it might be provided that if once a landlord has given in the year a receipt showing all the general particulars it will be sufficient if in subsequent receipts referring to the same demand a reference is given to the first receipt by its number instead of filling up the obverse in full.

There is a good deal however to be said by way of excuse for failure to give proper receipts for produce rents as the form given in Schedule II of the Bengal Tenancy Act is very unsuitable and in view of the system of collecting produce-rents in big estates there is a difficulty in filling it so as to comply with the law. It is unsuitable because it combines cash and produce-rents. There are many details of the produce-rents which have to be shown, and are not at present, such as the different crops and different kinds of paddy which have to be valued separately. If all these details are put in the receipt will be unwieldy. It is therefore necessary to have separate receipts for cash and produce-rents. Again the demand in the case of cash-rent can be filled in at once, but it is impossible when the receipt is given for produce-rent for bhadai crops, say in October, to fill in the demand for the aghani and rabi crops of the same holding. The intention of the law that the receipt must show the demand cannot be complied with unless the produce-rents receipts are separated for each harvest.

A serious difficulty in connection with the proposal to enter the various payments in one receipt arises from the custom of granting usufructuary mortgages. Another variation of this is the practice by which one raigat, if he is unable to cultivate in a particular year any part of his bhaoii holding, lets another cultivate it. In either case it is usually the actual cultivator who pays the rent to the landlord and he of course wants the receipt. The legal position is, I think, clear; the actual raigat A is responsible to the landlord for the rent and if B, the actual cultivator, refuses to pay, it is against A that the landlord proceeds and A has his remedy against B. Legally, therefore, B should pay A who would give him a receipt and A would pay the landlord and would get a receipt or have the payment entered up on his receipt if he had already got one. Practically, however, what is done is for B to pay the landlord direct and get a receipt which is supposed to, but generally does not, contain a reference to the fact that the land is A's. The practice of giving separate receipts for each payment fits in with this, but it would be better if it could be arranged that when B paid his rent A was present with his receipt. The amount would be entered in A's receipt as paid by the agency of B and this would serve as acquittance between A and B. There would then be no confusion as to the areas held respectively by A and B on produce-rents as there is at present.

The form of receipt given in Schedule II of the Bengal Tenancy Act is not immutable. Any form can be used as long as it gives the particulars required. I therefore endeavour to suggest forms which will meet, I hope, the requirements of the Gaya landlords.—(vide Appendix XXI.) Form A is for nagdi rents. There is no difficulty about this. The same form can be used for all forms of cash rent whether sharah muaiyan, ordinary nagdi or chakath and spaces have been provided for these. Each landlord would have entries made here to suit the forms of rent found in his own estate. Payments of motarfa and sairat could also be put in this. The entry of arrears on the obverse is new and it is not compulsory for the landlord to fill it up but it will be found convenient for him to do so for his own account purposes. The schedule at the foot of the reverse is also new and is inserted for the landlord's convenience as it will assist in checking the jama wasil baki. The corresponding schedule in the tenant's portion fulfils the requirements of section 57 as far as cash rents are concerned. It will not be filled up in the ordinary way but can be filled up on demand or on payment of four annas according to section 57(1) or section \$7(2) as the case may be. A column on the reverse in all receipts for payment in words is put in to avoid subsequent fraudulent additions to the figures by the tenants.

In the case of produce-rent receipts what we have to provide for is (1) separate receipts for each harvest (hence column 3 on obverse of Form B), (2) various crops at each harvest and the varying rates at which their value is calculated in cash. The general practice in the larger estates is for the

demand as usual to be worked out in weight. When the time for collecting rents approaches the rate at which the rent in kind is converted into cash is fixed after ascertaining market values and this rate is changed periodically as the market price varies. It e entually reaches a fixed point and is not changed as regards the arrears after the expiry of the current year. It is therefore not generally possible to show the demand except as a weight of grain until the expiry of the current year. Moreover as in the big estates the tenants invariably pay in each this has to be converted into weight at the rate in force on the date of payment because until the rate is fixed finally, the account must be kept in terms of weight—(vide paragraph 177). This necessitates three columns under each of the crop headings on the reverse. At the end of the year the balance, if any, of grain due is ascertained and the rate being then fixed its value in cash can be found and entered up as an arrear. Here as in the cash-rent receipt form the schedule is put in for the landlord's convenience as a check to his accounts. The corresponding schedule in the tenant's portion will do for the purpose of section 57 as far as the current demand for produce-rent is concerned. In the case of produce-rents the form is already so complicated that it is desirable to put arrears in a separate form. The only other point to note about this Form B is in regard to column 8 of the obverse. Usually there will be one entry in the column for khata No. total area and this will be the same for all the harvests though the area may vary occasionally owing to the tenant taking settlement of additional land or surrendering portions of his holding. This under the law must be given. The area actually under each crop is not essential for the purpose of the Act though it is helpful and I believe is required by some landlords for checking their accounts. It would of course not be possible without undue complication to give particulars to enable anyone to deduce from these areas what part of the holding was fallow in the current year and what part, if any, was dofasli. This can however be gathered from the landlords papers if the appraisement papers are written up according to the settlement plot numbers.

The last form is Form C for arrears of produce-rent. This in view of what has been said before explains itself.

By the use of these forms or forms on the same lines the landlord will be able to comply with the law and at the same time give the tenant an intelligible receipt. The attempt to give proper receipts in the present form results in confusion. The proposed method of dealing with arrears ensures that both the landlord and the tenant will at any time by looking at five receipts or counterfoils at most be able to ascertain what the position is. The landlords' counterfoils for the current year show exactly at any time the position of every tenant. The only point to be observed is that once a receipt in one of the three forms has been issued to a tenant in any year, if he wants to pay a subsequent instalment on the same account in that year he must bring the receipt with him when the new payment will be entered therein and in the corresponding counterfoil.

The names were various but it was not often that more than a few were found taken from any raiyat and the aggregate was small compared to the rent. Occasionally the amount taken in cash rents rose to four annas per rupee. The largest amount found was in Dhewadha No. 37, than Pakribarwan, where a rent-roll of Rs. 1,800 was found to consist of Rs. 1,000 rent and Rs. 800 abwabs. The abwala which have been found only in the case of cash rents are batta kampani, batta nauzar ib, batta kalidar, batta manuli and batta saraf which vary from three pies to  $1\frac{1}{2}$  anna per rupee. Although they all mean the same thing, viz., compensation for loss on exchange of Company rupees for sicca rupees more than one was occasionally found to be realized in the same village. In some cases batta saraf meant compensation for the bad money occasionally paid in as rent. The most important dispute about these abwab

arose in villages Khandauri, Bihta, and Dadpur, Nos. 669, 665 and 667, thana Jahanabad. It was found that various battas had been amalgamated in the year 1294 Fasti (1887 A. D.) and had again been reimposed on the amalgamated rent. In no case in the district was it proved that the tenancy in which this batta was levied had been created prior to 1836 A. D. which is the condition that has to be satisfied before the batta can be held to be primá facie legal.

The abwab which were found only in produce-rents were—

Mangan which varies up to  $2\frac{1}{2}$  seers per maund on the total produce but is sometimes taken at a certain amount per plough or per bigha.

Nocha is similar in amount to mangan. It is sometimes specifically divided among the village servants and shown as nocha patwari, nocha gorait and so on. Occasionally it is taken direct from the field, the recipient reaping the crop on one or two dhurs of the holding. In this again the practice varies, in some cases the whole crop being reaped and in other only the heads are taken, the straw being left for the raiyat.

Dahiak is almost unknown and is only met with near the Patna district. A full description of this abwab is given in the Final Report on the Settlement operations in Patna. In Gaya its place is generally taken by kharcha or neg. In one village the name was applied to a lump realization of 10 seers if the total crop of the holding was over 10 maunds. Pachua or panseri is a common abwab of this kind being a realization of 5 seers in the same circumstances (vide paragraph 41).

Amin kharcha and partal explain themselves, they are usually one seer per maund from the raiyat's share of the produce.

Of abwab which were found both in cash and produce-rent the most common was neg. This is the palwaris' fee and was usually one anna in the rupee in cash-rents and  $2\frac{1}{2}$  seers per maund from the undivided grain in produce-rents. It also appeared under various other names such as rasum, kharcha, serahi or mansers (when the amount was only one seer per maund).

Salami.—A general term for exactions of varying amounts.

Hujatana.—This is an almost universal abwab and is usually calculated at one or two annas per head but is sometimes more. In one instance in village Sarmastpur Nawana, No. 61, thana Arwal, it was as high as seven annas per head.

Sidha Butad.—Diet expenses either of village officials or of the landlord when on tour. The latter is also called daura.

Besides the above a large number of abwab were found occurring here and there but not generally. Their names—digwari, dakbehri, kaghazbasta, pujari chanda indicate the original excuse for their introduction. Dehi and phehi are exactions for village expenses, the second being merely a rhyme to the first.

Halkharcha and Sonari which indicate respectively payments to the carpenter and blacksmith for mending ploughs, and to the weighman for weighing crops are of course not abwab unless they are, as sometimes happens, taken by the landlord in addition to the rent.

The most curious set of abwab were found in village Kalishpur, than Jahanabad, No. 468. Besides the ordinary abwab the following were realized:—

Baithki salami for being allowed to sit in the landlord's kachharhi when paying rent.

Uthki salami for being allowed to get up and go away after paying rent. Tauzi salami paid on the Darhar cay (else where this is met with as a salami paid with the first kist of rent).

Daura salami, tour expense of landlord, realized whether the landlord visits the village or not.

Goetha salami for fuel expenses of the kachhahri.

Khatia salami for bedding in the kachhahri.

The rate for each of the first four was one rupee per plough and for the last two eight annas and four annas per plough respectively. Each 15 bighas of holding represented one plough so a raigat with 15 bighas of land had to pay Rs. 4-12-6 or annas 5 per bigha in addition to his ordinary rent besides other abwab.

Some discussion arose as to the view to be taken of the realization termed mani. In several estates notably the Bengali estates of Sunderganj, Kunda and Hasauli the landlord settled bakasht land with tenants on the producerent system with equal shares and in addition to the landlord's half share something extra was paid, sometimes one rupee a bigha, sometimes one maund a bigha. This extra amount was termed mani. I held that as this was included in the amount agreed to be paid at the time of settlement for the occupation of the land it was part of the rent and that as there was no restriction in the Bengal Tenancy Act on the amount of produce-rents it was open to the landlord to settle land for any rent he could get. In appeal in case No. 44—106 of 1914 of village Bakheri, No. 89, Thana Daudnagar, the Special Judge held that it was an abwab. He held that the ordinary system of batai in the village was one in which the shares were equal. The only explanation which the landlord gave of the difference between these lands and others was that they were ziral lands. As this latter point had not been proved the Judge held that the system of rent must be the same and the mani of one maund of rice per bigha was an abwab. It looks very much as though the pleader for the landlord did not realize the difference between zirat and bakasht land.

A not infrequent form of exaction especially in the south of the district was the calculation of road cess in excess of the legal rate. Very often the raiyat was made to pay the whole of the road cess, viz., 1 anna a rupee or  $2\frac{1}{2}$  seers per maund in produce-rents:

As to the destination of the various abwab it is difficult to make any general statement. In the small estate where the landlord lives in the village and has perfect control over his patient the latter keeps his own and his master's accounts together and the landlord and the village servants appropriate the abwab in the customary way. The case used to be very similar in the larger estates which were then managed by letting the villages in lease to local thikodars. Of late years however since the practice of leasing has declined and the control from headquarters has increased the abwab which go to the village servants have not been shown in the papers which only contain the rent and the abwab which go to the landlord. In addition to this we have the fact that amalgamation of abwab with the rent has been going on. Formerly the village servants were paid little or nothing by the landlords and were expected to support themselves by these abwab: it was therefore necessary for the patwari to keep an account of them. There is a tendency however to introduce the system of paying the village servants by cash wages and for the landlord to take the abwab formerly given to them. In these circumstances there is no longer any need to show the abwab separately in the papers and they are quietly amalgamated while the village officials finding their pay still too small make a fresh levy on their own account. It is clear that in any case section 74 of the Tonancy Act has had very little application in the district and objections are never made although one case was reported in which a landlord having bought an elephant introduced a new abwab called mangan hati to pay for it. This was realized for some years but when the settlement operations began the raiyuts refused to pay it any longer. Another abwab imposed ad hoc is skul (school) levied at 6 pies per rupee by the Babus of Fakharpur, No. 39, thana Arwal, towards the expense or maintaining a school at Fakharpur. The total cash-rent realized in the villages of Gaya belonging to thes: zamindars is about Rs. 3,978 and there is a bhaoli erea of 300 acres giving probably a total rent roll of Rs. 5,800. In addition they hold land in Patna so the t the realizations of this abwab cannot fall much short of Rs. 200 a year.

A curious case of abwab was found existing in some villages of the Sarwan mahal a temporarily-settled estate in khas possession of Government. In 1880 a Brahman Nanhu Pathak petitioned the Collector that he had formerly been getting powahi at \( \frac{1}{4} \) seer per maund of produce in 24 villages of the mahal since time immemorial but since the mahal had been in the possession of Government he was not getting it. Subsequent orders were passed from time to time by Collectors on the petitions of his descendants and at present the abwab is enjoyed by one Pachanand Pathak who gets paid his powahi annually by the tahsildar. It was recognized as an abwab in the settlement of 1893-98 (paragraphs 110 and 111 of Mr. Stevenson-Moore's report) and has been so treated in the present operations and not recorded. It is apparently paid only in the case of produce-rents and ceases when these are commuted to cash. A full account of this abwab will be found in the record of revenue settlement of village Nawadih, No. 785, than Sherghati.

It is evident that ahwab will continue to flourrish until the hands of Revenue Officers are strengthened to deal with them on the lines laid down in Chota Nagpur by Section 63 of the Chota Nagpur Tenancy Act, which follows Section 10 of the Central Provinces Tenancy Act.

#### CHAPTER X.

# PRODUCE RENTS AND THEIR COMMUTATION.

172. The systems of produce-rent found in Gaya are not many. There are a few holdings on mankhap rent in which a fixed weight of paddy is paid annually, or the similar chauraha rent in which payment is made in rice. All the rest of the produce-rent lands are held on the batai (division) or danabandi (appraisement) system or a combination of the two. The following table shows the areas in acres under batai and danabandi in the various thanas:—

	Thans.			Area in sores under datas.	Area in notes under danabands,
				<b>7.2</b> 61	26,5 <b>5</b>
Arwal	•••	•••	•••	E. V. L. V.	1.06.435
Jahanabad		•••	1	18,548	
Daudnagar	•••	•••	***	51,925	15,663
Nabinagar				82,852	20,316
Aurangabad	***	•••		1,71,322	42,239
Town Gaya			***	164	33
		•••		<b>37.</b> 966	58,617
Mufassal Ga	y a.	•••	***	19,764	41.459
Atri	•••	•••	•••	23,291	58,2.6
Tikari		•••	•••		
Sherghati	•••	•••	•••	43,103	9,5.5
Barachati	•••		•••	<b>24</b> ,6 <b>3</b> 9	14,248
Nawada		•••	•••	<b>53,661</b>	65,764
Pakribarwan			•••	29,663	17,506
				8,475	22,416
Rajauli	•••	***	•••		
		To	tal	571,934	498,971

The preponderance of batai in the south of the district is noticeable. Of the disputes as to which system prevailed there are unfortunately no statistics for the first year's area. For the rest of the district the figures are as follows (the figures being the number of holdings):—

Admitted balas.	Admitted damebanni.	Decided after contest to be-	
		Batai.	Danabandi,
62,201	98,091	31,679	34,612

It was always the case that landlords claimed danabandi and tenants batai and these figures show that the landlords got the best of it. It is curious to note that in former times apparently the position of the two systems was reversed as Dr. Buchanan notes that appraisement was allowed as a reward to good raiyats,

and in Mewar according to Tod's Rajasthan (Chapter XVIII) it is noted that the kankut system is the one more liable to lead to peculation and, therefore, popular with the tenants.

Prior to the assumption of khas management of villages by the 9-annas Tikari estate when it came under the Court of Wards, the predominating system in the district was probably batai. The danabandi system was adopted by the Court of Wards as the only feasible system for khas management and other landlords, seeing the advantages it offered, in case recourse to a rent suit was desirable, followed the example. The only instances now-a-days of a raiyat asking for danabandi are occasions when the crop has practically failed so as not to be worth harvesting and he wishes to feed his cattle on it.

173. The kind of produce-rent on which each plot is held is entered in column 8 of the khatian and a separate Record of produce-rent. khatian has been given for each part and parcel of land held on a separate system. It is clear I think that lands held on different systems of rent must form the subject of separate tenancies and, therefore, are different holdings by the definition in section 3 (9) Bengal Tenancy Act. This is convenient also for record because the details of produce rent require explanation in the special incidents column and if there were several plots in the khatian held on different kinds of produce-rent it would be confusing to explain them all. The only exception to this was made in case some plots of a raiyat's produce-rent holding were held on a paran rent (vide paragraph 163). In this case as the produce-rent incidents applied also to the plots on paran it was simpler to include them in one khatian. In the case of batai and danabandi rents the shares are usually noted in column 8. Where they are not they will be found as in other cases in the details of the incidents.

In this connection the point was raised in some cases under section 105 that as a raiyat's holding consisted partly of eash-rented land and partly of produce-rented land the rent could not be enhanced under section 30 (b) as this only applied to a money rent and not to one payable partly in money and partly in kind (Priya Nath Palvs. Tarni Charan Ray, xxiv, Calcutta Law Journal; 373). In the first place it is doubtful if such a ruling could apply to a case under section 105 which is one for the settlement of fair rent and not an enhancement suit. The section is not restricted in its wording to rents payable solely in money. If there is no rule to follow such as is referred to in section 105 (4) the Revenue Court would proceed on equitable considerations. The ruling moreover only applies to a case where for one holding a rent partly in cash and partly in kind was settled. That this does not apply to every case was shown by the Special Judge who remarked in appeal No. 103 of 1917:—

"There is nothing in this [the definition of holding in section 3 (9)] to make it impossible for one tenant to have more than one separate tenancies or holdings. Landlords speak of their bhuo'i tenants and their naydi tenants. Is this technically incorrect? Between naydi and bhao'i tenancies there are such radical differences that they may well be held to be separate settlements."

Some discussion as to particular entries will be found in paragraph 84. One fact which gave rise to trouble was that in some cases it could not be determined whether batai or danabandi was the system. In the Kara estate and some other viliages it was found that a common custom was to appraise the paddy crop and divide the rabi crops. In this, case the vague entry bhaoli will be found in column 8, and the explanation which it definite in the column of special incidents. In other cases the difficulty was not easily solved. Sir G. Grierson has noted the fact that in many villages the custom varies from year to year. There is, however, a tendency for it to become stereotyped and this will certainly be hastened by the definiteness of the record-of-rights though some cases of variation still exist. The principle applied in such cases was to find if possible which system was adopted when the parties could not come to a mutual agreement. If this could be found that was entered as the system of rent. Thus if batai was found to be the prevalent system but danabandi was done when the tenants agreed, batai was entered as the system of rent in column 8 and after describing its incidents

in the special incidents column or fard rewaj bhaoli the fact was noted that danabandi was done when the tenants agreed and its incidents were also recorded.

If neither system was found to be prevalent all that could be done was to enter the vague term bhaoli in column 8 and describe the incidents of both systems. It will be a question of some difficulty for courts to decide in case of dispute which system should be applied. I am glad to say that such entries are few and cover only 2 per cent. of the bhaoli area. The entry bhaoli was often objected to by the raiyats because that word, as usually used in the district means danabandi.

In some instances the two systems were found existing in the same holding. In Mussammat Dulhin Kuar's estate in thana Barachati which had been managed on the thika system the prevalent system was batai. Some years ago as the result of a suit Babu Ambika Prasad Singh succeeded in getting a  $\frac{1}{3}$ rd share in this estate. While, however, the share remained and still is an undivided one he introduced the system of danabandi for collecting his portion of the rent. The result is that a raiyat's field is appraised and the landlord's share on  $\frac{1}{3}$ rd of the appraised produce calculated. This will be the rent payable to Babu Ambika Prasad Singh. On harvesting, the whole crop is taken to the khalihan and divided into two heaps one  $\frac{1}{3}$ rd and the other  $\frac{2}{3}$ rds of the whole. The raiyat takes the former and the process of division with Mussamat Dulhin Kuar's thikadar is applied to the latter. In these cases the entry bhaoti will be found in column S with a description of the process in the special incidents column.

A somewhat similar case is found in the Dakhner Mahal though here we have the rent for land paid to one landlord (Government) in cash and to the other joint landlord on the appraisement system. In these cases the cash rent payable to Government is included in the rent noted in the khatian of lands for which the ranyat pays cash to both landlords with a note that it includes the rent for the plots in the produce-rent khatian and a cross reference is given in the latter. This is another instance where the use of hawalgi lagan entries are necessary in addition to those given by Mr. Hubback in paragraph 215 of the Shahabad Final Report.

174. Proceedings under section 69, Bengal Tenancy Act, increased in

Use of section 69, Be	ngal Ten	ancy Act.
1907-8		106
1908-9		113
1909-10		165
1910-11		254
1911-12 .		227
1912-13	•••	262
1913-14	***	554
3914-15	•••	633
1915-16		691
1916-17		943

number just before the Settlement operations, the main idea being probably to get some sort of judicial decision which could be used in evidence to show what the system of rent was. The numbers of cases are shown in the margin.

As to the issue between danabandi and batai the section was never intended in my opinion to be used for this purpose

and the time spent in deciding it (one case was taken up to the Board of Revenue on this point) was wasted. The section clearly leaves it to the discretion of the officer to do appraisement or division as may be most convenient and it is doubtful even if he is bound to follow the record-ofrights on this point. The object of the section, as its history shows, is to provide a quick method of finding the landlord's share when, owing to a dispute or the delay of one side, there is likely to be subsequent litigation, at which stage any reliable evidence as to the amount of the crop will be entirely wanting. From this point of view it does not matter much how the crop is dealt with because the landlord will get the same in either case provided the various incidents and adjustments as recorded in the record-of-rights are followed. From a theoretical point of view it would be better if actual division could be done in every case as this would dispose of the matter and not leave room for subsequent trouble over realization. Practically, however, division is inconvenient as it involves guarding the crops and with a large number of cases this is difficult and not always effective. On the other hand appraisement can be done for some period before the crop is ready for cutting and it provides for the case where part of the crop has been cut. In some instances the two systems could be combined. Thus supposing a tenant

with three acres had cut one, the balance of two acres could be cut and the erop divided and the crop of the one acre appraised under section 71(4), which is far easier to apply at the time than subsequently, and the landlord left to utilize section 70(5) for the realization of the rent of that portion. The use of the crop-cutting triangle would be of great assistance to officers in checking amins' appraisements in this work. A recent development in connection with sections 69-71 of the Tenancy Act has been the use of section 424, Indian Penal Code, by landlords to prosecute raiyats criminally for taking away the crop. There is a reported case (Kuldip Panday vs. King Emperor, I. P. L. J. 353) in which a conviction under this section was upheld. The case was one concerning a batai holding. A subsequent case occurred also in Gaya in which the removal took place of crops before appraisement. The District Judge referred the case to the High Court, recommending the reversal of the conviction on the ground that danabandi and batai holdings were distinguished in section 71, Bengal Tenancy Act, by the fact that under section 71(2) the tenant of a batai holding had not exclusive possession of the produce whereas under section 71(1) the tenant of a danabandi holding had. The case was, therefore, distinguishable fromthat, of Kuldip Panday and the proper remedy of the landlord was to apply under section 69 read with section 71(4). It was held however, (Criminal Reference No. 18 of 1917), that the conviction was correct and that the onus lay on the tenant to show that sufficient opportunity had been given to the landlord to appraise the crop. A similar ruling as to the application of section 424, Indian Penal Code, was given in I. L. R., 26, Madras, 481.

175. In addition to the mere statement of the kind of rent it is necessary to give details of the calculation and The Fard Reway bhaoli. conditions as the entry, e. g. batai nisf, is not sufficient to indicate to the courts what portion of the gross produce the landlord legally ought to get. These details could be entered in the column for special incidents and conditions but, as it involved a great expenditure of time and money, to say nothing of the likelihood of clerical errors, to make the same long entry over and over again, the plan was adopted in South Monghyr where produce-rents were first met with on a large scale, of putting all these incidents in one form called the Fard Rewaj bhaoli. This was written up for the whole village or for each patti or tauzi if the details differed. References to this record were given in the special incidents column of every produce rent khatian (Final Report on South Monghyr Settlement, paragraph 81). References to it are also made in the Patna Final Report, paragraph 169, and the Shahabad Final Report, paragraph 206. The same system was followed in Gaya in the first year's area. It was discovered, however, that the form had never been sanctioned by the Board of Revenue as required by rule 47 of the Government rules. Sanction was applied for but refused on the ground that a general record of this nature was difficult to attest satisfactorily as it was nobody's business to attend to what was everybody's business. That this was not altogether the case is shown by the fact that there were numerous disputes as to the entries in this record. However, in view of these orders the incidents were, in the second and third years' areas, entered in the special incidents column. This had one advantage, namely, that each raiyat got a copy of the record in his khatian whereas formerly the one raiyati copy of the Fard Rewaj bhaoli was made over to the jeyth raiyat.

An interesting question arises as to how far the record contained in the Fard Rewaj bhaoli is legally part of the finally published record-of-rights. The question was raised in the case of Tulsi Mahto vs. Jhamda Pande, II, Patna Law Journal, 187. It was held that probably the Fard Rewaj bhaoli is part of the record-of-rights, the doubt being as to whether it was published under section 103-B. There can be no doubt about its publication in Gaya because it bears the seal of final publication. The only question is whether it is authorized. As I have shown the genesis of the form was the idea of saving time and expense in copying out the same entries time after time in the special incidents column. The experience of this in the second and third years' areas in Gaya, and the extreme difficulty of avoiding clerical errors showed the

wisdom of the original idea. There is no doubt that under section 102 (c) the incidents have to be recorded and I do not think the mere fact that they were written on a separate sheet of paper which was referred to in the khalians renders that record unauthorized. The only alteration in the form of the entries that was made in the second and third years' areas was that all mention of abwab was omitted. Mr. Murphy in the Final Report on South Monghyr, paragraph 81, has given the reasons for their inclusion, but having regard to rule 56 of the Government Rules under the Tenancy Act that abwab were not to be entered, they were cut out.

176. In all the big estates the payment of produce-rent except in cash is practically unknown. The reason for Payment of danahandi rent in cash. this is that the estates have not an officer in every village and it means a considerable expense to the raiyat for transporting the grain to the place where the landlord will take delivery. The higher castes moreover regard it as derogatory to their dignity to transport grain in this way to the landlord's kachahri and when there, considerable loss is likely to occur in the weighing process which, like every thing else done by amla, has to be paid for. The raiyat, therefore, finds it convenient to pay at the market rate and in some cases prefers to pay at a rate even above the market rate. Usually the rates fixed by the landlords are fair but those fixed by the 7-annas Tikari estate in 1915-16 were appreciably above the market rate.

Working of the produce-rent system in big

177. The details of the batai and danabandi systems have often been described and it is unnecessary to repeat them. It may be interesting, however, to give an account of how they are carried out in practice on a big scale.

The following is the system adopted in the nine-annas Tikari estate for the paddy crop. The gumashta, as soon as the paddy is in ear, prepares a rough estimate showing the total area under the crop and the probable outturn in the village. This is called the mot barawarda and is submitted to the Circle Officer who after inspection adds his own estimate of the total outturn. This is sent to the Manager and serves two purposes. It gives an idea of the probable income from produce-rent and serves as a basis of comparison when the final appraisement is received. It also gives an indication to the Manager as to what villages it may be desirable for him to visit to check under-appraisement. When the time comes for appraisement the gumashta makes a detailed barawarda plot by plot in a printed form which is sent to the Circle Officer. Each survey plot held on bhaoli rent containing paddy is entered and if it is not all growing paddy in that year an estimate is made of the area of the portion under paddy and it is stated what is being grown in the rest of the plot. The Circle Officer then, if he thinks fit, does some test cutting and compares the result with the appraisement. If it shows a considerable increase he raises the appraisement all round by some percentage. On the other hand he may reduce it. The barawarda or as passed by him is sent to the Manager who alters it or accepts it. When it is finally passed it is returned to the gumashta who then prepares from it a khasra bringing together in one place all the plots held by one tenant. The appraisement for each tenant is totalled and the hakimi hissa or landlord's share calculated. On the basis of this the utera is written up. This is a slip showing for each tenant how much the demand is. It used to be made in triplicate, one form being given to the tenant, one sent to the head office and the third kept by the gumashta. The khasra, however, is now prepared in triplicate, one copy going to the head office and the utera is, therefore, only prepared in duplicate as the head office does not require a copy.

The procedure for the bhadai and rabi crops is similar except that the birawarda is submitted daily by the gumashta and not complete for the village, as the crops ripen at different times.

The demand having been settled in grain it remains to be converted into money since that is the form in which the rent is invariably paid. For this purpose the Circle Officer, at the time when the collection of rent for a particular crop is about to begin (January for aghani crops), fixes a rate on the basis of prices in the markets. This nirikhnama is revised every fortnight or month, the last one for all crops being issued in Bhado, the last month of the

agricultural year (August-September). The final rate is the one fixed fc arrears. Meanwhile in the awarza register, as soon as the first rate is fixed the demand is entered up against each raight calculated at that rate. Reali zations from time to time in cash are shown in this register and in Asin, afte the last rate has been fixed, it is seen what the demand then stands at, having regard to the rates at the time at which the rent was paid and the final rate if there are arrears, and the demand column is corrected accordingly. Thu if the demand from a raiyat was 20 maunds of paddy and the first rate fixed was Rs. 2 a maund the demand would be entered as Rs. 40. In May when the rate was Rs. 2-8 the raiyat paid Rs. 45. The rate in September when finally fixed was Rs. 2-4. The demand of Rs. 40 will have Rs. 9-8 added to it and arrears shown outstanding will be Rs. 4-8. This is best followed by converting into grain. The Rs. 45 paid in May represented 18 maunds leaving 2 maund still due. This being unpaid in September when the rate was fixed at Rs. 2-4 per maund meant that the arrears were Rs. 4-8. The total demand is therefore, Rs. 45 paid plus Rs. 4-8 due=Rs. 49-8. It would seem to be simple: to keep the accounts in grain until the rate is finally fixed.

178. In the Maksudpur estate the system is practically the same if principle but differs in details. The first document prepared by the gumashta is an abadi list showing every plot in the village and whether it is fallow or growing crops. If it is not growing paddy the crop is specified. The list is prepared in October when the paddy is in ear and an estimate of the outturn of the paddy crop is noted which is called a daula. Similar abadi lists are prepared for the bhadai and rabi crops but they only include the plots under those crops. The object of these abadi lists is to ensure that no plot is left unappraised. The daula serves the same purpose as the mot barwarda in the Tikari Estate but no daula is prepared for bhadai and rabi crops.

The preparation of barawarda, khasra and utera follow the same course as in the Tikari Estate except that three copies of the utera are made and one is, sent to the head office to check with the khasra. The procedure for bhadai and rabi crops is the same except that uteras are not given. The rate at which grain is to be converted into cash for realization is fixed by the Manager and changed every fortnight or three weeks as prices fluctuate. The final prices for the bhadai and aghani crops are fixed in March and those for rabi crops in September. The awarza register does not as in the Tikari estate show the initial bhaoli demand. It shows payments made by tenants and when the rate is fixed it shows the balance of demand from him. The reasor of this is stated to be that it is impossible to show the demand accurately it cash till the rate is fixed. This is true but it might be shown in grain. However the demand in grain is known from the khasra and the system of subsequently altering the demand, as in the Tikari Estate, is not altogether satisfactory.

179. It is unusual to find batai worked in large estates but there is one example in the Kunda, Hasauli, and Batai system in the Bengali estates. Sunderganj estates which are referred to collectively as the Bengali estates. This example is particularly interesting as it goes to confirm Mr. Murphy's theory set forth in paragraph 161 of the Final Report of the Survey and Settlement operations in South Monghyr that the danabandi system grew out of the tatai system owing to the necessity of having a check. This check is here seen in working order. As soon as the crop is in car the gumashta prepares sudkar which shows a rough estimate of the produce which is sent to the head office for check. The crops are harvested and each raivat's crop is collected together at one place in the khalihan. Division is then dore and batai chithas are written up. These show for each tenant the area (which is entered by guess and in any case refers to the cropped area only), the outturn, the deductions for wages, etc., abwab, and finally the landlerd's share. From these chithas an abstract is prepared showing the total landlord's realization in the village. The gumashta keeps the grain and either sells it or sends it to the landlords as he may be ordered.

180. If the existence of the system had depended on its own merits it would have disappeared long ago. It is unnecessary for me to detail the demerits of the system.

They have been fully set forth in the Final Reports of the Settlement of Bhagalpur, South Monghyr and Patna. Paragraphs 67-78 of the Final Report on the Settlement of the Tikari estate in 1893-98 deal specially with Dr. Grierson's defence of the system and I shall only add a few remarks to show that the condition of things at present is very different from what it was in Dr. Grierson's time. Dr. Grierson noted that each tenant had by village custom a fair proportion of each of the three kinds of tenure—nakdi, paran and bhaoli. He adds:

"Every square yard which a tenant can improve is given to him at a cash rent often fixed for ever and the land which he cannot improve himself he holds on terms calculated to compel the only person who can improve it to do his duty."

The paran system has practically disappeared as shown in paragraph 163.

Again it is not true that every raiyat has some cash-rented land, and rents which were fixed for ever have now lost that character in most cases. Nor is it true that every raiyat has both cash-rented land and produce-rented land. I have had the figures of 13 villages in Jahanabad examined—taking the villages whose than numbers were 50, 100, 150, and so on up to 650. The total number of raiyats having cash-rented lands was 797. Of these only 421 had produce-rent lands in addition, while there were 486 raiyats who had produce-rent lands but no cash-rent lands. It is clear that any argument in favour of the produce-rent system based on considerations such as those advanced by Dr. Grierson have little application at the present day.

Finally, the theory that the bhaoli system compels the landlord to keep up the irrigation systems properly is not altogether true or there would be no need for the proposed legislation to compel them to do so. The continued partition of landlord's interests renders the smaller landlords less able to perform the duties of capitalists as pictured by Dr. Grierson, but in many cases what is wanted is not so much capital, as unity of control. One landlord owning many villages can get all the labour he wants by collecting his raiyats for irrigation work. Where several villages dependent on one pain belong to different landlords there is not this unity and the work is not done though produce-rents are still collected. This matter will be more fully dealt with in Chapter XI but it is necessary to mention it here to show that the producerent system is not wholly dependent on irrigation though this has been a powerful support. The other reason why the produce-rent system has not disappeared before is that the rate of rent is not so widely different from the cash-rent as is usually supposed and the difference is still less when the extra cost to the landlord of assessing and collecting his rent is considered. Good raiyats and good landlords would certainly benefit from commutation. The persons who would not benefit are the landlords who want to keep a tight hand over their raiyats by means of that powerful weapon, a suit for arrears of produce-rent, and the village servants who exist on the pickings.

Mr. (now Sir William) Duke when Collector of Gaya wrote as follows in 1905 on the final report of the administration of the Tikari Wards estate:—

"I do not myself consider that even the danabandi or appraisement system ever works really well in so great an estate as Tikari. The test cuttings taken cannot be sufficiently numerous. The lands have to be too broadly classified or coupled together. The estate is so great that Circle Officers, even if they be accepted as absolutely reliable, cannot adequately check the gomashta's estimates. A record of test entings kept for some years back shows the highest number made in any one year as 373 covering 533 bighas 6 kathas 11 dhurs. This is less than a bigha in any square mile and could not possibly amount to a satisfactory test. On the other hand having regard to the patience, care and attention required in test cutting it would be useless to exact a large amount of it. If the gomashia go in with the raigats it is easy for them to cheat the proprietor to a very great extent. If, however, they are not in good terms with the raigats they may grossly overestimate. When they have much work to do they can bring pressure to bear by neglecting to appraise until the crops are wasted by the delay. In my belief no zamindar can manage well on the bhaoli system beyond such extent as can be reasonably worked by himself and his relations. Over and over again rights have said to me "By the bhaoli system both the samindars and raigats are robbed and only the amia prosper". While then it is undoubtedly the case that economic views are still so undeveloped and so short-sighted in Gaya that it is only the bhaoli system that can give the samindars sufficient direct interest to keep up the means of irrigation, it may be hoped that this stage will soon be passed and the system disappear"

The fact is that in small estates where the personal relations do exist the system is usually batai and the zamindar is not powerful enough to exact his full rent. In big estates where intermediaries came in it is impossible to check their work without a prohibitive expenditure. The expenditure of management in the Tikari Wards estate was 12.7 per cent. of the current demand excluding all costs of improvements. It would have to be increased to something like 20 per cent. to provide the necessary check. Either way the zamindar suffers and the effect of this will be further considered in the next paragraphs.

181. In the first year's area the question of the landlord's share attracted little attention, any share higher than half being practically unknown. In that area out of 428,691 acres recorded as held on produce-rent only 4,572 were found where the landlord's share was other than half, and a proportion of this was in the south where the landlord's share in batai rents was less than half. It was not till the second year's area that the claims to a share higher than half became numerous. This was the area bordering on Patna where the question of the landlord's share had given rise to much trouble, and there were frequent claims that the system of division was nausat, a term which means actually that the landlord takes is the and the tenant is that is shared, but which was used to cover all cases where the landlord took more than half.

Before examining the results of the present operations as regards these claims, I propose to examine the evidence in previous records as to the landlord's share.

The earliest reference I can find is in a report of Mr. Seton, then Assistant Collector of Bihar, who was engaged in the settlement of parganas Arwal and Masaurha in 1789 in which year the parganas were held khas. He writes:

With respect to the bhuo'i articles, I reduced as mentioned in my letter of 7th June 1789, the proprietor's share to one-half of the produce, which it was in the past, by abolishing an abwab of 1½ seer per maund the sole difference in these purgenas between the shares of the raivat and that of the proprietor; a difference trifling indeed if correctly estimated on the appraisement of the crop but which by deviating from the broad line of half-and-half, had I found, introduced much chicanery and vexation into the divisions and had given rise to disputes that would not otherwise have existed between the raivats, the appraiser and the zamindar."

Vanderheyden, the Special Commissioner, sent to enquire into the results of the Decennial Settlement, says in his report (Revenue Consultations, 8th April, 1794; No. 46):

"The Board is aware that the most usual division of the crop in Bihar between the proprietor and the raiyats is in the proportion of  $22\frac{1}{2}$  seers to the former and  $17\frac{1}{2}$  to the latter, but I am induced to believe that in this district in particular where the raiyats have been long so carefully protected and from the competition for cultivators necessarily arising from the permanent settlement that concessions are generally made to them beyond that division."

The next evidence is that of Mr. Reade, who has already been quoted in paragraph 41, where he separates what is paid by the raiyats into hakimi hissá which is half the produce and cesses which Mr. Reade regarded as legal but which were probably not. In fact all through these early papers whenever concrete instances of produce-rent are found and not general statements like those of Vanderheyden the asal is always separated from the cesses and is invariably half.

Thus when making the Grand Trunk road in 1784 Captain Rankin was alleged to have levelled an embankment in the river Poonpoon owing to which the water all went to the jagirs of Dadar and Manaura parganas instead of irrigating villages Siris and Pooto by which the embankment had been erected. In estimating the remission to be allowed to the farmer, the estimate of what the receipts would have been was made out in this form for each erop:—

				$\mathbf{M}\mathrm{d}\mathbf{s}$ .	seers.
Barley	•••	***	***	17,446	8
Government share	***	•••		8,723	4
Customary cesses	•••	•••	•4•	1,090	15

This, it is observed, is before the Decennial Settlement, but the omission to consolidate the abwab subsequently rendered them illegal.

On the previous history of the 'andlord's share, Chapter XI of the Patna Final Report may be referred to where it is also shown that traditional nine-sixteenths includes abwab.

The next fact to be considered is that at the time of the discussion of the Bengal Tenancy Bill it was proposed to limit produce rents to one-half the gross produce. The full history of this is given in Mr. H. McPherson's note on the history of the produce-rent sections of the Bengal Tenancy Act to which reference may be made. The provision was cut out because of a note by Mr. Reynolds on the produce-rent system in which he stated:

- (1) In South Bihar generally and in the portions of North Bihar which border on the Ganges the landlord constructs and maintains the reservoirs for storing water, the wells for irrigation, the village channels and embankments which are locally known by the name of gilandazi. His share is usually nine-sixteenths but the whole of the straw and chaff belongs to the raiyats.
- (2) Bihar officers were generally agreed that where the zamındar maintained the gilandazi, nine-sixteenths was not an exorbitant proportion for the landlord's share.

As to the connection between irrigation and produce-rents I have dealt elsewhere but as to the general statement regarding the landlord's share in South Bihar it may be pointed out that anything higher than half is almost unknown in Shahabad (Shahabad Final Report, paragraph 329). In South Monghyr 70 per cent. of the batai holdings and 28 per cent. of the danabandi holdings were admitted by landlords to be on equal shares and 85 per cent. and 63 per cent. were respectively so attested (South Monghyr Final Report, Appendix W, page 166).

In Patna only 16 per cent. of the produce-rent holdings were found to be ones in which the landlord's share was higher than half (Patna Final Report, paragraph 195). The Gaya figures will be given presently and they, like the above, clearly show that the general statement of Mr. Reynolds' was unjust-fied.

With the question of nine-sixteenths being a fair share when gilandazi is done I deal in paragraph 209.

It is curious to note in this discussion the confusion between the landlord's share in what is divided and the proportion of the gross produce taken as rent. It is assumed that these are the same whereas Mr. Hubback has shown in Appendix W to the South Monghyr Final Report that they are not, and that it is possible for the landlord's share to be nine-sixteenths without his theoretical rent exceeding half the produce. If this fact had been realized I do not think the clause would have been struck out.

Dr. Grierson in paragraph 911 of Bihar Peasant Life states that south of the Ganges nine-sixteenths to the landlord and seven-sixteenths to the tenant is the customary rate and that division into equal shares is rare. In "Notes on Gaya" written later (page 72) he modifies this statement saying that the tenant gives the landlord half or in some cases nine-sixteenths. What the extra sixteenth consists of is clearly shown on page vi of the Appendix to Bihar Peasant Life. On page 80 of "Notes on Gaya" also there is an express admission that abwab are included in what the landlord realizes.

The next report bearing on the subject is Mr. Stevenson-Moore's Report on the settlement of the 9-annas Tikari estate, Government estates and the Belkhara mahal. In the Tikari estate and Belkhara mahal the shares were equal and it is clearly shown in paragraph 63 that this does not mean that the andlord receives half the gross produce. In paragraph 65 it is said that in the Government estates 21½ seers per maund is the landlord's share. This, however, has been found in the present settlement to include road cess which is not paid separately and even abwab which accounts for the excess over 20 seers. Thus in villages Chhakarbanda

No. 2, Baraha No. 226, Tanrwa No. 72 and Ghuji No. 631, than Sherghati, the total share of Government was 20 seers 12 chataks made up as follows:—

							Mrs.	Ch.
Rent.			•••	•••	•••		18	6
Cess	•••	,	***	•••	•••	•••	•••	9
Neg			•••	•••	•••	•••	•••	9
Panchi	rega	,	•••	•••		•••	1	4
							٤٥	12

The panchnega was originally distributed by giving 4 chataks each to the brahmin, gorait, hatwe (weighman), tahlu (cutcherry cleaner) and jagi (night watchman) but it is nowadays all taken by Government. Mr. Stevenson-Moore remarks that other landlords take more, the most common share being 22½ seers per maund of produce but it is not clear on what evidence this is based.

In the Deo estate equal shares were found to be the rule (paragraph 33, Final Report on the settlement of Deo estate). In the Maksudpur estate, on the other hand, Mr. Coupland notes in his report that the Raja had established that his share of crop was 9 annas instead of the ordinary 8 annas. This was duly noted in the previous record-of-rights which was followed at the present settlement, but one or two facts have since appeared which indicate that this nine-sixteenths share was partly abwab. Several judgments in former cases under section 69, Bengal Tenancy Act, were found concerning villages in this estate where the court had held the landlord's share to be half. In villages which had been sold by the estate prior to the present operations, e. g., Pawai No. 2 and Pasarhi No. 5, thana Rajauli, the present landlord's papers clearly distinguished the abwab from the half share. The villages in which the estate had given mukarrari leases before the Court of Wards took charge showed the following results:—

5	l'hana.			Village and Thana No.
Dandnagar	•••	,010.0	1,1-11	Dadhpt, No. 208
**	•••	•••	Like the	Shahpur, No. 223
,,	•••			Niyamapur, No. 144
Nabinagar		•••	(India)	Budhua, No. 500 } Batai ninf attested
19	•••	•••	सन्यमव	Bariawan, No. 504   without dispute.
97	•••		•••	Singhapur, No
				Naudiha, No. 499
Jahanabad	•••	•••	•••	Sahbazpur Tesaur Danabandi nausat No. 676 claimed. Attested
**	•••	••	***	Basantpur, No. 76 misf as there was no
,,	• • •		•••	Kurauta, No. 75 j evidence of nausat.
Atri	•••	•••	•••	Jagdispur, No. 9 7 Danahandi nausat
,,	•••	***	•••	Muhammadpur No. 69   claimed. Attested   nisf as papers showed the extra one-sixteenth was alwab.
Mufassal Caya	<i></i>	•••		Bajaul No. 66 Danabandi ni f claimed by landlord. Batui ni sf decided after dispute.

Some cases of doschao holdings were found in the Maksudpur Wards Estate, i.e., holdings where the landlord took 10ths as his share. These were cases where the previous tenant had been sold up for arrears of rent, and the holding had to be bought by the estate there being no bidders; the settlement on doschao was an attempt to recover some of the arrears. I understand that this system has been stopped and nothing higher than nine-sixteenths is taken now.

I now come to the figures collected at the present settlement. In the first year's area, i.e., the western part of the district as already noted the question was unimportant because only 1.3 per cent. of the *bhaoli* area was held on shares other than equal, and a proportion of this consisted of holdings where the

raiyat's share was greater. When the importance of the question in the res of the district became clear, detailed statistics were kept which are given below. The numbers in the columns are the numbers of holdings.

		ļ	Batai.		1			Dana	bandi,	•			
				)		j		Higher sha	re claimed	by landlord	•		1
						Conte			∆dmit	tted by raly	ats.		Total
Thaua.		Found	Un-	Total number	Equal shares admit- ted by				to include	Admitte	d to be al	l rent.	bandi bandi
		<b>дћа е</b> н.	equal shares.	of batai holdings,		Equal shares	Highor			Equal decid	shares ed		ings.
							allowed.	Equal hares decided.	Higher shares allowed.	On svidence of landlord's papers.	On show other evidence.		
1		2	3	4	5	6	7	8	9	10	11	12	13
Jahanabad Tikari Atri Nawada Pakribarwan Town Gaya Mnfassal Gaya Rajauli Sherghati Rarachati	•••	1:.404 7,276 6,290 21,726 7,6-6 61 12,787 3,020 14,518 8,618	57 45 189 238  32  15	11,461 7,321 6,489 21,084 7,605 61 12,819 3,029 14,5:3 8,018	29,532 11,130 5,409 6,000 1,064 12 9,177 1,101 2,164 1,018	1,394 2,401 3,426 9,468 2,146 2,764 387 201 1,182	709 352 1,784 1,307 293  28 15	1,011 7:2 252 2,408 424  2,589 3,055 213 700	    80	7,620 81 11: 817 11  765 119 26 94	1,741 129 2,683 43 421 174	3,458 1,021 921 2,177 583  1,300 873 161 682	45,465 15,816 11,905 24,860 4,504 13 17,042 5,704 2,768 4,597
Total	•••	93,304	576	93,880	67,507	23,301	4,488	11,364	80	9,642	5,112	11,179	132,733

From these figures it is clear that-

- (1) anything but equal shares in batai is very rare,
- (2) in the western part of the district (thanas Arwal, Daudnagar, Aurangabad and Nabinagar) shares are equal except in 1 per cent. of the produce-rent area,
- (3) in the rest of the district 51 per cent. of the danabandi holdings were admitted by the landlords to be held on a system of equal shares and as the result of enquiry 88 per cent. of the danabandi holdings were so attested.

In the face of these figures it cannot be urged that anything higher than half is the usual landlord's share in Gaya even if it be argued that the attestation was wrong. That the latter was not the case I now proceed to show. The reason for the lowness of the figures in columns 7 and 9 compared to those in columns 6 and 8 respectively was that when a dispute arises as to rent the onus lies on the landlord to prove his claim and in the majority of cases when he produced papers to prove the claim to nausat these papers were found to be freshly written for the purpose and fraudulent. One instance is given in paragraph 86. The cases of higher shares in Rajauli were mostly cases in the Maksudpur estate where the raiyats did not succeed in rebutting the presumption of correctness of the previous record. On the other hand where there was no dispute it will be seen from column 10 that the landlord's papers gave their case away in a large number of instances by showing the abwab separately from the asal rent. The "other evidence" on which the cases in column 11 were decided usually consisted in the fact that road cess was found to be calculated on the half share only, thus indicating that that was the rent. This was often confirmed by previous cases under section 69, Bengal Tenancy Act, or rent suits, and circumstances indicating that the admission of the raiyats was anything but voluntary.

The principal claimant to nausat was the 7-annas Tikari estate and it is instructive to examine the basis of this claim and the evidence by which it was supported. As previously related the management of the estate till recently has been based on the system of leasing to thikadars, but now as leases fall in, the villages are taken under khas management. In all the villages where the leases are still running equal shares have been found to be the existing custom. In villages where the estate has taken over the management danabandinausat has at once been introduced and the raiyats forced to agree. Hundreds

of petitions were filed purporting to be voluntary agreements by raiyats to the system of danabandi nausat which on examination proved to be anything but voluntary. This claim was raised even in villages still in lease. A typical instance is that of Utlibara, No. 505, than Mufassal Gaya. This village has been in lease to various people for a very long time. At khanapuri there was a dispute about rent. As no papers were produced the raiyats' claim of batai nisf was allowed. At attestation the thikadar's patwari produced papers showing danabandi nausat for the previous three years and was supported by a muharrir of the 7-annas Tikari estate. These papers were all signed by the raigats who admitted their signature but on cross-examination it came out that the papers had all been signed since khanapuri and there was therefore no doubt that they had all been written since khanapuri to support the claim. Other instances of forgery are not wanting. In village Lodipur, No. 632, than a Jahanabad, the attestation officer while passing through the village came upon the patwari of the 7-annas Tikari estate writing up danabandi papers for the two previous years. As to the compromise petitions which the raiyats were made to write the Special Judge dealt with their effect on the general village custom in appeal No.  $\frac{125}{106}$  of 1917. In this case the record-of-rights showed the system of rent to be batai nisf. The 7-annas Tikari estate sought to have the system declared danabandi with a hakimi hissa of 211 seers per maund. Twenty-one of the eighty-one raiyats filed a compromise admitting the claim. This compromise was rejected by the Assistant Settlement Officer as involuntary. The Special Judge upheld this view and under section 147A(4), Bengal Tenancy Act, refused to decree according to the compromise because it might affect the village custom and thus the interests of the other raigats. The evidence, he held, clearly showed that batai nisf had been the system for the past thirty years and the landlord who had recently resumed khas possession tried to change it without success.

In all these cases where the estate raised the claim it was based on the assertion that danabandi nausat was the general system of the estate which had been altered by the thikaders without its knowledge and consent. When asked to explain how it was that in the 9 annas estate, with which the 7-annas estate was originally united, the shares were equal, it was said that this had been a concession given by the European Managers of that estate and that the original custom was nausat. There was absolutely no proof of this and in fact all the indications went the other way. It is not clear, if the original system was nausat, why we should now invariably find equal shares in the villages of the estate which have been let on permanent lease, nor why, when the previous settlement took place in 1893-98 of the Dakhner Mahal in which the 7 annas Tikari estate has a  $7\frac{1}{2}$  annas interest, equal shares were recorded without dispute.

The fact that the estate has been driven to coercion and forgery to prove its claim renders it even more doubtful.

As to the equity of the claim it was urged that the landlord had to—

- (1) pay the Government revenue,
- (2) maintain the village servants,
- (3) maintain the irrigation system, and
- (4) fight irrigation cases.

None of these will bear investigation. The fact that the landlord has to pay Government revenue does not justify a raising of cash rents and neither does the fact that the landlord has to keep a large number of servants to collect rent on a complicated system justify his charging the cost of that system to the raiyat. The latter claim is an attempt to justify the amalgamation of abwab, such as neg and amin kharcha, with the rent. As to irrigation it has long been recognized that the increase in the value of the landlord's share by attention to gilandazi gives a magnificent return and there can be no justification for raising the proportion of the share to the total produce.

Both this estate and the Pandui Babus are doing their best to introduce the system into their villages in Sherghati where anything but equal shares was unknown before, and in my opinion the object is to try and compensate to some extent the peculation that goes on. An interesting example of an attempt by a petty landlord to enhance his share is afforded by village Punan Kalan, No. 98, thana Mufassal Gaya, and neighbouring villages. It is also important as illustrating the necessity of a full record of the incidents. Before the settlement the landlord proposed to his raiyats that his share should be nine-sixteenths instead of half but that in appraising 4 seers would be deducted from every maund so as to equalize matters. The raiyats agreed to this and at attestation admitted nausat. When the incidents were read out, however, they complained that the arrangement referred to had not been recorded, whereupon the whole story came out and they insisted on having the previous arrangement recorded, which was done.

Another case of changing the incidents of the system occurred in the Muksudpur estate. At the previous survey the *chhutti* or remission recorded was  $2\frac{3}{4}$  seers per maund for high caste *raiyats* and 2 seers for low cast *raiyats*, except in the villages round Rajauli where the remission was 4 seers per maund. In 1910, in order to have uniformity, the manager proposed that the remission in the Rajauli villages should be reduced to the scale prevailing elsewhere and this was done. At attestation some of the *raiyats* contested this, but as the change had been in force for five years without a protest and as there was nothing illegal in enhancing a produce-rent, which was what the change amounted to, the existing state of affairs was recorded.

Cases of shares of over  $22\frac{1}{2}$  seers in the maund were uncommon, most claims for a share higher than half being between 20 seers and  $22\frac{1}{2}$  seers. The highest share found was one of 24 seers in village Gulni, No. 73, than Pakribarwan.

182. At the time when settlement of fair rents was going on under section 105, Bengal Tenancy Act, a protest Comparison of produce rent and cash rent. Comparison of produce rent and cash rent. was made by the Bihar Landholders Association against the adoption of any comparison of cash rents with onefifth of the gross produce to ascertain their fairness. It was said that in a district like Gaya where the sytem of produce-rent was prevalent the standard of fair rent was half the gross produce not 5th. The average cash rent in Gaya is less than one-fifth of the gross produce though it is not much less and it is certainly surprising if true that two systems of rent should exist side by side, the pitch of one being more than twice the other. It would require far more inducement than the bhaoli system affords to persuade raiyats to pay so much for it as this. The fact is that the difference is nothing like as great. In the first place the productivity of bhaoli lands owing to the slothful cultivation the system induces is at least 10 per cent. below that of similar cash rented lands (paragraph 141). In the second place at least 10 per cent. of the bhaoli area is left fallow every year so that the actual rent paid is spread over a larger area paragraph 127. Lastly the landlord does not realize one-half the gross produce or anything like it. Mr. Hubback's note on the produce-rent system in South Monghyr amply shows that even his theoretical share is not one-half of the produce owing to the various deductions and adjustments that are made. An examination of a number of fard rewaj bhaoli in Gaya showed that the landlord's share varied from 40 to 45 per cent. in cases where the division was half and half. Moreover this percentage, whatever it may be, is not applied to the gross produce. It is applied to what is stored in the khalihan or what is written in the appraisement paper and these quantities are in general much below the gross produce. The peculation that goes on in the case of batai is notorious and is the reason why big estates cannot work the system. It is no less prevalent in appraisement. One or two proofs of this may be noted. In the Maksudpur estate some raiyats agreed to commute temporarily some produce-rents into chakath rents at 25 per cent. above the average appraised demands shown in the papers. Ar elaborate system has to be kept up by the 9-annas Tikari estate and the Maksudpur estate to see that under-appraisements are not made (see paragraphs 177and 178). I have never come across a case yet (though I believe there are some) where the appraisement on a barawarda has been reduced as the result of test cutting though I have seen many where it has been raised. In the Government estates in the south of the district where during the revenue settlement under section 104 practically all the produce-rents were commuted, the appraised rents averaged about one-fifth of the value of the gross produce.

The following are some of the figures in this connection:-

Thana.		Name of Village and	thana No.		Average value of gross produce per thighan.	Average realization per bigha.	Average incidence of cash rent.
Mufassal Gaya "" "" " Sherghati. Barachati	•••	Pathra, No. 418 Gohati, No. 40.3 Sahdeo Khap, No. 427 Manik Chak, No. 428 Sobha Khap, No. 425 Nawadih, No. 785 Fazla'ia, No. 782 Kusmbatal, No. 36		***	R ₃ , A, P, 9 1 4 12 2 9 12 5 7 7 10 0 5 13 5 11 1 3 12 10 9 11 15 6	Rs. A. P. 2 0 0 0 2 2 6 2 13 6 1 6 6 1 8 9 2 0 2 2 10 10 2 13 3	Rs. A. P.  1 9 0 2 0 9 3 7 0 1 5 0 1 8 0 2 0 2 3 1 2 13 6

The gross produce was based on crop-cutting, on the statement of parties and on estimates by Babu Sudhanshu Bhushan Mitra, who has great experience, and it certainly has not been over-estimated. The realizations are taken from nine years' papers. The average incidence of cash rent refers sometimes to lands superior to the bhaoli lands for which alone the gross produce is given, though usually there was not much difference. In the last case the realizations are taken from a thikadan's papers.

There were several complaints from Maksudpur estate raiyats of overappraisement. A comparison of the appraisement papers with crop-cutting experiments showed these complaints to be unfounded as the appraisement was very moderate. The fact is hat owing to more efficient management of late years the appraisements have approached nearer to actual outturns and this combined with the nausat system has caused the raiyats to feel the pinch.

Finally we have the great reluctance of landlords to produce papers in commutation cases to show realizations. Even the 9-annas Tikari estate refused to produce papers in such cases and asked that crop-cutting experiments should be done instead. In one of these cases that of Gobardhanpur Kanap, No. 7, thana Daudnagar, the commutation officer managed to get hold of the papers which had beer filed in a case under section 105 and from them got the actual realizations. The Commissioner remanded the case on second appeal for crop-cutting experiments, and the result of these demonstrates without a possibility of a doubt how, in spite of the precautions taken, the appraisements are much below what the produce really is.

The average cash rent of lands similar to those under commutation was taken by the first Assistant Settlement Officer at Rs. 2 an acre, the average realization from the papers working out to Rs. 5-8 per acre. The average commutation rate was Rs. 3-14-0 per acre. On first appeal I raised the average cash rent of similar lands to Rs. 2-13-0 an acre, thus raising the average commutation rate. On remand crop-cutting experiments were made with the following results according to the various blocks into which the village was divided:—

Block No.	Net value of laudlord's share of the produce per according to cropeuting.	Average net value of landlord's actual realization per acre according to papers.	Average money rent for similar lands,	Final rate fixed.
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Rs. a. p. 19 0 0 0 13 0 9 12 14 9 10 13 9 4 12 9 12 2 6 7 4 0	Rs, a. p. 8 9 2 8 4 9 9 11 3 7 0 6 4 4 6 7 13 9 3 4 0	Rs. a. p. 6 7 0 6 7 9 3 10 0 2 5 6 2 5 6 2 5 6 1 8 6	Rs. a. p. 8 0 0 7 8 0 7 8 0 0 5 8 0 3 8 0 0 0 0 2 4 1

The rents fixed were, therefore, about half the landlord's theoretical realizations which were  $\frac{9}{20}$ ths of the total grain so that the rents probably are not above of the gross produce though they are well above the mean between each rents of similar lands and actual realizations. The case indicates clearly that *bhaoli* rents as realized in practice are nothing like as much as half the gross produce. This is not all, however, as there seem to have been mistakes in calculating the average realization according to blocks and they are not so much

in excess of the cash rent as would appear. This is apparent from the fact that the commuted rents worked out on the rates fixed are in the majority of cases larger than the realizations of the landlords. Typical cases are as follows:-

	1	Average of	setu	,			C	commuted ren	t as f	_bezi			_
Raiyat.		realizations years	for n	ino	By origina	l Cour	<b>t.</b>	On first a	ppeal		On second s	ppeal	•
Pargas Singh Jitau Mahto Bhagwat Singh		Rs. 95 24 80	a. 13 5 2	p. 3 6 0	Rs. 70 19 53	a. 2 9 14	P. 0 0 0	Rs. 77 19 59	a. 11 4 14	P. 3 9 0	Rs. 130 30 106	9 10 13	p. 9

The excess is not due to excess area because the jamabandi areas of all three are close to the survey area and in the case of Bhagwat Singh is actually greater than it. The result for the whole village works out as follows:-

Actual	realization	10.				Com	muted rer	ıt _e			<del></del>
•			C	riginal Co	art,	¥	irst appe	al.	Second appeal,		
Amount.	Area. Rate per acre. Amount. Ar		Area.	Rate per acre.	Amount. Area, Rate per aure.			Amount, Area, Rate per acre.			
Rs. 2,468	389	Rs. a. p. 6 5 0		432	Rs. s. p. 3 14 0	Ra. 1,829	433	Rs. a. p. 4 6 8	Rs. 2,649	439	Rs. s. p. 6 2 0

The rate for actual realizations is calculated without allowing for possible errors in the jamabandi area which for reasons given elsewhere is probably below the survey area of the same land though not by the usual 10 per cent. since it is partly based on a previous survey.

Mr. Stevenson-Moore put the amount of peculation at about 25 per cent. of the crop and the above figures as well as statements made to me by smaller landlords confirms this view. Of course over-appraisement is a weapon to which recourse is had occasionally to coerce a refractory tenant, and it is such cases which usually come to the notice of courts. The general rule is, however, under-appraisement and this is, to my mind, proved by what has been said above.

Let us now consider the total effect of these factors. We have, say two equal pieces of similar land, one nagdi and one bhaoli, and the nagdi area produces on the average 100 maunds. The bhaoli area is usually 10 per cent. uncultivated and what is cultivated produces 10 per cent. less per acre. The gross produce of the bhaoli area will, therefore, be 81 maunds, 25 per cent. at least of this disappears in peculation leaving 61 maunds of which the landlord gets 45 per cent. or 27 maunds. This is not much above the of the gross produce of the nagdi land and the difference is a fair measure of the value of the insurance to the raiyat against the risks of seasons. The landlord on the other hand has to spend a good deal of this extra amount in the complicated system of realizing this kind of rent and the only persons who benefit are the landlord's servants. It is they who are the greatest opponents of commutation.

183. The present valuation of rents and bakasht lands in the district on which cess is calculated is Rs. 93,02,391.

Inferences from the Cess Roll. If we take the average prices of rice and wheat of the years 1915-17, we find that they show a rise of about 45 per cent. over the average of those of 1899-1901 on the rents of which the last revaluation was based. Since cash-rents do not increase pari passu with bhaoli rents it would not be likely that an increase of more than 30 per

Cash rents Chakath rents Bhauli rents Bakest land		1,91,573 67,01,541	cent. will be found in the Revaluation roll if this is prepared in 1918. But if we value bhaoli land at no higher than the average cash-rent of the district, viz., Rs 6-1-1 per acre and bakasht land at somewhat higher,
To	otal	. 1,23,75,104	say Rs. 8 per acre, the increase in the cess

roll will be 33 per cent. Thus it does not appear that the average realizations for bhaoli land differ greatly from those of cash-rented lands, a conclusion which is confirmed by the fact that chakath rates are on the average below cash rates. While this is ture for the district as a whole it is probably a fact that the proportion of *bhaoli* rents to cash-rents is higher in the north where crops are good than in the south.

184. Under section 40 (6), Bengal Tenancy Act, an officer to whom an application for commutation has been Policy to be adopted in commuting. made shall, if it is opposed, consider whether in all the circumstances it is reasonable to grant it, and shall grant or refuse it accordingly. There is no appeal against a refusal to commute so that general principles have never been laid down by the Board as the highest Revenue appellate authority. In Gaya the prevailing policy has been generally a refusal to commute. In the Land Revenue Administration Report for 1890-91 the Collector of Gaya reported that applications under section 40 were few and not likely to be successful because the raiyats were required to prove what the landlord's realizations had been during the past ten years and they had no means of doing this. In the Resolution on Mr. Stevenson-Moore's report of the Settlement of 1893-8, Government expressed the opinion that commutation should not be done in the case of lands dependent on an irrigation work not of a permanent nature. In the Maksudpur settlement there were 719 applications all of which were refused for the reasons given in paragraphs 99 and 100 of the report on that settlement. There had also in the subsequent years been cases before the district courts which had been refused. In 1911 the Bihar Landholders' Association in a representation to Government stated among other matters that the Settlement Department were unduly favouring the raiyats in allowing commutation. This representation referred to the operations in South Bhaglpur, South Monghyr and Patna. In reporting on the representation, Mr. H. McPherson, Director of Land Records, showed that the problems of the situation were fully realized and quoted one of his inspection notes in which he suggested that the Settlement Officer should study what had already been written in settlement reports and elsewhere on the subject of produce-rents and their commutation and forward a statement of his views and his proposals for consideration. Selected officers acquainted with the agricultural conditions of Patna and Gaya could then be consulted and a general line of policy decided.

The suggestion apparently was not carried out at the time and the figures of cases do not show that in any large number of instances was commutation refused on the ground that it was not in the interest of the raiyats. The figures are as follows:—

						No. of applications.	No, refused.
South Bhagalpur	•••	•••	•••	•••	•••	4,285	1,049
South Monghyr	•••	•••	•••	***		14,928	1,442
Petna	•••	•••	•••	•••	•••	7,169	111
Shahabad	•••	•••	• • •	***	•••	4,613	1,031

In Bhagalpur a large proportion of the cases refused were apparently ones in which an unrecognized purchaser applied (paragraph 172, Bhagalpur Final Report). In South Monghyr and Shahabad a large number of the rejections were really cases in which the application failed for lack of prosecution (South Monghyr Final Report, paragraph 106, Shahabad Final Report, paragraph 283).

When arrangements for dealing with applications for commutation were being made, in view of the previous history of commutation in Gaya, I adopted the suggestion of Mr. McPherson's referred to above and submitted a note showing how I proposed to deal with the cases. It seemed to me useless to waste time in trying the difficult question of fixing cash-rents in each case if a large number of cases were going to be rejected by the ultimate court of appeal on the ground that it was not in the interests of the raiyat that commutation should be done.

The main points of the proposals were:—(1) It was no use having a test case because the main point for consideration was what was going to happen in the future. The test cases in the Maksudpur estate had taught nothing

It was, therefore, necessary to proceed on a priori grounds.

- (2) There was no objection to proceeding to commute where lands were irrigated by the Sone canal or not irrigated at all except by works kept up by the raiyats.
- (3) In cases of lands irrigated from works kept up by the landlord there were two classes one of which was further subdivided.
  - I. Holdings irrigated from a system which affects or passes through other estates:—
  - II. Holdings irrigated from a system contained in one estate
    - (a) when the estate consists of more than one village irrigated from the system;
    - (b) when the estate consists only of a village or part of a village.
- (4) In the case of holdings of class I commutation would generally be refused. The test would be whether as a result of the commutation the rights and obligations of the various parties would be so altered as to cause in all probability the irrigation facilities afforded by the work to be appreciably diminished. If so, commutation would be refused. As an example where commutation would not be refused might be quoted the case actually occurring of a pain which was made when all the villages served by it were under one landlord. Now the descendants of the proprietor hold only the village in which the pain ends. All the other villages have been sold and the new proprietors while retaining the right of irrigating from the pain pay nothing for the upkeep. The old proprietors are bound to pay for the whole upkeep if they are to get water to the one village which they still hold. In the case there would appear to be no objection to commuting the rents in all the villages but the last.

In no case would commutation of isolated holdings be allowed without consideration of what would happen if the whole of the produce-rent holdings irrigated from the same source in the village were commuted. Such applications are often put forward as feelers.

- (5) In class II (a) it was proposed generally to refuse commutation. The case differs from that of class I in that in any village, even if rents were commuted, the raiyats would still have the right of irrigation so long as the pain was kept up, whereas where separate landlords were concerned the failure of any landlord to pay his share of the upkeep means that the right to irrigation of his villages stops. The test proposed for class II would be more difficult to apply and hence it was proposed to apply the policy of non-commutation more strictly.
- (6) In class II (b) it was proposed to allow commutation freely. The smallness of the works involved and their easy accessibility would, it was hoped, stimulate the raiyats concerned to make an effort for themselves. This was eminently a case for co-operation and it was a matter which could with advantage be taken up by Co-operative Societies.

The proposals were made in the early part of 1915 and looking back on them I see no reason to revise them on a priori grounds, but this is mainly because the Settlement Department have not had the opportunity of trying cases to which they might apply. There are grounds, however, for believing that they were probably too stringent.

The number of applications in recent years to the district authorities under section 40 in the districts of South Bihar with conditions similar to those of Gaya are as follows:—

District.	1904-05	1905-06	1906-07	<b>19</b> 07-08	<b>190</b> 8-09	1979-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17.
South Monghyr Patna Shahabad Gaya	55 7 55 23	157 3 51 23	6 46 29 30	18 69 274 120	19 3 86 55	68 70 7	08 6 47 90	1,633 620 2°6 227	1,307 037 6 1	1,466 935 471	1,293 1,077 401	1.159 2.159 513 121	501 862 595 600

Cases under section 40 were taken by the Settlement Department in South Monghyr in 1907-09, in Patna in 1908-11, in Shahabad in 1910-13 and in Gaya in 1913-16. The enormous effect on the subsequent applications to the

district authorities is significant. The large number in Gaya in 1916-17 were the number made over by the Settlement Department as explained in the next paragraph. The slacking off in 1916-17 may be attributed either to the fact that after five years' experience raiyats have found that commutation does not pay but it may equally be due to a settling down of their relations with landlords and an absence of desire to raise trouble after two good years. The former reason may, however, be as much due to the rates being fixed too high as to the loss of irrigation facilities. In any case the fact that commutation is possible has been brought to the notice of the raiyats. In many villages in Gaya it was found that the raiyats were unaware that they had the right to apply. I think the figures show that the raiyats have appreciated the advantage of cash-rents and an easy way of testing this would be to examine on the superthere are the case of villages in Patna and South Monghyr where wholesale commutation was done to see what has been the effect.

In the Maksudpur estate as already stated commutation was refused by the Settlement authorities. On application to the Commissioner by the raiyats, however, it was decided to commute in selected villages. Enquiry was made in two of these, viz., Pachrukhi, No. 77, thana Atri, and Amawan, No. 192, thana Rajauli. The raiyats complained that the rents fixed were high and that irrigation works had not been properly kept up though an addition of 10 per cent, had been made to the rents on this account, but even so they declared they would not return to produce-rents on any account. A recent examination of the conditions of the raiyats in Pachrukhi by the Registrar of Co-operative Societies has shown that in many cases the rents fixed are impossibly high, exceeding the average realizations made by the estate when the bhaoli system was in force.

During Mr. Stevenson-Moore's settlement commutation was done in the majority of the Government estates. At the present revenue settlement under section 104, holdings were found which had been settled on a produce-rent subsequent to 1898 and practically all of these were commuted at the request of the raiyats. The only request for a change in the reverse direction came from Goharpur, No. 336, than Tikari. This is interesting because it was in this village that commutation was done in 1881 during the first settlement after the escheat. In 1888 the Collector (Mr. Grierson) forwarded a petition from the raiyats asking for a return to the bhaoli system. The Board's reply to this was that it was clear that the reason for the trouble was that the cash-rents had been fixed too high. The rate was Rs. 5-14-8 per bigha, while in the neighbouring and similar villages the rents were Rs. 3-13-8 and Rs. 4-3-8 per bigha and the total rental was Rs. 2,196 compared with Rs. 1,658, the average realization under the bhaoli system. They, therefore, refused to revert to what was characterised as a barbarous and exploded system and directed a re-assessment of the cash-rents. Dr. Grierson then penned his famous defence of the bhaoli system which is reproduced in his "Notes on Gaya" and persuaded the Board to agree to a reversion to the bhaoli system. As a matter of fact a number of raiyats, when it came to the point, did not revert. At the settlement of 1893-98 all the rents were again commuted but at a lower level. Appendix C of Mr. Stevenson-Moore's report shows that the average realization for the previous eight years for Goharpur had been Rs. 1,824 and the rent assessed in 1896 aggregated Rs. 1,961, i. e., over Rs. 200 below the commuted rents of 1880. This effort was more successful and there has been no difficulty in realization since. When revenue settlement was begun the raiyats asked for a return to produce-rents but when I examined them it appeared that batai was what they wanted. When confronted with the alternatives of cash-rent or danabandi they unhesitatingly adhered to the former.

During the management by the Court of Wards of the nine-annas Tikari estate 29,314 bighas were commuted. Much of this was temporary commutation but the way the raiyats fought to have it declared permanent showed how it was appreciated.

Of course in all these instances we have well managed estates which keep up in igation, but none of them spend on irrigation what Dr. Grierson said was regarded as the proper amount, viz.  $\frac{1}{12}$ th of the rental, and much of the temporarily-settled estates known as the Sarwan Mahal is not irrigated at all.

It is doubtful, therefore, if much harm would have been done by commutation on every application without any restriction. Even if every application filed had been granted the percentage of cultivated area in the district held on the bhaoli system would not have fallen below 60 per cent.

185. As a result of this reference it was held that as the commutation of produce-rents was a judicial matter and the Settlement Department had asked for guidance it was undesirable that the cases should be tried by that department. Accordingly it was decided that all but the applications relating to lands irrigated from the Sone Canals or unirrigated, and all future applications should be made over to the Collector. Under these orders out of 13,331 applications, 2,739 were disposed of by us and 10,592 made over to the Collector. The latter cases are, I understand, to be taken up now (1918): some have been pending since 1913.

The raiyats who had filed applications protested against this order and in a few cases there were applications from both parties for the cases to be disposed of by the Settlement Department. The arguments used by the raiyats for a speedy disposal were that in reply to their applications, suits for three years' arrears of rent had been filed, which the landlords would use as a lever to force them to withdraw their applications or else get a decree for fictitiously high arrears which could be used to support allegations of high realizations. The effect of the order on the number of applications was marked. Roughly for two-thirds of the district before the orders there were 12,800 applications. For the remaining one-third there were 600 Before discussing the result of the cases disposed of I shall give some account of the method of disposal and the difficulties encountered.

186. The first factor to be considered is the average money rent payable by occupancy raigats for land of a similar Application of section 40(4)(a description and with similar advantages in the vicinity. This is not easy to ascertain from the record-of-rights because the rents entered are lump rentals. That is to say, while there may be land similar to the land under commutation for which cashtrent is paid it will generally be found along with dissimilar land in one khatian and it is impossible to say how much of the rent is payable on account of each plot, An attempt was made in Muzaffarpur in 1892 to record in the khasra at the time of khanapuri the rate at which each plot was held. Such a record if accurate would have been of immense assistance in commutation work as well as in the work for which it was then intended, viz., partition, but the reasons which led to its failure in Muzaffarpur apply equally in Gaya, the chief and sufficient reason being that rents are not dealt with till attestation and it is impossible without a very elaborate check to see that the recorded rates when multiplied by the area held on each and added together, come to the total attested rent. If the record-of-rights alone is depended on, the commutation officer is driven to find khatians containing only land similar to the land under commutation or to take the goshwara rate of rent in the village. Neither of these courses is satisfactory. The rate of rent for small holdings very often differs greatly from that of large ones of the same quality and it is rare to find a khatian containing more than a few plots the class of land in which is uniform. The plan of taking the goshwara rate of rent is likely to lead to unfair results unless the land under commutation is fairly uniform in character and similar to all the cash-rented lands of the village.

In Gaya, however, there are sources outside the record-of-rights which can be utilized to a certain extent. Practically all villages are divided up into portions called kittas or bodhs which have names. The name of the kitta in which a plot lies will be found in the khotian immediately under the plot number. In many cases these kittas are fairly uniform in point of view of fertility and a uniform rate of rent is paid in each and the landlord's papers may show these rates. Unfortunately as will be seen later there is no inducement for the landlord to produce genuine papers in these cases and, in fact, he stands to gain by producing either forged papers or no papers at all. This source of information therefore is not likely to be avail-

⁽¹⁾ Final Report on the Survey and Settlement operations in the District of Muzaffarpur, 1892-1899, paragraphs 451-455.

able. It sometimes happens, however, in attesting cash rents that the attestation officer has had to determine the rates of rent in force in various kittas and information on this point will be found in the attestation rent note and the schedule of cash-rents bound up with the record-of-rights. Finally there is the schedule prepared for use in cess revaluation. These schedules show on the statement of the landlord the rates of cash-rent per bigha prevalent in each of the kittas of the village in which any cash-rented lands lie (vide paragraph 98). Being based on the ex-parte statement of one side, the landlord, they are not binding on the other side, the tenant, but it may be possible to see in the cases of raiyats holding land in one kitta only how the attested rents compare with the schedule rents and if they agree this gives a greater weight to the evidence afforded by these schedules as to the comparative rates of rent for different classes of land in the village.

It has frequently been urged in these cases that if such cash-rents when ascertained have been in existence for a long time they should be enhanced before being taken into consideration. The fallacy of this claim is not difficult to expose. It is based on the unwarrantable assumption that because a rent is old it is, therefore, too low. In the next place, the words of the section are clear and refer to the money rent payable, not the money rent which might be found to be payable if an enhancement suit were brought and won. Generally the raiyats paying the particular cash-rents under consideration are not parties to the commutation case and it is, to say the least, a little unfair to assume that their rents are capable of enhancement without their having a chance to controvert this. This is specially the case when regard is had to section 27, Bengal Tenancy Act, which lays down that the rent of an occupancy raiyat is presumed to be fair and equitable till the contrary is proved. This presumption is, if anything strengthened when the landlord has had an opportunity of applying for the settlement of a fair rent and has not done so. This fallacious claim probably arose from the fact that in Monghyr and Patna when no evidence was available of landlords' realizations, commutation was done on the basis of cash-rents of similar lands plus an enhancement due to the consideration of the probability that the value of the landlord's share owing to the rise in prices was above the cash-rent realized for similar lands. When the actual realizations as laid down in section 40 (4) (b) are taken into consideration the necessity for any arbitrary enhancement of this sort disappears and its retention amounts in effect to taking the rise in prices into consideration twice over. The commutation rents are almost always well above the cash rents for similar lands which are presumed to be fair and equitable rents. The claim for increasing them still further above this standard in the way specified would, therefore, require very strong justification and I think that no such justification can be shown to exist.

Another problem which arises under this head, the discussion of which has some bearing on the last question, is the course to be pursued when there are no similar cash-rented lands with similar advantages in the vicinity. The original proposal of the Bihar Rent Committee was that commutation should be done at the cash rates paid by other occupancy raiyats in the neighbourhood, or, if there were no such cash-rented holdings, at the average value of the landlord's share for the preceding five years (Report of the Rent Law Commission, Vol. II, page 255). This proposal was adopted by the Rent Law Commission in clause 86 of their Draft Bill with the modifications that commutation was to be based on the prevailing cash-rent payable by occupancy raivats for similar lands with similar advantages in the vicinity, and, in the absence of such a prevailing rate, on the average value of the landlord's share for the preceding five years with a reasonable reduction therefrom in consideration of the whole risk of cultivation being taken by the raiyat. Subsequently Mr. Reynolds was put on special duty to examine all the views expressed on the Commission's report and to frame a bill embodying the conclusion of Local Government. In noting on this clause he said:

[&]quot;As to the terms of commutation' the proposals of the Draft Bill appear fair enough: but it is better that the reasonable deduction should be specified (at least within certain limits) in the Bill rather than it should be left to the discretion of the courts. I would suggest that it should ordinarily be fixed at 33 and that it should not be more than 50 per cent or less than 25 per cent. Mr. Milne gave me a paper showing the outlay and return on various

kinds of cultivation. In this he entered the produce or paddy lands at 20 maunds to the bigha (3th acre), the selling price being Re. 1 a maund. At this rate, assuming the landlord's share to be only one-half and it is more often nine-sixteenths), he would get a money rent of Rs. 9 a bigha which is something like three times the proper rent. I do not accept these figures* as accurate for I have no doubt that 20 maunds is much in excess of the average produce but the calculation shows that from a figure furnished by zamindar himself a deduction of even 50 per cent would not be unreasonable.

The material portion of the clause as it appeared in Mr. Reynolds' draft Bill runs as follows:—

"Such annual money rent shall be fixed at the discretion of the court, either according to the prevailing money rent payable by the same class of rangets for land of a similar description and with similar advantages in the vicinity, or else according to the average value of the landlord's share of the actual gross produce for the preceding five years. In this latter case a deduction shall be made from such average value in consideration of the whole risk of cultivation being taken by the ranget. Such deduction shall not be less than 25 per cent. or more than 50 per cent. of the said average value, and shall ordinarily be 33 per cent."

This differs in one respect from Mr. Reynolds' previous recommendation by leaving the choice of these alternatives to the discretion of the court. I have been unable to find out anything showing why this change was made. Probably it was merely a verbal alteration which, it was thought, made no difference, as it appears to have been assumed all through the discussions that the two alternatives would lead to the same result. This clause was accepted by the Local Government but the clause in the Bill when introduced in Council, though substantially the same, omitted the limitation on the reasonable deduction. No reasons were given for this. In Select Committee the clause was re-cast on the lines of section 16 of the Central Provinces Tenancy Act, 1883, in order to give a larger discretion and contained section 40 (4) (a) and (b) in their present form. Mr. Reynolds in his minute of dissent wrote:—

"The section ought to provide that if the commutation is based on the average value of the rent received by the landlord during the preceding ten years a substantial deduction shall be made for such value in consideration of the whole risk of cultivation being taken by the raiyat. Provision was made for such a deduction in the Draft Bill of the Rent Commission and in the Bill submitted by the Government of Bengal."

The Government of India addressed the Government of Bengal on the subject of the report of the Select Committee in paragraph 14 of letter No. 784, dated the 5th May, 1884, as follows:—

"The provisions for commuting grain rents to money rents also demand attention. In regard to the method of commutation, it would probably be desirable that the officer should ordinarily look to the analogy afforded by the prevailing money rents for similar land, but that the result should be checked by the average rent which the landlord has hitherto received, in other words, by the test of experience. If the latter alone were to be regarded, it is obvious that as Mr. Reynolds points out a deduction should be made for the risks and other burthens which the tenant assumes in undertaking a money rent; but if the prevailing money rent is taken as the primary guide these risks and burthens will ex hypothesi have been ordinarily discounted. The provisions, therefore, seem to the Government of India to be fair and equitable; but His Excellency in Council will be glad to receive the Lieutenant-Governor's views on the point."

The Bengal Government in paragraph 52 of letter No. 1906-T., dated the 15th September, 1884, urged again that to the second clause should be added the words 'with such a reduction as may seem reasonable in consideration of the tenant's taking the whole risk of cultivation'. The present form was, however, maintained by the Select Committee and the result was to substitute for fairly definite rules as to which the Maharaja of Darbhanga said in his minute of dissent from the Select Committee's interim report.

"These rules are but vague, and as we know that as a fact different officers take very different views on all such matters I do not think that a question of such vital importance should be left to a Revenue Officer to decide according to his own individual opinion."

This vagueness still remains. It is one of the difficulties in these cases and though in the course of many years' work a principle has been laid down by the Board of Revenue that generally speaking the commutation rent should be the mean between the two rents arrived at by the consideration of section 40(4), sub-clauses (a) and (b), no principle has been laid down for the case where no cash rents of similar lands are found in the vicinity. In such

^{*}Nore—The probable reason for the excess is that the land-lord did not realize nine-sixteenths or even one-half of the produce, vide paragraph 182.

cases I think the only proper course is to follow the intentions of the original framers of the bill and to take the average realizations and to make a reasonable deduction from them.

In some cases Assistant Settlement Officers sought to get over the difficulty by taking the rent of land not quite similar and adding to or deducting from it in order to get an assumed cash-rent for land similar to the holding under commutation. This was done in village Ekauna, No. 273, thana Daudnagar. I rejected it and fixed the commutation rate after deduction of 33 per cent. from the realizations as shown in the landlord's papers which had been accepted as genuine. On second appeal, however, the original rate was restored. In village Ghataro No. 24 and Dhangain No. 32, thana Aurangabad, the cash rates found for similar lands by the same process were rejected on second appeal and the commutation rates fixed at 20 per cent. below the realizations. As they originally stood the commuted rents varied from 25 per cent. to 33 per cent. below realizations. The question of the use to be made of chakath rents in this connection is discussed in paragraph 190.

187. The second point which the commuting officer has to consider is the average value of the rent actually received by the landlord during the preceding ten years or during any other shorter period for which evidence may be available.

We have already seen the interpretation which was put on this clause in the early days of the Act in Gaya that unless the tenant could produce this evidence his application was rejected. Reference has also been made in paragraph 186 to the view taken in Monghyr and Patna by the Settlement Department that if no evidence was available on this point owing to the landlord's failure to produce his papers, the commutation rent should be based on the rent ascertained under section 40(4) (a) with such enhancement as might appear equitable owing to the probability that the average realizations had been higher than the average cash-rents of similar lands. In some appeals from Shahabad, however, the Commissioner of Patna beld that the word "shall" in section 40(4) made it mandatory to consider, all the nexters set forth and that if no direct evidence of actual realizations was produced the Revenue Officer must ascertain what they were from other evidence. This was the principle followed in Gaya and it is necessary to discuss the evidence used for arriving at this factor and the accuracy of the results.

Landlords' papers, at least genuine ones, were very rarely produced and tenants' receipts were even rarer. In nearly all the cases, therefore, recourse was had to indirect evidence. The first step was to find the average produce of the land and thence the landlord's share of it. From that by taking the average of prices over the ten preceding years the value required by section 40(4) (b) was arrived at. The process is not as simple as it looks. As all the cases in one village were tried together it was necessary to divide up the village into blocks each of uniform fertility and to ascertain the average produce in each. The oral evidence of the parties on this point was worthless as one might expect, and the commuting officer had to be guided by crop-cutting experiments made on similar land in the vicinity at previous stages of the operations or experiments made by himself. Owing to all the available staff of officers being required for khanapuri and attestation during the cold weather, commutation work has generally to be done in recess when no crops are on the ground and in the western part of the district very few crop-cutting experiments had been done at khanapuri. However, in view of the large number of cases, arranged ments were made for officers to continue the work during the field seasons of 1915-16 and several cases were remanded by the Commissioner for erequcutting during 1916-17 so that in most cases there was some definite evidence as to the gross outturn of the lands for one year. Now came the first difficulty, namely, to decide what proportion this bore to the average produce ever in number of years. In order to find this it is essential to know the produce  $\phi_1$ former years which is just what we do not know. Even in canal-irrigated lands the produce varies appreciably from year to year and if there is one thing that crop-cutting experiments have shown in Gaya it is that crops vary in an extraordinary way and that the relation of a crop in a particular field

to the normal may be quite different from that relation when considered for the whole crops of a subdivision or a thana. The step from the particular crop of a year to the average crop is, therefore, larvely guess work and this is particularly so when crop-cutting experiments have been made on crops raised after the commutation case has been instituted. Allegations are always made that the raiyats have purposely neglected the crops. It is a matter of extreme difficulty to judge if these allegations are justified and in that case to decide what allowance to make. In my opinion this extra difficulty makes crop-cutting experiments ad hoc in these cases of very doubtful utility.

In ascertaining the gross produce some help may be obtained from the Cess revaluation schedules. These show for each kitta of the village the average outturn per bigha according to the statement of the landlord's agent recorded at attestation. It gives a maximum figure because, being a statement made on behalf of the landlord, it cannot be used in his favour and practically, as shown in paragraph 98, there was a general tondency not to under-state.

From the average crop when ascertained the landlord's share has to be deduced. The incidents of the produce-rent system are fully recorded in the record-of-rights and there should be no excuse for assuming that because the rent is shown as batai nisf or danabandi nausat the landlord's share of the gross produce is one-half or nine-sixteenths respectively or that he realizes the whole of his theoretical share. Another point is that discussed in paragraph 182. It clearly introduces a very uncertain factor into the process of deducing from the average produce the share actually received by the landlord. It has often been urged that this factor being mainly due to peculation should be ignored and that it must be assumed that the landlord gets his full theoretical share of the actual gross produce to which he is entitled. Section 40(4)(b), however, clearly specifies the rent actually received by the landlord and not what he might have received in certain hypothetical and highly improbable circumstances. As has been pointed out also the result is not unjust since it is this very factor that keeps the standard of produce-rents within reasonable distance of cash-rents.

The last item to be determined is the price, and this must be, in order to give us what is required by section 40 (4) (b), the average price of the preceding ten years and not merely that of the present time. The parties generally speaking could only give evidence of the price of the last few years and could not always agree as to that. In South Shahabad there had been considerable diversity in practice on this point and it was obviously desirable that a general method should be adopted. The method was used only when there was no reliable evidence in the landlords' papers or otherwise to show at what rates the crops had actually been valued in the past. It started from the only authoritative basis, viz., the prices of staple crops at subdivisional headquarters as published in the Gazette. These prices are reported for two crops in Gaya, rice and wheat. In the case of rice the average price of the ten years was taken and as these are retail prices 10 per cent. was deducted to allow for the retailers' profit. The corresponding price of paddy was taken at two-thirds of this. Finally 2 annas per maund was deducted as cartage if the village was within 10 miles of the subdivisional headquarters and 4 annas per maund if it was over 10 miles away. A similar process was applied to the wheat prices though no factor was necessary in this case for the conversion from the husked grain price to the unhusked grain price. The prices so calculated worked out as follows in the two subdivisions Jahanabad and Aurangabad in which cases were disposed of.

			Price per ma	and of Faddy.	Price per maund of wheat-				
<del></del>	-	į	Villages less than 10 miles.	Villages more than 10 miles.	Villages less than 10 miles,	Villages more than 10 miles.			
Jahanabad Aurangabad	•••	•••	Rs. A. F. 2 2 0 2 0 0	Rs. A. P. 2 0 0 1 14 0	Rs. A. P. 3 2 6 2 12 6	Rs. A. P. 3 0 6 2 10 6			

The prices of other crops were based on these. Thus it was generally found that *khesari* was a little cheaper than paddy and its price was fixed accordingly.

The calculation of prices in this way is, I am aware, open to criticism in many of its details. For instance, the cartage allowance may be excessive and the basis for it is sometimes fictitious as the produce of many villages goes to markets other than the subdivisional head-quarters. On the other hand in many parts of the district transport by pack bullocks, which is twice as expensive as cart transport, is used. Again, the factor taken for conversion from rice prices to paddy prices is too high. Three maunds of paddy may give two maunds of rice or, as some authorities prefer, 12 maunds of paddy may give 8 maunds of rice, but when prices are compared the cost of husking has to be allowed for. Enquiries in many markets all over the south of the district showed an average relation between the two prices of \$\frac{3}{5}\$ths. Another matter not allowed for is that many raiyats have to sell their crops soon after harvest when the price is low. But, when all is said and done, the results were not unsatisfactory. The principle was not often attacked in first appeal and then only on a misapprehension of its details and it was not upset in second appeal though in case No. 401 of 1916 the Commissioner remarked that the price is too low as paddy cannot be bought at that price now-a-days. In one case of village Uchauli No. 633, than Aurangabad, the Assistant Settlement Officer was able to examine a goladar's books and from them found the average prices at which he had bought grain in the previous ten years to confirm these prices. Landlords' papers in village Karmari, No 74, thana Nabinagar, showed the average price for paddy in the last ten years to be Re. 1-14-3 a maund. I am satisfied that the error in adopting these prices is much smaller than those in other portions of the calculations,

From these data it is possible to get a value for the average value of the landlord's share during the preceding ten years but it is a purely fictitious value, firstly because of the unknown relationship between the actual gross produce and the produce actually divided or appraised, and secondly because it frequently happens that portions of the bhaoli land to an unknown and varying extent are left fallow. To the question of area I shall revert presently and will now consider what other evidence of actual realizations is available as a check on the value as found above. The first class of such evidence is furnished by decrees in rent suits or under section 69, Bengal Tenancy Act. In suits for bhaoli rents which are nearly always for three years' arrears it is impossible to get any reliable evidence as to what the appraised value of the landlord's share was. I understand that the present legal position is that the Munsif has practically either to give the landlord what he claims or nothing. The effect of this is that in the cases where the landlord gets his decree the decreed rent is on the average very much higher than it would have been if realized in the ordinary course since the claim is usually put high. To show the unreliability of the papers on which decrees are given I need only refer to the following figures which I got from the District Judge. The figures were the result of the examination of bhaoli rent suits for rent of the years 1318-1322 Fasli to see if any inference could be drawn from them as to the comparative goodness of the years from an agricultural point of view. They proved useless for this purpose but I noted that out of 19 decrees examined, which concerned arrears for 8 years or more, the same outturn was shown for each of the 3 years in 12 cases. Out of 5 decrees for arrears of 4 years the outturn were the same in every year in 4 cases. It is clear that very little reliance can be placed on the truth of such papers. Especially is this the case with rent suits tried after the commutation application has been made. As stated in paragraph 185 such rent suits are a usual reply to the application and it is to the landlord's special advantage to get as high a decree as he can.

The decrees in cases under section 69 are based on more accurate data but the landlord is given his full theoretical share which as a matter of practice we have seen he does not get.

If these decrees, however, are actually realized they must be considered, but in using them as a basis for deducting rents realized in other years their tendency

to be unduly high must be borne in mind. One difficulty that sometimes arises in considering them is that the amounts decreed are often not actually realized. This is the case when the rent suit has been filed with some other object than a mere realization of unpaid rent. The decree is then used as a lever for effecting that object and is never actually executed. The classical instance of this is afforded by Sukhan Singh's estate in South Monghyr* but instances are not unknown in Gaya. Proof of actual realization of the amount decreed for which the tenant should have a receipt and the landlord a counterfoil is, therefore, necessary.

A class of evidence which is more often available is that afforded by the returns filed by landlords in connection with Road Cess revaluation proceedings. Such returns are, under section 95 of the Cess Act, evidence against the person who makes them and under section 20 of the Cess Act no landlord can receive a larger rent than that shown in the returns filed by him without proof that it has been legally altered. The latter restriction cannot, from the nature of things, apply as it stands to produce rents but it is certainly in accordance with the spirit of the section that such returns should be given full weight in determining the realization of subsequent years.

At the time when the Bengal Tenancy Bill was under discussion the use to be made of these returns was clearly foreseen. In paragraph 52 of their letter No. 1908-T., dated the 15th September, 1884, the Government of Bengal say:—

"Then as to the process of commutation the Lieutenant-Governor finds a proposal supported by the high authority of Messrs. Dampier and Reynolds, that the commuted rent should not exceed the rent of the road cess jamabands, plus what rise in price might have occurred since the road cess assessments were last made. Barring the objection that it makes no allowance for costs of production, the proposal has an attractive air. These pipers are now admissible in evidence against the landlords, and the Lieutenant-Governor sees no reason why they should not continue to be so or why, if the raigat wishes to abide by them, he should not be permitted to do so."

Article 526 of the Settlement Manual lays down that if landlord's genuine papers are not available the cess returns should be consulted, and this was confirmed in the recent review of the Report on the Survey and Settlement operations for the year 1915-16 in which the Board said:—

"The Board is rather surprised at the allegation of harshness made against the Settlement Department, as stated in paragraph 25 of the report, in regard to the use of landlords' cess returns as a means of ascertaining the average value of the produce rents received by them since section 95 of the Cess Act specifically authorizes the employment of these returns as evidence against the makers. The utilization of these returns in commutation cases where reliable documentary evidence is lacking has accordingly been prescribed in rule 526 of the Settlement Manual; unless, of course, on other grounds they are evidently incorrect."

There would, therefore, appear to be ample authority for free use of these Cess returns in commutation cases. Their use has been objected to, however, on two grounds. The first is that in Gaya the last general revaluation was made on the basis of returns for the years 1306—1308 Fasti. These years are outside the period of ten years laid down in section 40 (4) (b) and, therefore, the realizations of those years cannot be considered. This argument would be perfectly valid if we had reliable direct evidence of actual realizations for the 10 years in question. When we have no such evidence I think the indirect evidence given by the returns is entitled to as much consideration as any other indirect evidence. Moreover, if the ten years rule is to be applied in the manner proposed it will exclude all evidence based on crop-cutting experiments performed after the institution of the case since these also fall outside the period.

The second objection was that the Cess returns are notoriously underestimated and that as in commutation cases the Revenue Officer is endeavouring to nx a fair and equitable ront it is unfair to penalize the landlord for having filed a false return many years ago.

This argument appears to ignore altogether the provisions of the Cess Act in respect of these returns and if in a district like Gaya where produce-rents predominate it is found that landlords are not to be held bound in commutation cases by their returns, then it will be a mere waste of time to call for them

since the only thing they will have to fear from putting in unduly low returns, is a possible use of them by Civil Courts in rent suits. The assumption that the returns are frequently and considerably under-estimated is no doubt true but there is an easy test for ascertaining whether this has been the case in any particular instance. The returns are scrutinized by the Revaluation Deputy Collector who either accepts them or raises the valuation. If he accepts them it is hardly justifiable for a Revenue Court subsequently to say he was wrong without the clearest proof. If he raises them then the enhanced values can be taken as the realizations for the years of the return.

In many instances the landlords had petitioned against the increased valuations re-asserting with emphasis that the returns were correct and the Deputy Collector either retained or reduced his valuation as he saw fit after enquiry. In such cases it is difficult to see how any plea for brushing aside the returns much less the valuation can be accepted.

The only evidence ever adduced to show that the Road Cess returns were low was the calculation of the landlord's theoretical realization based on crop-cutting experiments. This itself has been shown to be above the actual realizations so that the fact of its being higher than the realization deduced from the Cess returns is no proof that the latter are low.

I give below some figures taken from commutation cases which will show how the Cess return figures compare with the average cash-rents of similar lands and realizations as deduced from crop-cutting experiments on other indirect evidence. The figures should be read in connection with the discussion in paragraph 182 as to the comparative rent of cash-rented and produce-rented lands and the fact that the average prices of the 10 years preceding the institution of the applications are about 15 per cent. above the average prices of the years which are covered by the Road Cess returns. Serial No. 7 of the list is interesting in comparison with the others in view of the fact that the realizations are actual ones and not theoretical.

Thana.	Village and Thana No.	Average of rents of similar lands.	1	for	erag lizate 10 pr eding	on e-	real as in	reraze izatio showi cess turns	n n	fina by R Rev.	veragizatio lly ta load ( aluat deput	n as ken Cess ion y	Romarks,
1. Arwal	Surajpura No. 246	5 9	6	6	9	6	2	11	0	3	3	0	Figures in column 4 based on estimate outturn.
2. " 3. "	Jajnur No. 169 Bathlachpur No. 128.	5 4 7 8	0	12	1 13	6 0	12	10 12	0		10 14		Figures in column 4 based on crop cutting Figure- in column 4 based on crop cutting and decrees. Figures in column 6 originally fixed at us 6-8-0 but was reduce on petition.
4. Daudnagar	Salempur No. 263	4 10	0	8	4	0	3	5	0	4	13	0	Figures in column 4 based on estimated ou
5. ,, 6. ,,	Tal No. 98 Ankori No. 220	8 0 5 12	0	22 8	8 8	9	10	7 3	0	10 5		0	turn. Figures in column 4 based on crop cutting Figures in column 4 based on estimate Figures in column 6 was arrived at aft reduction on petition, of original val
7. Nabinagar	Karmari No. 74	3 0	0	4	1	6	3	13	O	3	13	0	ation. Figures in column 4 based on landlord papers for 19 years.

The Cess returns cannot be used indiscriminately. If the present landlords are not the landlords who filed the returns, section 95 of the Cess Act does not apply but even in such cases the returns of the valuation made by the Cess Deputy Collector are evidence under section 21 of the Evidence Act (39, 'Cal., 998). Again it may happen that conditions the effect of which cannot be accurately estimated have arisen in the village since the date of the returns. This was the case in village Dhusri, No. 114, of than Daudnagar, where canal irrigation had been introduced since the Cess revaluation.

In considering the weight to be attached to the various classes of evidence as to realizations some consideration must be paid to sections 114, illustration (g) and 106, of the Evidence Act. The only direct evidence of such realizations is given by landlords' papers or tenants' rent receipts. If the landlord has given proper rent receipts then the means of proving realizations is within the

power of the tenants and as they are the applicants the onus lies on them to prove them. If he has not given receipts the only direct evidence, viz., his papers are in his custody. If he refuses to produce this evidence though able to do so, it is a legitimate inference that it is not in his favour and if more doubtful sources of evidence have to be used the benefit of any doubt must legally and equitably be given to the other side. The assumption in the absence of landlords' papers and rent receipts that the landlord realizes his full share of the actual produce and that the Cess valuations must be ignored because there is a tendency for them to be low is, therefore, directly contrary to law and equity.

A recent ruling by the High Court, Upendra Lal Misra versus Moti Thakur II, Patna Law Journal, 617, holds that section 20 (b) of the Cess Act does not apply to produce-rents, in fact that suits for produce-rents are not rent suits but suits for compensation or damages. The case is peculiar because the rent suit was apparently for the rent of the 3 years preceding the Road Cess return and the landlord has shown in this return Rs. 28-12 the annual rent of 5 bighas odd which as the judgment said was "presumably the value of the landlord's share of the crop for the last three years". The suit was for the rent of one bigha odd included in this holding and the claim was for Rs. 195-15 for the three years an average of Rs. 65-5 per annum, i.e., more than twice what the landlord had stated as the average value of 5 times the area in the same years.

If this ruling is correct, I think it requires that at the next amendment of the Cess Act an addition should be made to section 20 to enable such returns to be conclusive against the landlord for the years to which they refer, and evidence, after allowing for change in prices and cultivation, for subsequent years.

It is to be noted that section 40 (4) (b) is vague as to the point from which the 10 preceding years are to be taken. It has always been assumed that they are the years prior to the institution of the case and not those prior to the time of hearing. This difficulty is likely to arise in some of the pending cases.

188. The third item to be considered is the charges incurred by the land-lord in respect of irrigation under the system of rent in kind and the arrangements made on commutation for continuing these charges.

In the circumstances described in paragraph 185 the majority of the cases of commutation of irrigated land dealt with by the Settlement Department were cases in which irrigation was done from the Sone Canal and I shall deal with these first. The view taken by the Board as to the application of this clause is that if the effect of the irrigation has already been allowed for in considering the realizations from the land and the cash-rents of similar lands with similar advantages (which will in that case also be irrigated) there is no need to make any other allowance on this ground assuming that the existing arrangements continue (Appeals Nos. 241-245 of 1909). The practice in the canal-irrigated area is for the raiyat to pay the whole canal rate for cash-rented lands and for the landlord and raiyat to share the payment equally for producerented lands. It is, therefore, clear that on commutation of the rent of such lands the landlord's irrigation expenses diminish by half the canal rate and the usual way of allowing for this is to deduct half the canal charges from the realizations ascertained under section 40 (4) (b) before taking them into consideration. It is to be observed that the canal charges are paid for according to the area for which the lease is taken whether it is cultivated or not so that the mere fact that some of the land is occasionally uncultivated makes no difference to this deduction. The only difficulty that arises in this connection is caused by variations in the canal rate. These may arise from the fact that the land is sometimes irrigated on a yearly lease or sometimes on a seven-yearly lease, the rates for the two kinds of lease being different. Or they may be due to the fact that a general revision of rates is made such as the rise which took place in 1914 while the cases were being tried. It was often urged by the raiyats when an increase, or by the landlords when decrease, was in prospect

that we should look to the future rate rather than to the past in making the deduction. I do not think that these claims are sustainable. What we have to look to is the change in the landlord's irrigation expenses not to that in the raiyal's expenses. This, apart from expenses in the upkeep of village channels which presumably remain the same, consists in a reduction from half the canal rate in the past to nothing, and involves no consideration of what the rate may be in the future. When the land pays cash-rent and the raiyat is responsible for the whole of the canal charges it is a matter for his sole consideration whether the irrigation is worth what he pays for it. He will not be entitled to demand a reduction of rent if the canal rate is raised, any more than the landlord can claim an increase of rent if the canal rate is lowered. There is no reason, therefore, why prospective changes in a raiyat's irrigation expenses should be considered when commuting. Where the rate has varied in the past ten years it is not generally possible to get exact evidence as to the variations but a sufficiently accurate average for the whole period can be estimated. The amount is not large compared with the realizations so that a small error is unimportant. A somewhat different case is one in which canal irrigation has been introduced for the first time less than ten years before the case. In such circumstances it has usually been held to be fair to take into consideration under section 40(4)(b) only the period since the irrigation has commenced.

In turning to the cases where the lands are irrigated from works maintained by the landlord we are met by the difficulty that on commutation the future irrigation, unlike that from canals, becomes uncertain This arises in two ways. If the majority of the land irrigated from the work is commuted the landlord may not think it worth while to keep it in repair and working order, or if only a small portion of the land is commuted the landlord may withhold irrigation from it to force the raiyat to return to produce-rent. This latter is not an imaginary case. In Narayanpur Murhari, No. 173, thana Jahanabad, the landlord during attestation, to force the raiyats to agree to his claims for eash rent, let the water from his pain run to waste after the produce-rent lands had been irrigated and prevented the raiyats from irrigating their cash-rented lands although by custom they had the right to do so. In these circumstances it is difficult to apply section 40(4)(c). It was formerly sought to solve the problem by basing the commutation order on the assumption that irrigation would continue as before and adding that the rents fixed would only hold so long as that condition was fulfilled. This was of no effect because there was no legal provision for revising the rents if the condition was not fulfilled, and it is clear that this difficulty must remain unless some provision of a similar nature to that in section 33(2), Bengal Tenancy Act, is made to meet it. This would also be supported by an enactment such as the proposed Private Irrigation Works Bill providing for the upkeep of such works. This Bill is discussed in Chapter XI, but I think this is the most convenient place to suggest that in revising section 40, Bengal Tenancy Act, it should be provided that where the holdings are irrigated from a private irrigation work the person responsible for the upkeep of that work (to be ascertained from the irrigation record) should be called on to declare if he intends to keep it in working order after commutation. If he declares that he is not, then calculation will be done on the assumption that the work will not be kept up. If he declares that it will be kept up and fails to carry out his declaration, then on a complaint by the tenant the commuted rent may be revised. These provisions will be worked in conjunction with those of the Irrigation Bill. If it is thought decirable to the Irrigation Bill. If it is thought desirable to insist on the maintenance of a work the person who declared in a commutation case that he would maintain it will be the person ordered to maintain it or made to pay the costs if he does not. This will be an alternative procedure to that of reducing the commuted rents. On the other hand, if commutation has been done on the assumption that the work will not be maintained, but subsequently under the Bill it is decided to maintain it then, if the landlord is charged with this maintenance, it will probably be fair to raise the commuted rents.

189. The last point to be taken into consideration is improvements effected by the landlord or by the occupancy raiyat in respect of the raiyat's holding and to the rules laid down in section 33 regarding enhancement of rent on the grounds of landlords' improvements. I cannot find a single case in Gaya where any improvement had to be considered which was not an irrigation improvement and in such cases there is no need for a special allowance on this ground as the matter will have been dealt with under section 40(4)(e). Instances of the use of this sub-clause will probably be very rare.

190. Practically speaking, therefore, there were generally only two factors to be considered, viz., cash-rent for similar Combination of the various factors. lands with similar advantages and average realizations for 10 years or some shorter period with adjustment where necessary on account of canal rate. It remains to be discussed how these factors are to be combined. Before combining them it is necessary to reduce them to a common denominator and the most convenient method is to bring each to a rate per acre. The Board's instructions lay down that generally in the absence of special reasons the jamabandi area unit should be used in arriving at rates. In Gaya it has been found more convenient to use the survey acre, as the bigha is very variable and usually in practice the factors were more conveniently worked out as rates per survey acre ready to be applied, when combined, to the survey area. It is not an important matter what unit is used as long as it is the same throughout, and in this latter connection it is important to note that the jamabandi area is not the same as the survey area. In surveying, ails or field boundaries are included in the area of the adjoining field whereas in measuring for jamabandi purposes only the cultivated area is considered. We should, therefore, expect the survey area of a field to be bigger than the jamabandi area. A large number of measurements were made in the season of 1912-13 to ascertain what proportion of the area was taken up by ails. A block of fields was taken and the area of the interior ails together with half the area of the exterior ails was compared with the survey area. On the average it was found that ails occupied 5 per cent. of the survey area on paddy lands. In upland there was a good deal of variation. Ails are sometimes very broad in rabi lands and as long as exterior ails do not exceed 10 links in breadth they are surveyed by a single line, i.e., their area is included in the adjoining fields. The percentage in such cases will approach 10 per cent. On the other hand. e.g., in ahar beds, the boundaries of fields are often marked by imaginary straight lines between pairs of points and there are no ails at all. For each such case where a jamabandi area is used the appropriate allowance will have to be made.

Where jamabandi rates are lump rents not based on rates, an additional allowance has to be made for inaccuracy of measurement. This is usually put at 5 per cent. also, thus making up a total of 10 per cent. It is, therefore, usual in the absence of special reasons to add 10 per cent. to the jamabandi area before using it to find a rate if we wish to make this rate comparable with a rate based on survey area.

It remains to apply these considerations to the particular case. As we have seen, eash-rents for similar lands are usually got from the record-of-rights and are, therefore, already in the form of a rate per survey acre. If evidence of kittawari rates is used this will be a rate per bigha which will have to be reduced to a rate per acre and 5 per cent. deducted on account of ails to find the rate per survey acre. It is to be observed that as those rates are not based on measurement no allowance has to be made for inaccuracy of measurement.

As regards realizations there is no difficulty in arriving at a rate of theoretical realization per survey acre, but here we are met with the difficulty that it is not certain that all the produce-rent land has been cultivated every

year and the application of the rate to the whole area assumes that it has. The same difficulty in another form occurs when realizations are found from landlord's papers or receipts and the areas shown vary from year to year, their average differing from the survey area even after allowing 10 per cent. What area is to be used in order to obtain the rate?

The variations in the area may be due to two causes, first that a varying portion of the land is left uncultivated or cultivated with a crop such as sugarcane for which a special cash-rent is paid instead of rent in kind. Secondly, there may have been variations in the area of the holding due to new settlement (or encroachment which comes to the same thing in producerent lands) or abandonment by transfer or otherwise. In accordance with the usual custom the landlord's papers only show the area actually cultivated and there is nothing to prove to which cause the variations are due. Two landlords, the nine-annas Tikari estate and the Maksudpur Wards estate, base their appraisement papers on the record-of-rights and appraise plot by plot showing uncultivated area, so that it is simple, if tedious, to ascertain exactly the state of things in any year. I doubt if many others will follow their example and the only means of drawing conclusions apart from oral evidence is from the figures themselves. The principles to be followed are, I think, that if a well marked change appears in one year and is continued thereafter it should be treated as a change of area and the two periods treated separately. Otherwise, variations should be treated as due to varying degrees of cultivation. We are left with the problem of the difference between the average jamabandi area and the survey area. The average jamabandi area even when increased by 10 per cent. is generally below the survey area as we might expect owing to non-cultivation. If the rate is taken on the jamabandi area it is equivalent to assuming that all the land is cultivated, whereas on the other hand, if we take the rate on the survey area we are penalizing the landlord for lack of cultivation by the raiyat. The question becomes thus partly one of economics. Many of the produce-rent holdings are too large for the raiyat to manage with his available capital and labour. He gives full attention to his cash-rent land and any time he has left over is devoted to his produce-rent land. In a good year it is well cultivated: in a bad year it is left fallow to a large extent. This condition of things can hardly be laid to the blame either of the landlord or the raiyat. If we commute on basis of the realization per survey area we perpetuate the low rent: if we commute on the basis of the realization per jamabandi area the rent may be so high as to cause the raiyat to part with some of his holding. In the circumstances it has been usual to adopt a compromise and get the rate by dividing the realizations by an area midway between the jamabandi area with 10 per cent. added and the survey area, which amounts to the same thing as assessing the average fallow area as if it was half cultivated. This applies when the jamabandi area plus 10 per cent. is less than the survey area. If the jamabandi area plus 10 per cent. is greater than the survey area it is clear that the difference is probably due to land being included in the jamabandi area which is not in the survey area. In such cases the proper thing to do is clearly to take the rate on the jamabandi area plus 10 per cent.

In village Dhangain, No. 32, than Aurangabad, however, in which this method was adopted the Commissioner said in second appeal:—

"I am not aware of any rule authorizing these elaborate methods of calculation. The Board's rules for the guidance of officers employed in disposing of applications for the commutation of rent do not prescribe any such procedure and the lower courts have no authority to make rules of their own."

The plan adopted by the Commissioner was to calculate the realizations on the jamabandi area increased by 10 per cent. subject to a maximum equal to the survey area. This, however, seems to be even more opposed to the only ruling of the Board that I can find. In appeal No. 235 of 1909 it was held that realizations should be calculated on the area of the whole holding (i. c., survey area) not on the cultivated area (i. e., the jamabandi area). There would, therefore, appear to be still some reason for doubt as to the proper course, and in the circumstances I would still submit that the condemned method gives the fairest

result. It does not give the landlord any extra rent on the assumption that a state of things exists which does not. At the same time it induces cultivation by stimulating the raiyat to cultivate the whole of his bhaoli land or to give up to some one else the excess area which he cannot manage. One method might be suggested in such cases to mitigate the sudden rise to the tenant and at the same time to secure that the landlord gets a fair rent on the whole holding when fully cultivated. This would be attained by adopting the system of a gradually increasing rent, but such a method would require legislation as such a rent is not specifically provided for by section 40, while in other cases, e. g., section 105, it is. In any case this could not be adopted unless the only real proof of actual realizations, viz., landlord's genuine papers, were available and it was clear that an appreciable portion of the holding which is capable of cultivation was annually left fallow. When a rate of realization is deduced from theoretical considerations it has to be remembered that generally a reduction has to be made before applying it to the whole area as this is not presumably cultivated. The general extent to which this is so has been shown in paragraph 127 but each case has to be considered on its merits. In produce-rent lands irrigated from the Sone Canal and not forming part of a very large holding no part is usually left fallow. On the other hand in produce-rent land non-irrigated or irrigated from a variable source considerable allowance has to be made especially if the holding is large.

We have now got the average cash rate of similar lands and the average rate of realizations corrected where necessary on account of irrigation charges and non-cultivation. The long established practice has been to take a mean between the two and apply the resulting rate to the survey area to get the commuted rent. This rule is, however, not invariable (Final Report on the Settlement Operations in South Monghyr, page 61) and the exceptions have to be considered. One such case is where mankhap or chauraha rents are being commuted. Here prima facie more weight should be given to the average value of the realizations. But in these, as in other case, a more general consideration has to be paid to the rent in view of the Board's instructions that the rent fixed should be one such as, taking the seasons good and bad one with another, the raight will be capable of meeting and may, therefore, be reasonably imposed upon him. This, it is to be observed, may be more than what would be considered a fair and equitable rent under section 105, Bengal Tenancy Act, and in fact the words "fair and equitable" do not occur in section 40. Generally speaking the produce-rents realized are above the average cash-rents of similar lands and, therefore, by adopting the method of taking the mean we get a commutation rent also above the cash-rent of similar lands. Now under section 27 this latter is presumed to be fair and equitable till the contrary is proved. Even in cases where prior to the decision of the commutation case such cash-rents have been enhanced under section 105 we find the commutation rents above these. It is clear that both cannot be fair and equitable. In considering what rent the tenant is capable of paying, however, some comparision is desirable with the average cash-rent of similar land and I usually adopted as a working rule that in the absence of anything to show that such cash rates were unduly low the commutation rate should not be more than double of such cash rates. This principle was, however, not approved of in second appeal.

The Government of Rengal have recently issued orders that commutation rents should not, except for reasons to be stated, exceed a one-fifth of the gross produce. As the produce in Bengal usually bears a higher proportion to the cash-rent than in Bihar this works in much the same way.

Another test that can be applied is to examine the rent paid for producerent lands when special crops such as sugarcane are grown. This rent is invariably higher than the cash-rent of similar lands and the reason is not far to seek. Sugarcane occupies the land for over a year and leaves it in an exhausted condition and the crop grown on it in the following year is a small one and the landlord's share of it is also small. In the third year normal conditions prevail again. Therefore to keep up the average rent the cash-rent paid for sugarcane must be large. This matter is referred to in paragraph 163.

Chakah rents for similar lands which have been fixed recently also afford an indication of the proper commuted rent especially those which have been in operation for a few years without any difficulty arising. A case in point is afforded by several villages near Kanchanpur, thana No. 217, thana Aurangabad. In three villages Ghataro, No. 24, and Dhangain, No. 32, and Hasanpur, No. 25, the cash-rented lands being few, neighbouring villages were examined to see if there were any similar cash-rented lands there. In Kanchanpur some were found bearing the very high rent of Rs. 11-2 per acre. The officer dealing with the case in Hasanpur took these into consideration under section 40 (4) (a). Later on when the Ghataro and Dhangain cases were taken up by another officer he examined these rents to see why they were so high and found that they were chakath rents which it had been agreed to fix as ordinary cash-rents at attestation. He, therefore, did not use them under section 40 (4) (a). On appeal I held he was justified and that their proper use was as a test to see if the commuted rates were such as the raiyats would be able to pay. The Assistant Settlement Officer had rightly referred, in my opinion, to the probability that, if newly commuted rents were used under section 40 (4) (a), subsequent commutation rates gradually would work up to the level of actual realizations. An exactly similar danger in the case of the use of prevailing rates under sections 31 and 31-A, Bengal Tenancy Act, was foreseen and provided against by section 31-B. In second appeal, however, it was held that such rents should be treated as ordinary money rents under section 40 (4) (a).

Another instance is given by village Uchauli, No. 633, of thana Aurangabad. Here previously, in 1913, the land had been held on chakath rent at Rs. 2 and Rs. 2-4 a bigha. This evidence had not been noted by the Assistant Settlement Officer who had commuted at Rs. 4 a bigha having found the average value of landlord's realizations by estimating the outturn of the land and proceeding on the oretical grounds to be Rs. 7-8-0 per bigha. The outturn as taken by the Assistant Settlement Officer was very carefully ascertained and undoubtedly correct, yet the landlord had temporarily commuted the land at rates less than 1-5th of the gross produce. The reason is obvious, namely that his actual realizations were never Rs. 7-8-0 per bigha. The commutation rate was reduced to Rs. 3 per bigha which was upheld on second appeal.

191. From what has been said above it is evident that a landlord stands to gain by refusing to produce papers Premium on the non-production of papers. since no inference is allowed to be drawn against him on this account. The case of Gobardhanpur Kanap dealt with in paragraph 182 is instructive since, if the papers had not been otherwise available, it cannot be doubted that the commuted rents would have been fixed at about twice the actual realizations in some cases and at 50 per cent, above them over the whole village. Another instance of the advantage the landlord stands to gain by not producing papers is given by the case of village Darua No. 48, thana Nabinagar. The average cash rents of similar lands varied from Re. 1-11-3 to Rs. 2-15-6 per acre. The realizations calculated theoretically on an outturn which was certainly approximately correct varied from Rs. 8-12-0 to Rs. 9-11-3 per acre. The commutation rate was fixed at Rs. 5-13-0 per acre. On first appeal the following facts were considered as corroborating the general probability from experience that these theoretical realizations were too high. The Road Cess returns showed that the realizations from these lands in 1306-08 Fasli (1899-1901) averaged Rs. 2 per bigha. The Revaluation Deputy Collector assessed them at Rs. 3. Allowing for the change in price, i.e., multiplying by the proportion between the average prices of the ten years preceding the case and those of the three years 1899-1901 and converting to acres this gave an average realization in the ten years preceding the case of Rs. 6 an acre. In the neighbouring and precisely similar villages Rabidas Khap, No. 47, and Karmari, No. 74, thana Nabinagar, landlords had produced their papers which showed average realizations of about Rs. 5 per acre. On these grounds the commutation rate was reduced to Rs. 3-8-0 per acre. The original rate of Rs. 5-13-0 was restored in second appeal. The Commissioner wrote:-

"The Settlement Officer's estimate of the value of the produce would mean that the net produce per acre of paddy on plots 321 and 360 was about 4½ maunds on the average per year.

Now if a field only produces on the average a net produce of 4½ maunds of paddy per acre no cultivator could afford to cultivate rice in it. Estimates of this kind show a want of knowledge of village agricultural conditions."

What was estimated in first appeal was not the value of the produce but that of the landlord's realizations and from what has gone before it will be clear that a realization of Rs. 6 an acre does not postulate an outturn of  $4\frac{1}{6}$  maunds but is quite consistent with an outturn of 8 maunds which was accepted as correct on first appeal. The error of assuming such a relation between the two is precisely that into which Dr. Grierson fell when he based on an estimate of outturn so arrived at, the statement that 45 per cent. of the population of Gaya were often in want of food (paragraph 30 of Mr. Stevenson-Moore's report on the material condition of small agriculturists in Gaya). The commutation rate in Rabidas Khap was Rs. 2-11-0 per acre. This was upheld on second appeal. In Karmari the rate was Rs. 3-7-0 and there was no second appeal.

Results of the cases.

Cases decided in Pakribarwan thana were some which concerned village Dhondha taken up in the South Monghyr operations but subsequently transferred to Gaya. The first noticeable point is the number refused or withdrawn, and there is no doubt that many of these were withdrawn under pressure by the institution of suits for arrears of produce-rent. I took the villages where the bulk of the cases had been withdrawn and examined the District Judge's registers to see in how many of these cases rent suits had been filed within a year after the institution of the commutation case. Out of 58 such villages rent suits had been filed in 27 and these suits were all for three years' arrears so that it cannot be said that they were due to the raiyats' ceasing to pay rent as soon as the section 40 application is filed (which they usually do). Owing to the delay in taking up the balance of cases this cause will certainly operate to increase the number of withdrawals.

A comparison of the rents fixed with the average cash rates of the thana is instructive.

Thana,	Average cash rate of thans.	Average chakath rate of thana.	Average rate fixed in commutation,	Average cash rents of lands similar to these commuted.	Average realization per acre from crop-cutting experiments and other available sources as found by original court.
Arwal Daudnagar Aurangabad Nabinagar	0 0 5	Rs. a. p. 8 8 0 6 2 3 4 11 9 3 1 6	Rs. a. p0 1 6 8 11 0 8 8 0 4 4 0	Rs. a. p 8 9 3 7 0 9 5 10 6 2 11 6	Rs. a. p. 15 6 6 11 13 0 10 1 1 5 10 6

The comparison shows, I think, the groundless nature of the assumption of high realizations in produce-rents. It may be noted that the figures in the last column except in the rare cases where they are based on genuine papers make no allowance for peculation. What that amounts to is shown by a comparison with the chakath rents. On the basis of these figures I think it is clear that the commutation in Aurangabad and Nabinagar were made at too high a rate.

193. There were appeals from both sides in most cases. The results are given in Appendix XVI. The one case in Arwal which was reversed in first appeal was a case where a raiyat had applied for commutation having purchased the holding from the attested tenant. Commutation was allowed by the first court but as it appeared that there was no custom of transferability in the village without the landlord's consent which had not been obtained (the purchaser being a landlord of an adjoining patti), the commutation was set aside on the ground that the applicant had no locus standi. The result of the appeals was that an average rent of Rs. 8-10-0 per acre fixed originally was reduced to Rs. 8-4-9 persacre on first appeal and raised to Rs. 9-4-3 on second appeal.

194. The trying of these cases was sufficiently difficult and it was not made more easy by the accusations of partiality Accusations of partiality. towards the tenants by the Settlement Department which were freely made during this period. If one starts with the assumption, which is quite natural for anyone not acquainted with the practical working of the bhaoli system, that bhaoli rents as realized average from two to three times the cash-rents for similar lands it naturally appears unfair to the landlords to fix rents on commutation which are not much above those eash-rents. When one realizes the fact, which I have tried in this chapter to prove, that this assumption is untrue in practice the matter assumes a different aspect. The weight to be attached to the evidence in those cases depends entirely on which view one takes of the facts. I have, I think, given good reasons for believing the view of the Settlement Department to be correct. It is open to any one to differ from this view but until it is shown to be wrong it is not open to anyone to accuse the department of dishonest partiality in following it.

- 195. Several amendments of section 40, Bengal Tenancy Act, have been proposed amendments in section 40.

  Proposed amendments in section 40.

  Proposed amendments in section 40.

  proposed or indicated in the preceding paragraphs, and it is unnecessary to repeat them except briefly. The main points are:—
- (1) Provisions are required indicating when commutation may be refused and an appeal allowed against such a refusal.
- (2) Tenure-holders as well as occupancy raiyats should have the power to apply.
- (3) Some machinery is required for revising commuted rents if conditions as regards irrigation change.
- (4) Some indication should be put in the section that the rents fixed are to be fair and equitable and possibly power given to officers to refuse compromised rents which are neither.

An example of the last point which has not been previously mentioned is given by village Hathiara, No. 237, than Daudnagar. The average cashrents for similar lands in the vicinity varied from Rs. 4 to Rs. 10 per acre according to the blocks into which the area was divided, only a few being similar to lands held at more than Rs. 6. The average realizations as found from counterfoil rent receipts varied from Rs. 3 up to 13, the bulk being about Rs. 5 or 6 per acre. On first appeal by the landlord a compromise was filed in most cases greatly increasing the rents fixed by the Assistant Settlement Officer. A few of the raiyats repudiated the compromise but several admitted it, saying they had no option but to do so. A large number were absent. In the case of the absentees and those who repudiated the compromise the appeal was dismissed. On appeal to the Commissioner the petition of compromise was again filed in these cases and the rent decreed accordingly. I quote one or two instances of the way in which this worked:—

Tenant.	Rate per sere of similar cash-rent land.	Realization per acre from receipts.	Rate fixed by Ausistant Settlemont Officer.	Rate fixed by compromise.		
Jadugir Koori Heman Dabe Ram Kishun Mahto	Rs. 4 4 6	Hs. a. p. 3 11 3 3 3 3 8 7 6	Rs. a. p. 3 12 0 3 6 6 7 4 0	Rs. a. p.  8 0 0 7 13 0 9 2 0		

And there are numerous other instances where the rents are double what a fair rent would be.

## CHAPTER XI.

## IRRIGATION.

196. The importance of irrigation in the district of Gaya is well known;

Importance and extent of irrigation.

the effect of irrigation in relieving the district of liability to famine has already been pointed out, and the extent to which the crops are dependent on irrigation is clearly shown in Appendix II. No less than 55 per cent. of the net cropped area of the district is irrigated. This percentage is made up as follows:—

Government canals	•••	•••	•••	` <b></b>	•••	4.29
Private canals	•••	•••	,	•••	•••	15.96
Tanks and ahars	•••	•••		***		26.83
Wells	•••	•••	***		•••	5.98
Other sources, prince	ipally d	irect irrigatio	n from ri	vers	•••	1.77
				Total	•••	<b>54</b> ·8 <b>3</b>

It is difficult to say how far the relative figures for private canals and ahare are correct since in many cases the two are inter-dependent. The water from an ahar is often distributed through a channel while on the other hand ahars are often filled by water from a private canal. It is impossible, therefore, to separate properly the irrigation from the two sources. The combination of the two percentages gives a measure of the extent of private irrigation under landlords' control, since irrigation from wells and other sources is done entirely by the raivats. The lowness of the figure from private canals or pains in Arwal and Daudnagar thanas shows that the inaccuracy of classifying subsidiary channels from the Sone canal as private canals which occurred in some thanks of Shahabad has not occurred here to any extent. This is confirmed by the fact that the area irrigated from the canal as recorded by the Settlement Department amounted to 78,213 acres. This area is almost entirely included in the thanas surveyed in 1912-13 for which year the area stated by the Canal authorities to have been irrigated from the canal was 84,033 acres, the average for ten years being 74,553 acres. सन्धमव जयत

The following table shows how the irrigation in Gaya compares with that in other districts of Bihar:—

,						Irrig	ated area a	ind hov	w Irrigated					
			Irrigated wells.	from	Irrigated Governs Causi	neut	Irrigat from pri cauali	vate	Irrigat from tank Ahars	s and	Irrigation of source	her	Total	
Serial No.	Name of District.	Net cropped area.	Arca in geres.	Percentage to net crop-	Area in acres.	Percentage to net crop-	Aren in acres.	Percentage to net crop- ped area.	Area in acres.	ercentage to net crop-	Area in acres.	Percentage to net crop-	Arca in acres.	Percentage to not crop-
1 2 3 4 5 6 7 9 10	Muzaffarpur Saran Champaran Darbhanga North Monghyr South Monghyr North Bhugaly r South Bhagalyr Paloa Shahabad Gaya	1,555,291 1,984 010 1,447,688 1,642,843 676,468 794,013 837,178 704,077 1,673,593 1,746,810 1,828,763	18, 823 139, 402 1, 412 6, 606 1, 560 28, 883 1, 6, 7, 8, 512 7, 133 84, 051 109, 393	1.21 10.86 10 39 23 8.63 2. 1.21 6.80 4.65 5.98	23,962 588 950 78.213	2-23 23:28 4:29	1,012 4,027 6,785 3,161 2 55,093 97 116,2 6 23°,166 66,887 291,947	*06 *47 *19  6*94 *01 16*51 21*-2 3*83 15*06	3,682 35,155 6,711 40,893 1,745 155,930 4,519 29,009 201,383 179,081 490,791	24 2·80 39 2·77 26 19·64 53 5·64 21·35 10·26 2 · 83	6,311 14,080 14,312 52,671 14,169 96,288 32,904 89,960 52,929 12,328 32,429	1-10 1-99 3-11 2-10 12-38 3-79 13-77 4-93 -70 1-77	20,828 194,424 28,223 109,391 17,475 338,194 39,387 253,698 648,563 781,848 1,002,771	1-92 16-14 1-95 6-46 2-59 42-59 4-54 36-03 59-94 41-92 5-1-83

It will be seen that Gaya is only exceeded in the extent of irrigation by Patna, these districts being the only ones where the irrigated area exceeds 50 per cent. of the net cropped area. In comparing the percentages of irrigation from different sources certain allowances must be made. In South Monghyr* and South Bhagalpur† a certain proportion of area irrigated from other sources should have been included in the area irrigated from private canals and ahars. In Shahabad‡ a certain proportion of area shown as irrigated from private canals is really irrigated from Government canals. It is probable, judging from the figures given by the Canal Department reproduced in paragraph 41 of the Patna Final Report, that a similar mistake occurred to some extent in Patna also. In this case the position of Patna and Gaya as regards dependance on private irrigation works is not very different.

197. The following table shows for the thanas and subdivisions in the district, the percentage on the net cropped area of the area irrigated by various methods:—

				emona			
Name of thans.		Irrigated from wells.	Irrigated from a Government canals.	Irrigated from private canal.	Irrigated from tanks and abars.	Irrigated from other sources.	Total.
Jahanabad Subdi	VISION.						
Arwal		10.10	29.82	9.21	16.76	2.18	<b>6</b> 8·07
Jahanabad		9.78	-03	30.05	24.75	3.99	68.60
Total		9.88	9.59	28:37	22-18	3-41	68:43
Aurangabad Subdi	Algion						
Daudnagar		3.82	23.40	2.60	12.13	· <b>40</b>	42.35
Nabinagar		2.16	•04	4.87	29.79	•98	37.84
Aurangabad		2.13	6.32	4 48	22.67	1.34	36· <b>9</b> 4
Total		2.58	8-92	4.13	21.79	1:04	38.41
SADR SUBDIVIS	10 N.		सत्यमेव	जयते			
Town Gaya		39.43		5.08	36.74	-06	81.31
Mufassal Gaya		4.69		16.02	32.78	-73	54.22
Tikari		<b>5·4</b> 6	•13	21.46	22.59	1.22	50.86
<b>≜</b> tri		6.77		19.08	36.47	•90	63-25
Barachati		6.43	•••	12.44	37.09	1.73	57.68
Sherghati		8.06	•••	11.04	29.24	1.96	50.29
Total		6.14	.03	16.16	30.82	1.26	54.41
NAWADA SUBDIVI	SION.						
Nawada		8.56		32·10	31.24	2.70	74.60
l'akribarwan		^ 4·67		13.77	38:41	2.21	69 00
Rajauli		<b>7</b> ·69		28 07	23.59	1.36	60-73
Total		7:51		<b>27·2</b> 9	31.61	2:38	68.79
Total of the dist	riot	5.98	4.29	15•96	26.83	1.77	51.8

^{*} South Monghyr Final Report, paragraph 137.

[†] Bhagalpur Final Report, paragraph 207.

³ Shahabad Final Report, paragraph 314.

These figures show how dependent every part of the district except the north-west is on private irrigation. The low figure in Daudnagar apart from the Government canal area is due to the high land in the east of the thana around Goh. In the south the importance of private canals gives way to ahars except in Rajouli where a number of rivers are available which are suitable for feeding pains.

198. Irrigation from the Sone canal is confined practically to the Arwal, Systems of Irrigation—(a) Government canals. Daudnagar and Aurangabad thanas. The canal starts from the anicut at Barun and about four miles further north divides into two. The Main eastern canal which was at one time intended to run to Monghyr District was only excavated for three miles as far as the Poonpoon river into which it falls. The branch canal known as the Patna branch canal runs north-cast, more or less parallel to the Sone river till it goes into Patna district. The total length of the canals in the Gaya district is 44 miles and of distributaries 165 miles. The system of working has been described in paragraph 41 of the Patna Final Report and need not be repeated. The rates have recently been raised and are now—

- (1) rabi season leases from 15th October to 25th March at Rs. 2-8 per acre;
- (2) hot weather leases from 25th March to 25th June at Rs. 5 per acre,
- (3) leases during the same period at Rs. 2-8 for each watering;
- (4) kharif season leases between 25th June and 15th October at Rs. 4-8 per acre;
- (5) seven-year leases for block areas for any kind of crop between 25th June and 25th March at Rs. 3-S per acre.

As to the payment of these rates the usual custom is that in produce rent lands they are borne equally by the landlord and tenant. In cash rented lands the tenant pays the whole rate.

growing near villages and it is not unduring the night, relays of men working the lift. Wells are also used for irrigating sugar-cane when no pain is available. The total number of wells in the district is 37,412; 29,325 being masonry wells and 8,087 earthen wells; or 1 to every 49 acres of net cropped area which is fewer than any other South Bihar district. This is due to the large area where the soil is rocky. It is only in the north of the district that the subsoil water is near the surface and there the irrigation is largely supplied from other sources. The records only show wells which are permanent or at least constructed to last for more than a year, but a certain amount of irrigation is done from temporary wells which fall in again after use. The mot is not largely used in Gaya, the great majority of wells being utilized for irrigation by means of the bucket and lift.

200. The irrigation from pains and ahars is the most important in Gaya as these two sources between them are responsible for irrigating 43 per cent. of the net cropped area.

In the south of the district close to the foot of the Chota Nagpur plateau where the slope of the ground is sharp and the watershed between the rivers is well marked, there is not a great scope for pains which never get very far from the rivers giving rise to them. Most of the upland irrigation is done from ahars which store rain water. As we go north the slope becomes gentler and the watersheds not so marked. The result is that the pains are able to traverse the ground between the rivers and the ahar is used as a store-house for pain water rather than a mere catchment basin. The difference between the two sets of conditions will be clearly seen by examining the irrigation maps of thana Barachati and Jahanabad and the figures given in paragraph 197.

An ahar as is well known consists of an embankment or alang across the line of drainage with two side embankments or bandhuas running backwards up the line of drainage, thus forming a catchment basin or storage place for water. Sometimes there is spill weir in the alang called a chahka or one at the and of the bandhua called a hanva to prevent an excess of water accumulating.

When the water is required it is either got by cutting the alang or by opening a pipe, either pakka or made of a tar tree trunk through the alang, which at ordinary times is closed.

A pain or irrigation channel may be of any size. The smaller ones are those found originating in ahars an carry the water of the ahar to places where it is required. The larger ones have their origin in rivers. Where the river is deep with a clay bed such as the Poonpoon or the Jamuna the water has to be raised and this requires a substantial bandh across the river. The result is that from such rivers the pains are few. The other more numerous class of rivers have high sandy beds with low banks and the mouth of the pain is an opening in the river bank. When the river is high the water flows in naturally. When the river is low the water is turned into the pain by erecting an embankment across the flow of the river or by cutting a channel with a sand plough (kurur) into the underlying sand in which there is generally water. The beds of these rivers are usually high so that this does not make the pain unnecessarily deep and the fact that the slope of the country is marked soon allows the bed of the pain to rise to near the level of the ground while still retaining sufficient fall to ensure the flow of water in it. In his "Notes on Gaya" Dr. Grierson explains this at length and shows also why it is desirable that the pain should take off at a curve in the river. It is this very arrangement, however, that increases the probability of the river's course being diverted down the pain as occurred in the case of the Sakri river, which some years ago diverted its course down a pain near Worsleyganj covering the country with sand and rendering useless the pains taking off from the river just below. The question of the control over these pains will be dealt with later.

The larger pains divide off into branches (shakhs) the water flowing into these branches either naturally or by being diverted at particular times by embankments (garandis) in the main pain. The water is taken from the pains to the fields by lifting with lever and bucket (latha kunri) or similar method or by cutting an opening (mohana) in the bank which may or may not lead into distributary channels (tanrua, karaha, bhokla). Although the word mohana means 'the opening' it is commonly used in the district to mean the channel leading from the opening. Very often the water from a pain is not used to irrigate the fields directly but is stored in an ahar and is distributed from that ahar when required.

Where water is taken by turn from a pain (parabandi) the village whose turn it is erects an embankment usually near the place where the pain leaves the village so as to raise the water to a sufficient level to flow into the side channels. When its turn comes to an end the village with the next turn having previously prepared its own embankments has the right to cut the embankment erected by the village whose turn has ended. Other customs in respect of parabandi are dealt with in para 208.

201. Irrigation from other sources is of minor importance. Such irrigation from tion is usually direct irrigation from rivers. The water is lifted either with a bucket and lever or a karin (water scoop) or chanr (swing basket). If the level of the field above the water is at all great a double lift has to be used.

An arrangement occasionally made, e.g., on the Khuri river near Kannauj, thana No. 255, thana Nawada, is to have a masonry well built close to the river bank with a passage connecting it with the river. This is known as a kanari. They are so big that usually four lifts can work in each.

202. It is obvious that the record-of-rights in Gaya would be incomplete without a record of the various irrigation rights and customs that exist. In the first year's area the system of making these records which had been adopted in South Bhagalpur, South Monghyr and Patna was followed. For irrigation from Government canals no record was required, the irrigation being done by contract. As regards private irrigation, in each village a record was made of each source of irrigation in that village showing who constructed it and whose duty it was to maintain it, the area and position of the land irrigated from

it and any special customs regarding it. For pains which affected more than one village a descriptive record was made showing the arrangements made for getting the water into the pain, the rights of the various villages in the water and the arrangement for distribution. While these records did well enough for the fairly simple pains in that area it was found that it was difficult to ensure that the information was complete on every point, and to find information as to a particular point it was often necessary to read through the whole record. Two forms were therefore drawn up—one for the village irrigation record (fard abpashi) and one for the record of rights in irrigation schemes affecting more than one village. Details of these forms as sanctioned by the Board of Revenue in letters Nos. 17-110-5, dated the 9th December, 1914, and 17-110-7, dated the 14th January, 1915, are given in Appendices XXIV and XXV. It was thought that these would provide for the additional complications that were expected in the second year's area.

This hope was not fulfilled in respect of the pain records and great difficulties were experienced in arranging the information in the form so that it should be intelligible. Several methods of arrangement were tried, and that finally adopted is due to Mr. J. R. Dain, I.c s., who was in charge of attestation camps in thauas Jahanabad and Tikari where the most complicated systems occurred. The principle was to arrange the plot number of the pain in column 3 of the form in order as they occurred along the pain and to make the order of villages in column 2 depend on this. Where a branch takes off a line is drawn across the form and the name of the branch written. The plot numbers on the branch are then followed out to its conclusion. If a sub-branch takes off from the branch, that is followed out to its conclusion before the branch is resumed. It is easy at any point to see if a particular plot is in the main pain or not, because the serial number is continuous for the main pain. If a branch takes off in the plot number the serial number of which is 5, the plots on the branch are numbered 5 (1), 5 (2), 5 (3), etc. If a sub-branch takes off in the plot with serial number 5 (3), the plots on it will be numbered 5 (3) (1), 5 (3) (2) and so on. It was necessary to have a definite rule for ascertaining if an offshoot should be treated as a branch or not. Clearly it is only necessary to treat it as a branch if it goes beyond the village in which it takes off, otherwise it can be treated more simply as a channel from a mohana and entered in column 4.

The entries of mohanas in column 4 and those of bandhs, and right of taking water in columns 6 and 7 refer to the plot numbers in column 3. The entries in column 5 and column 8 usually refer to the village in column 2 and those in columns 9 and 10 to the portions of the pain specified. These points are illustrated by a reference to the record of Majhiawan pain which is reproduced in Appendix XXV with an index map and the rules for the preparation of the record which are reproduced in Appendix XXVII.

203. It was necessary to have some criterion as to whether any particular information should go into the general fard ubpashi.

Connection of the scheme records with the fard ubpashi and it was clearly undesirable that any over-

lapping should occur. It was therefore decided that the general record should only contain information as to rights of villages as between each other. Any right or custom which related to the distribution of the water inside the village was to be left to the village irrigation record. The latter contains a reference to any pains that pass through the village but for details of their construction and cost, etc. a reference is made to the general record. Cases often occurred of small pains lying in two villages, only one of which had any rights, or natural channels from which water was taken by lifts without any obstruction of the flow. In such cases an elaborate record was unnecessary and the facts were entered in the fard abpashis concerned since there was no conflict of rights between the villages.

204. As already stated the arrangement of the information in these records was not decided upon till late in the season of 1914-15. The result was that most of the records prepared on other arrangements had to be rewritten in recess. They were written up as far as possible from the records prepared, and any information which was lacking had

then to be supplied by local enquiries. In cases where inconsistencies were found or the check disclosed the fact that a change in the substance as well as the form was required the parties were given notice and heard before the change was made. In the third year's area, attested in 1915-16, each camp had one or two munsarims who had been trained in writing these records in recess and consequently the recess staff in 1916 though it had to deal with 500 records as against 400 in 1915 was about one-third the size and finished the work in less time.

The principal difficulty in the field was to arrange for the preparation of records affecting villages situated in different camps. First of all there were pains which ended in one year's area, but began in another year's area. In these circumstances the record of the pain was prepared as far as possible in the first year and left to be completed when the area in which the remainder lay come under attestation. It was not found necessary to hold up the final publication of the records of villages affected by the pain as although the village irrigation records do depend on the general records, this dependence was in matters of detail which were not in general liable to be affected by the subsequent enquiries. The few alterations that had to be made subsequent to final publication were made under section 108-A. A different type of difficulty arose when a pain fell wholly in one year's area but affected villages lying in more than one camp. A definite rule had to be made that the record should be in charge of the officer in whose camp it started. As the record of the pain was, under the Board's orders to be bound up with the record-of-rights of the villages in which it started, this was the obvious arrangement but it necessitated very careful arrangement of camps and centres so that the draft publication of pain records and the village records dependent on them should not be unnecessarily delayed, and full discretion was given to the Assistant Settlement Officer in charge to make other arrangements if these would obviate delay. With this elasticity the delay was reduced to a minimum.

When pains beginning in Gaya district ran into another district, a state of things which frequently occurred on the borders of Patna and Monghyr, the pain record had to be brought to an abrupt close, it being noted in the remarks column that the pain at this point went into another district. When the revision of the records of South Monghyr and Patna is taken up it will be advisable to examine the index irrigation maps of thanas Arwal, Jahanabad, Atri, Nawada and Pakribarwan to see what pains run into Patna and Monghyr from Gaya. There will then be no lack of continuity in these records as there is at present.

205. The forms for the general record are, it must be admitted after experience, unsuitable, and a set of forms has been devised (vide Appendix XXVI) which, if used at the next survey, will reduce the bulk of the record by half and render it easier to compile, check and understand. The difficulty with the present forms arises from the fact that it is necessary to compress into one form information of different kinds which is more easily expressed if given in separate forms. The present form, therefore, involves frequent repetition and cross references. The idea of the new forms is to separate the information into three parts:—

- (1) General information, such as details of construction and repair of the *pain* and similar information which can be most conveniently put in one place. This is shown in Form A.
- (2) Topographical details giving a list of villages in order along the pain on the present system showing mohanas, bandhs and right of taking water by lifts. This is in Form B.
- (3) Finally form C shows the details of use and control of the water by parabandi and the rights of selling water. These are more conveniently shown according to villages.

The simplification that would be introduced by these forms is shown by the fact that the extremely complicated record of the Tulbulia and Batahia pains referred to in paragraph 208 takes 16 sheets of the present form. It can

be entered far more clearly in one sheet of Form A, 2 sheets of Form B, and one sheet of Form C.

206. The intricacy of the records and, in the second year's area, the necessity of re-writing them for the reasons Check and final preparation of the records. explained, made a very careful check in recess essential. The first step was to check the trace of the pain on a scale of two inches to the mile, which had been prepared in the attestation camp, with the 16 inch maps of the villages concerned, to see that it showed every part of the pain. All the plot numbers borne by the pain in its course were entered in the trace. The record was then checked with the trace to see that every part of the pain had been entered in the record and it was then checked to see that it was in accordance with the rules and that all cross references were correct. Finally it was checked with the village irrigation records of the villages affected to see that there was no over-lapping and that references from one to the other were correct. Under the orders of the Board contained in letters No. 17-110-5, dated 9th December, 1914, and No. 17-127-2, dated 5th June, 1915, the traces were then combined into an index map (scale 2 inches to the mile) for each thana, on which the pains were printed in blue and numbered. In the second year's area the plot numbers of the various portions of the pain were added in some thanas, but this made the maps crowded and was dropped. A certain number of these index maps were printed without the pains being coloured and these were used for the record-of-rights. For each pain record one of these maps was taken and the pain concerned coloured up in blue and the plot numbers added where this had not already been done. The name of the pain in the reference list at the side of the map was underlined in red. This map will be found in the pocket of the volume of the record-of-rights containing the pain record, i.e., the volume containing the record of the village in which the pain originates, and can be easily found by reference to the general irrigation index map. Pains starting in one than and ending in another are distinguished in the second by a letter added to the number. Thus a pain numbered (10 T) in the irrigation map of Jahanabad indicates a pain originating in Tikari thana. It is important for courts to remember when using these maps that they are merely index maps. For accurate large scale maps a reference must be made to the 16 inch maps of the villages concerned. A caution to this effect is printed on the maps. सन्धमन जयत

Under the orders of the Board a copy of the pain record is filed with the record of each village affected by it. These copies are not the finally published record and are merely bound up with the record of rights for convenience. In case of any doubt a reference should be made to that record which as already noted will be found with the record of the village in which the pain originates. A slip giving a reference to this village will be found in all the copies. The making of these copies, over two hundred in the case of some pains was very laborious and exceedingly difficult to carry out with accuracy. There are bound to be clerical errors in them and seeing that the finding of the volume containing the finally published record is an easy matter these copies might be dispensed with in future.

207. Copies of the village irrigation record or fard abpashi were given to landlords in the same way as the copies of the record for distribution.

landlords in the same way as the copies of the khatians. If there was any doubt which landlord should get it, when there was as to more than one claimant, the copy of the fard abpashi was given to the one who got the khatians. A copy was also given to the jeth raiyat though it must be confessed that it is doubtful if he or any one else in the village can be depended on to represent the raiyats' interest if it comes to a question between them and the landlord.

No copies of the pain records were given to the raiyats as it was thought unnecessary seeing that the record concerned relations between villages rather than between raiyats. A copy was given to every landlord who got copies of the khatians under the rules, provided that he held at least an eight annas interest in one village irrigated from the pain. No landlord, however, got

more than one copy though he had several villages concerned. This was difficult to arrange and there was a certain amount of confusion in the distribution of these copies in the second year's area. For the third year's area, however, a small staff worked out the distribution, and notes of the irrigation records which the landlord was to get were made on each maliki receipt, and there was no trouble in the distribution at recovery. Copies of the irrigation maps were not distributed, but a certain number were printed for salc.

208. The general methods of irrigation have already been described, and it is now proposed to examine more closely the customs that have been found to exist in the application of those methods. The most important customs are those that occur in connection with parabandi or the distribution of water by turns. It is clear that without some arrangement of distribution in complicated schemes, some villages would get no water at all when the supply was limited and the demand strong. This combination of circumstances usually happens about September-October. We therefore find that the parabandi arrangements usually begin about the beginning of Asin and last for as long as necessary (ta zarurat) or to some fixed date. At other times of the year it is usual to leave all branches open. This is the meaning of the printed entry at the top of the remarks column which does not apply in the case of pains in which there is no parabandi.

Parabandi is not found only in pains. Instances occur when two pains taking off a river have a parabandi in the water of the river (e.g., the Dahiar pain and Belahari pain in than Barachati). Parabandi between two pains issuing from the same ahar has also been found. Instances of parabandi except in pains are rare, however, and do not call for special notice.

The first question that arises as regards parabandi in pains is as to what happens if during the parabandi the water ceases to flow. Does the village in whose turn this occurs start again where it left off or does it lose its turn? The latter is the general custom to which we have found only one exception in the district, namely in the Dhardhari pain in than Barachati. Elsewhere the invariable custom is for parabandi to depend solely on the time at which it begins. Thus to take the record reproduced in Appendix XXV. The total cycle lasts for 17 days. Suppose that parabandi began on 1st October (the actual date is determined in the way laid down in note (4) in the remarks column opposite serial No. 3). On October 14th owing to a block at the mouth of the pain water ceases to flow and the block is not removed till October 19th. On October 14th village Majhar, serial No. 13, is having its turn of four days which began on October 13th. When water-flow is established again on the 19th it will not be Majhar that starts taking water but Majhiawan, serial No. 19, which has the first turn of six days which would in the ordinary course, have begun on the 18th October. In the Dhardhari pain of than Barachati the custom is that matters go on again from the point where they left off.

It is clear that some sort of rule like this is essential, and on the whole it works fairly. In a recent criminal case where trouble occurred over a dispute as to who should begin irrigating after an interruption of this kind the matter was complicated by a plea that in addition to the turn allotted, each rillage had an additional time to allow of the level of the water, banked up against an embankment in the pain to reach the higher level of the distributing channels. This plea was accepted though it has no foundation in fact, and as the District Judge had pointed out, introduces an uncertain element which it was the object of the system to get rid of. The paras include in every case all the time necessary for bringing the water to the place required. Where special arrangements are required, these are made independently. Thus, especially when the village having the first turn is at the end of the pain, extra time is added to its first turn to allow for the slowness of the flow for the first time in a dried-up sandy pain. Such an instance is found in the record in Appendix XXV (vide note in remarks column of serial No. 19). This period is known usually as khurbhijawan (hoof-wetting) or chulah jalawan (stove-burning), both of which terms show the amount of water required to indicate that parabandi may begin. The latter term is little obscure but compares the provision of sufficient fuel to a stove or oven to make it cook to the provision of sufficient water to the dry-bed of the pain to make it irrigate. This is, of course, only added to the first turn of the village and not to subsequent turns.

Occasionally complications occur owing to there being more than one parabandi in the same pain. This is illustrated by the case of the Tulbulia and Batahia pains in thana Nawada which both take their rise from the river Khuri and after a time join and form one channel. The villages in the latter part of the joint system each have two paras, one in the water of each pain. The cycle in the Tulbulia pain is 192 hours the turns being measured in hour and that in the Batahia pain is eight days the turns being measured in days. Thus village Malikpur, No. 338, thana Nawada, has the first turn of 64 hours in the Tulbulia pain and the second turn of two days in the Batahia pain.

These pains also illustrate the occurrence of parabandis in branches. Such parabandis are of two kinds. It may occur that in the main cycle a certain branch has a turn and this turn is subdivided among the villages on the branch; or it may be that a village having a definite turn in the main cycle takes water in that turn through a particular branch. The latter class is illustrated by the above pains. Village Goghar Karahi, No. 340, than a Nawada, has no para in the Batahia pain but has the second, fourth and sixth turns of  $7\frac{1}{2}$  hours, 18 hours and seven hours respectively in the Tulbulia pain. The first turn is taken from one branch the third from another and the second from the main pain.

This case of the water of one pain flowing through another is not unique. It occurs also in the Jamuna pain of than Mufassal Gaya. Through part of the course of this pain the water of the Bara Rasulpur pain also runs. When the water of the latter pain is about to enter a stick is placed in the Jamuna pain on which the height of the water is marked. As long as the water of the combined pains is above this level, the Bara Rasulpur pain which takes off again lower down is allowed to draw off water. If the level falls below the mark the water of the Bara Rasulpur pain is stopped and the villages served by it in the other side of the Jamuna pain get no water.

Parabandis are not always invariable. Thus in the group of pains just north-west of Gaya belonging to the nine annas Tikari estate, of which the Jamuna pain and Bara Rasulpur pain are two, changes are often made by the estate in the parabandi to suit its convenience. These changes may be permanent or temporary. Thus when the Jamuna pain was constructed it was found to be more convenient to serve some villages from it than from older pains. The parabandis were accordingly re-arranged and thus will be found different from those stated in the Lal Bahi which is an ancient record of irrigation rights of the villages of the Tikari Estate. Where the rights of other landlords are affected, however, such changes cannot be made and the seven annas Tikari estate villages on the Amjhar branch of the Chakand pain still retain the old paras as noted in the Lal Bahi, though the paras of other villages on the pain have changed.

Temporary changes occur where all or most of the villages on a pain belong to the same landlord. Thus the nine annas Tikari estate often varies the order of the parabandi on the Jamuna pain when one village whose turn comes later in the ordinary course is in special need of water.

Occasionally indeterminate parabandis are found. Thus in the Aliani pain of Atri thana a group of three villages has a turn of three days which is distributed among them as needs dictate.

Internal parabandis inside a village between the various pattis are sometimes found. In village Bar, No. 765, than Sherghati, which has the last para of eight days in the Bar pain, this eight days is divided up into shares among the pattis. The shares, however, total to eight days two pahars and the internal parabandi begins from the north. The explanation is that the last para is put at two pahars longer than it really is because that patti gets all the water left in the pain when the eight days come to an end.

Indications of numerous other customs and incidents will be found by referring to the rules in Appendix XXVII which shows how they are provided for.

- 209. During the attestation season of 1914-15 enquiries were made in every camp into the cost of construction and upkeep of irrigation works as compared with the area irrigated by them. The average annual cost of repair was generally not difficult to ascertain where the landlord had papers, but the cost of original construction had in almost every case to be estimated except for such works as wells. These estimates were liable to be excessive for three reasons:—
  - (1) The original earthwork done in pains was probably not so much as would be required now to give a pain of equal depth and width, owing to scouring.
  - (2) A large proportion of the labour for the original works was given by raiyāts free. Even now-a-days the custom of assembling one man from each house to assist in annual repairs is in full force.
  - (3) The rates paid for hired labour were less than present rates.

The following results were found :--

	Class of work.		No. examined.	Cost,	Annual cost of repair,	Area irrigated in acres.
Pains Ahars Wells		***	75 103 223	Rs. 3,54,389 94,188 32,480	Rs. 10,045 3,352 443	39 798 14,538 3,670

If we allow 10 per cent, on the capital cost plus the annual cost of repairs as the annual cost to the landlord, this gives the following costs per annum per acre:—

Pains	***	1	MIMI	***	***	Re. 1-2.
Ahars	***	- 6		Š	4++	14 annas.
Wells		182	design (	Z		Re. 1.

There are certainly superior limits for the reasons given above, though the exaggeration is reduced by the fact that the area shown as irrigated is probably too large. Dr. Grierson says that an average ahar with a pet of 100 acres costs Rs. 325 to make, whereas the average cost of the ahars taken was over Rs. 900. Taking everything into consideration it is doubtful if irrigation costs the land-lord much more than 8 annas an irrigated acre. Considering the return he gets from produce-rents for this expenditure it is hardly a justification for raising his share of the produce.

210. It has always been taken as an axiom that raiyats would not be able to manage pains themselves but this Control of pains by raiyats. is possibly due to the fact that they have never been put in a position to try. The success of Co-operative Credit has been a startling proof of what can be done if proper organization is carried out, and there appears no reason why this should not be extended to irrigation matters. In the last year's report of the Bengal Registrar of Co-operative Societies there is a reference to an irrigation Co-operative Society in Midnapur district, and it would be an interesting experiment to start one in Gaya. The society would at first only look after the irrigation sources in the village. Later on no doubt the societies of several villages on a pain could combine into a union for managing the pain. It was reported that in village Baliari, No. 61, thana Nawada, the Co-operative Society controlled the irrigation from ahars. On enquiry, however, it was found that one of the co-sharer landlords had merely taken a loan from the society for repairing an ahar. The possibility of the control of small pains by raivats is not a mere dream, because in the Palankia pain, in thana Sherghati, it was found that the raivats of the villages which it served refused to allow its extension by the landlord into a neighbouring village that he had purchased.

211. Almost as important as the obtaining of water is the arrangement for letting it to go when irrigation is finished which is known as nigar. There

are two sorts of nigar—one is the letting off of water from ahars when no longer required so as to allow rabi crops to be sown in the bed of the ahar; the second is applied to the letting off of water from the paddy fields and is the more important of the two from the agricultural point of view. The first time the water is let off is two or three days after transplantation of the paddy in order to prevent the seedlings rotting and to give them tone. The second nigar is done in the Uttra asterism, the one immediately before the Hathiya, and the fields are allowed to dry to an extent so that in clay soil the ground will not give beneath a horse. This nigar is held to be a very beneficial to the crop whence the proverb—Uttra ka nigar Hathiya ka singar. Nigar in Uttra beautifies the crop in Hathiya. It is, however, only done where there is a fair certainty of water being obtained during the Hathiya, i.e., where water from canals or ahars is available, or where there is every expectation of rain. Otherwise it is not done. The third and last nigar is during the Siwati asterism in Kartik when the ears of the paddy have formed. It is done sooner in clayey soils, when the ears are a little more than half formed, because those soils retain sufficient moisture to complete the formation and at the same time render it possible to sow rabi crops, such as khesari, etc., which has to be done at the end of the Chitra asterism. The custom of nigar is so well recognized that usually no friction arises while it is carried out according to the natural slope of the ground. Even the raiyats whose lands are on the lowest level recognize the fact. The question of nigar from one village into another is sometimes important and a note has been made of this in the record-of-rights of the third year's area whenever necessary (vide rule 33, Appendix XXVII). It was not done before, because the necessity for it had not been realized.

- 212. For many years past, in fact ever since the report of the Indian Irrigation Commission, 1903, the question of legislation in respect of these private irrigation works has been under consideration. It will have been gathered from what has gone before that the principal objects for which such legislation is necessary are—
  - (1) to ensure that such irrigation works are kept up.
  - (2) to enable control to be exercised over them so that rights are not infringed or damage caused.

The necessity of the first is due to the fact that unless these works are kept up the cultivation of a large part of the district will suffer. There is always a tendency for the more extended systems to deteriorate owing to the subdivision of estates and the consequent lack of unity among the persons responsible for the upkeep. This tendency is kept in check by the prevalence of the producerent system. As long as the landlord's rent depends on the crop, there is a stimulus for him to keep up the irrigation. The bhaoli system on its merits is a bad one, and if other means can be devised for keeping up the irrigation system it will probably disappear.

The second object is to prevent occurrences such as the change of course of a river through a pain with no proper head-works, and to prevent the construction of new works which would injuriously affect the supply of water to established works.

213. The first object can be obtained by giving the Collector power, on satisfying himself that an irrigation work is not being properly kept up, to call on the persons responsible to repair it. The names of these persons will be found in the irrigation records, and in the case of large pains the shares which the various parties have to pay for the upkeep of each portion are clearly specified. If after a reasonable time they fail to carry out the order, the Collector could have the repair done himself and recover the cost from the parties concerned.

Such repairs would usually consist in cleaning out pains or restoring the embankments of ahars and once done there would be no necessity to repeat the repair for a few years. If it was found that the stimulus of paying more for having the repair done by the Collector was not sufficient to induce the persons responsible to maintain the work, the process could be repeated, but I doubt if it is necessary to saddle Government with the trouble of running the work until it is clear that the persons responsible have no intention of maintaining it and that the work is of sufficient importance. This would get over the difficulty of petty works. The Act would apply to all irrigation works, but the Collector would have discretion as to whether he would carry out repairs in any particular case. It might be quite legitimate for him to do this even in a small work in the hope of getting the person responsible to realize their responsibility, but the work might be too petty to be taken over by Government. In such a case if the persons responsible were not sufficiently stimulated and nobody else concerned, e.g., a co-operative society, could be got to take over the work, it would be left to its fate. Then would come into operation the proposed amendment to section 40 (vide paragraph 188) and, if rents of holdings dependent on this work for irrigation had been commuted on the understanding that the work would be kept up, they would be revised.

It is important, I think, for Government to delay taking over the administration of these works as long as possible. It is no easy matter to administer them in view of the very complicated systems of distribution, and I think power would have to be taken to depart from the record-of-rights if it was found possible to introduce a simpler administration without affecting appreciably the equity of the distribution. For instance, it might happen that Government took over the administration of two closely connected systems which were separately worked and could improve matters by altering the system much on the same way as the 9 annas Tikari Estate has done in the case of the Jamuna, Chakand and Bara Rasulpur pains. Even so the difficulties of distribution which are usually managed by the landlord's servants remain and if as a result of the commutation of rents the number of landlord's servants is reduced, as it ought to be, a subordinate agency with every facility for extortion will be brought into being. It is therefore only in the last resort and in the case of really important works that Government should step in.

One difficulty arises in this matter. Although the cleaning of pains need usually only be done at intervals of some years, some work, such as making an embankment or digging a channel in a sandy river bed, may be necessary annually. Is the Collector to take this up as an ordinary item of repair? The difficulty is that unlike the cleaning of pains or repair of ahar embankments it has to be done at a particular time. It cannot be said until that time arrives whether the persons responsible for the work will have it done or not. If it is not done the time for doing it will be past if any procedure has to be gone through before the Collector can take action. It must, therefore, be decided beforehand whether it is to be done or not. As a matter of fact, this part of the work is not very costly as it is done by the goam or assembly of raiyats who get generally nothing but their food, and only that if they have to stop more than a day. If the pain is cleaned out there would be every inducement to the persons responsible to do this last portion of the work and, even if it was not done, a substantial advantage would have been gained merely by cleaning and repairing the pain since it would carry water to ahars as long as the river was in flood If discretion was left to the Collector as to the extent of repairs (including the temporary embankment and water passage in the bed of the river) to be carried out, he would usually, in the first instance, omit everything but the cleaning and repairing of the pain itself. If this failed to induce the parties to do whatever work was necessary when the river was low (as it usually is when water is most required) then, on the second occasion of repair, he would carry out the whole work and this would give some idea as to the annual cost of maintenance which would have to be considered if Government was going to take over the administration of the pain.

214. The second object, viz., the control of irrigation works, may be considered under three heads:—

Control of irrigation works.

(1) Sanction for new works.

(1) Prohibition against making new works without sanction.

- (2) Taking power to compel erection of head works, sluices or other regulating devices.
- (3) Enforcing the observance of existing rights.

As to (i) I consider this is only necessary as regards pains and embankments in rivers or streams. The making of a new ahar is not likely to affect any rights beyond a limited area, and any persons affected have ample opportunity of knowing it and can seek their remedy in the usual way. A new pain on the other hand which takes water from a river may affect the rights of several persons lower down who may not become aware of the fact till the pain has been made and working. Application for sanction should be made compulsory before such a work is undertaken. The Collector will then have to see who is affected thereby. In Gaya this will be an easy matter because the irrigation index maps show all the rivers and the pains taking off from them and in the case of two rivers the Morhar and the Bhagel across which are a number of embankments a record has been prepared showing the rights as regards these and their position. Some provision will have to be made regarding notices because theoretically the right of every one using the river water below the offtake of the proposed pain or the proposed embankment will be affected. Practically, however, this is not so and if the persons immediately affected do not choose to object it may be considered likely that those further off will not be materially damaged. Probably special notices should be given to those persons responsible for the upkeep of pains taking off from the river or for embankments across the river within a distance of 10 miles from the proposed offtake or embankment and a general notice to others.

The Collector would refuse sanction or grant sanction unconditionally or on such conditions as he thinks necessary to safeguard the rights of others. In particular the proposed pain should not be allowed to interfere with existing irrigation works not under the control of the person who is proposing to make it.

The same provision would apply to the extension of an existing pain or alteration of an existing embankment.

- 215. The power to require the erection of head-works or regulating apparatus.

  (ii) Compulsory erection of regulating paratus does not need much discussion. The power would apply to all works since the damage caused by an ahar bursting owing to its having no escape may be considerable. The persons responsible for the upkeep of the work would be called on to carry out the addition and if they failed to do so, it would be done by the Collector and the cost recovered.
- 216. A procedure for enforcing the observance of existing rights already (iii) Enforcing the observance of rights.

  Code, and this is ordinarily all that is required. It does happen however that the damage is done before preventive measures can be applied and all that can be done is to punish the offenders under the Penal Code. This is small satisfaction to those whose crops have been damaged or even ruined by the misappropriation of water which could have irrigated them. It is suggested that a special provision to meet such a case is required which would enable the Collector to assess the damage and to recover it from those whose crops were benefited by the stolen water in such proportions as might appear equitable, having regard not only to the improvement in the crops but to the share which each person took in the diversion of the water.
- 217. The only other proposal that I think it is necessary to refer to is one other proposals.

  that when any one wishes to construct a new work or to extend an old one and is unable to do so because he requires land for the purpose which the owner is unwilling to sell or rent he may apply to the Collector to place him in occupation of the land after he has paid compensation assessed on the lines laid down in the Land Acquisition Act. I regard this as an unnecessary proposal.

The work may be a small one in which case it seems hardly equitable to apply compulsory acquisition in aid of purely private interests. On the other hand, if the work is sufficiently large to justify the application of compulsory

acquisition in the general interest then I think Government should take up the construction as a State work. Ex hypothesi there is initial trouble in getting all the persons concerned to agree to the construction and, even if the construction is carried out by the compulsion of the unwilling minority, we have the seeds of future trouble as regards upkeep and they will have the advantage of a fertile soil in the well known tendency for difficulties to arise. The only result will be that probably sooner or later the work will come under the administration of Government in virtue of the provisions of the Act, and instead of starting with a well engineered project and a sound system of administration Government will have to do the best it can with an established system which is difficult to work, at least by a State agency.

218. The majority of these irrigation systems are thoroughly uneconomic.

They were constructed with a sole eye to the irrigation of a particular set of villages without any consideration for the area as a whole. There is consequently a great waste of water. Their upkeep is expensive compared with the irrigation carried out. It must be remembered that though the cost to the landlord is low as shown in paragraph 209 compared to the rates charged for canal water, there is a large amount of work done by the raiyats free of charge which is not the case in Government canals. In addition the irrigation from these sources is not certain by any means and it is probable that, having regard to these circumstances and the improvement in crops, canal irrigation is as cheap to the raiyat if not cheaper than irrigation from pains.

The ultimate effect of this legislation, it is to be hoped, will be that the majority of the important systems will come under the administration of Government and those that are not will be in the hands of the large estates under enlightened management. It should then be possible to replace them by a system worked out with an eye to the district as a whole. This would probably consist in a series of permanent embankments across the rivers in the south of the district and large reservoirs at the foot of the hills. From these sources would be fed a series of canals running along the watersheds between the rivers. It requires an engineering survey to say how much water could be made available in this way, but judging from the amount which is wasted at present it is probable that there would be enough to irrigate all the land irrigated at present and in addition a good deal more.

# CHAPTER XII.

# GOVERNMENT AND TEMPORABILY SETTLED ESTATES.

219. A complete list of the Government and temporarily-settled estates will be found in Appendix XXX. Their previous history is given in Mr. Moore's report the Stevenson previous settlement of them in 1893-98. History. It is only necessary to add some details as to the history of the Sarwan Mahal which have since come to light. This mahal which is sometimes still called the Wairani Mahal consisted of the wairani or waste villages in Taluka Sarwan which were not settled at the time of the Decennial Settlement with the proprietors. These villages were surveyed in 1828 and summary settlements were made with the proprietors. This was at the time when they were held by Daim Bibi, Roshan Bibi, Amir-un-nissa, Afzal Bibi and the latter's daughter Hussaini Bibi (vide paragraph 29). These summary settlements alternated with periods of khas possession by Government up to 1840. In 1838 the Superintendent of the Patna and Bihur Khas Mahals reported (itev. Consultations, 17th April, 1838, No. 214) that there were 50 khas mahals in Taluka Sarwan, but that arrangements were being made for their settlement under Regulation VII of 1822. Only temporary settlements were contemplated as the villages were largely jungle. Accordingly in 1840 a survey was made and the Deputy Collector, Aga Ismail Khan, made a farming settlement with one Barkat Ali for 20 years. The proprietors objected to their exclusion. The

revenue authorities recognized the claim of the proprietors and ordered that they should receive settlement if they agreed to the jama which however was modified. It was directed that the jama should be fixed for ten years at the figure settled by the Deputy Collector and then revised, and after revision it was to be fixed for 15 years. The proprietors did not accept this and Barkat Ali after two years gave up the settlement. In 1843 a new farmer was found in Musammat Allan Bosun or Allan Bibi (probably an Anglo-Indian lady) of Patna who took settlement for 10 years at the jama fixed. On the expiry of this settlement in 1852 she continued to hold at the same jama till 1856 when a fresh survey was made. The local efficials proposed a fresh settlement with Allan Bibi from '856 to 1875 on a progressive jama. This apparently was not accepted because a settlement was made with Mr. W. Hanvey, the Head Clerk in the Patna Commissioner's office, who was also a part proprietor having purchased the shares of Afzal Bibi and Hussaini Bibi for Rs. 900 in 1847. The settlement was made with him for 20 years from 1855 to 1877 at a progressive jama somewhat higher than that proposed for Allan Bibi. In 1878. there was a fresh measurement but no body would take settlement at the assessed jama so the mahal was settled summarily for one year with the old lessee on the jama effered by him. In 1879 it was brought under direct management but in 1881 was leased for ten years to a farmer Rang Lal Sahu but the lease had to be cancelled in 1884 owing to repeated defaults.

Subsequently some irregular settlements of portions of land in various villages were made on the chakath system by Deputy Collector, Raj Krishna Narain, which were recognized by the Commissioner subject to examination when the settlement operations of 1893-98 took place. At that settlement the mahal was recorded as the property of Government but this was evidently a mistake as the right of the proprietors to receive settlement has never been lost and they still receive malikana. In fact shares in the mahal have been acquired by various outsiders among whom the principal is Babu Madan Mohan Lal of Haswa. It is unknown on what records the information set forth in paragraph 45 of Mr. Stevenson Moore's report was obtained. No reference can be found in the records to Mr. Chardon but possibly he was the real lessee of 1856 and Mr. Hanvey a benamidar. That, however, is unlikely because Mr. Hanvey was prominent in the early history of the powahi abwab (vide paragraph 171) and gave a sanad in 1862 to the Brahmin who claimed it. The information as to the history of the estate has been extracted from the Urdu papers in the Collectorate and the details of the above settlements will be found separately for each village in the revenue settlement record of those villages. In the Collectorate registers Burhai Chak No. 46, thana Barachati, is also recorded as being in this mahal and some difficulty was found in ascertaining if it was really included. It is now in the hands of private proprietors and is recorded as permanently settled in the settlement records and after examination of the title of the present proprietors it was found to be not part of this mahal.

Of the 4. villages now remaining in the mahal only 33 were taken up for revenue settlement as the rest are in lease to farmers for periods expiring after 1918 as specified in Appendix XXX (villages of this mahal bear tauzi number 4750). The following figures show the total area and cultivated area, assets and in some cases the *jama* of the 33 villages now under revenue settlement at each of the previous settlements.

	8	ettleme	nt of 1	840.		Bettler	men <b>t</b> jo	f 1866.	Settle	ement of	1878.	Settle	ement of	1891.	Pres	ent settle	ment.
Jama in 1830.	in	Total area.	Cuiti- vated area.	Total assets	1007	Total area,		Total a ssets	Total area.	Culti- vated area.	Assets.	Total area.	Culti- vated area.	Assets.	Total	Culti- vated area.	Assets.
689	1,036	27,514	2,206	1,550	1,311	43,037	4,939	3,691 6,509 in 1877	44,379	7,742	19,899	44,328	10,573	13,722	44,550	12,182	21,701

The areas are in bighas and the assets and jamas are taken to the nearest rupee. In 1856 and 1878 the mahal was settled as a whole, the jama for the 41 villages in the settlement of 1856 being progressive from Rs. 3,720 including malikana of Rs. 413 to Rs. 7,569 including malikana of Rs. 841. The jama in the settlement of 1878 was Rs. 12,000 including malikana of Rs. 691.

It will be seen on what totally inadequate details of area the early settlements were made and how greatly the mahal has advanced in value.

Rent Settlement.

Rent Settlement.

Ramu Lal Varma dealt with the estates in thanas Jahanabad, Tikari, Atri, Nawada and Rajauli and the Dakhner Mahal in thana Mufassal Gaya. Babu Sudhanshu Bhusan Mitra began the work in the Sarwan Mahal in October, 1915, and disposed of the villages in thanas Sherghati and Barachati and those in thana Mufassal Gaya not comprised in the Dakhner mahal. The work of rent settlement finished in July, 1917. The same procedure for testing the fairness of existing rents was followed as in Shahabad by comparing them with one-fifth of the gross produce. It was found that practically everywhere the rents in Government estates were well below this amount and there was ample room for enhancement on the ground of rise in prices. The rents were much lower than those in surrounding private estates which more nearly approached this limit.

A detailed account of the results of the rent settlement will be found in Appendix XVII. The average increase given in cash rents was 16 per cent. The highest thana percentage is in Barachati where the increase was 23 per cent. largely due to the fact that several villages had been leased to thikadars who had settled land at unduly low rents. In Nawada the increase of 20 per cent was due to the large rise in prices. In Rajauli thana the villages were found to be backward and in some of them no enhancement was possible. Practically all produce-rents were commuted under paragraph 437 of the Settlement Manual at the raiyats' request, the only cases where this was not done being cases where there was a thikadar or malguzar who objected, and it could not then be done except on a regular application under section 40. The work throughout was carried on in close co-operation with the District Officer. He saw the preliminary proposals before rent settlement was done and most of the questions raised were disposed of at this stage.

As in the cases of previously surveyed villages dealt with under section 105 a careful comparison of maps had to be made before altering rent for an apparent alteration in area which sometimes turned out to be due to a mistake in area extraction. After draft publication objections under section 104-E were heard. There were 1,925 such objections altogether, most of which came from the raiyats. A few were filed in the Dakhner Mahal on behalf of Government but on examination there proved mostly to be due to faulty jamabandis. In several cases raiyats had died and their sons' names had been entered in the settlement record. On comparing the record with the jamabandis which had never been corrected, though the patwari must have been well aware of the death of the previous tenants, the khas mahal authorities were unable to find the name of the raiyat as entered in the khatian and put in an objection. Although a free right of transfer without the consent of the landlord admittedly exists it is very difficult to get it recorded in the jamabandi doubtless because the patwaris wish to realize their customary fees. In some of the khas mahals in Jahanabad thana attestation was delayed for 3 weeks while the jamabandis were brought up to date. In some cases they had not been altered since the previous survey.

One matter that came to notice specially in the south of the district was the practice of making miadi or periodical settlements of waste land. The first settlement would be made for say 5 years at a certain rent. On the expiry of this a fresh settlement would be made for another period at an enhanced rent and so on. Many cases were found where the third period was running. Now if the first settlement was bond fide lease for the reclamation of waste land the first proviso to section 178, Bengal Tenancy Act, operates, but it only does so for

the first period. If the lessee is a settled raiyat of the village, and he usually is, then if the land is resettled with him at the end of the first period he at once acquires occupancy rights and any subsequent enhancement of more than 2 annas in the rupee is illegal. Where the first settlement is not a bona fide lease for the reclamation of waste land (and several cases of settlement of raiyats' abandoned holdings which do not come under this category occurred) the settlement gave the raiyat, if a settled raiyat, occupancy rights at once. It would be well, I think, to specify definitely when leases to which the first proviso to section 178 applies, are given in future that this proviso is to apply. This should ensure that the law on the subject is not overlooked in future (vide paragraph 160).

The Assistant Settlement Officers' settlement proposals, which will be found in the section 104 record of each village, will probably prove useful for reference as in the more jungly villages they often contain notes as to the possibility of inducing extended cultivation by improvements.

221. Goharpur, No. 336, thana Tikari, one of the escheated villages of Barati Begum's estate, gave some difficulty Case of village Goharpur. as to its boundaries. The Revenue Survey map shows that it is adjoined on the north-west by a small village of 10 acres called Mathchak Arazi. At the time of the survey of 1893-98, this village was surveyed as part of Goharpur and, as it was then wholly uncultivated and mostly in the bed of the river Morhar, the proprietress Musammat Parbati Kuar probably was unaware of the mistake. Subsequently portions became cultivaable and were settled by the Khas Mahal authorities with raivats of Goharpur. When the present operations began the revenue survey maps were examined and it was proposed to amalgamate this small village with Goharpur and this was provisionally done. At the time of cadastral survey this action brought the matter to the notice of Musammat Parbati Kuar who brought a boundary dispute case. The Khas Mahal authorities were undoubtedly in possession of the cultivated portion of the village so that under section 41 of the Survey Act the dispute should have been decided in their favour. The matter was, however, held up till rent settlement began and it was then suggested that in the amalgamated villages the Khas Mahal authorities might agree to give up their claim and allow Musammat Parbati Kuar's name to be recorded in the khewat for the area lying in the Revenue Survey village of Mathchak Arazi as her title was undoubted. The Board agreed to this, provided Musammat Parbati Kuar agreed to waive all mesne profits. This she did and the record was prepared accordingly.

222. Twenty appeals under section 104-G were made to the Settlement Officer and the results are shown in the following table:—

	Thana.			No. of appeals.	Upheld.	Modified.
Jahanabad	, , .			10	9	1
Tikari	•••	•••	•••	7	3	4
Mufassal Gaya Nawada	•••	•••	•••	2	2	0

Usually the modifications were due to small mistakes and disclosed no general errors. One case under section 104-G (ii) went to the Board. This was in village Pali, No. 296, than Tikari, where certain tenants had acquired by purchase holdings exceeding 100 bighas in area. They did not cultivate these holdings themselves and had accordingly been recorded as tenure holders. After the time for an appeal under section 104-G (i) had passed they petitioned that they should be recorded as raiyats since the holdings which they had purchased from time to time had been recorded at the previous settlement as being the occupancy holdings of the then tenants. The matter not being cognizable at this stage by the Settlement Officer as final publication had not taken place was referred to the Board under section 104-G (ii) and the Board, after hearing the parties including the actual cultivators who had admitted that they were under-raiyats, allowed the claim.

223. Appendix XXX was drawn up in connection with the proposals for revenue settlement and this explains the form of it since it was not proposed to resettle any village the term of the existing settlement of which expired after 1919. The lands appearing in lists VIII A and B are portions of the old Barun-Bihta road. This road was formerly a Government road but was made over to the District Board. At or about that time the road was realigned in places and the abandoned portions have since been let out by Government or kept khas. No rent or revenue settlement was done in these lands.

224. In the case of Government villages held khas the rent settlement is

the revenue settlement and no further action was required after rent settlement.

In the case of Government estates on lease it had to be decided if the lease was to be renewed, and if so, on what terms, and in temporarily-settled estates the proprietors had to be offered settlement.

Under the first head come the one village in list III-B, viz., Dodakatar, No. 853, Sherghati and the four villages in list IV-B. The first village was held by a farmer, and it was proposed that when his farm come to an end the village should be held khas. There is some doubt as to whether this village is really a Government estate or temporarily-settled estate. It has been treated as a Government estate, but certain persons claimed to be proprietors. Their names were in Register D, but they could not show how they had acquired from the original proprietors, they had claimed no malikana and the Collector did not admit their claims. As Register D is apparently not binding against Government the estate was left as a Government estate and the matter will be dealt with when Register D is rewritten. The present assets are Rs. 185 and the present jama paid by the thikadar is R. 87.

The four villages in list IV-B are held jointly by Government and a private landlord each having an 8 annas share. The Government share was previously settled with the co-landlord, and it was proposed that this arrangement should be renewed. This proposal was accepted and the Government share in the four villages has been leased to the co-landlord for 20 years from 1st April 1917 on a jama of Rs. 4,314, the assets being estimated at Rs. 6,343.

Under the second head, villages in lists V-A, VI-A and VII-A, the most important estate was the Sarwan mahal partly held khas and partly leased to farmers. The proprietors were given notice, but only two made offers-Baldeo Lal, who had acquired a share of six annas or so, made an offer at 70 per cent of the assets except the miscellaneous assets of which he offered 50 per cent, Madan Mohan Lal, who holds a one anna odd share, made an offer of 60 per cent of the assets in nine villages only. I decided that the mahal must be settled as a whole following the previous settlements of 1856 and 1878 in which the mahal had been settled and not held khas. This ruled out Madan Mohan Lal's offer. As to the other offer it was necessary under the third head of section 10 of Regulation VII of 1822 to take the wishes of the proprietors, the past custom affording no help. Nobody appeared but Madan Mohan Lal's representative who said he had no instructions. The large majority of the proprietors are now very petty and in reduced circumstances and their general view, as far as I could ascertain from the Revenue Officer who had seen some of them when in the villages, is that they were content with the present state of affairs. In this case it was obviously inexpedient to make a joint settlement and the alternative was to make a settlement with Baldeo Lal as Sadr malguzar. This alternative on consideration was also rejected. The offer made by him was not of the amount contemplated by Article 667 of the Settlement Manual and there were no special reasons for deviating from this rule seeing that the estate was a rapidly improving one. Accordingly, it was recommended that the estate be kept khas and that the villages temporarily leased to farmers should not be leased again but held khas

The Board, however, have decided to settle the estate with Baldeo Lal.

As regards Ghuji, No. 831, than Sherghati, the only village in list V-A which is not in the Sarwan Mahal, some of the proprietors offered to take settlement for 20 years at a jama starting at Rs. 400 in 1918 and rising successively to Rs. 648-1-0 in 1923, Rs. 896-4-0 in 1926 and Rs. 1,144-5-0 in 1929. The assets at present stand at Rs. 958-10-0 but there is a large probable increase owing to the falling in of leases held by malguzars. Allowing for this increase, the average jama comes to about 60 per cent of the assets. Settlement on this basis was recommended and the Collector has forwarded the proposal for sanction.

Jadua Chak, No. 53, than Barachatti, is at present held by the proprietor, the Mahanth of Bodh-Gaya. He was asked to offer and he proposed a jume of Rs. 125 for a 40-year settlement. The present assets were Rs. 243 and there was every prospect of an increase. The existing jama is Rs. 95 and as the increase to 70 per cent of the assets on Rs. 169 was a big jump it was recommended that the estate be held khas unless the offer was increased to one of settlement at Rs. 150 for 20 years. The Collector has ordered the estate to be held khas.

## CHAPTER XIII.

### CONCLUSION.

225. Gaya is the last district of Bihar to be surveyed and its completion brings to an end the work started in Champaran in 1892 and carried on continuously ever since. It is only a temporary finish, however, as the work of revision in North Bihar has already started. There is a great temptation to deal with the history of these twenty-six years and to show that though changes in practice and procedure have been made their one object has been towards the attainment of the original idea of Sir A. P. (now Lord) Macdonell and not to its change. This, however, requires ar abler pen than mine and space in this report is limited and all that can be done is to turn to more prosaic details.

When the Settlement closed, the only work remaining to be done was-

- (1) The recovery of Rs. 517 for which certificate cases were pending.
- (2) Possible remands of cases under sections 105 and 106 the appeals in which had not been disposed of.
- (3) Possible new cases under sections 105, 106 and 108-A in village Goharpur which was not finally published till 9th January, 1918.
- (4) Closing of accounts which awaited final verification by the Accountant-General.

The Certificate cases were taken over by the Certificate Officer of Gaya, and for the balance of the work Babu Sudhanshu Bhushan Mitra, Deputy Collector at Gaya, used his powers as Assistant Settlement Officer.

The old files were sorted and those not worth keeping were destroyed. Under Article 612, Settlement Manual, these have to be made over to the Collectors of the districts concerned. This has been done in Patna, Shahabad and Gaya where separate files were kept for each district. Before that, however, the files were not so separated and in these circumstances files dealing with districts previously taken up have been kept for use by the Settlement Officer when revision is begun in Bhagalpur.

The files of inspection notes and circle notes in Gaya have been provided with index maps showing the areas of the various camps which may prove useful to the Collector and eventually to the Revision Officer.

Most of the ministerial and field staff have, I am glad to say, been provided with posts in other settlements or other offices.

226. A list of the officers employed during the Gaya Settlement is given in Appendix XXXI. To all but a few of these as to the ministerial and field establishment are due acknowledgements for their assistance in carrying out the programme particularly during the trying recess of 1915.

Special thanks are due to the covenanted Assistant Settlement Officers in charge on whose shoulders a vast amount of work falls when the areas dealt with arclarge as in Gaya. In particular, I would mention those who were in the Settlement for more than one field season, namely, Mr. A. B. Duncan, I.C.s. (since died from wounds received in action), Mr. J. R. Dain, I. C. s., and Mr. J. A. Saunders, I.C.s. Mr. J. H. Murphy, now Deputy Director of Surveys, gave great assistance as Professional Adviser during the first two years of the operations, and later as Officer-in-charge of the Bihar and Orissa Drawing Office, was responsible for the reproduction of the maps. The three officers who were Assistant Settlement Officers at headquarters during the operations Muhammad Shamsuddin Haider, Pandit Lakshmi Misra and Babu Sudhanshu Bhushan Mitra deserve special mention for their hard and excellent work in that thankless position. The latter was also responsible for good work in rent settlement in Government and temporarily-settled estates.

Of the attestation officers I mention-

Deputy Collectors.

Babu Ramu Lal Varma.

Babu Phani Bhusan Mitra.

Babu Pulin Bihari Aikat.

Babu Madhab Chandra Misra.

Sub-Deputy Collectors.

Babu Chandra Kumar Mathur (now Deputy Collector)
Babu Jag Datta ... ... both did well in case work also.

Babu Bhupendra Nath Ghoshal.

Babu Sukhdev Narayan.

The Khanapuri officers besides those included in the above list who did well are Mr. W. H. Lewis, i.c.s., Mr. W. B. Brett, i.c.s., Mr. R. E. Russell, i.c.s., Babu Rajani Kanta Sen, Babu Manoranjan Sinha (who worked well also as Assistant Settlement Officer, Cadastral Headquarters).

To Babu Sudanshu Bhushan Mitra and Babu Sukhdev Narayan I owe much assistance in writing this report.

Mr. P. W. Murphy, i.c.s., and Mr. J. A. Hubback, i.c.s., were Settlement Officers during the first two years of the operations and any success in these functions must be largely due to the way in which they were started. To the former and to Mr. J. Reid, i.c.s., who were Directors of Land Records during the period, I owe acknowledgments for their constant help and guidance in difficult questions. I am glad to record that the relation of the Settlement Department with the district administration was always good and we received every assistance from the Collectors, Mr. J. Whitty, i.c.s., and Mr. J. A. Hubback, i.c.s., and it is to be begoed that the maps and records-of-rights will materially assist in full administration.



सन्यमेव जयते

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### APPENDIX I.

LIST OF NOTIFICATIONS UNDER THE BENGAL SURVEY ACT (V OF 1861) AND THE BENGAL TENANCY ACT (VIII OF 1885) ISSUED FOR THE SURVEY AND SEPTLEMENT OF THE GAYA DISTAICT.

### Under section 3 of the Bengal Survey Act.

- 1. Notification No. 923-T. R., dated the 19th June 1911. Authorizing survey of all the lands situated within the external boundaries of than Arwal, Daudnagar, Nabinagar, and Aurangabad.
- 2. Notification No. 2543-R. (A), dated the 6th August 1912. Authorizing survey of all the lands situated within the external boundaries of thanas Jahanabad, Tikari, Atril Nawada and Pakribarwan.
- 3. Notification No. 5552 R., dated the 2nd August 1913. Authorizing survey of all the lands situated within the external boundaries of thanas Rajauli, Barachati, Sherghati, Mufassal Gaya and Town Gaya.

### Under section 101 (1) of the Bengal Tenancy Act.

- 1. Notification No. 3490-R. (A), dated the 10th September 1912. Authorizing survey and preparation of record-of-rights in respect of the lands comprised within the external boundaries of than Nabinagar, Daudnagar, Arwal and Aurangabad in the district of Gaya with the exception of those lands for which a record-of-rights has already been prepared under Chapter X of the Bengal Tenancy Act in pursuance of the orders contained in notifications No. 3075-L. R., dated the 20th November 1905, and No. 3062-T. R., dated the 24th October 1906.
- 2. Notification No. \$\frac{\text{t551}}{\text{S-170}}\$ R., dated the 2nd August 1913. Authorizing survey and preparation of records-of-rights in respect of the lands comprised within the external boundaries of thanas Jahanabad, Tikari, Atri, Nawada and Pakribarwan in the district of Gaya, with the exception of those lands for which a record-of-rights has already been prepared under Chapter X of the Bengal Tenancy Act in pursuance of the orders contained in notification No. 3075-L. R., dated the 20th November 1905.
- 3. Notification No. 7671 R., dated the 13th October 1914. Authorizing survey and preparation of records-of-rights in respect of the lands comprised within the external boundaries of thanas Gaya, Town Gaya, Shergbati, Rajauli and Barachati in the district of Gaya with the exception of those lands for which a record-of-rights has already been prepared under Chapter X of the Bengal Tenancy Act in pursuance of the orders contained in Notifications Nos. 3075-L. R. 3062-T. R., and 1625-T. R., dated the 20th November 1905, 24th October 1906 and 14th September 1907, respectively.
- 4. Notification No.  $\frac{665}{8.44}$ R., dated the 10th February 1916 Modifying netification, No.  $\frac{6651}{8-170}$ , dated the 2nd August 1913.

### Under section 103-B of the Bengal Tenancy Act.

- 1. Notification No.  $\frac{469}{8-44}$  R., dated the 1st February 1916. Declaring that a record-of-rights has been finally published under sub-section (2) of section 103-A of the said Act for every village included in thanas Arwal, Nabinagar and Daudnagar in the district of Gaya.
- 2. Notification No. \$\frac{9112}{8\cdot 177} R.\$, dated the 18th September 1916. Declaring that a record-of-rights has been finally published under section (2) of section 103-A of the said Act for every village included in than Pakribarwan in the district of Gaya.
- 3. Notification No.  $\frac{5463}{8-154}$ R., dated the 10th September 1917. Declaring that a record-of-rights has been finally published under sub-section (2) of section 103-A of the said Act for every village included in thanas Jahanabad and Town Gaya in the district of Gaya.
- 4. Notification No. 6246 R., dated the 17th October 1917. Declaring that a record-of-rights has been finally published under sub-section (2) of the section 103-A of the said Act for every village included in thanas Atri, Nawada, Barachati, Rajauli and Aurangabad in the district of Gaya.
- 5. Notification No.  $\frac{64^{\circ}4}{S-18^{\circ}}R$ ., dated the 3rd November 1917. Declaring that a record-of-rights has been finally published under sub-section (2) of section 103-A of the said Act for every village included in thans Mufassal Gaya and Sherghati in the district of Gaya.
- 6. Notification No.  $\frac{20349}{8-74}$ , dated the 6th April 1918. Declaring that a record-of-rights has been finally published under sub-section (2) of section 103-A of the said Act for every village included in than Tikari in the district of Gaya.

APPEN

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Name of Subdivision	Name of thans.	Bhadoi.	Aghani,	Rabi	i.	Other cropped areas, e.g mango, pan. plantains guavas, et	,	Total.		Twics oppod,	Net cropped :		Curre	
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Jaba- Dahad.	Jahanabad	22,058 47	128,897 11	155,933	13	3,405	94	310,809 6K	96	3,026 55	212,283	10	5,988	3 41
	Total	30,932 40	203,431 95	222,972	53	3,900 6	33	461,336 51	146	3,754 47	312,592	01	7,379	65
ر نوا	Dandnager	7,330 47	60,042 20	95,417		1,258	20	161,046 24	33	7,888 94	126, 57	30	2,948	88
Aurang-	Nabinagar	6,340 88	<b>5</b> 0,723 <b>4</b> 9	77,721			86	135,329 09	i	5,36 <b>3 4</b> 6	119,965	- 1	18,931	97
ن 🔻	Aurangabad	16,408 15	118,874 62	200,961			43	337,874 70	<u> </u>	841 60	292,038	<del></del>	26,684	
_	Total	30,079 50	229,640 31	974,099			36	1 200 19		9,094 00	538,166	<del></del>	45,508	
	Town Gaya Mulassul Gaya	862 87 9,523 69	928 08 99,587 06	389 98,849		2,047	23	1,290 18 200,007 13		348 94° 3640 42°	941 179,966		71 24,931	16
	Tikari	7,858 38	68,322 49	100,874		1	46	186,705 61		0,487 88	140,217		4,457	
Sadr.	Atri	5,610 72	52,594 90	45,468		1	13	1 4.830 14	ļ	3,059 65	88,270	- 1	7,877	
	Barachati	12,694 85	54,580 50	30,869			LO	99,688 50	}	B,610 29	90,088		14,218	
[]	Sherghati	23,472 75	66,797 88	57,983	17	792 (	80	149,046 93	1	1,116 18	127,927	i	12,674	
	Total	59,543 26	348,310 41	932,227	71	5,084	01	740,044 89	61	9,265 37	68 ,779	52	64,231	
<u>si</u> (	Nawada	25,079 00	142,534 83	101,860	38	1,983	87	270,358 18	51	9,059 55	211,298	63	8,361	24
Newsda.	Pakribarwas	7,870 89	47,600 72	43,109	49	210 1	10	98,791 20	20	0,154 89	78,636	81	3,808	91
≥ ( )	Rajauli	10,257 72	33,639 09	23,437	16	316	52	67,650 40	10	),349 83	57,000	66	7,747	07
	Total	43,207 61	323,774 64	167,907	08	1,910	59	430,799 87	82	7,584 27	847,285	60	19,990	22
	Grand Total	168,762 77	999,157 31	1 097,208	63	15,304 6	59	2,275,431 30	446	6,678 11	1,828,758	19	137,037	11
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Name of Subdivision.	Name of Thans.	Total uncultivated, column 9, 14, and 18.	Total sy column 9 and 2	18	सन्य	rrigated area.	ते	Irrigated from wells,	i	fr Gover	rated om ument als.		Irrigated from private canals.	1
		20	21			22		28		2	:6		25	_
ĺ		A. D.	A.	D.		A. D		Λ.	D.	▲.	D.		A. 3	Ð.
में हैं	Arwa!	27,556 64	127,85	5 58		68,380 3		1	45	29,0			-	96 .
Jaha- nabad.	Jahanabad	47,900 18	260,18			145,642 7			41		69 08		63,790	
	Total	75,456 82	389,03			213,923 1		80,901		29,9				40
ا بيو	Daudnegar	30.726 38	150,08	•		53,432 6 45,400 0		1	69 19	29,5	51 43		3,279 7 5,846 (	66 66
Aurenga- ba :	Nabinagar j Aurangabad	77,859 67 167,191 95	197,82 459,22	1		107,895 4		)	84	18.4	61 03		13,096	
<b>4</b> (	Total	275,778 00	813,93			208,724 1			71	48,0			22,323	
	Town Gaya	3,197 79	_	8 98		765 3		<u> </u>	07			_		86
	Mulassal Gaya	109,275 52	288,64	1		97,260 7	3	8,401	47				28,740	08
	Tikari	31,006 97	190,82	69		74,369 1	б	7,977	59	1	93 06		31.382	08
Sadr.	Atri	57,228 91	143,40	9 40		54,542 7		1	96				16,456	
1	Barachati	188,940 33	273,09	1		51,056 6			93				11,202	
Ų	Sherghati	208,090 05	381,00			64,835 3		10,313		<del></del>	99 04		14,123	
	Total	591,329 56	1,222,109			343,280 G			31		93 06		101,9 <b>6</b> 3	91
ids (	Nawada	87,080 01	298,37 143,59	1		157,656 1: 46,449 70		[	41	ĺ	 			25
Nawada.	Pakribarean Paianli	64,967 83 115,290 08	172,59	l l		34,790 1		4,410		1			16,083	
٠, ر	Rajauli Tetal	267,327 90	614,56			239,890 1			50				94,737	
	Grand Total .	1,209,892 28	3,088,64		1,	002,771 4	2	1(9,372	81	78,2	12 71		391,946	54

DIX II.

KHASRA.

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9,818	59	115 53		144 65	8	28 48	1	0,404 - 20	_	9,915 0	3	18,970	84	10,611 70	31,507
14,712	19	214 35		1,456 74	1,1	12 81	1	7,528 00		5,493 5:	2	30,776	03	14,281 53	50,551
8,150	90	55 52		798 02	3	08 19		9,310 63		1,606 2	2	9,941	40	6,019 27	18,466
24,587	18	47 56		8,275 48	8	23 10	.8	0,533 29		1,647 0	3	•	89	14,454 48	37,894
36,919	31	200 32	_	17,886 00	2,0	99 12	5	7,074 78		3,697 5	-		78	54,510 10	83,492
69,657	42	303 40	_	23,937 47	3,0	20 41	g	8,91H 70		6,950 8	_ -		07	75,863 £8	133,353
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<b>3</b> 6,032	47	178 08		11,892 49	1	80 10	1	9,183 14		2,901 8		18,527		23,728 66	46,160
7,964	- 1	101 93		112 98	1	10 38	1	8,585 75		2,481 0	- (	•	95 18	8,599 41	21,563
18.840	1	32 46		4,239 64	1	70 58 86 74		1,513 12 9,793 <b>6</b> 0		1,277 7	1		05	18,714 45 40,445 16	27,838 55,427
<b>4</b> · <b>, ·</b> · ·	86	53 70		82,849 50	1,1		1	7.900 49		3,212 0	- 1	16,209	- }	93,083 48	112,504
•——	27	165 16 659 62	-	45,644 15 194,868 74				1,892 41	0.	12,538 1	- -		05	185,950 28	285,705
21,011		143 03	-	8,571 39	1,4		-	8,289 26	) PES	8,773 8	- -	<del></del>	75	28,240 90	50,426
9,493	1	26 03		6,153 69	1	25 85	26	6,099 00	妃	997 3		· ·	02	39,820 49	45,049
16,356	1	22 00		17,172 75	1	12 20	-13	8,793 80		1,012 0	1	6,971	23	65,76G 42	73,749
46,861		191 06	-	28,697 83	2,	31 51	100	8,181 66		5,783 2	2	82,115	90	131,327 81	169,226
			<b>├</b>		-		e pro-		17	30,765 2	- '2	190,627	15	497,149 45	619,836
253,267	08	1,378 43	1	199,160 78	10,2	12 56	4	34,018 <del>8</del> 6	16.9	50,100	~	w,-4.	•	ן טפי טפיו, אסוב	010000
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253,267	08	1,378 43	<u> </u> _[	199,160 78	1		1	lgated area	88 P	-			_	Number of	<u>`</u> _
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rigated.  Irrigate from tanks an	a	Irrigated from other	<u>-</u>		1	)etails	of irr	igated ares	enls	egards ero	p#.	Non-loos		Number of	wells.
rigated.  Irrigate from tanks an alears.	d d	Irrigated from other sources.	- 1	Rico.	1	Whea	of irr	igated ares Other cer and puls	enls	Other	p#.	Non-foot crops.		Number of	weils.  Earthen.
Irrigated.  Irrigated from tanks an alars.	a	Irrigated from other sources.	<u>-</u>	Rico. 28		Whea	of irr	Other cer and puls	eals es.	Other food-ero	D.	Non-loos crops.	1-	Number of Masonry,	Wells.  Earthen.  34
rigated.  Irrigate from tanks an alears.	D. 1	Irrigated from other sources.	D. 59	Rico. 28	D. 91	Whea	of irr	Other cer and puls	eals es.	Other foodero	D, 01	Non-food crops. 32	D.	Number of Masonry, 33 Number.	Wells.  Earthen.  34  Number
Irrigate from tanks an ahars.  26 *  A. 16,804 52,542	D. 25	Irrigated from other sources.  27  A. 2,187 8,476	D. 599	28 A. 52,195 102,605	D. 91 67	Whea	D	Other cerand puls	D.	Other food-ero	D. 01	Non-food crops. 32	D. 25	Number of  Masonry,  33  Number. 2,377	Wells.  Earthen.  34  Number 2
Irrigate from tanks an ahars.  20 *  A. 16,804 52,542 69,346	D. 25 58	Irrigated from other sources.  27  A. 2,187 8,476	D. 599	28 A. 52,195	D. 91 67	Whea 29 A. 2,423 4,993	of irr D	Other cer and puls 30 A. 8,588 25,605	D. 49	Other food-ero	D, 01 11 13	Non-loos crops.  32  A. 1,250 5,435	D. 25 01	Number of Masonry, 33 Number. 2,377 4,403	Wells.  Earthen.  34  Number 2 5
Irrigated. Irrigate from tanks an alvars.  26 *  A. 16,894 52,542 69,346 16,302	D. 25 58	Irrigated from other sources.  27  A. 2,187 8,476  10,668	D. 59 06	28 A. 52,196 102,606	D. 91 667	29 A. 2,423 4,993	D. 78 82 56 56 1 73	Other cer and puls 30 A. 6,588 25,606 34,103	D. 49	Other food-ero  10,825	D. 01 11 12 58	Non-loos crops.  32  A. 1,250 5,435 6.096	D. 25 01 28	Number of  Masonry,  33  Number. 2,377 4,402 6,899	Wells.  Earthen.  34  Number 2 5
Irrigate from tanks an alvars.  28 *  A. 18,804 52,543 69,346 15,302	од d d d d D. 35 58 13 21 56	1rrigated from other sources.  27  A. 2,187 8,476  10,868  507 1,160	D. 59 06 65 199	28 A. 52,196 102,606 164,601 41,174	D. 91 667 58 11 61	29 A. 9,423 4,993 7,417	D. 73 82 28	Other cer and puls  30  A. 6,588 25,605  34,103 6,131	D. 49 16 65 36 35	Other 1000-cro  S1  A.  3.822 7,003  10,825	D. 01 11 12 58 66	Non-loos crops.  32  4. 1,250 5,435 6.685 908	D. 25 01 28 87 25	Number of  Masonry,  33  Number. 2,377 4,402 6,839 1,519	Wells.  Earthen.  34  Number  8
Irrigated. Irrigate from tanks an ahars.  28 *  A. 16,804 52,542 69,346 16,302 85,737	D. 25 58 H3 21 56 45	27  A. 2,187 8,476  10,663  507 1,169 3,915	D. 599 06 65 199 21	Rico,  28  A. 52,196 102,606 164,801 41,174 40,554	D. 91 67 58 11 51 14	29 A. 2,423 4,993 7,417 2,918	D. 73 82 73 28 3 22	Other oer and puls  30  A. 6,588 25,605  34,103 6,131 1,842	D. 49 16 65 36 35	Other 1000-ero 31  A. 3,832 7,003 10,825 2,800 1,118	D. 01 11 12 58 66 78	Non-foot crops.  32  1,250 5,435 6.086 606 225	D. 25 01 28 87 25	Number of  Masonry,  33  Number. 2,377 4,403 6,899 1,519 1,409	Wells.  Earthen.  34  Number  5  6  4  5
Irrigated. Irrigate from tanks an alarra. 26 * A. 16,804 52,542 69,346 16,302 85,787 68,218	D. 25 58 21 56 45 22	27  A. 2,187 8,476  10,663  507 1,160 3,915	D. 59 06 65 21 40	Rico,  28  A. 52,195 102,605 164,601 41,174 40,554 89,922	D. 91 67 58 11 61 14 76	29 A. 2,423 4,993 7,417 2,916 1,653 6,585	D	Other cer and puls 30 A. 8,588 25,605 34,103 6,131 1,842 7,635	D. 49 16 65 36 35 97	Other food-ero 31  A. 3,822 7,003 10,825 2,800 1,118 2,620	D. 01 11 13 58 66 79 02	Non-look erops.  32  A. 1,250 5,435 6.685 908 225 1,131	D. 25 01 28 87 25 31 43	Number of  Masonry,  33  Number. 2,377 4,403 6,899 1,519 1,409 3,041	Earthen.  34  Number  5  1,1
Irrigate from tanks an alars.  26 °  A. 16,804 52,542 69,346 16,302 85,737 68,213 117,263	D. 25 58 H3 21 56 45 22 83	Irrigated from other sources.  27  A. 2,187 8,476 19,668 507 1,169 3,915 5,592	D. 599 06 65 1 49 96 59	Rico,  28  A. 52,196 102,606 164,601 41,174 40,554 89,622 171.660	D. 91 667 588 11 61 14 76 23	29 A. 2,423 4,993 7,417 2,919 1,650 6,586	D. 78 82 28 22 49	Other cer and puls 30 A. 8,588 25,605 34,103 6,131 1,842 7,635 15,509	D. 49 16 65 36 35 97	Other food-ero  A. S.822 7,003  10,825 2,300 1,118 2,620 6,640	D. 01 11 12 58 66 78 02 60	Non-loos crops.  32  A. 1,250 5,435 6.096 225 1,131 2,263 16 1,359	D. 25 01 28 87 25 31 43	Number of  Masonry,  33  Number. 2,377 4,403 6,898 1,519 1,409 3,641 0,569	Earthen.  34  Number  5  1,1  2,1
Irrigate from tanks an ahars.  26 *  A. 16,804 52,542 69,346 16,302 85,737 66,218 117,263 315	D. 35 68 21 56 45 22 83 86	Irrigated from other sources.  27  A. 2,187 8,476  19,868  507 1,160 3,915 5,582 1,317	D. 599 06 65 1 49 96 59	Rico.  28  A. 52,196 102,605 164,801 41,174 40,554 69,922 171.650 379	D. 91 67 58 11 61 14 76 23 566	29 A. 2,423 4,993 7,417 2,919 1,650 6,586 11,174	D. 73 82 28 22 48 80 80	Other cer and puls  30  A. 8,588 25,605 34,103 6,131 1,842 7,635 15,609 76	D. 49 16 65 35 97 7 60 65	Other food-cro  S1  A.  S.822 7,003  10,825 2,300 1,118 2,620 8,040 260 3,158 3,672	D. 01 11 12 58 66 79 02 60	Non-loos crops.  32  A. 1,250 5,435  6.695 908 225 1,131 2,288 16 1,369 2,274	D. 25 01 28 87 25 31 49 44 16 35	Number of  Masonry,  33  Number. 2,377 4,402  6,899 1,519 1,409 3,641  0,569 313 3,068 2,088	Wells.  Earthen.  34  Number  2  5  1,1  2,1
Irrigate from tanks an alvars.  28 *  A. 16,894 52,542 69,346 16,302 85,737 68,218 117,263 315 58,801 33,027 31,464	D. 55 58 H3 21 56 45 22 53 86 75 48	Irrigated from other sources.  27  A.  2,187 8,476  19,668  507 1,169 3,915 5,592 1,317 1,788 781	D. 599 006 999 21 440 90 32 72 41	Rico,  28  A. 52,195 102,605  164,601  41,174 40,554 89,922 171.650 370 81,276 56,603 45,055	D. 91 67 58 11 51 14 76 23 56 66 76	29 A. 2,423 4,993 7,417 2,918 1,650 6,586 11,144 42 3,622 1,756 1,932	D. 73 82 56 22 43 80 80 8 19 72	30 A. 6,588 25,606 34,103 6,131 1,842 7,635 15,809 78 7,837 9,870 4,219	D. 49 16 65 97 12	Other food-ero 31  A. 3,822 7,003 10,825 2,800 1,118 2,620 6,040 260 3,158 3,672 1,907	D. 01 11 12 58 66 78 02 60 67	Non-look crops.  32  A. 1,250 5,435 6.695 908 225 1,131 2,263 15 1,359 2,274 1,464	D. 25 01 28 87 25 31 43 44 16 35 48	Number of  Masonry,  33  Number. 2,377 4,403 6,839 1,519 1,409 3,641 6,669 313 3,068 2,088 1,191	Earthen.  34  Number 2 5  1.1  2.1
Irrigate from tanks an alvars.  28 *  A. 16,894 52,542 69,346 16,302 85,737 68,218 117,263 315 68,801 33,027	D. 55 58 H3 21 56 45 22 53 86 75 48	Irrigated from other sources.  27  A. 2,187 8,476  19,668  507 1,169 3,915 5,592 1,317 1,788 781 1,560	D. 599 06 65 140 93 32 72 41 84	Rico,  28  A. 52,196 102,805 164,801 41,174 40,554 89,922 171.650 370 81,276 56,693 45,055 49,841	D. 91 67 58 11 51 14 76 56 66 66	29 A. 2,423 4,993 7,417 2,918 1,650 6,586 11,164 42 3,628 1,756 1,930 1,870	D. 78 82 82 82 83 86 87 86 9 77 9 77 9 77 9 77 9 77 9 77	Other cer and puls 30 A. 8,588 25,605 34,103 6,131 1,842 7,635 15,609 76 7,837 9,870 4,219	D. 49 16 65 35 97 17 60 65 95 12 93	Other food-ero S1  A. 3,822 7,003 10,825 2,300 1,118 2,620 6,640 280 3,158 3,672 1,907	D. 01 11 12 58 66 78 02 60 67 48	Non-look crops.  32  A. 1,250 5,435 6,686 908 225 1,131 2,263 16 1,369 2,274 1,464 763	D. 25 01 28 87 25 31 49 44 16 35 48 85	Number of  Masonry,  33  Number. 2,377 4,402 6,839 1,519 1,409 3,041 0,569 313 3,068 2,088 1,191 1,622	Wells.  Earthen.  34  Number  24  5:  5:  7  7  4  5
Irrigate from tanks an alvars.  28 *  A. 16,894 52,542 69,346 16,302 85,737 68,218 117,263 315 58,801 33,027 31,464	D. 35 58 H3 21 56 45 22 83 86 75 48 61	Irrigated from other sources.  27  A. 2,187 8,476 19,668 507 1,169 3,915 5,592 1,317 1,788 781 1,560 2,491	D. 559 06 865 99 21 40 96 59 32 72 41 84	28 A. 52,196 102,605 164,801 41,174 40,554 89,922 171.665 373 81,276 56,603 45,056 43,341 48,230	D. 91 67 58 11 51 14 76 23 55 66 66 82	29 A. 2,423 4,993 7,417 2,918 1,650 6,588 11,174 42 3,628 1,976 4,34	D. 78 82 23 24 48 80 19 574 29	Other cer and puls 30 A. 8,588 25,605 34,103 6,131 1,842 7,635 15,509 78 7,837 9,870 4,219 4,184 7,633	D. 49 16 65 36 37 7 60 65 95 12	Other food-ero  S1  A.  S.822  7.003  10,825  2,800  1,118  2,620  6,040  260  3,158  3,572  1,907  1,206  2,793	D. 01 11 2 58 66 78 02 60 67 48 22	Non-look crops.  32  A. 1,250 5,435 6,686 906 225 1,131 2,263 16 1,359 2,274 1,464 768 1,334	D. 25 01 28 7 25 31 43 44 16 35 48 55 95	Number of  Masonry,  33  Number. 2,377 4,402 6,839 1,519 1,409 3,041 0,569 313 3,068 2,088 1,191 1,622 2,038	Earthen.  34  Number  5  1.1  7  4  5  7
Irrigate from tanks an alarra.  26 *  A. 16,804 52,542 69,346 16,302 85,737 68,213 117,263 315 68,801 33,027 31,464 33,598	d d d d D. 25 58 H3 21 56 45 22 83 86 75 48 61 40	Irrigated from other sources.  27  A. 2,187 8,476  19,668  507 1,169 3,915 5,592 1,317 1,788 781 1,560 2,491 7,940	D. 599 006 865 1 409 90 32 72 41 84 20 17	28 A. 52,196 102,606 104,601 41,174 40,554 69,922 171,650 370 81,276 56,803 45,056 40,941 46,230 275,688	D. 91 67 58 11 61 14 76 23 55 66 68 82 59	29 A. 2,423 4,993 7,417 2,919 1,650 6,586 11,144 42 3,626 1,876 4,34 13,59	D	30 A. 6,588 25,605 34,103 6,131 1,842 7,635 15,609 78 7,837 0,870 4,219 4,184 7,033 33,922	D. 49 16 65 35 97 17 60 65 95 12 93 66 81	Other food-ero  S1  A.  S.822  7,003  10,825  2,800  1,118  2,020  8,040  260  3,158  3,672  1,907  1,208  2,793  12,943	D. 01 11 2 58 66 78 02 60 67 48 22 34	Non-look crops.  32  A. 1,250 5,435 6,986 908 225 1,131 2,268 16 1,359 2,274 1,464 703 1,334 7,211	D. 26 01 28 87 25 31 49 44 16 35 48 85 95 93	Number of  Masonry,  33  Number. 2,377 4,403 6,898 1,619 1,409 3,041 0,569 313 3,068 2,088 1,191 1,622 2,038 10,318	Earthen.  34  Number  2  6  1,1  7  7  3,3
Irrigate from tanks an ahars.  26 *  A. 16,804 52,542 69,346 16,302 85,737 68,213 117,263 315 58,801 33,027 31,464 33,598 37,406 194,445 66,016	D. 55 58 H3 21 56 45 22 83 86 75 48 61 40 02 71	Irrigated from other sources.  27  A. 2,187 8,476  19,868  507 1,160 3,915 5,592 1,317 1,788 781 1,560 2,481 7,040 5,716	D. 599 068 21 49 98 32 72 41 84 20 17 22	Rico.  28  A. 52,196 102,606 164,601 41,174 40,554 69,922 171,650 370 81,276 56,603 45,056 49,941 46,230 275,666 120,130	D. 91 67 58 11 61 14 76 23 55 66 66 82 59 10	29 A. 2,423 4,993 7,417 2,918 1,650 6,586 11,144 42 3,626 1,756 4,34 13,896 9,21	D	30 A. 8,588 25,605 34,103 6,131 1,842 7,635 15,609 76 7,837 9,870 4,219 4,184 7,033 33,922 18,979	D. 49 16 65 36 85 97 12 93 66 81 87	Other food-ero  S1  A.  3,832 7,003  10,825 2,800 1,118 2,620 8,040 280 3,158 3,672 1,907 1,208 2,793 12,948 5,017	D. 01 11 12 58 66 78 02 60 67 48 22 34 46	Non-loos crops.  32  A. 1,250 5,435 6.686 908 225 1,131 2,263 15 1,359 2,274 1,464 763 1,334 7,211 4,277	D. 25 01 28 87 25 31 49 44 16 35 48 85 95 93 32	Number of  Masonry,  33  Number. 2,377 4,403  6,839 1,519 1,409 3,641  6,662 313 3,068 2,088 1,191 1,622 2,038 10,318 4,064	Earthen.  34  Number 2 5 8 4 5 1,1 2,1
Irrigate from tanks an alears.  28 *  A. 16,894 52,542 69,346 16,302 85,737 68,218 117,263 315 68,801 33,027 31,464 33,598 37,406 194,345 60,010 80,890	D. 58 88 86 45 22 83 86 61 40 02 71 83	Irrigated from other sources.  27  A. 2,187 8,478  19,668  507 1,169 3,915 5,592 1,317 1,788 781 1,560 2,491 7,940 6,716 1,739	D. 599 068 865 899 21 40 90 32 72 41 84 20 17 22 27	Rico.  28  A. 52,196 102,606 164,601 41,174 40,654 89,622 171.650 370 81,276 56,603 45,056 43,341 48,230 276,688 120,130 88,339	D. 91 67 58 11 61 14 76 66 82 58 10 90	29 A. 2,423 4,993 7,417 2,918 1,650 6,586 11,164 42 3,626 1,36 1,376 4,34 13,596 0,31 2,200	D	30 A. 6,588 25,605 34,103 6,131 1,842 7,635 15,609 76 7,837 9,870 4,219 4,184 7,633 33,922 18,979 3,481	D. 49 16 65 36 35 97 7 60 65 98 12 93 66 81 87 44	Other food-ero  S1  A.  S,822 7,003  10,825 2,300 1,118 2,620 6,040 260 3,158 3,672 1,967 1,206 2,793 12,948 5,017 854	D. 01 11 12 58 66 78 02 60 67 48 22 34 46 42	Non-loos crops.  32  A. 1,250 5,435 6.686 608 225 1,131 2,283 16 1,369 2,274 1,464 708 1,334 7,211 4,277 1,509	D. 25 01 28 87 25 31 49 44 16 35 48 85 95 95 88	Number of  Masonry,  33  Number. 2,377 4,402 6,898 1,519 1,409 3,641 0,569 313 3,068 2,088 1,191 1,622 2,038 10,318 4,064 590	Wells.  Earthen.  34  Number  2  5  1,1  7  2,1  7  3,3  8
Irrigate from tanks an ahars.  26 *  A. 16,804 52,542 69,346 16,302 85,737 68,213 117,263 315 58,801 33,027 31,464 33,598 37,406 194,445 66,016	D. 58 88 86 45 22 83 86 61 40 02 71 83	Irrigated from other sources.  27  A. 2,187 8,476  19,868  507 1,160 3,915 5,592 1,317 1,788 781 1,560 2,481 7,040 5,716	D. 599 068 865 899 21 40 90 32 72 41 84 20 17 22 27	Rico.  28  A. 52,196 102,606 164,601 41,174 40,554 69,922 171,650 370 81,276 56,603 45,056 49,941 46,230 275,666 120,130	D. 91 67 58 11 61 14 76 66 82 58 10 90	29 A. 2,423 4,993 7,417 2,918 1,650 6,586 11,164 42 3,626 1,36 1,376 4,34 13,596 0,31 2,200	D	30 A. 8,588 25,605 34,103 6,131 1,842 7,635 15,609 76 7,837 9,870 4,219 4,184 7,033 33,922 18,979	D. 49 16 65 36 35 97 7 60 65 98 12 93 66 81 87 44	Other food-ero  S1  A.  S,822 7,003  10,825 2,300 1,118 2,620 6,040 260 3,158 3,672 1,967 1,206 2,793 12,948 5,017 854	D. 01 11 12 58 66 78 02 60 67 48 22 34 46	Non-loos crops.  32  A. 1,250 5,435 6.686 908 225 1,131 2,263 15 1,359 2,274 1,464 763 1,334 7,211 4,277	D. 25 01 28 87 25 31 49 44 16 35 48 85 95 95 88	Number of  Masonry,  33  Number. 2,377 4,403  6,839 1,519 1,409 3,641  6,662 313 3,068 2,088 1,191 1,622 2,038 10,318 4,064	Wells.  Earthen.
Irrigate from tanks an alears.  28 *  A. 16,894 52,542 69,346 16,302 85,737 68,218 117,263 315 68,801 33,027 31,464 33,598 37,406 194,345 60,010 80,890	D. 35 58 21 56 45 22 53 86 61 40 02 71 83 69	Irrigated from other sources.  27  A. 2,187 8,478  19,668  507 1,169 3,915 5,592 1,317 1,788 781 1,560 2,491 7,940 6,716 1,739	D. 599 006 21 449 93 32 72 41 84 20 17 22 86	Rico.  28  A. 52,196 102,606 164,601 41,174 40,654 89,622 171.650 370 81,276 56,603 45,056 43,341 48,230 276,688 120,130 88,339	D. 91 67 58 11 14 76 23 55 66 68 82 58 10 90 03	29 A. 2,423 4,993 7,417 2,918 1,650 6,586 11,164 42 3,622 1,756 4,34 13,590 8,31 2,20 2,30	D	30 A. 6,588 25,605 34,103 6,131 1,842 7,635 15,609 76 7,837 9,870 4,219 4,184 7,633 33,922 18,979 3,481	D. 49 16 65 36 37 47 60 65 95 12 93 66 81 87 44 23	Other food-ero  S1  A.  S,822 7,003  10,825 2,300 1,118 2,620 6,040 260 3,158 3,672 1,967 1,206 2,793 12,948 5,017 854	D, 01 11 12 58 66 79 02 60 67 48 22 34 46 42 67	Non-loos crops.  32  A. 1,250 5,435 6.686 608 225 1,131 2,283 16 1,369 2,274 1,464 708 1,334 7,211 4,277 1,509	D. 25 01 28 87 25 31 49 44 16 35 48 85 95 98 96	Number of  Masonry,  33  Number. 2,377 4,402 6,898 1,519 1,409 3,641 0,569 313 3,068 2,088 1,191 1,622 2,038 10,318 4,064 590	Wells.  Earthen.  34  Number  2  5  1,1  7  2,1  7  3,3  8

APPEN

CROP

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of Subdivision	Name of Thana				Cereals an	d pulses.						Fi	b
Name of S	A sime of a name		Rice.	Jowae (millet), janera.	Mandua.	Maize.	Kodo.	inc	er food- rains, luding ulses.	Ju	te.	Hemp.	_
	1 2		3	4	5	G	7		8	1	)	10	_
_			A. D.	Δ. υ.	A. D.	A. D.	A. D.	1	A. D.	۸.	D.	A. D	١.
Jahana- bad	Arwal	••	1 1	66 14	2,202 73	4,383 56	318 22	i	208 65	. 0		2 5	
Jah	( Jahanabad	•••	<del></del> '-	153 C7	0,645 56	9,716 90	345 25	-	330 72	2		278 4	_
	Total	•••		219 81	11,548 28	14,100 48	663 47	.}	589 27			275 9	_
Auranga- bad,	Daudnagar	•••	1	214 56	1,347 86	2,213 80	281 05 318 74	1	249 70 904 49	17		2 4	
Vora Da	Aurangabad	•••	2,135 76	0 43 210 06	2,438 18	9,108 65	968 12	1	159 04	5			- 1
٠,	Aurangabad Total	•••	4,248 56	425 05	5,414 48	15,593 78	1,567 91	<u>ا</u> ۔۔۔ا	708 23	28		7 58	_
	Town Gaya	•••	2 35	5 17	7 10	343 38			4 88				-
	Mufassal Gaya	•••	614 55	124 02	4,969 62	3,250 46	243 85	١,	03 61		18	 6 44	
	Tikari	•••	345 67	129 00	3,789 85	3,202 95	111 21		16 26	, ,	- 1	12 10	
Sadr,	Atrl	•••	119 07	20 74	3,304 61	1,961 88	82 73	1	02 50	0	56	8 00	١
20	Barachati	•••	751 84	24 15	4,289 11	7.113 17	203 00		91 17	2	78	8 90	1
	Sherghati	•••	1,559 50	146 20	2,973 21	16,484 02	302 00	1,8		5	52	46 64	- 1
	Total	•••	3,391 64	455 37	19,311 60	32,415 85	1,001 88	2,6	98 49	10	01	82 18	-1
	Nawada	•••	1,087 00	105 20	20,340 27	2,551 24	418 91	4	66 82	0	58	63 70	,
Nawada,	Pakribarwan		454 49	55 74	5,189 03	1,962 42	83 83	1	18 70	0	02	7 42	,
Nav	Rajauli	•••	1,762 74	109 55	5,011 01	3,118 54	100 91	1	84 61	2	03	0 00	, [
	Total		3,304 23	270 49	30,545 31	7,632 20	603 14	7	20 42	2	93	71 18	,-
	Grand Total	•••	14,211 04	1,370 72	67,119 56	69,733 28	3,838 40	6,6	61 40	37	20	436 88	,
			<u>'</u>	10	224	14			<u></u>				۱-
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bdir	į				PRINCES I								
	I			160		25					Mi	scellaneou	ľ
of Sa	Name of Thans.		Condiments	Sugar	case.	Kodo.					Mi	scellaneou	• • •
Name of Sa	Name of Thans.		Condiments and spices,	Sugar	ease.	Kodo.	Cotton.		Vegeta	bles.	Mi	Yams,	-
Name of Sabdirisica.	Name of Thans.			Sugar.	শংগ্ৰহণৰ প	Kodo.	Cotton.		Vegeta		Mi		-
			and spices,	21	শুনে শুল স	22	23				Mi	Yams,	
1	2		and spices,	21	A. D.	22 A. D.	23 A.	D.		л. D.	Mi	Yams,	
1	Arwal		20 A. D.	31	A. D. 542 C1	22 A. D.	23 A.	23		A. D. 3 41	Mi	Yams, 25 A. D. 77 25	
	Arwal Jahanabad		20 A. D. 6 40 5 07	3, 6,	A. D. 642 C1 223 27	22 A. D.	23 A. 0	23 13		A. D. 3 41 4 09	Mi	Yams,  25  A. D.  77 25  108 88	
1	Arwal		20 A. D.	3, 6,	A. D. 542 C1	22 A. D.	23 A. 0	23		A. D. 3 41	Mi	Yams, 25 A. D. 77 25	
Jaha- nabad.	Arwal Jahanabad		20 A. D. 6 40 5 07	3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,	A. D. 642 C1 223 27	22 A. D.	23 A. 0	23 13		A. D. 3 41 4 09 7 50 1 37	Mi	Yams,  25  A. D.  77 25  108 88	
Jaha- nabad.	Arwal Jahanabad Total		20 A. D. 0 40 5 07	3, 6, 0, s,	A. D. 642 C1 223 27 705 88	22 A. D	23 A. 0 0	23 13		A. D. 3 41 4 09 7 50 1 37 2 58	Mi	Yams,  25  A. D.,  77 25  109 88  186 13  78 47  103 31	
1	Arwal Jahanabad Total Daudnagar		20 A. D. 6 40 5 07 11 53	3, 0, 0, 0, 1, 2,	A. D. 542 C1 223 27 705 88 992 39 287 60 325 71	22 A. D 3 53 0 72	23 A. 0 0 0	23 13 36		A. D. 3 41 4 09 7 50 1 37 2 58 3 30	Mi	Yams,  25  A. D,  77 25  108 88  186 13  78 47  103 31  172 72	
Jaha- nabad.	Arwal Jahanabad Total Daudnagar Nabinagar		20 A. D. 6 40 5 07 11 53 1 98 22 05	3, 0, 0, 0, 1, 2,	A. D. 542 C1 223 27 705 88 092 30 267 60	22 A. D	23 A. 0 0 0	23 13 36		A. D. 3 41 4 09 7 50 1 37 2 58	Mi	Yams,  25  A. D.,  77 25  109 88  186 13  78 47  103 31	
Jaha- nabad.	Arwal Jahanabad Total  Daudnagar Nabinagar Aurangabad Total		20  A. D.  0 40  5 07  11 53  1 98  22 08  26 15	3, 0, 0, 0, 1, 2,	A. D. 542 C1 223 27 705 88 992 39 287 60 325 71	22 A. D 3 53 0 72	23 A. 0 0 0	23 13 36		A. D. 3 41 4 09 7 50 1 37 2 58 3 30	Mi	Yams,  25  A. D,  77 25  108 88  186 13  78 47  103 31  172 72	
Jaha- nabad.	Arwal Jahanabad Total  Daudnagar Nabinagar Aurangabad Total  Town Gaya		20  A. D. 6 40 5 07 11 53 1 96 22 06 28 15 50 17	3, 0, 0, 0, 1, 2, 5, 5	A. D. 542 C1 223 27 705 88 092 39 267 60 325 71 585 88	22 A. D 3 53 0 72 4 25	23 A. 0 0 0 0 0	23 13 36		A. D. 3 41 4 09 7 50 1 37 2 58 3 30 7 56	Mi	Yams,  25  A. D,  77 25  108 88  186 13  78 47  103 31  172 72  364 50	
Aurangs- Jaha- had nabad.	Arwal Jahanabad Total  Daudnagar Nabinagar Aurangabad Total  Town Gaya Mufassal Gaya		20  A. D.  0 40  5 07  11 63  1 98  22 08  28 15  50 17	3, 0, 0, 0, 1, 2, 5, 5, 5, 2, 4	A. D. 542 C1 223 27 705 88 992 39 9267 60 325 71 586 88 2 13	22 A. D 3 53 0 72 4 25	23 A. 0 0 0 0	23 13 36		A. D. 3 41 4 09 7 50 1 37 2 68 3 30 7 55 19 90	Mi	Yams,  25  A. D.  77 25  108 88  186 13  78 47  103 31  172 72  364 50	
Jaha- nabad.	Arwal Jahanabad Total  Daudnagar Nabinagar Aurangabad Total  Town Gaya Mufassal Gaya		20  A. D. 0 40 5 07 11 53 1 96 22 03 28 15 50 17 0 05 13 65	3, 6, 9, 1, 2, 5, 5, 3, 6	A. D. 642 c1 223 27 705 88 992 30 267 60 325 71 586 88 2 13 403 87	22 A. D 3 53 0 72 4 25	23 A. 0 0 0 0	23 13 36 14	24	A. D. 3 41 4 09 7 50 1 37 2 68 3 30 7 55 19 90 52 66	Mi	Yams,  25  A. D.  77 25  109 88  186 13  78 47  103 31  172 72  354 50   81 18	
Aurangs- Jaha- had nabad.	Arwal Jahanabad Total  Daudnagar Nabinagar Aurangabad Total  Town Gaya Mufassal Gaya Tikari		20  A. D. 0 40 8 07 11 53 1 98 22 03 28 15 50 17 0 05 13 65 0 50	3, 6, 9, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5,	A. D. 642 C1 223 27 705 88 992 30 9267 60 325 71 586 88 2 13 443 87 343 42	22  A. D 3 53 0 72 4 25 1 23	23 A. 0 0 0 0 0	23 13 36 14	24	A. D. 3 41 4 09 7 50 1 37 2 58 3 30 7 55 19 90 52 66 2 79	Mi	Yams,  25  A. D. 77 25 109 88 186 13  78 47 103 31 172 72 354 50 81 18 80 91	
Aurangs- Jaha- had nabad.	Arwal Jahanabad Total  Daudnagar Nabinagar Aurangabad Total  Town Gaya Mufassal Gaya Tikari Atri		20  A. D.  0 40  5 07  11 63  1 98  22 03  28 15  50 17  0 05  13 85  0 50  8 67	3, 6, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,	A. D.  542 C1  223 27  705 88  092 30  267 60  325 71  586 88  2 13  443 87  344 42  781 11	22  A. D	23 A. 0 0 0 0 0	23 13 86 14 14	24	A. D. 3 41 4 09 7 50 1 37 2 68 3 30 7 56 19 90 52 66 2 79 10 02	Mi	Yams,  25  A. D.  77 25  109 88  186 13  78 47  103 31  172 72  354 50   81 18  80 91  19 C7	
Aurangs- Jaha- had nabad.	Arwal Jahanabad Total  Daudnagar Nabinagar Aurangabad Total  Town Gaya Mufassal Gaya Tikari Atri Barachati		20  A. D. 6 40 8 07 11 53 1 96 22 05 28 15 50 17 0 05 13 65 0 50 8 67 6 28	3, 3, 4, 5, 6, 1, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7,	A. D. 542 C1 223 27 705 88  092 30 287 60 325 71 586 88  2 13 443 87 343 42 781 11 711 35	22  A. D	23 A. 0 0 0 0 0	23 13 86 14 14	24	A. D. 3 41 4 09 7 50 1 37 2 68 3 30 7 66 19 90 52 66 2 79 10 02 49 84	Mi	Yams,  25  A. D.,  77 25 109 88 186 13  78 47 103 31 172 72 354 50  81 18 80 91 19 07 50 20	
Sadr. Auranga. Jaha. r.	Arwal Jahanabad Total  Daudnagar Nabinagar Aurangabad Total  Town Gaya Mufassal Gaya Tikari Atri Barachati Sherghati Total		20  A. D. 6 40 8 07 11 53 1 96 22 05 28 15 50 17 0 05 13 65 0 50 8 67 6 28 102 20 126 35	3, 6, 9, 1, 2, 5, 4 1, 7 11, 6	A. D. 542 C1 223 27 705 88  092 30 287 60 325 71 586 88  2 13 443 87 343 42 784 11 711 35 510 47	22  A. D.  3 53 0 72 4 25 1 23 0 11 27 58 0 77 20 69	23 A. 0 0 0 0 0 3	23 13 86 14 14	24	A. D. 3 41 4 09 7 50 1 37 2 88 3 30 7 56 19 90 52 66 2 79 10 02 49 84 11 75 47 86	Mi	Yams,  25  A. D.,  77 25 109 88 186 13  78 47 103 31 172 72 354 50  81 18 80 91 19 07 50 20 14 29 246 25	
Sadr. Auranga. Jaha. r.	Arwal Jahanabad Total  Daudnagar Nabinagar Aurangabad Total  Town Gaya Mufassal Gaya Tikari Atri Barachati Sherghati Total  Nawada		20  A. D.  6 40  8 07  11 53  1 98  22 05  28 15  50 17  0 05  13 05  0 50  8 67  6 29  102 20  126 35	21 3, 6, 9, 1, 2, 5, 11, 4,	A. D. 542 C1 223 27 705 88  092 38 2267 60 325 71 585 88 2 13 403 87 343 42 781 11 711 35 510 47	22  A. D.	23  A. 0 0 0 0 0 3	23 13 86 14 14	24	A. D. 3 41 4 09 7 50 1 37 2 58 3 30 7 56 19 90 52 66 2 79 10 02 49 84 11 75	Mi	Yams,  25  A. D.  77 25  109 88  186 13  78 47  103 31  172 72  354 50   81 18  80 91  19 C7  50 20  14 29	
Sadr. Auranga. Jaha. r.	Arwal Jahanabad Total  Daudnagar Nabinagar Aurangabad Total  Town Gaya Mufassal Gaya Tikari Atri Barachati Sherghati Total  Nawada Pakribarwan		20  A. D.  0 40  5 07  11 63  1 98  22 08  28 15  50 17  0 05  13 65  0 50  8 67  6 28  102 20  126 35  9 97  0 71	3, 6, 9, 1, 2, 5, 4, 2, 11, 4, 2, 7	A. D. 542 C1 223 27 705 88  092 39 267 60 325 71 585 88  2 13 443 87 343 42 784 11 711 35 510 47 155 35	22  A. D	23 A. 0 0 0 0 0 3 3	23 13 86 14 14	24	A. D. 3 41 4 09 7 50 1 37 2 58 3 30 7 56 19 90 52 66 2 79 10 02 49 84 11 75 47 86	Mi	Yams,  25  A. D.,  77 25  109 88  186 13  78 47  103 31  172 72  354 50   81 18  80 91  19 07  50 20  14 29  246 25  66 32	
Aurangs- Jaha- had nabad.	Arwal Jahanabad Total  Daudnagar Nabinagar Aurangabad Total  Town Gaya Mufassal Gaya Tikari Atri Barachati Sherghati Total  Nawada Pakribarwan Rajauli		20  A. D. 0 40 5 07 11 53 1 98 22 06 28 15 50 17 0 05 13 85 0 50 8 67 6 28 102 20 128 36 9 97 0 71 0 76	3, 6, 9, 1, 2, 5, 4, 5, 11, 6	A. D. 642 c1 223 27 705 88 992 30 9267 60 325 71 586 88 2 13 443 42 784 11 711 35 610 47 965 35 314 04 663 41 446 70	22  A. D.	23  A.  0  0   0   3  3	23 13 86 14 14	24	A. D. 3 41 4 09 7 50 1 37 2 58 3 30 7 55 19 90 52 66 2 79 10 02 49 84 11 75 47 86 17 30 0 63	Mi	Yams,  25  A. D.,  77 25  108 88  186 13  78 47  103 31  172 72  354 50   81 18  80 91  19 07  50 20  14 29  240 25  66 32  14 12	
Sadr. Auranga. Jaha. r.	Arwal Jahanabad Total  Daudnagar Nabinagar Aurangabad Total  Town Gaya Mufassal Gaya Tikari Atri Barachati Sherghati Total  Nawada Pakribarwan		20  A. D.  0 40  5 07  11 63  1 98  22 08  28 15  50 17  0 05  13 65  0 50  8 67  6 28  102 20  126 35  9 97  0 71	21 3, 6, 9, 1, 2, 5, 11, 4, 2, 6, 6, 6,	A. D. 542 C1 223 27 705 88  092 39 267 60 325 71 585 88  2 13 443 87 343 42 784 11 711 35 510 47 155 35	22  A. D	23  A.  0 0 0 0 3 3	23 13 36 14 14 29 06 35	24	A. D. 3 41 4 09 7 50 1 37 2 58 3 30 7 55 19 90 52 66 2 79 10 02 49 84 11 75 47 86 17 80 0 63 9 07	Mi	Yams,  25  A. D,  77 25  108 88  186 13  78 47  103 31  172 72  364 50   81 18  80 91  19 07  50 20  14 29  246 25  66 32  14 12  7 0	

DIX III
STATEMENT.

hai.					A	Ighani.		
es.	Dyes.	Miscel- laneous erops.			Cereals and I	pulses.		Oll-seeds,
Others etc.	Indigo.	Vegetables.	Total.	Rice.	Jowar (millet), janera,	Bajra (millet).	Other food- grains including pulses.	Til or jinjili.
11	12	13	14	15	16	17	18	19
A. D.	A. D.	A. D.	A. D.	А. р.	А. D.	A. D.	A, D.	Λ, Σ
		4 51	8,878 93	66,942 34	216 67	1 84	2,227 83	4 6
1 32		9 88	22,053 47	121,031 48	543 19	63 42	1,878 01	5 9
1 32		14 39	80,932 40	187,973 82	1,259 86	65 26	4,105 84	30 8
	3 86	5 89	7,330 47	51,900 71	2,941 17	0 44	3,015 83	2 :
8 24		8 37	6,340 88	44,768 80	5 45	0 46	4,301 32	233 (
	64 68	14 45	16,408 15	102,293 52	3,478 67	0 74	10,111 36	428
8 24	68 54	28 71	30,079 50	198,963 08	6,425 29	1 64	17.428 51	864
		19 99	382 87	392 33	5 65	,	6 71	
		121 91	0,523 69	88,053 16	4,438 19	4 25	4,490 61	15
	•••	10 23	7,858 38	62,403 70	1,017 59	2 19	1,143 50	4
1 10	•••	3 93	5,610 72	48,967 79.	173 07	0 60	1,612 74	12
0 13	***	12 65	12,694 85	48,231 28	<b>3</b> 39 56	4 55	4,239 45	903
2 95		3 50	23,472 75	54,662 94	959 94	23 73	7,027 58	2,066
4 18	***	172 21	59,543 26	302,111 20	6,934 00	35 32	18,520 49	3,001
2 90		36 08	25,079 00	134,833 95	05 69	11 29	3,245 92	10
•••	***	0 63	7,870 89	45,293 06	217 45	9 55	1.209 33	82
16 36	1	1 71	10,257 72	28,795 56	407 15	14 05	3,627 79	127
19 26		33 45	43,207 61	208,912 57	720 29	84 89	8,074 04	220
		252 50	163,762 77	897,060 62	15,339 44	137 11	48,128 88	3,899
33 00	68 54	253 76	100,704 77	1 697,500 02	10,000 11	16, 11	10,120 00	3,800
33 00   ni.	68 54	253 76	105,702 77	1 697,000 02	10,000 11	] 10, 11	20,120 00	0,000
ni.	68 54	253 76	105,704 77	1 897,000 02		and pulses,	20,120 00	3,800
ni.	Others.	Total.	Rice (boro).	Wheat,				Other foodgrains, incli
Carrots					Cereals	and pulses.		Other foograins, incl
Carrots and radishes.	Others.	Total.	Rice (boro).	Whoat,	Cercals Barley.	and pulses.	Arher.	Other foodgrains, incling pulses
Carrots and radishes.	Others.	Total.	Rice (boro).	Whoat,	Cercals Barley.	g and pulses.  Gram.	Arhar.	Other foograins, inclining pulses
Carrots and radishes.  26	Others. 27  A. D	Total. 28	Rice (boro).	Wheat, 30 A. D.	Cereals Barley, 31 A. D.	Gram.  32  A. D.	Arhar.   33   A. D.	Other foograins, incling pulses  34  A.  33,787
Carrots and radishes.  26  A. D. 11 58	Others.  27  A. D 0 76	Total.  28  A. D. 78,534 8:	Rice (boro).  29  A. D.  7 29	Wheat, 30 A. D. 3,408 95	Cercals  Barley.  31  A. D.  6,665 48	32 A. D. 17,912 83	Arhar.   33   A. D.   1,624 01	Other foodgrains, incling pulses  34  A.  33,787  69,589
Carrots and radishes.  26  A. D. 11 58 32 80 44 44	Others.  27  A. D.  0 76 0 76	Total.  28  A. D. 73,534 8: 1,29,897 1: 2,03,431 99	Rice (boro).  29  A. D	Wheat,  30  A. D. 3,408 95 8,802 64 12,211 59	Cereals  Barley.  31  A. D.  6,665 48  19,855 32  20,520 80	Gram.  32  A. D. 17,912 83 19,713 42 37,626 25	Arhar. 33  A. D. 1,624 01 1,088 65 2,712 66	Other foograins, incl ing pulser 34 A. 33,787 69,589 1,33,357
Carrots and radishes.  26  A. D. 11 58 32 80 44 44 77 59	Others.  27  A. D.  0 76 0 76	Total.  28  A. D. 73,534 8: 1,29,897 1: 2,03,431 95 60,042 26	Rice (boro).  29  A. D  7 29  5 7 20  0	Wheat,  30  A. D.  3,408 95  8,802 64  12,211 59  11,953 03	Cercals  Barley.  31  A. D. 6,665 48 19,855 32 20,520 80 5,310 70	Gram.  32  A. D. 17,912 83 19,713 42 .37,626 25 36,624 73	Arhar. 33 A. D. 1,624 01 1,088 65 2,712 66 2,616 17	Other foodgrains, incling pulses  34  A. 33,727 99,589 1,33,357 30,748
Carrots and radishes.  26  A. D. 11 58 32 80 44 44 7 59 14 01	Others.  27  A. D.  0 76  0 76  0 04	Total.  28  A. D. 73,534 8: 1,29,897 17 2,03,431 9: 60,042 26 50,723 46	Rice (boro).  29  A. D.  7 29  5 7 20	Whoat,  30  A. D. 3,408 95 8,802 64 12,211 59 11,953 03 13,341 98	Cercals  Barley.  31  A. D. 6.665 48 19.855 32 20.520 80 5.310 70 3.500 80	Gram.  32  A. D. 17,912 83 19,713 42 37,626 25 36,624 73 24,135 14	Arhar. 33 A. D. 1,624 01 1,088 65 2,712 66 17 1,652 48	Other foograins, incl ing pulses 34 A. 33,737 59,589 1,33,357 30,748 21,688
Carrots and radishes.  26  A. D. 11 58 32 80 44 44 7 59 14 01 32 45	Others.  27  A. D 0 76 0 76 0 04 0 63	Total.  28  A. D. 73,534 8: 1,29,897 1: 2,03,431 9: 60,042 2: 50,723 4: 1,18,574 6:	Rice (boro).  29  A. D.  7 29  7 20  2 2 06	Wheat,  30  A. D. 3,408 95 8,802 64 12,211 59 11,953 03 13,341 99 31,548 52	Cercals  Barley.  31  A. D.  6,665 48  19,855 32  20,520 80  5,310 70  3,500 80  7,250 85	A. D. 17,012 83 19,713 42 37,626 25 36,624 73 24,135 14 86,048 78	Arhar. 33 A. D. 1,624 01 1,088 65 2,712 66 2,616 17 1,652 48 4,805. 06	Other foograins, incling pulses  34  A. 33,707 69,589 1,33,357 30,748 21,688 54,956
Carrots and radishes.  26  A. D. 11 58 32 80 44 44 7 59 14 01	Others.  27  A. D 0 76 0 76 0 04 0 63	Total.  28  A. D. 73,534 8: 1,29,897 17 2,03,431 9: 60,042 26 50,723 46	Rice (boro).  29  A. D.  7 29  7 20  2 2 06	Whoat,  30  A. D. 3,408 95 8,802 64 12,211 59 11,953 03 13,341 98	Cercals  Barley.  31  A. D. 6.665 48 19.855 32 20.520 80 5.310 70 3.500 80	Gram.  32  A. D. 17,912 83 19,713 42 37,626 25 36,624 73 24,135 14	Arhar. 33 A. D. 1,624 01 1,088 65 2,712 66 17 1,652 48	Other foograins, incling pulses  34  A. 33,707 69,589 1,33,357 30,748 21,688 54,956
Carrots and radishes.  26  A. D. 11 58 32 80 44 44 7 59 14 01 32 45	Others.  27  A. D.  0 76  0 76  0 04  0 63  0 67	Total.  28  A. D. 73,534 8: 1,29,897 1: 2,03,431 9: 60,042 2: 50,723 4: 1,18,574 6:	Rice (boro).  29  A. D.  7 29  5 7 20   2 2 08  1 2 08	Wheat,  30  A. D. 3,408 95 8,802 64 12,211 59 11,953 03 13,341 99 31,548 52	Cercals  Barley.  31  A. D.  6,665 48  19,855 32  20,520 80  5,310 70  3,500 80  7,250 85	A. D. 17,012 83 19,713 42 37,626 25 36,624 73 24,135 14 86,048 78	Arhar. 33 A. D. 1,624 01 1,088 65 2,712 66 2,616 17 1,652 48 4,805. 06	Other foograins, incl ing pulses 34 A. 33,737 59,589 1,33,357 30,748 21,888 54,956 1,10,504
Carrots and radishes.  26  A. D. 11 58 32 80 44 44 7 59 14 01 33 45 54 05	Others.  27  A. D 0 76 0 76 0 04 0 63 0 67	Total.  28  A. D. 73,534 8: 1,29,897 1: 2,03,431 9: 60,042 2: 50,723 44 1,18,574 6: 2,29,640 3  428 0	Rice (boro).  29  A. D.  7 29  5 7 20   2 2 08  1 2 08	Whoat,  30  A. D. 3,408 95 8,802 64 12,211 59 11,953 03 13,341 99 31,548 52 57,143 53	Cercals  Barley.  31  A. D. 6,665 48 10,855 32 20,520 80 5,310 70 3,500 80 7,250 85 16,062 35	A. D. 17,912 83 19,713 42 37,626 25 36,624 73 24,135 14 86,048 78 1,46,808 65	Arhar.  33  A. D. 1,624 01 1,088 65 2,712 66  2,616 17 1,652 48 4,803. 06 9,374 71	Other foodgrains, incling pulses  34  A. 33,737  69,589  1,33,357  30,748  21,888  54,956  1,10,594
Carrots and radishes.  26  A. D. 11 58 32 80 44 44 7 59 14 01 32 45 54 05	Others.  27  A. D.  0 76  0 76  0 63  0 67  0 31	Total.  28  A. D. 78,534 8: 1,29,897 13 2,03,431 93  60,042 26 50,723 44 1,18,574 66 2,29,640 3  428 0	Rice (boro).  29  A. D.  7 29  7 20  2 2 06 1 2 08 8 8	Whoat,  30  A. D. 3,408 95 8,802 64 12,211 59 11,953 03 13,341 98 31,548 52 57,148 53 42 94	Cercals  Barley.  31  A. D.  0,665 48  19,855 32  20,520 80  5,310 70  3,500 80  7,250 85  16,062 35	A. D. 17,912 83 19,713 42 37,626 25 36,624 73 24,135 14 86,048 78 1,46,808 65 30 16	Arhar. 33 A. D. 1,624 01 1,088 65 2,712 66 2,616 17 1,652 48 4,803 06 9,374 71 12 23	Other foodgrains, inclining pulses  34  A.  33,737  69,589  1,33,357  30,748  21,688  54,956  1,10,594
Carrots and radishes.  26  A. D. 11 58 32 80 44 44 7 59 14 01 32 45 51 05	Others.  27  A. D.  0 76  0 76  0 63  0 67  0 31	Total.  28  A. D. 73,534 8: 1,29,897 1: 2,03,431 9: 60,042 2: 50,723 4: 1,18,674 6: 2,29,640 3  428 0 99,687	Rice (boro).  29  A. D.  7 29  7 20  2 2 06  1 2 06  8 9	Wheat,  30  A. D. 3,408 95 8,802 64 12,211 59 11,953 03 13,341 98 31,548 52 57,148 53 42 94 16,960 30	Cercals  Barley.  31  A. D.  6,665 48  19,855 32  20,520 80  5,310 70  3,500 80  7,250 85  16,052 35  25 37  4,916 96	A. D. 17,912 83 19,713 42 37,626 25 36,624 73 24,135 14 86,048 78 1,46,808 65 30 16 14,144 17	Arhar.   33   A. D.   1,624 01   1,088 65   2,712 66   2,616 17   1,652 48   4,893 . 06   9,374 71   12 23   7,311 03	Other food grains, inclining pulses 34 A. 33,787 69,589 1,33,357 30,748 21,688 54,956 1,10,594 18 30,497 46,692
Carrots and radishes.  26  A. D. 11 58 32 80 44 44 7 59 14 01 32 45 51 05 1 31 32 72 23 38	Others.  27  A. D 0 76 0 76 0 63 0 67 0 31	Total.  28  A. D. 73,534 8: 1,29,897 1: 2,03,431 9: 60,042 2: 50,723 4: 1,18,674 6: 2,29,640 3  428 0 99,687 6 69,322 4	Rice (boro).  29  A. D.  7 29  5 7 20  2 2 08  1 2 08  8 8 9	Wheat,  30  A. D. 3,409 95 8,802 64 12,211 59 11,953 03 13,341 99 31,548 52 57,148 53 42 94 16,060 30 20,747 93	Cercals  Barley.  31  A. D. 6,665 48 19,855 32 20,520 80  5,310 70 3,500 80 7,250 85 16,052 35  25 37 4,916 96 9,123 45	A. D. 17,912 83 19,713 42 . 37,826 25 36,624 73 24,135 14 86,048 78 1,46,808 65 30 16 14,144 17 17,890 56	Arhar.  33  A. D.  1,624 01  1,088 65  2,712 66  2,616 17  1,652 48  4,803 06  9,374 71  12 23  7,311 03  1,097 05	Other food grains, inching pulses 34 A. 33,787 69,589 1,33,357 30,748 21,888 54,956 1,10,594 15 30,497 46,692 20,312
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Carrots and radishes.  26  A. D. 11 58 32 80 44 44  7 59 14 01 33 45 51 05 1 31 32 72 23 38 9 81 11 61	Others.  27  A. D.  0 76  0 76  0 83  0 67   2 28  0 90	Total.  28  A. D. 73,534 8 1,29,897 17 2,03,431 93 60,042 24 50,723 44 1,18,674 63 2,20,640 3 428 0 90,687 66 08,322 4 52,594 66 54,580 5	Rice (boro).  29  A. D.  3 7 29  5 7 20   2 2 08  1 2 08  8  9  0  0  8 4 38	Wheat,  30  A. D. 3,408 95 8,802 64 12,211 59 11,953 03 13,341 98 31,548 52 57,148 53  42 94 16,960 30 20,747 93 10,145 92 3,500 42	Cercals  Barley.  31  A. D. 6,665 48 19,855 33 20,529 80 5,310 70 8,500 80 7,250 85 16,052 35 26 37 4,916 96 9,123 45 3,583 45 4,331 09	Gram.  32  A. D. 17,912 83 19,713 42 .37,626 26 36,624 73 24,135 14 .86,048 78 1,46,808 65 30 16 14,144 17 17,890 56 4,346 47 7,509 82	Arhar.  33  A. D. 1,624 01 1,088 65 2,712 66  2,616 17 1,652 48 4,803 .06 9,374 71  12 23 7,311 03 1,097 05 623 89 7,063 87	Other foorgrains, incling pulses  34  A. 33,727 99,589 1,33,357 30,748 21,688 54,956 1,10,594 15 20,497 46,692 20,312 4,013 7,642
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APPEN Crop

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	Total	6,134	35 0	,017 78	834	32	609	33	2	82	500 49	0	17
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Auranga- bad.	Nabinagar	8,934	87	847 30	87	7 53	362	88	1	76	•••	•	75
4	Aurangabad	13,147		,540 69	24		899	ρ4	4		40 28		18
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	Grand Total	78,052	34 2	8,098 62	4,40	3 28	5,452	69	17	62	3,406 9	29	92
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rision				12.0	H808	11/2	2						
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Name of Subdivision.	·	Fodd	er crops.	Khora	ut.	othe	r than	Po	tatoes.		Non-food.	Total.	
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DIX 111-concld.

### STATEMENT.

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Dyes.		<del></del>									<del></del>	1
Kusum.	Opium.	•	Coffee.	Те	۵,	Toba	oco.		Cinchon	<b>a.</b>	Indian hemp,	Others,
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64 76 Orchards an	<del></del> -		Total	 of	Are	a cropped	Ü.	51			:	3
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64 78 Orchards an (incl	135 0i	ince	Total column	 of u 12,	Åre nic	ore than	Ü.	51	 Net area		Tar (palm	Khajur
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64 76 Orchards an (inch Mango garde	135 Officers of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of th	D.	Total column 26 and	of 12, 58.	Åre nic	once,	42	51	Net area	ı	Tar (palm tree).	Khajur (date tree).
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64 76 Orchards an (inch Mango garde	135 04  ad gardon producting pan.)  Others  57  0. A. 210	D. 149	Total column 28 and	12, 58. A. D. 026 86	Are no	59 A. :	422 D.	51	% A. 1	10	Tar (palm tree).	### ### ### ### ### ### ### ### ### ##
64 76 Orchards an (incl Mango garde  56 A. I J,404 9 2,195 6 3,659 9	135 04  Id garden productin; pan.)  Others  57  O. A.  200 12: 74 21: 94 33:	D. D. 20 3 69	Total column 28 and 28 and 461	A. D. 028 96 338 51	Are no	59 A. 50,727 9 98,026 5	D. D. D. D. D. D. D. D. D. D. D. D. D. D	51	Met area ecopped.  60  A. 1 100,299 212,283 312,582	10	Tar (palm tree).  61  No. 100,262 208,627	No. 9.78 59.64 69.65
64 76 Orchards an (incl. Mango garde  56 A. I J.404 5 2,198 6 3,659 6	135 04  ad gardon producting pan.)  Others  57  0. A. 210  94 333	D. D. 3 49 3 69 1 21	Total column 28 and 28 and 28 and 461.	of 12, 58.  A. D. 028 96, 309 65	Are no	59 A.	D. D. D. D. D. D. D. D. D. D. D. D. D. D	51	Met area e/opped.  60 A. 1 100,299 : 212,283	10 10 10 10 10 10 10 10 10 10 10 10 10 1	Tar (palm tree).  100,262 208,627 305,089	No. 9.78 59.84 29.56
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64 76 Orchards an (incl. Mango garde  56 A. I J.404 9 2,195 3 3,659 9 1,035 489 1 1,396 9 2,921 1	135 04  ad garden producting pan.)  Others  57  A. 210  94 230  95 55  81 23  84 500  58 14	D. D. 20 3 69 1 21 3 70 3 61 77 75 35	Total column 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and	A. D. 028 96 ,309 65 ,338 51 ,048 24 ,329 03 ,290 13 ,007 18	Are no	59 A. 1 50,727 9 98,028 5 148,764 4 37,988 6 15,303 4 45,811 6 93,091 6 20,040	D	51	Met area eropped.  60  A. 1 100,299 212,283 312,582 ( 123,157 119,966 292,033 1 538,153  941 179,368	94   10   10   10   10   10   10   10   1	Tar (palm tree).  81  No. 100,262 208,627 306,089 138,850 18,437 63,743 221,030 8,141 129,620	No. 9.78 59,84 60.62 29,56 50,22 91,04 170,82 5,78 287,05 78,44
64 76  Orchards an (incl.  Mango garde  56  A. I  1,404 9  2,106 9  1,035 9  1,396 9  1,396 9  1,396 1  1,593 9  1,593 9	135 04  ad garden producting pan.)  Others  57  A. 210  94 230  95 55  81 23  84 500  58 14	D. D. 9 49 9 69 1 21 3 70 3 61 3 52 1 77 5 35 35 1 03 9 43	Total column 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and	A. D. 028 86 88 85 85 85 87 70 87 70 87 87 70 87 87 87 87 87 87 87 87 87 87 87 87 87	Are no	59 A. 1 50,727 9 98,026 5 148,754 4 37,988 6 15,363 4 45,811 6 93,091 6 20,040 40,487 8	D. D. D. D. D. D. D. D. D. D. D. D. D. D	51	Net area e/oppel.  60  A. 1 100,299 212,283 312,582 123,157 119,966 292,033 638,153 941 179,368 146,217	94   10   10   10   10   10   10   10   1	Tar (palm tree).  81  No. 100,262 208,627 306,089 138,850 18,437 63,743 221,030  8,141 129,620 75,434	No. 9.78 59,84 69.62 91,08 170,82 5,78 237,05
64 76  Orchards an (incl.  Mango garde  56  A. I  1,404 9  2,106 9  1,035 9  1,396 9  1,396 9  1,396 1  1,593 9  1,593 9	135 04  Id garden productin; pan.)  Others  57  O. A.  200 12:  74 21:  94 33:  84 50:  88 14  59 14  58 11:  97 6  30 18	D. D. 9 49 9 69 1 21 3 70 3 61 3 52 1 77 5 35 35 1 03 9 43	Total column 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and	A. D. 026 96 336 51 338 51 348 24 329 09 374 70 250 03 307 18 3705 61 330 14	Are no	59  A.	D. D. D. D. D. D. D. D. D. D. D. D. D. D	51	Met area eropped.  60  A. 1 100,299 212,283 312,682 123,157 119,966 292,033 538,153 941 179,386 146,217 83,270 90,056	94   10   10   10   10   10   10   10   1	Tar (palm tree).  No. 100,262 208,627 309,089 138,850 18,437 63,743 221,030 8,141 129,620 75,434 65,906	No. 9.78 59.84 69.62 91.04 170.82 5.78 237.05 78.44 95.70
56  A. I J.404 9 2,198 9 1,396 9 1,396 1 2,921 9 1,533 580 544	135 04  136 04  137 04  138 04  139 04  140 121  140 121  150 121  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150  150 150	D. D. 9 49 9 69 1 21 3 70 3 61 1 77 75 35 35 1 03 3 71	Total column 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and	A. D. 026 96 336 51 ,046 24 ,329 06 ,874 70 ,250 03 ,097 18 ,705 61 ,330 14 ,686 50	Are	59 A.	D. D. D. D. D. D. D. D. D. D. D. D. D. D	51	Met area eropped.  60  A. 1 100,299 212,283 312,682 123,157 119,966 292,033 538,153 941 179,386 146,217 83,270 90,056	94   10   14   10   16   16   16   16   16   16   16	Tar (palm tree).  No. 100,262 208,627 306,069 138,850 18,437 63,743 221,030 8,141 129,620 75,434 65,906 64,608	No. 9.78 50,84 60.62 91,04 170,82 5,79 237,05 78,41 96,70 152,87
64 76 Orchards an (incl  Mango garde  56  A. I  1,404 9  2,105 9  3,659 9  1,396 9  1,396 1  1,533 580  544 685  5,340 9	135 04  Id garden productin; pan.)  Others  57  O. A.  21  24  24  33  25  84  50  97  67  10  66  66  62	D. D. 49 49 20 3 69 1 21 3 70 35 61 1 77 73 35 35 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Total column 26 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and	A. D. 028 96 309 65 338 51 ,046 24 ,329 09 ,874 70 ,250 03 ,097 18 ,705 61 ,330 14 ,666 50 ,046 33 ,044 89	Are	59 A. 50,727 9 98,026 5 148,754 4 37,988 6 15,303 4 45,811 6 93,081 6 20,040 40,487 8 18,059 6 8,610 2 21,118 1	D. D. D. D. D. D. D. D. D. D. D. D. D. D	51	Net area e/opped.  50  A. 1 100,298 212,283 312,582 123,157 118,965 6 292,033 1 179,368 146,217 83,270 90,056 127,927	004   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100	Tar (palm tree).  100,262 208,627 306,069 138,850 18,437 63,743 221,030 6,141 129,620 75,434 65,906 64,608 36,458	No. 9.76 59.84 69.62 91.04 170.82 5.78 237.05 78.44 95.70 152.81 89.00
64 76 Orchards an (incl Mango garde  56 A. I J,404 2 2,195 3 8,659 1 1,035 489 1 2,921 87 1,901 1 1,533 580 544 685 5 5,340 1 1,223	135 04  Id garden productin; pan.)  Others  57  O. A.  20  12:  74  21:  94  33:  84  50:  80  14  50  10  66  62  96  14	D. D. 49 20 3 69 1 21 3 70 3 61 1 77 5 35 3 93 3 71 3 3 13 13 3 5 1	Total column 26 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and 28 and	A. D. 026 96 338 51 ,046 24 ,329 09 ,874 70 ,250 03 ,007 18 ,705 61 ,330 14 ,886 50 ,045 33	Are	59  A.	D. D. D. D. D. D. D. D. D. D. D. D. D. D	51	Met area eropped.  60  A. 1 100,299 212,283 312,582 123,157 119,966 292,033 638,153 941 179,366 146,217 83,270 90,056 127,927 630,779	004   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100	Tar (palm tree).  No. 100,262 208,627 304,089 138,850 18,437 63,743 221,030 8,141 129,620 75,434 65,906 64,608 36,458 372,167	No. 9.78 59.84 69.63 29.56 29.56 29.56 29.56 170.83 5.78 287.00 78.44 96.70 152.83
64 76 Orchards an (incl  Mango garde  56  A. I  1,404 9  2,105 9  3,659 9  1,396 9  1,396 1  1,533 580  544 685  5,340 9	135 04  ad gardon productin; pan.)  by  Chers  by  Chers	D. D. 49 20 3 69 1 21 3 70 3 61 1 77 5 35 3 93 3 71 3 3 13 13 3 5 1	Total column 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and	A. D. 026 96 336 51 ,046 24 329 06 ,874 70 ,250 03 ,007 18 ,705 61 ,330 14 ,686 50 ,046 33 .044 89	Are	59  A.	D. D. D. D. D. D. D. D. D. D. D. D. D. D	51	Met area eropped.  60  A. 1 100,299 9 212,283 312,582 0 123,157 8 119,966 6 292,033 1 179,306 146,217 83,270 90,056 127,027 030,779 211,298	094 100 100 100 100 100 100 100 100 100 10	Tar (palm tree).  No. 100,262 208,627 306,069 138,850 18,437 63,743 221,030 8,141 129,620 75,434 65,906 64,608 36,458 372,167 143,794	86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86
64 76 Orchards an (inch Mango garde  56 A. I J,404 9 2,195 9 1,035 9 1,396 9 1,396 9 1,396 9 1,533 580 544 685 5,340 1 1,223 1 101	135 04  ad gardon productin; pan.)  Chera  BF  Others  BF  Others  121  74 210  95 65  81 73  84 500  DO  66 62  66 62  66 62  68 4  75 16	D. D. 20 9 69 1 21 3 70 3 61 77 5 35 35 13 33 3 71 13 3 13 3 5 6	Total column 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and 26 and	A. D. 026 96 309 65 338 51 ,046 24 ,329 09 ,874 70 ,250 03 ,290 13 ,007 18 ,705 61 ,330 14 ,886 50 ,046 33 ,044 89 ,358 18 3,701 20	Are	59  A.	D. D. D. D. D. D. D. D. D. D. D. D. D. D	51	Net area e/opped.  60  A. 1 100,299 212,283 312,582 123,157 119,966 292,033 538,153 941 179,306 146,217 83,270 90,056 127,027 630,779 211,298 78,536	094 100 100 100 100 100 100 100 100 100 10	Tar (palm tree).  100,262 208,627 306,069 138,850 18,437 63,743 221,030 6,141 129,620 75,434 65,906 64,608 36,458 372,167 143,784 49,369	Khajur (date tree).

APPEN

# ABSTRACT OF RE

			7	Propri	etors' Zirat.	Proprieto	old by ors but not rat.	In ct poss Tenu	altivating ession of re-holders.	R	liyats at fixed
Name of Subdivision.	Name o	of Thana.		Number of holdings.	Total area,	Number of holdings.	Total area.	Number of boldings.	Total area,	Number of holdings.	Total area.
1		2		3	4	5	6	7	8	9	10
*******		•	1		A. D.		A, D.	<u> </u>	A. D,	1	A, D.
ਵ਼ਿਚ (	Arwal	***			***	1,516	9,317 70	890	4,428 12	102	323 29
Jahan- abad.	Jahanabad			111	397 46	4,642	18,159 43	1,989	7,371 46	3,820	3,207 69
	Total			111	397 46	6,158	27,477 13	2,579	11,799 58	3,422	3,530 97
ġ	Daudnagar				•••	1,821	19,615 37	851	5,643 29	707	1,125 62
Auranga- bad.	Nabinagar	***			***	852	9,678 88	670	6,281 24	1	174 03
₹ (	Aurangabad	***				1,826	24,049 97	2,274	24,737 29	_  -	1,802 09
_	Total	•••				4,499	53,344 20	3,795	30,061 82	-  -	8,101 74
1	Town Gaya Mufassal Gaya	***	***	***.	***	662	11 72 6,647 53	25 1,238	9 / 88 12,156 04	1 1	36 91 3,678 91
	Tikari	•••	•••	1	 24 83	1	8,638 89	1,100	7,331 46		5,622 55
Sadr.	Atri					402	1,893 79	463	3,498 28	1.	708 16
	Barachati	,	"			5:6	9,589 44	677	10,553 70	) I	127 60
{	Sherghati			•••	6	1,500	17,386 01	1.618	15,409 54	24	85 25
	Total	***		1	24 39	4,212	44,158 38	F,121	49,089 87	8,766	10,259 88
oi l	Nawada '			13	281 75	2,538	16,410 60	1,586	7,941 99	463	546 94
· (8)	Pakribarwan	•••			A	347	5,329 93	284	2,905 33	90	158 47
- <b>क</b> ि			1	2	19 78	317	3,607 35	504	4,472 54	1	84
Nawada.	Rajauli	***	[								#04 OF
Naw	Total	•••	•••	15	301 53		25,347 88	2,374	15,319 66	-  -	706 25
Naw			i	15 127	301 53 723 <b>3</b> 2		25,347 88 150,327 <b>59</b>	14,169	15,319 66 112,620 98	-  -	17,598 34
Naw	Total					-		14,169	112,620 98	-  -	
	Total					18,071	150,327 59	14,169	112,820 98	-  -	17,598 34
	Total			127		Nakci.	150,327 59 Non-occup	14,169	112,820 98 ats. Chakath.	14,785	
	Total Grand total			127	723 82	Nakci.	150,327 59 Non-occup	14,169	112,820 98 ats. Chakath.	14,785	17,598 34
	Total Grand total			127	723 82	Nakci.	150,327 59 Non-occup	14,169 ancy Raiya	112,820 98  ats.  Chakath.	14,785	17,598 34
of Subdivision.	Total Grand total			127	69. 723 85	Nakci.	150,327 59 Non-occup	14,169	112,820 98  ats.  Chakath.	14,785	17,598 34
	Total Grand total				723 82	Nakci.	150,327 59	14,169 ancy Raiya	112,820 98 ats. Chakath.	-  -	17,598 34
of Subdivision.	Total Grand total			127	69. 723 85	Nakci.	150,327 59 Non-occup	14,169	112,820 98  ats.  Chakath.	14,785	17,598 34
of Subdivision.	Total Grand total			Number of holdings,	Total area.	Total of existing Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of the Nativity of	Non-occup	14,169 Lore later Total area area Raiye	112,820 98 ats.  Chakath.  Chakath.	Arersge rate per acre of total area.	17,598 34  Bhaoli.
Name of Subdivision.	Total Grand total			Number of holdings,	55 Total area.	Long Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total Total T	Non-occup  Non-occup  occup  o	ancy Raiye	112,820 98 ats.  Chakath.  2011111111111111111111111111111111111	14,786 Tate be left of total area. Page area.	17,598 34  Bhaoli.
of Subdivision.	Total Grand total  Name	of Thans.		71 Number of holdings.	723 35 6 6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Naheci.  Naheci.  23  Rs. a. 1 6,161 10 6 2,034 5 16	150,327 59  Non-occup  Indiput 10 25 25 24  24  24  Rs. c. p. 0 6 2 9 0 8 5 4	14,169 aney Raiya  ribut   14,169    25    A. D  202 35	112,820 98 ats.  Chakath.  Signature of the state of the	14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786	17,598 34    Bhaoli.
Jahan- s ad. Name of Subdivision.	Total Grand total  Name  Arwal Jahanabad	of Thana.		127 Shunker of holdings 21 485 360 845	723 35 1 22 A. D. 996 88 352 11 1,348 99	Natici.  Natici.  23  Rs. 2. 1 6,151 10 9,085 15 10	Non-occup    150,327   59   Non-occup   150,327   59   150,327   59   150,327   59   150,327   59   150,327   59   150,327   59   150,327   59   150,327   59   150,327   59   150,327   59   150,327   59   150,327   59   150,327   59   150,327   59   150,327   59   150,327   59   150,327   59   150,327   59   150,327   59   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   150,327   1	14,169 aney Raiya  154 50 50 50 50 50 50 50 50 50 50 50 50 50	112,820 98  ats.  Chakath.  20 10 11 12 12 12 12 12 12 12 12 12 12 12 12	14,786  14,786  14,786  14,786  Pacca of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of total according to the paccase of	17,598 34  Bhacki.  190  28  A. D.  313 52  308 03  661 55
Jahan- s ad. Name of Subdivision.	Total Grand total  Name  Arwal Jahanabad  Daudi agay	of Thana.		127 ssalin plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of the plot of	723 35  1	Natici.  Natici.  23  Rs. a. 1 6,151 10 2,034 5 16 9,085 15 10 2,075 13	Non-occup  Non-occup  Local part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the part of the pa	14,169 aney Raiye 25 A, D, 202 35 202 35 13 76	112,820 98 ats.  Chakath.  28 113 23 Rs. a. p. 1,350 5 3 1,350 5 3	14,786  14,786  14,786  14,786  15,74  16,10  17,76  18, a. p.  18, a. p.  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,10  19,1	17,598 34  Bhaoli.  28  A. D.  313 52  308 03  681 55  438 49
Jahan- s ad. Name of Subdivision.	Total Grand total  Name  Arwal Jahanabad  Daudr agar Nabinagar	of Thana.		127  Lumper of holdings  21  485  360  845  239  244	723 35  ead   Eac    22    A. D. 996 88 352 11  1,348 99 250 16 356 81	Nakai.  Nakai.  18,071  Nakai.  23  Rs. 2. 1 6,161 10 6 2,034 5 16 9,085 15 16 2,075 13 6 809 6	150,327 59  Non-occup  100 101 101 101 101 101 101 101 101 10	25 A. D 202 35 202 35 22 66	112,820 98  ats.  Chakath.  Silisis  [15]  23  Rs. a. p.   1,350 5 3  125 5 3  65 9 6	14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  15,77  16,77  16,77  17,77  18, a. p.  27  18, a. p.  30,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,77  19,	28  A. D. 313 52 308 03 681 55 438 49 763 22
Name of Subdivision.	Total Grand total  Name  Arwal Jahanabad  Daudi agay	of Thana.  Total		127  state of property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the	723 35	Notice:  Notice:  18,071  Notice:  23  Rs. 2. 1 0,151 10 0 2,034 5 16 2,075 13 809 6 6 2,165 7	150,327 59  Non-occup  India puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and puri 95 and p	14,169 aney Raiye 25 A. D 202 35 202 35 13 76 22 66 242 22	112,820 98  ats.  Chakath.  21  23  Rs. a. p.  1,350 5 3  125 5 8 65 9 6 847 10 6	14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786	17,598 34  Bhack.  28  A. D. 313 52 308 03 081 55 438 49 763 22 1.666 62
Jahan- s ad. Name of Subdivision.	Total Grand total  Name  Name  Arwal  Jahanabad  Daudi agar  Nabinagar  Anrangabad	of Thans.		127  sissiming of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property	723 35  22  A. D. 996 88 352 11 1,348 99 250 16 356 81 523 38 1,30 35	Notice:  Notice:  18,071  Notice:  23  Rs. a. 1 6,161 10 6 2,034 5 16 9,085 15 16 2,075 13 809 6 6 2,165 7 6 5,110 10	Non-occup	14,169 aney Raiya  25  A. D.  202 35  202 35  13 76  22 66  242 22  278 64	112,820 98  ats.  Chakath.  Pit 12 12 13 15 15 15 15 15 15 15 15 15 15 15 15 15	14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786	17,598 34  Bhaoli.  28  A. D. 313 52 308 03 681 55 438 49 763 22 1.666 62 2.868 33
Jahan- s ad. Name of Subdivision.	Total Grand total  Name  Name  Daudragar  Nabinagar  Aurangabad  Town Gaya	of Thana.  Total		127  state of property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the	723 35	Notice:  Notice:  18,071  Notice:  23  Rs. 2. 1 0,151 10 0 2,034 5 16 2,075 13 809 6 6 2,165 7	150,327 59  Non-occup    Class   14,169 aney Raiye 25 A. D 202 35 202 35 13 76 22 66 242 22	112,820 98  ats.  Chakath.  21  23  Rs. a. p.  1,350 5 3  125 5 8 65 9 6 847 10 6	14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786	17,598 34  Bhack.  28  A. D. 313 52 308 03 081 55 438 49 763 22 1.666 62	
Antenga. Jahan- had and Name of Subdivision."	Total Grand total  Name  Name  Arwal  Jahanabad  Daudi agar  Nabinagar  Anrangabad	Total Total		127  sissimple of the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s	723 35  \$\frac{1}{2} \\ \frac{1}{2} \\ \frac{1}{2} \\ \frac{1}{2} \\ \frac{1}{2} \\ \frac{1}{3}	Naheci.  Naheci.  23  Rs. a. 1 6,161 10 6,085 15 10 2,034 5 10 2,075 13 809 6 2,165 7 5,110 10 15 4 1	150,327 59  Non-occup    1010   102   103   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104   104	14,169 aney Raiya  25  A. D.  202 35  202 35  13 76  22 66  242 22  278 64	112,820 98 ats.  Chakath.  Piggs 10 11 12 12 12 12 12 12 12 12 12 12 12 12	14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786	17,598 34    Bhaoli.
Antenga. Jahan- had and Name of Subdivision."	Total Grand total  Name  Name  Arwal  Jahanabad  Daudy agay  Nabinagar  Aurangabad  Town Gaya  Mufassal Gaya	Total		127  shall in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant in plant i	723 35	Nation 1 18,071 23 Rs. 2. 1 6,161 10 6 2,034 5 16 2,075 13 809 6 6 2,165 7 5,110 10 6 15 4 1,1859 9 6	150,327 59  Non-occup  1010,327 59  Non-occup  1010,327 59  24  24  24  24  3 8 5 4  6 11 10  3 8 4 8  0 2 7 0  3 4 2 2  6 4 8 4  0 4 14 8  0 3 8 2  0 4 12 3	25 A, D, 202 35 13 76 22 66 242 22 278 64 43 66	112,820 98  ats.  Chakath.  23  Rs. a. p. 1,350 5 3 125 5 8 65 9 6 847 10 6 1,038 9 6	14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  15,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786  16,786	17,598 34    Bhaoli.
Jahan- s ad. Name of Subdivision.	Total Grand total  Name  Name  Daudr agay  Nabinagar  Aurangabad  Town Gaya  Mufassal Gaya  Tikari	Total Total		127  21  485  360  845  239  244  584  1,037  3  871  244	723 35  1	Nation 23  Rs. a. 1 6,151 10 2,034 5 16 2,075 13 809 6 6 2,165 7 5,110 10 15 4 1 1,859 0 6 1,214 15	150,327 59  Non-occup  150,327 59  Non-occup  24  24  24  24  24  3 8 4 8 8  4 2 2  6 4 8 4  0 4 14 8  0 3 8 2  4 12 3  1 2 4 8	14,169 aney Raiye 25 A. D. 202 35 202 35 13 76 22 66 242 22 278 64 43 86	112,820 98  ats.  Chakath.  21  23  Rs. a. p.  1,350 5 3  125 5 8  65 9 6  847 10 6  1,038 9 6   174 12 8	14,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,786  144,	17,598 34  Bhaoli.  28  A. D. 313 52 308 03 661 55 438 49 763 22 1.666 62 2.898 33 325 76 376 16
Antenga- Jahan- Name of Subdivision."	Arwal Jahanabad  Daudi agar Nabinagar Aurangabad  Town Gaya Mufassal Gaya Tikari	Total Total		127  21  465  360  845  230  244  584  1,087  3  871  244  160	723 35  724 25  A. D. 996 88  352 11  1,348 99  250 10  356 81  523 28  1,30 35  3 11  529 33  254 83  52 48	Nation 18,071  Nation 23  Rs. 2. 1 0,161 10 0 2,034 5 10 2,075 13 0 809 6 0 2,165 7 0 5,110 10 0 15 4 1 1,859 9 0 1,214 15 0 120 10 1	150,327 59  Non-occup	14,169 aney Raiya 25 A. D. 202 35 202 35 13 76 22 66 242 22 278 64 43 86	112,820 98  ats.  Chakath.  21  23  Rs. a. p.  1,350 5 3  125 5 8  65 9 6  847 10 6  1,038 9 6   174 12 8	14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786	17,598 34  Bhack.  28  A. D. 313 52 308 03 061 55 438 49 763 22 1.666 62 2.888 33 325 70 376 16 109 49
Antenga- Jahan- Name of Subdivision."	Total Grand total  Name  Name  Name  Name  Total  Name  Name  Name  Name  Total  Name  Nam	Total Total		127  state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and the state and t	723 35  724 22  A. D. 990 88  352 11  1,348 99  250 10  356 81  523 38  1,130 35  3 11  529 33  254 83  52 48  480 54	Notice:  18,071  Notice:  23  Rs. 2. 1 6,161 10 6 2,034 5 16 9,085 15 16 2,075 13 809 6 6 2,165 7 7 5,110 10 6 15 4 16 1,859 9 6 1,214 15 6 120 10 17 1,147 1 6	150,327 59  Non-occup    Control   C	14,169 aney Raiya 25 A. D. 202 35 13 76 22 66 242 22 278 64 43 86 16 65	112,820 98  ats.  Chakath.  23  Rs. a. p.  1,350 5 3  125 5 3  65 9 6  847 10 6  1,038 9 6   174 12 6	14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786	17,598 34  Bhaolt.  28  A. D. 313 52 308 03 081 55 438 49 763 22 1.666 62 2,898 33 325 70 376 16 109 49 517 26
Sadr. ba. s ad. Name of Subdivision.	Total Grand total  Name  Name  Name  Name  Total  Name  Name  Name  Name  Total  Name  Nam	Total Total		127  sissimple of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property	723 35  22  A. D. 996 88 352 11 1,348 99 250 16 356 81 523 38 1,30 35 3 11 529 32 254 83 52 48 480 54 1,409 08	Natical  Natical  23  Rs. a. 1 6,161 10 2,034 5 10 2,075 13 839 6 2,165 7 5,110 10 15 4 1 1,859 0 1,214 15 120 10 1 1,147 1 4,055 7 1	150,327 59  Non-occup    100   101   10   10   10   10   10	14,169 aney Raiya 25 A. D. 202 35 13 76 22 66 242 22 278 64 43 86 16 65	112,820 98 ats.  Chakath.  23  Rs. a. p.  1,350 5 3  125 5 3  65 9 6  847 10 6  1,038 9 6   174 12 6	14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786	17,598 34    Bhaols.     28
Sadr. ba. s ad. Name of Subdivision.	Total Grand total  Name  Name  Name  Daudragar  Nabinagar  Aurangabad  Town Gaya  Mufassal Gaya  Tikari  Atri  Barachati  Sherghati	Total  Total  Total		127	723 35  \$\frac{1}{2} \\ 22  A. D. 996 88  \$\frac{352}{11} \\ 1,348 99  250 10  \$\frac{356}{81} \\ 523 28  1,130 35  \$\frac{3}{3} 11  529 33  254 83  52 48  480 54  1,409 08  2,738 39	Naheci.  23  Rs. a. 1 6,161 10 9,085 15 10 2,075 13 800 6 2,165 7 5,110 10 15 4 11 1,859 0 1,214 15 120 10 1 1,147 1 4,055 7 19 8,413 0 6	150,327 59  Non-occup    Class   14,169 aney Raiya  25  A. D.  202 35  13 76  22 66  242 22  278 64   43 66  16 65  60 51	112,820 98 ats.  Chakath.  23  Rs. a. p. 1,350 5 3 125 5 3 65 9 6 847 10 1 1,038 9 6 174 12 6 206 12 1	14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786  14,786	17,598 34    Bhaoli.	
Antenga- Jahan- Name of Subdivision."	Total Grand total  Name  Name  Name  Daudr agay  Nabinagar  Aurangabad  Town Gaya  Mufassal Gaya  Tikari  Atri  Barachati  Sherghati  Nawada	Total Total Total Total		127  \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2}\$ \$\frac{1}{2	723 85  1 1 1 1 348 99  250 10  356 81  523 38  1,330 35  3 11  529 39  254 83  52 48  480 54  1,409 08  2,738 36  583 28  224 81  555 54	Natical  23  Rs. a. 1 0,151 10 2,034 5 10 2,075 13 809 6 2,165 7 5,110 10 15 4 1 1,959 0 1,214 15 0 120 10 1 1,147 1 4,055 7 1 8,413 0 2,322 3 3 544 5 1 1,139 6 3	150,327 59  Non-occup  24  24  24  24  24  24  24  24  24  2	14,169   aney Raiya  25   A. D  202 35   13 76   22 66   242 22   278 64    43 86    16 65    60 51   89 73   0 91   9 70	112,820 98  ats.  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Sadr. ba. s ad. Name of Subdivision.	Arwal Jahanabad Daudi agar Nabinagar Aurangabad Town Gaya Mufassal Gaya Tikari Atri Barachati Sherghati Nawala Pakribarwan Rajauli	Total Total Total Total		127  \$\frac{1}{2}\$ \frac{1}{2}\$	723 35  22  A. D. 996 88 352 11  1,348 99 250 10 356 81 523 38 1,130 35 3 11 529 32 254 93 52 48 480 51 1,409 08 2,738 36 683 28 224 81	Nation 23  Rs. a. 1 6,151 10 2,034 5 10 9,085 15 10 2,075 13 809 6 6 2,165 7 5,110 10 15 4 1 1,859 0 1,214 15 6 120 10 1 1,147 1 4,055 7 1 8,413 0 2,323 3 6 541 5 10	150,327 59  Non-occup	14,169 aney Raiya 25  A, D, 202 35 13 76 22 66 242 22 278 64 43 66 16 65 60 51 69 73 0 91	112,820 98  ats.  Chakath.  23  Rs. a. p.  1,350 5 3  1,350 5 3  125 5 8 65 9 6 847 10 6  1,038 9 6   174 12 6  206 12 8 363 10 1 8 11 4	14,786  14,786  14,786  14,786  14,786  14,786  27  Rs. a. p.  3 10 0  6 10 9  2 14 3  3 8 0  3 11 8   1 14 9   1 14 9   2 10 1  3 15 4	17,598 34    Bhacki.

DIX IV CORDS-OF-RIGHTS.

rents	or rates										Settl	ed or	occupan	ey raiy:	ıts.					
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	rotal existing real.	Average rate per a	OI (OIM) area.	Number of holdings.		Total area.			Total of existing rent.		Average rate per	area.		Total area.		Total of existing rent.		Average rate per acro of total area.	Total area.	
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8,037	6,29			873 391		27	40,		05		0,864	·  -	8,662	2,002		12,565		6 4 6	5,823	
43,329	40,846	5 50																		

APPENDIX V.

# AGRICULTURAL STOOK.

Name of Sub- division.	Name of Thana.		Cows.	Ballocks.	Ycung stock.	Bulls reared or Government farms.	Or linary bulls.	Boffalo bulls.	Buffalo mules.	Cow-	Buff.10-	Sheep.	Goats,	Horses and ponics.	Mu.es.	Doukeys.	Camels.	Plonghs.	Carts.
-	2		ဧ	4	າວ	9	-1	œ	G.	10	п	12	13	14	15	16	17	18	19
Jahana.	Arwal	:	11,423	28,889	18,640	:	·	663	:	10,826	:	3,711	12,001	672	:	55	:	15,966	\$3
bad.	Jahanabad	<u>!</u>	17 724	37.860	18,569	23?	225	140.2	8,503	14,388	161,11	3,425	20,155	759	103	56	13	21.831	329
	Total		29,347	66,749	37,209	<b>8</b>	225	2,704	8,503	25,214	161,11	7,136	32,156	1,431	102	111	13	35.797	794
٠.,	   Daudnagar	:	9,402	33,293	14,343	:	:	554	:	7,012		3,307	10,384	583	92	23	4	13,647	103
Auranga bad.	Nabinagar	:	13,583	34,448	18,417	:	:	449	:	10,330	:	13,366	5,370	298	:	88	:	13,027	169
	Aurangabad	! :	24,804	77,506	37 827	÷	:	1344	:	18,585		21,741	16.137	1,471	:	218	16	28,582	1,336
	Total	<u>\</u>	47,793	145,247	70,587	÷	स्यम्ब	2,542		35,927	100	38,414	32,091	2,921	ra	330	20	55,256	2,372
<u></u>	Town Gaya	:	222	410	233	E	বাঝল	117	14	34	28	:	244	4	:	:	:	186	31
	Mnfassal Gays	·- :	24,076	42,740	24,904	900	55	672	6,141	8,901	7,235	7,471	17,986	505	33	10	88	18,612	361
Sadr	Tikari		12,655	32,979	14,344	23	93	652	3,171	7,218	5,616	2,611	9,887	287	16	13	-	14,358	265
	Atri	<u>:</u>	11,398	17 2.3	12,147	17	92	416	4,204	5,263	4,864	2,809	10,109	348	:	27	פת	5,907	43
	Barschati	:	22,173	26,926	18,301	<b>ෆ</b> .	ឌ	7.5	3,668	8,560	5,661	1,506	19,738	237	က	4	80	12,008	483
<b>-</b> ⁄.	Shorghati	<u></u> !	25,450	34,063	18,460	24	116	425	2,888	12 428	831,8	4,990	17,111	748	13	3	30	15,325	447
	Total	<u>!</u> :	95,979	154,391	88,889	98	363	2,237	990'08	42,415	29,524	19,387	75,075	2,429	ı	29	71	966,69	1,629
	Nawada	:	34,167	43,025	32,530	25	16	1,258	9,626	10,914	6,974	5,063	25,448	067	8	28	a	24,569	902
Nawada <	Pakribarwan	:	12,949	15,262	11,559	;	α ο	364	2,049	2,996	2,019	1,769	8,885	371	101	38	:	8.787	205
**	Rajsuli	<u>!</u> :	12,178	14.501	9,554	:	2	181	2,106	3,214	2,314	248	10,491	145	အ	9	23	7.315	20
	Total	:	59,394	72,788	53,623	;G	31	1,803	14,681	17,124	11,307	7,679	44,824	1,006	134	83	4	40,671	461
	Total of the district	! : :	2,32,213	448,175	250,308	351	619	986'6	43,270	120,680	52,022	72,616	184,146	7,787	312	599	III	2,01,120	5,256

APPENDIX VI.

STATISTICS OF TRANSFERS OF PROPRIETARY RIGHTS.

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sera IstoT	lmun latoT dildas daw	to redanN	lanari 291A	Percentag dann 6 to	Percentag Iumn 6 to	Landlords	Гэ тэүмяд	Money-len	Raigada.	lo stad2 mis sun i gesqui	biag soird	Average is band to	Highest.	Lowest acre.
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49.159 06	2,170	152	2,269 89	4.61	2.00	129		10	18	2,614 1 7	3,40,234 12. 8.	169 14 0	1,567 13 6	1 12 4
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	647	264	5,542 43	84.6	35.53	171	6	31	53	3,353 6 3	5,00,486 7 5	90 4 10	1,597 3 6	7 13 6
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\$87,108 23	7,472	1,603	53,416 28	13.79	21.45	1,209	Ç.	195	240	32,293 2 9	40,90,185 3 0	76 9 2	5,000 B O	₹ 8.0
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43         5           82         1,985         66         5,066         21         20.21         32.93         43         5           83         1,985         482         16,636         61         14 63         24.93         38         10         2           23         7,472         1,603         53,416         23         13.79         21.45         1,209         29         12	84         241         35         3,011         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         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    23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233         23,233 <t< td=""><td>84 241 85 3,001 00 2.1 20.21 82.83 43 6 8 3,740 9 4 4,00,816 4 4,00,816 4 8,00,816 4 8,00,816 4 8,00,816 4 8,00,816 4 8,00,816 8 8 1,985 6 11 12,73,6.7 7 2 1,985 7,472 1,603 53,416 23 13.79 21.45 1,209 20 12.5 240 33,293 2 9 40,90,185 3</td><td>84 24, 85 3,000 21 20.21 32.83 43 6 3 9 3,740 9 4 4,00,316 4 0 79 61 83 1,985 482 1,608 61 14 63 21.45 1,209 20 125 240 32,283 2 9 40,90,155 3 0 76 9 4</td><td>84 24, 36 66 21 20 21 32 83 83 8 19 87 10 25 6 11 10 25 6 11 10 25 6 11 10 25 6 11 10 25 6 11 10 25 6 11 10 25 6 11 10 25 6 11 10 25 6 11 10 25 6 11 10 25 6 11 10 25 6 11 10 25 6 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APPENDIX VII

STATISTICS OF BALES OF OCCUPANCY RIGHTS.

Number of vendors still, holding as under raigats.	On produce rent.	18		₩ :	1	67	63	: : : ⁶ : :	8	- :	1	9
Number o still, holdit raiy	On eash rent,	194		m :	]	:::	:	::: 2:	1	:::	. :	63
Rate per sere for	land sold,	14	Rs. a. p.	87 4 6 112 1 8	107 7 3	69 11 1 21 1 0 26 12 8	33 13 2	259 9 4 47 73 14 7 53 5 0 46 1 6	58 3 6	61 13 6 43 9 9 39 4 2	59 12 2	56 14 0
Amount paid.	•	13	B.s. a. p.	40,387 5 6 1,02,852 13 0	1,43,240 2 6	39,654 2 3 9,698 12 9 55,407 5 9	1,64,760 4 9	4,768 1 0 96,511 11 9 1,59,934 15 9 26,626 14 9 6,893 0 0 6,659 0 3	2,99,393 11 6	53,974 11 0 11,176 5 0 8,932 13 0	73,553 13 0	6,20,977 15 0
	Raiyats.	12		358 1,095	1,453	329 153 818	1,259	1,400 2,400 517 90	4,123	924 295 107	1,327	8,202
Sales to-	Money-	11		202	22	34	28	C 10 00 51 4 0	7.7	161 2 16	179	365
Number of Sales to-	Lewyers,	10	,	6	6	40	9	20 10 10 10 10 10	38	277	13	69
	Landlords.	œ.		113	23	38	62	.02170	42	18	33	091
Area sold in	acres.	æ		415-17	1,332-62	568.97 460.48 2,068.00	3,097-455	18.36 2,046.49 2,163.95 499.47 127.96 285.93	5,142.16	872.76 256.28 214.30	1,843.84	10,916,01
of Sales.	Part holding.	4		888 888	1,200	218 133 642	993	1,192 1,655 438 79 67	3,432	849 265 109	1,223	6,848
Number of	whole bolding.	9		251	307.	187 31 243	461	282 405 85 17 43	851	266 41 223	329	₫ 1,948
Total number of thatians of	raiyats.	ı¢.		38,931 113,976	152,907	38,748 26,501 65,187	130,436	69,357 69,357 51,325 39,454 36,724 52,372	249,923	108,354 28,116 24,157	160,627	693,893
Total area held by occupant refrons in	acres.	<del>-\$1</del>		84,792.74 186,276.40	271,069-14	100,679.31 118,778.53 263,635.28	483,093.12	97945 182,271·12 126,434·55 85,719·88 83,561·09 107,610·27	589,576.36	192,632.58 73,641.70 57,241.23	323,518·51	16,67,257-13
Total area of thana in	acres.	က		127,855.58 260,183.28	388,038.86	156,833.68 197,825.30 459,225.0 <b>5</b>	813,934.03	4,138.98 288,642.28 180,824.69 143,459.40 273,996.53 331,007.20	1,222,109.08	298,378.67 143,594.14 172,590.69	614,503.50	3,038,645.47
Name of Thans.		જા		Arwal Jahanabad	Total	Dandnagar Nabinagar Aurangabad	Total	Town Gaya Mufasal Gaya Tikari Atri Franchati Sherghati	Total	Nawada Pakribarwan Rajauli	Total	Total of the District
Name of Sub-	division.			. Իջժ - Իջժ	r	-sgustu A bad.	<del></del>	Sadr.	<u>-</u>	.abewaN		<del></del> -

APPENDIX VIII.

STATISTICS OF USUFRUCTUARY MORIGAGES OF OCCUPANCY RIGHTS.

				In the			Агеа	in acres held by Mortgagee.	by Mortgage				Arcs held	Area held by Mortgagees of different classes.	es of differen	it classes.		
Name of Subdivision.	Name	Name of thans.			Total are: of thaus.	From proprieter.	Frem terure- bolder.	From raiyat at fixed rent.	From settled raiyat.	From occupancy raigat.	From non- occupancy raigat.	Total area (in acres) Mortgaged.	Landlord class.	Lawyer class or class of those in service.	Money lending ciass.	Raiyat class.	Total amount advanced.	Rate per sere.
				IslaT Moss sand		cd	۵	0	P	9	ſ		Œ	q	<b>ပ</b>	g		
		63		ه 	4				29			9		7			8	6
					Acres.	A. D.	<b>A</b> . D.	٠,٠٠	A. D.	A. D.	A. D.		A. D.	A. D.	A. D	A. D.	Rs. a. p.	Rs. 2. p.
	Arral	;	:	2,436	1:7,855:58	115 51	23 22	25 63	1,987 74	:	i	2,157:10	76 66	98	13 13	2,006 17	1,73,674 6 1	80 88
Jahanabad	Jahanabad	;	:	42,025	260,183-29	687 03	89 99	123 64	29 295'9	0 33	:	7,438 35	301 86	61 55	123 24	6,949 70	6,80,029 9 8	9188
		Total	:	14,461	388,038.83	802 51	95 88	118 27	8,565 41	0 33		9,585.45	378 52	na 99	195 53	6,956 57	8,54,003 15 %	89 1 0
_	Daudnagar	:	:	1,259	15%,8:3786	242 23	2 34	33 98	1,189 80	800		1,458.40	183 48	3 45	2::6 45	1,055 02	1,05,958 12 0	72 10 6
Aurangalal		:	:	99	197,525-30	234 66	30 15	0 12	1,193 40		100	1,446.33	116 68	4 57	88 09	1,258 20	30,493 13 6	21 0 8
,	Aurangsbad .	<b>:</b>	:	2,038	459,225.05	99	245 48	27 66	4,085 62		200	4,426.66	98 88	29 22	231 73	4,066 83	1,07,443 0 0	24 4 4
		Total	:	3,996	813,034.03	545 80	266 97	51 76	8,468 82	0 04	30	7,353 09	10 60%	37 24	90 685	6,383 05	2,43,885 9 6	33 4 0
_	Town Gaya	: :	i	Œ	1,138.98		:	<i>.</i>	<u>26</u> \$		2	4.92	:	0 27	1 26	3 39	3,450 0 0	700 8 2
	Mufassal Gaya	:	ż	2,741	286,642.28	21 93	16 48	18 18	2,830 69	12 96	:	2,979.93	41 29	98 6	77 58	2,851 70	1,27,3 5 2 9	42 11 8
	Tikari	:	į	7,078	150,824.69	104 94	83 12	316 35	4,635 99	٥ يا	:	5,140 11	75 15	e 03	216 61	4,842 32	4,16,510 7 11	80 In II
Sadr —	A:ri	;	:	2,315	143, 1991 411	11 &	11 47	14 53	2,019 66	:	:	2,056.73	15 79	0 65	12 64	2,027 63	69,453 0 6	33 12 3
	. Barachati	:	:	215	273,996 33	:	2 33	:	289 82	:	:	292-16	17 22	:	74 63	200 30	8,253 11 3	28 4 0
	Sherghati	:	:	150	331,007-20	86 🕈	72 18	1,6 68	288 11	9 10	:	390.25	119 38	5 35	23 53	241 89	12,323 9 6	31 9 3
		Total	:	12,505	12,505 1 222,109:08	142 91	174 58	414 (3)	10,069 19	22 77	:	10,361.08	268 83	2.2 2.9	406 23	10,167 33	6,36,324 15 11	68 9 2
-	Nowada .	:	:	7,639	299,376-67	246 16	25 22	26 97	3,731 10	88	:	4,059.71	249 26	19 68	55.) 54	3,240 27	2,34,728 16 6	57 13 4
Nawada	Pakt (barwan	:	:	2,400	143,591/14	93 95	.4 .88	17 58	1,469 08	:	:	1,625:35	08 48	;	£8 63	1,478 21	62,262 7 0	32 2 3
	Rejauli	÷	:	5.61	172,500:00	ئ. 3	10 12	;	206 449	:	:	219.69	1 46		2 00	211 07	6,718 12 5	30 9 7
		Total	;	10,273	654,5 3 50	316 09	77 40	88	5,406 67	29 28		£,504·15	. 336 72	†3 A.	7 770	4,620 G5	2,93,730 2 9	01 11 94
	Total of	Total of the district	:	41,229	2,032,615-47	1,837 39	6.7 85	65.9 49	30,500 09	52 40	:	33,697-07	1,393 11	114 37	1,738 69	39,440 80	20,29,534 11 11	e 80

APPENDIX IX.

CLABSILICATION AND RESULTS OF 103A. OBJECTIONS.

_				2.5	<del>'</del>				Poske	Poskession,					Mouey rent dispute,	dispute.		Cash	Cash rent versus Produce ren	Produce 1	rent.
Name of Thana,	Tota	Total number of cases	cases	ver Bak	versus Bakasht.	Landlord reraus Landlord.	nord wa ord.	Land	Landlord	Fig	Tenant Tenant Tenant.	T I	Tenant wesse Landlord.	Lanc	Landlord cersus Teuant.	Lang	Tenant teres Landlord,	Landlord oersus Tenaut.	llord	Te	Tenant tersus Landlord.
	.bowollA	.bewollasiU	Total.	A)lowed.	.bowoffaulU	*hewolf*	·howol[asiCl	.bawolfA	.bewellasiQ	*b9wedf <b>A</b>	•bewollaaid	Allowed.	Disallowed.	Allowed.	.bswollasiQ	.b9welfA	.bэжо]Івві[О	.hewollA	Disellowed,	. fiswoffA	.bewollanid
	04	8	•	9	9	-	œ	o,	10	7	82	133	*	91	18	17	18	19	82	22	2
Aurangabad	1,171	6,189	7,360	:	7	216	720	101	749	124	623	03	280	68	725	21	145	65	652	24	148
Daudnagar	347	5,032	6,979	:	63	63	458	125	721	86	371	48	174	85	1,198	79	2567	1(5	380	25	171
Arwal	1,491	5,441	6,932	:		124	417	86	573	34	431	4	252	9.7	1,568	36	238	225	<b>7</b> 09	33	213
Nabinagar	490	2,614	3,104	:	G	20	250	25	232	41	231	138	115	18	230	7	50	22	346	14	83
Jahanabad	1,347	9,3.5	10,662	;	63	161	1,083	120	1,225	166	1,286	72	537	101	1,442	જ્ઞ	264	114	437	12	255
Tikari 👀	1,284	642,4	5,863	:	-	98	387	98	737	87	216	38	317	144	605	18	121	136	217	73	123
Atri	529	3,200	3,759	:	:	87	7	19	345	49	179	4	105	14	747	31	130	140	849	58	164
Nawada	821	9,961	10,782	:	:	84	202	63	066	8	280	82	339	80	3,643	84	917	74	756	20	202
Pakribarwan	612	2,790	3,302	:	81	œ	æ	35	280	25	285	4	20	135,	852	<b>6</b> 0	221	165	278	09	274
Sierghati	895	4,108	6,003	:		68	374	02	454	52	287	23	88	213	1,468	10	99	22	564	4	37
Barachati	188	1,497	1,685	:	4	7.	98	12	161	မှ	81	4	45	27	531	7	18	ന	152	:	15
Mufassal and Town	1,300	6,821	8,121	11	102	76	203	88	524	96	316	19	215	200	2,163	27	66	138	873	24	80
Rajauli	268	1,968	2,236	:	:	27	63	12	181	œ	78	41	29	~	898	31	29	19	178	16	19
Grand Total	11,273	63,515	74,788	11	123	1,009	4,35.1	843	7,162	893	2,504	607	2,544	1,544	16,070	367	2,585	1,293	5,785	405	1,844

APPENDIX IX.

CLASSIFICATION AND RESULTS OF 103A OBJECTIONS—concld.

	Irrigation.	Dissilowed,	<b>3</b>	:	:	:	9	28	48	17	103	<b>49</b>	68	31	76	31	250
	Inig	*Powoff&	3	:	:	:	:	14	27	~	23	613	7.4	13	16	13	180
	eous.	.bewellasiQ	<b>\$</b>	858	230	213	398	989	248	198	493	86	366	136	793	224	4.793
	Miggellaneous.	.bewollA	8	150	28	808	61	149	121	96	8	8	135	48	533	98	1.623
		,bawollasi(I	***	323	180	181	121	104	171	194	384	97	137	92	271	<b>£</b>	2,668
	Trees.	Allowed.	37	28	63	18	8	148	136	33	18	R	99	19	35	ð	882
		Djesllowed.	8	411	314	88	293	633	120	41	216	73	272	54	406	22	2.995
	Title.	.bewolf&	3	<b>3</b>	119	8	8	69	104	=	<b>20</b>	61	61	82	88		769
	***	.bjænllowed.		178	119	87	24	69	172	18	114	E	13	<b>o</b> o	766	ന	1 145
6	Tenant, verses, Tenant,	фумоф	23	200	22	æ	1	893	13	4	22	0	-	:	18	:	989
Btatus.	t.	Dissilowed,	33	922	78	252 253 253	76	463	243	9	197	\$	131	69	179	03	1 0 85
	Landlord versus Tenant.	<b>∀</b> Јјомсф	31	53	12		15	3	85	11	09	:	33	2	77	:	387
		Dimailowed.	8		14	eu i	ca a	88	44	21	83	:	-	:	9	:	887
produce.	Tenant rerens Landlord.	.bawolla.	8	-	:	:	:	٦	100	~	•	•••	:	 :	:	· :	404
About shares of produce.	2	.bswollasiQ	8	1	<u>a</u>	4	•	176	98	29	297	8	2	<u></u> ਲ	123	3	872
₽	Landbord versus Tenant.	Allowed,	22	7	4	<u></u>	a	88	œ.	01	91	:		7		:	1 2
	and.	Dissilowed.	*	848	68	78	119	152	106	21	138		13	Ħ	ౙ	8	888
Danabandi,	Tenant versus Landlord.	.bewolf&	#	7	3	31	12	<b>60</b>	99	83	9	:	:	:	17	 :	1,2
Bafai Versus Danabanch.	Landlord versus Tenant	Dissilowed.	8	0:1	257	130	88	583	118	6.	257	25	5	18	99	26	2,530
4	Lety Ver Ten	Allowed.	ន	32	20	21	12	33	97	16	61	10	13	8	4	:	230
				:	:	:	i	:	:	:	:	:	÷	:	Cown	:	
	Name of Thana.		1	Aurangabad	Dandnagar	Arwal	Nabinagar	Jahanabad	Tikari	Atri	Nawada	Рактібагива	Shergbati	Barachati	Mufassal and Town	Rajauli	Total

APPENDIX X.

CLASSIFICATION AND RESULTS OF CASES UNDER SECTION 105.

			·····	Namb	er of bold	Number of boldings in which—	iich –				Existing rents of !	Existing rents of boldings sued under-		
's hars.	Number of cases.	Aumber of Foldings,	1			Rent	×	reat settled.						
			rent rent Bettled.	Rent Rent enhanced, reduced.	Rent reduced.	for entire kabi; lager holdings.	Applica- tion dis- allowed.	Applica- tion with- drawn.	Scetton 7.	Section 52(a).	Section 30.	Sec: lons 62(a) and 30.	Section 52(b),	Any other section or no specified section.
н	<b></b>	8	•	۵.	صــــا	~		6	10	11	12	13	17	15
Arwal	99	1,902	140	1,509	7	65	61	159	Rs. a. p.	Bs. a. p.	Re. a. p.	Rs. a. p. 70,487 15 0	Rs. a. p. 376 0 0	Rs. n p. 529 0 0
Jahanabad	45	742	104	414	<b>6</b> 3	r3	43	174			1,903 11 9	4,094 13 9	į	:
Daudnagar	<b>8</b>	1,744	755	739	10	37	15	188	402 9 6	2 7 3	4,351 13 3	31,038 0 - 6	ŧ	1,217 2 0
Nabinagar	185	643	23	100	:	4.	99	427.	415 0 0	278 0 6	1,938 6 9	2 0 0	194 2 0	:
Aurangabad	713	3,030	392	4.52	7	399	120	2,566		464 1 0	291 2 6	11,075 0 0	60 12 9	:
Town Gaya	:		:	:	:	:	i	)		:	:	į	:	:
Mufassal Gaya	140	1,637	116	1,312	<b>H</b>	37	81	03	62 9 3	•	2,669 0 6	11,173 13 6	•	:
Tikari		758	11	688	:	<b>∞</b>	49	47	161 8 9	:	742 5 6	6,741 6 0	•	<b>į</b> .
Atri	8	120	83	25	8.	38	29	202	166 6 6	33 12 O	4,165 15 9	12,513 2 6	:	;
Barachati	70	833	:	10	:	-	16	11	:	1:	100 18 6	347 8 6.	:	•
Shergbati	87	656	က	430	;	28	69	94	:	70 18 9	5,946 6 6	2,868 2 9	:	i
Nawada	39	2992	106	<b>\$14</b>	:	10	86	43	<u>:</u> .	:	2,541 5 9	8,917 4 3	:	፥
Pakribarwan	<u>.</u>	196	16	100	:	٦	:	က	:	:	478 2 9	1,871 15 9	:	;
Bajauli	53	596	ಬ	583	:	ro.	:	9	:	:	18,171 7 3	6,485 15 6	:	:
Total	1,517	14,861	1,812	7,820	76	649	581	3,965	1,201 2 0	1,249 2 6	35,403 11 9	1,70,153 2 0	430 14 9	1,756 2 0

APPENDIN X-concluded.

CLASS FICATION AND RESULTS OF CASES UNDER SECTION 105.

	-							Amount	Amount of rent.							
			-			En	Enhanced or increased under	ed under		,						
Thana.			Section 52(a).	52(4).			Section	30.		Any othe	Any other section (including section ?).	ses Suppo	tion 7).	Beduced under any	Settled for	Settled for entire kabit tease holdings.
	Afte	After contest.	On compro- mise.	Ex parte.	Total.	After contest.	On compromise.	Ex parte.	Total.	A'ter contest.	On compro- nds2.	Ez farte,	Total.			
1		16	21	18	19	20	Ti	22	83	24	26	24	27	88	æ	<b>&amp;</b>
Aiwsl		Rs. a. p.	Rs. a. p. 1,256 0 0	Rs. a. p.	Rs. a. p. 1,299 9 6	Rs. a. p. 2,770 12 0	Rs. a. p. 2,475 15 6	Bs. a. p. 587 0 0	Rs. a. r. 5,833 11 6	Rs. a. p.	Вя. <b>.а.</b> р	<b>Ä</b> :	Вв. в. р.	Rs. 8. p. 15 10 0	8.82	Re. a. p. 26 4 0
Jahanabad		3 12 6	14 14 3	9 6 01	29 4 3	319 12 3	129 60	21 16	470 3 9	:	:	:	:	27 8 3	4.34	24 36
Dandnagar	<del>آ</del> :	1/16 1/4 6	153 8 0	7 7 0	267 8 6	1,778 0 6	139 7 8	60 13 0	1,578 4 9	21 63	:	:	21 63	13 15 6	37.37	132 8 6
Nabinagar	 :	2 00	194 2 0	:	196 2 0	149		Î		:	:	i	:	÷	32.44	142 11 9
Aurangabad		117 33	65 1 0	0 63	182 9 6	191 6 0	135 0 6	183	827 14 9	:	:	:	:	4 2 3	287 80	725 14 9
Town Gays	:	:	:	:	:	:			23	:	:	:	:	:	:	:
Mufassal Gaya	: :	155 9 9	189 13 3	1 00	356 7 0	809 12 3	648 13	11 0 6	1,468 14 0	:	5 10	:	5 10	16 2 C	132-77	613 5 3
Tikati		450 9 3	2 11 3	:	432 14 6	89; 29	6 2 6	1 15 3	66 406	:	:	:	;	100 9 0	6.16	36 14 6
Atri		154 4 H	165 8 0	:	319 12 3	443 63	452 11 3	:	901 16	:	:	:	;	172 5 9	11:34	43 76
Barachati		;	:	:	:	40 20	:·	:	40 30	:	9 4 6	:	9 2 6	!	4 89	26 14 0
Shergbati	.: 	163 11 6	11 13 6	4 2 9	179 11 9	310 13 9	461.13.9	63 03	835 11 9	:	;	:	:	:	31.82	138 60
Nawada		13 6 9	6 13 3	:	20 10	351 14 0	803 15 3	102 2 3	1,347 15 6	:	:	:	i	10 12 6	09.9	734 0 0
Pakribarwan		<del>-</del>	8 7 6	:	8 7 6	2 13 0	157 10 3	:	160 7 3	:	:	:	:	:	3.44	i
Rajatli	= 	102 5 3	115 10 €	1 11 6	219 11 3	758 16	324 1 3	30 15 3	1,113 2 0	:	:	:	:	:	66.9	64 15 6
Total	1,293		0 6 2,191 1 6	25	4 0 3,512 6 0	8,678 1 3	6,827 10 0	879, 8 3.	15,385 .3 6	21 63	14 8 6	:	35 14 9	361 13	573-81	2,709 9 3

APPENDIX XI.

STATEMENT SHOWING INSTITUTION AND DISPOSAL OF APPEALS AGAINST DECISIONS UNDER SECTION 105.

		Total No.	Total No.		Resu	lts.	
Thana,		of appeals instituted.	of appeals disposed of.	Upheld.	Modified.	Beversed.	Remanded
1		3	3	4	5	6	,
Atwal	,	35	85	34	1	•••	
Jahanabad		9	9	5	8	••	1
Daudnagar		5	5	5	•••	•••	
Nabinagar		3	3	1	2	•••	
Aurangabad		5	5	3	1	•••	1
Mufassal Gaya		12	9	8	•••	•••	1
Tikari		3	3	2	1	•••	
Atri .,.		•••	•••	VOICES	•••	•••	
Barachati		1	500	28/100	•••	•••	
Sherghati		3	6.3	1	•••	•••	2
Nawada		2	2	ı	•••	•••	1
Pakribarwan		1	1		•••	•••	1
Rajauli		•••				***	
Total	•••	79	76	61	8	***	7

APPENDIX XII.

CLASSIFICATION AND RESULTS OF SUITS UNDER SECTION

1	alla- ts.	.bswoilaaig	₹. 63	(	4	<b>6</b> 3	4	38	36	:	83	9	æ	;	7	:	7	22			102
	Miscella- necus.	Allowed,	33		:	-	ന	11	n	:	04	;	~	;	-	14	69	63			46
	g.	.bswollssiU	32	:	2	·	œ	ю	Ħ	:	:	67	τĊ	:	;	H	:	00			50
	Trees,	Allowed.	3.		i	:	:	:	œ	:	C1	- co	37	:	;	7.3	;	H			28
		Diesllowed,	980		:	i.		7			15	6	:	;	4	:	:	-	<del></del> -		£\$.
	Title,	Allowed.	29		47	~	61	:	_	i,	H	i	6.5	:	9	;	-	:			å
	ord free er.	.bowollasid	28		:	i	:	:	:	:	;	i	ī	;	:	:	:	;		<u>`</u>	:
	Lamilord vs. Rent-free holder.	Allowed,	27		:	:	;	;	:	:	:	;	7	:	:	;	:	:			
	]	Disallowed.	98		;	:	;	:	:	:	:	:	:	:	:	:	:	:			
	Rent-free claimant vs. Landlord.	Allowed,	25		:	:	;	;	;	:	i	:	:	:	:	:	:	;			:
g	ant .crd.	Dieallowed.	<del>*</del> 2		;	:	9	63	10	;	:	:	i	i		:	:				18
Status.	Tenant vs. Landlord.	.bswollA	83		:	9	:	8	;	:	:	61	i	·	:	:	:	:			=
	int.	Disallowed.	22		-	63	;	37	10	:	œ	ব	 :	:		i	<del></del> -	;			. 8
	Landlord vs. Tenaut.	Allowed.	21		:	es.	63	:	 :	:		:	ক্য	;	;	4	;				91
	ht.	Disallowed.	8		;	:	:	:	:	;	;	:	;	 ;	<del></del>	;	;	:			i
	Zirat vs. Bakasht.	.bawoilA	61		· :	;	i		;	;	:	:	:	:	:	 :	· i	;	-		. :
	rat ord.	Disallowed.	18	5	13	-51	4			5.	:	7	:	:	;	~	:	;			23
rent .e.	Tenant vs. Landlord.	Allowed.	77	1	-		i		1	ÿ	:	67	:	:	:	;	;	;			67
Produce-rent dispute.		Disallowed.	91	6	1	38	7	2	97	÷	.4	52	28	<del></del>	:	~	:	26			124
P.	Landlord vs. Tenant.	.bswollA	12		T	24	80	4	1	i	:	12	67	61	 :	87	28	673			181
	nt .	.bewollasiq	<b>\$</b> 7	A.	<b>k</b>	e3	00	 :	H	Ţ	-	13	-			88	:	:			128
ent e.	Tenant vs. Landlord	Allowed.	133	Ti.	ಣ	ï	4		1	7	75	:	FF	:	<del></del> -	: :	. <u> </u>	:			<b>20</b>
Money rent dispute.	ord nt.	Disallowed.	13		6	49	157	မ	129	:	37	₩.	24	75	83	6	12	-04			415
	Landlord vs. Tenant.	Allowed.	11		63	ю	:	2	9	:	:	4	27	_	16	 :	 ;	1			z
	it et	,bewollsaid	01		ଛ	21	01	~	8	:	ಣ	co.	;		63	i	 :	 :			28
	Tenant vs. Tenant.	Allowed.	6.		673	63	<b>a</b>	:	69	:		m	:	:	 :	434	69	63			25.7
	at vd.	Disallowed.		-	4	64	61	64	-	:	ę,		۲0	:		70	:	 :			63
ion.	Tenant vs. Landlord.	Allowed,	-		-		7	 :	4	:		67	;	 :	;	 :	 :			`	707
Possession.		Disallowed.	 so	 	64	æ	9	64	4	<del>-</del>	9		10	<del></del>	;	60	i	- CR	<u></u>		91
	Landlord vs. Tenant.	.hewollA			:	:	 :	60	 :	;	-:	9	16		 :	62	15	 :			5.4
	ord	Disallowed,	4	!	;	<del>-</del>	15	67	30		-	6.5	4	 :	-	-	:	:			τ <mark>ο</mark> .c
	Laudiord vs. Landiord.	Allowed,	07		:	69		 :	4	 :		 :	41	-		ъ	7				2¢
-	<u>-</u>	Buits			26	159	698	110	250	-	16	8:	263	30	55	169	62	G,			1,725
ļ	Nan	8				· <u></u>									•						
					:	;	:	:	:	;	:	:	;	:	ŧ	:	÷	:			*
	ģ				;	÷	÷	Ŧ	:	;	:	:	}	į	ĭ	į	:	:			Total
d. 14000.	Thana.		П						T.		aya						á				Ĥ
					Arwal	Jahanakad	Daudnagar	Nabinagar	Aurangabad	Тоwп Gaya	Mufassal Gaya	Tikari	Atri	Barachati	Sherghatí	Nawada	Pakribarwon	Rajauli			

#### APPENDIX XIII.

#### Statement showing institution and disposal of appeals against decisions under section 106.

	!	Total No. of	Total No. of		Rest	ilte.	
Thans.		appeals instituted.	appeals decided.	Upheld.	Modified.	Reversed.	Remanded.
1		2	3	4	5	6	ý
Arwal Jahanabad Daudnagar Nabinagar Aurangabad Town Gaya Mufassal Gaya Tikari Atri Barachati Sherghati Nawada Rajauli		15 9 26 9 67 1 51 8 13 21 1 52 45	16 9 26 9 67 1 51 8 13 21 	10 9 13 3 45 1 8 3 12 	 10 4 2 	1 2 1 20 43 5 21	1 1 1 1 1 43
Total		318	315	132	16	116	51

#### APPENDIX XIV.

#### STATEMENT SHOWING INSTITUTION AND DISPOSAL OF CASES UNDER SECTION 108A.

			Total No. of	No of cases	No. of cases	Арр	eals.
7	hana,		cases filed.	No. of cases allowed.	disallowed.	Allowed.	Discilowed.
	1		2	8	4	5	6
Arwal Jahanabad Daudnagar Nabinagar Aurangabad Town Gaya Mofassal Gaya Tikari Atri Barachati Sherghati Nawada Pakribarwan Rajauli	777 **** **** *** *** *** *** **		31 91 66 26 87 1 62 57 88 21 61 71 23	8 50 4 14 40 26 27 14 11 23 41	23 41 62 12 47 1 36 30 24 10 38 30 18	1	3
**************************************	Total	}	647	268	379	1	4

#### APPENDIX XV.

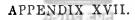
#### RESULTS OF CASES UNDER SECTION 40.

			,	Fotal No.	of cas	es deci	ded.				
Berial No.	Name of thana.	Total No- of cases instituted.	Compromised.	Allowed after contest,	Refused.	Withdrawn.	Total,	Cases transferred to Collector.	Area of cases shown in columns 4 and 5, in acres.	Commuted rent,	Average • rent per acre.
1	2	3	4	ŝ	в	7	8	9	10	11	12
1 2 3 4 5	Arwal Daudnagar Aurangabad Nabinagar Pakribarwan Total In other thanas	5,644	95 100 21  216 	226 1,048 545 19 36 1,874 	139 58 56 68  321 	76 172 65 9  322 	536 1,378 687 96 36 2,783  2,783	289 629 1,467 312 2,257 4,954 5,644 10,598	1,400·52 4,996·35 4,308·12 186·96 244·92 11,196·87 	Rs. a. p. 14,135 6 0 43,348 14 0 36,655 6 0 642 6 9 1,251 10 0 96,033 10 9	Rs. a. p. 10 1 6 8 11 0 8 8 0 5 2 0 8 10 0

xxiii
APPENDIX XVI.

Statement showing institution and results of appeals against decisions under section 40.

Serial number.	Name of Thans.	Total number of applications allowed.	Tolal number of the first ap eals.	In	Nodified.	ed		Institu	uted Ant.		y	Total number of as second appeals.	Inst	itute	ed	by		tito	ted ans	֓֞֜֞֜֜֜֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֓֡֓֓֓֓֓֡֓֓֡֓֡֓֡֓	Be on	By	Dissilowed.	r re	By nant.	Remarks.
1	2	9	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	28	23	24	25	26	27
1	Arwal Daudnagar	321 1,148	977	195			80	125 <b>5</b> 97	58 211				100 352	84 317			43	18	١		<b>5</b> 1		1 <b>\$</b> 103		89 77	One appeal still pending before Com- missioner-
3	Aurangabad	566	630	438	80			440	77	-	 	401	60	358			38	6			210		43		208	
4	Nabinagar	19	17	17				3	1			•	3	1	-		8			-	9		3			
8	Pakribarwan	86	36	36											-			-			•••			 		
	Grand Total	2,090	1,807	1275	420	-	80	1,155	347		A	1,456	521	73	-	120	77	7 57	-	-	867	- -	16	ı	331	



RESULTS OF RENT SETTLEMENT UNDER SECTION 104.

		No. of villages	Ares in square miles of	No. of tenants		Rent of hold-		Rents settl	ed in addition t	o those in
Wame of than		of which rents have been set- tled under section 104.	48.4	whose rents have been set- tled under section 104.	Existing rent,	ing included in column 5 set- tled under section 104.	Increase per cent.	Produce- rents commuted.	Rents settled for Kabit Ligan or belagan holdings.	Fixed for tenures.
1		2	3	4	8	6	7	8	9	10
					Rs. a. p.	Rw. s. p.		Rs. a. p.	Rs. a. p.	Rs. a. p
shenshed	•••	12	6.02	1,121	14,405 0 2	17,086 11 9	18.61		14 2 0	•••
likari		6	7:09	841	17,073 10 9	19,923 11 0	16.10		4 11 0	
Atri		4	8.44	781	1,645 4 0	1,812 2 0	10.14		080	***
Nawada		4	4.65	459	9,703 5 9	11,687 6 1	20'44			
Mufassal Gaya		36	18:38	3,240	21,061 7 3	23,639 10 8	12-24	2,092 3 0	104 9 6	   •••
Rajauli	***	17	18-19	762	4,715 1 0	5,218 6 8	10-88		25 12 4	
Bherghati		20	87.82	1,013	1,270 15 8	1,496 7 0	16:87	1,847 13 0	178 2 0	
Barachati	•••	13	4.99	288	7,147 8 8	8,809 0 0	23.23	4,011 9 0	172 14 0	992 7 0
Total		112	100.72	8,508	77,031 4 8	89,572 7 0	16.28	7,951 9 0	500 10 10	992 7 (

APPENDIX XVIII.

COMPANISON OF STATISTICS OF GOVERNMENT ESTATES AT PRINTIOUS AND PRESENT SETTLEMENT

			According	to the present	settlement fi	According to the present settlement figures (Attested).	:				Accord	ing to the k	According to the last settlement figures.	gures.		
Name of Pargana.	103.	Settle	Settled and occupancy raiyats.	yats.	Ř	Non-occupancy raiyats,	iyats,	Gairmagrua	Settled	Settled and occupancy ralyats,	rats,	й : 	Non-occupancy raigats.	yats.	Gairmazrua	
		Ara on	Attested	Bacele area.	Area on eash-rent.	Attested rent.	Bhaolis area.	and Dis- triet Board area.	Area on cash-rent.	Totai rent,	Bhacks area.	Area on cash-rent.	Total rent.	Binolii area,	and Dis- triet Board area.	Remarks
1		ନା	es.	4	5	မ	2	80	6	10	11	13	13	71	15	16
		Acres.	Rs a. p.	Acres.	Acres	Rs. a. I	p. Acres.	Acres.	Acres.	Rs. a. p.	Acres.	Acres.	Rs. a. p	Acres.	Acres.	
Bhelawar	:	1,259.01	6,059 13 4	66.81	:	Ŧ	:	139-63	1,243.10	5,929 14 6	91.64	:	:	:	158.65	
Ekil	:	1,540.52	8,764 2 9	68-6	0.02	6 9 0	सन्ध	197-76	1,507.62	8,556 4 0	41.71	:	;	0.17	213.02	
Sanaut	:	3,178-10	18,413 8 5	90.20	10.84	25 8 7	3.84	589-63	3,597.52	18,871 13 9	16.42	10.13	55 6 0	:	620.24	
Samai	i	2,221.81	9,144 7 5	:	13.63	50 2 0	4	386.57	1,947:14	7,844 14 0	:	193.55	591 3 0	:	512.56	
Pachrukhi	:	105.47	506 15 6	i	:	:	:	176.62	22-19	0 0 06	65-28	ċ6∙1	8 1 0	3.37	194.51	
Jarra	:	2,039-87	4,651 0 3	:	1.21	6 2 3	:	10,380.27	1,323.17	3,019 11 6	7.36	203.12	423 6 3	29.96	11,075·17	
Dakhne <b>r</b>	:	6,474.76	17,493 12 9	1.70	45.04	130 10 3	:	2,128.97	5,782-35	15,780 12 0	:	506.08	775 0 6	:	2,259.68	The areashown in this is for 16 annas and rent is for 84
							<u>-</u>				·					annas on ly (Government share).
Sherghati	:	4,4,9.24	9,696 13 0	2,143.02	731-94	1,105 2 0	1.61	21,134.84	2,106-27	4,465 3 0	0 2,994.75	561-34	691 0 9	1,014-22	21,534.91	
Total		21,298·78	74,730 9 5	2,311.62	802:71	1,316 15 10	5.45	35,134.28	17,339-66	64,558 8 9	3,217.16 1,476.21	1,476-21	2,544 1 6	1,047-72	36,568-74	

Note .- Some villages in Sherghati Pargana were not snreeged in 1893-99. They have been omitted from the above statistics.

#### APPENDIX XIX.

#### INSTRUCTIONS AS TO CROP-CUTTING.

#### I .- Use of the triangle.

Assistant Settlement Officers will be instructed in the method of using the triangle at headquarters and should practise putting it together before the crop-cutting season begins. Assistant Settlement Officers in charge will take an early opportunity of examining Assistant Settlement Officers on this point. All triangles when received should be marked clearly with the Camp number.

The points to remember on setting up the triangle are :-

- (1) Small wooden triangle is to be entirely outside the area of crop cut and to have its apex pointing towards this area.
- (2) Rods to be pushed out in rough alignment with the guides and not laid down.

Before cutting the crop care must be taken to see that only stalks standing inside the triangle are cut. The bundle when cut should have a numbered tape attached to it to identify it when threshing.

The following notes will be made at the time of each experiment.

- (1) Date and serial No.
- (2) Village and kita or badh.
- (3) Name of crop e.g., paddy or wheat.
- (4) Name of raiyat.
- (5) Plot number.
- (6) Kind of soil, i.e., local name of soil and rough classification, viz., Dhanhar I, II III, or Bhit I, II, III (vide below).
- (7) Irrigated or not.
- (8) Estimated outturn of crop, e.g., 12 annas or 8 annas, 16 annas being a full crop.

When all the bundles are collected they will be threshed when convenient (as soon as possible), the grain from each being put into separate envelopes which are then sealed and each marked with the Camp letter, date and serial No. of experiment and signed by the experimenting officer. At the same time columns 1—9 and 11 of the form annexed will be filled up. Ten days after the experiment the grain in each envelope should be weighed. This can be done with the ordinary country scales by double weighing. Rupees should be used as weights: it will be rare that more than 50 are required to weigh the contents of each envelope. The scales will first be adjusted so as to balance. The grain is put in one pan and a sufficient number of rupees in the other to balance it and the rupees are counted. The grain is then put in the other pan and again balanced against rupees. The mean of the two weights is then taken, each rupee being taken as one tola. This weight is noted in column 10.

#### II .- Selection of fields for experiment.

Officers will find villages divided up into kitas or badks within which the crops are more or less uniform and the soil generally of one class. The officer will select such a kita for experiment and will choose two fields in different parts of it representing, as far as he can judge, the average crops of the kita. He will then perform at least two experiments on each field on different parts but in each case as far as possible where the crop is average.

It will of course be advisable to choose fields in which the crop is fairly uniform. If it is impossible to find such a field then it may be well to perform 3 or even 4 experiments in the same field to ensure a proper average being obtained.

Ordinarily, however, four experiments will be done in each kita so that in one day an officer can do expreiments on two different classes of land.

Besides the experiments on paddy experiments will be made on the following rabi crops: -

Wheat, Barley, Oats, Grain, Peas, Khesari, Masuri, Sarso, Thori and Tisi.

As the outturn of all the lesser rabi crops is much about the same it does not matter greatly if all the experiments in one kita are not on the same crop though it is obviously desirable that they should be as in that case it is easier to judge which are average fields.

Lists have been prepared showing in each camp the villages and plots in which experiments were made by Khanapuri Officers last year. Attestation Officers should arrange to perform about one-third of their experiments in plots in which experiments were made last year. The remaining two-thirds should be made in different villages.

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#### III .- Classification of land.

This has already been done during khanapuri and is shown in the khasra. The attestation officer will simply check the local name of the soil with that as entered in the khasra. He will also check the classification roughly: class I is the best land, class III is the worst and class II is intermediate.

Special care must be taken to fill up column 11 of the register of crop-cutting experiments correctly. All the results are worked out in recess to find what the full 16 amas outturn would be so that an average can be taken. Thus if the outturn found from the experiment is 5 maunds an acre and the entry in column 11 is 4 annas the full 16 annas outturn will be taken as 20 maunds an acre. It is clear that any mistake in column 11 will seriously impair the value of the experiments. If the raiyat is asked what proportion the outturn bears to a full crop he will usually (especially in a bad year like this) put it unduly low to excite pity. It is difficult to test this but one method is to ask the raiyat what total outturn he expects from the field this year. Then ask him what outturn he gets from the field in a good year (such as 1913). The proportion between these two will probably be much greater than that stated by the raiyat in answer to the direct question and will probably be much nearer the truth as the raiyat will understate the produce in both cases. If the patwari happens to be present with the village papers a reference to them will, if the village is one in which producerent is paid, sometimes give an indication as to the proportion borne by outturns this year to outturns in bumper years. Column 11 must not be underestimated.

#### FORM OF CROP-CUTTING REGISTER.

- 1. Date and serial No. of experiment.
- 2. Thana.
- 3. Village and than number.
- 4. Name of crop.
- 5. Number of plot.
- स्यामेन जयते
- 6. Name of raiyat.
- 7. Name of kita.
- 8. Name and class of soil.
- 9. Irrigated or not.
- 10. Weight of grain dry.
- 11. Raiyat's estimate of proportion of crop in field to normal crop
- 12. Remarks.

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#### APPENDIX XX.

#### FORMS OF CESS SCHEDULES VIDE PARA. 98. CESS VALUATION STATEMENT No. I.

SCHEDULE OF MISCELLANEOUS INCOME.

Name of village.

Tauzi No.

Thana No.

Separate Account No.

Name of thana.

Khewat No.

							Trees.					
Serial No.	Khata No.	Motherfa.	Mango.	Mahus.	Jack tree.	Jamen.	Palm tree.	Date,	Tamarind.	Bel.	Bamboo clumps.	Bemarka.
1	9	3	4	6	6	7	8	9	10	11	12	13
	}			<u> </u>								

#### CESS VALUATION STATEMENT No. II.

SCHEDULE OF MISCELLANEOUS INCOME.

Name of village.

Tauzi No.

Thana No.

Separate Account No.

Name of thana.

Khewat No.

Kind o	of income.	ŧ.	Area.	Number.	Annual value.	Remarks.
	1		2	3	4	5
Motharfa Markets Fairs Quarries Mines Orchards	•••		स्यापेन ज	H		
Jungles—  (a) Phalkar  (b) Bunkar  (c) Grazing  Ahars  Tanks  Jhils	•••					

#### CESS VALUATION STATEMENT No. III.

Name of village.

Thana.

Thana No.

District.

	Kitta or	1	Bate of rent	per bigha	١.	Avera	age produc per b	e in pueca l igi <b>a.</b>	ids.		
		Dha	nhar.	B	hit.	Dhan	ihar.	Вл	it.	of soil.	
Tsazi number.	Name of Khandha, Badh.	Irrigated.	Not irrigated.	Irrigated.	Not irrigated.	Irigated.	Not irrigated.	Irrigated.	Not irrigated.	Kind and class	Remarks.
1	3	3	4	Б	G	7	8	9	10	11	12
_											



सन्यमेव जयते



#### APPENDIX XXI.

Suggested forms of rent receipts (vide para. 170).

सन्यमेव जयते

### Form A.

Pourion).
(LANDLORD'S
RECEIPT.
CASH-RENT

- 1. Serial Number of receipt ....... 2. Agricultural year ......
- 3. Village ......Thana No......Thana
- 4. Name of Tenant ......
- 5. Particulars of holding and rent.

X						
	Total.	Rs. a. p.				
	Cess.	Rs. a. p.				
	Rent.	Rs. a. p.				
	Area.	B. k. d.				
	Class of rent.		Sharah-Moiyan	Nagdi	Chakat	Total
	Khata No.					

Year

6. Arrears

Amount.

7. Signature of landlord or authorized agent.

## Form A.

CASH-RENT RECEIPT. (TENANT'S PORTION).

- 1. Serial Number of receipt ....... 2. Agricultural year ....... 1. Serial Number of receipt 2. Agricultura
  3. Village Thana
  4. Name of Tenant
- 3. Village ......Thana No......
- 5. Particulars of holding and rent.

Sharah-Moiyan B. k. d. Rs. a. p. Total	Khata No.	Class of rent.		Area.	Rent.	Cess.	Total.
Moiyan Total		16.0		B. k. d.	)		Rs. a. p.
Total		Sharah-Moiyan	:			· · · · · · · · · · · · · · · · · · ·	
Total		Nagdi	:				
	. —— <del></del>	Chakat	:	_			
		Total	:				

Year

6. Arrears

Amount

7. Signature of landlord or authorized agent.

	enntangie of brai to fira		urrent		•
Arrea:s.	Year. Amount.	C. d.	Total of arrears paid in current	Total balance,	
Chakat includ- ing cess.	Amount.	D8. 3. D	lotal of ar		
( hake	Kist.		ŀ		
agot includ- ing eces.	-tanomA	В8. \$.	year.		
	Kist.		rent		
Shorth moiyan including oces.	-tanomA	ਾਂ. 'ਵ ' ' ਵ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ' ਦ ' ਦ ' ' ਦ ' ਦ '	l in cui		
Shera	Kist.		paid		
	Name of person through whom paid.	Ba. a. p.	of current dem	B.lance.	
Date of	pay- ment.		otal		
lo robr basi	landlo: author agent,		12		
.abro	rw ni ladol' eughangid	सन्यमेव जयने	l in current	, , ,	
<u> </u>	etutansis	स्थापन जयने व	!	al balance,	
Arrears.	rw ni latol'	다. d S S S	!	Total balance,	
Arrears.	.tnuomA.		!	year. Total balance,	
Arrears.	Year. Amount. Total in w	다. d S S S	arrears paid	year, Total balance,	
Chakat includ- Arrears.	Amount.  Year. Amount.  Total in we distant and a significant.	다. d S S S	Total of arrears paid	year. Total balance,	
Chakat includ- Arrears.	Amount.  Amount.  Year.  Amount.  Total in we	B. a. p.	Total of arrears paid	year, Total balance,	
Nagai includ. Chakat includ. Arrears.	Amount. Klet. Amount. Year. Year. Amount.	B. a. p.	Total of arrears paid	year, Total balance,	
Chakat includ- Arrears.	Kiet. Amount. Kiet. Amount. Year. Year. Total in we	Bs. a. p.	Total of arrears paid	year, Total balance,	
Nagai includ. Chakat includ. Arrears.	Amount. Kiet. Amount. Kiet. Kiet. Amount. Amount. Year. Year.	Bs. a. p.	!	Balance. Total balance,	

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TO CH	

<b>000</b> .	
IPT (LANDLORD'S PORTION.)	
I CE	
CURRENT) R	
PRODUCE-BENT (c	

•	2. Agricultural year	. 6 Thana No	
	1. Serial No. of receipt	S. Harvest . 4. Village . 5. Thans	7. Name of tenant

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Particulars
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ł	Khat		1
	Total.	ं अ अ अ	
	Cess.	ਂ ਭ ਸ਼	
	Bent,	k, s,	
	Area covered by crop.		orized agent.
	Crop.		ord or autho
	Total area of holding.		Signature of landlord or authorized agent.
	Khata No.		Sign

## FORM B.

PRODUCE-RENT (CURRENT) RECEIPT (TENANT'S PORTION)

	(Tenant's portion)	2. Agricultural year			nd rent.
FORM B.	RECEIPT		5. Thans		holding a
FOR	PRODUCE-RENT (CURRENT) RECEIPT (TENANT'S PORTION)	1. Serial No. of receipt	3. Harvest 4. Village 5	7. Name of tenant	8. Particulars of holding and rent.

# 8. Particulars of holding and rent.

	Total,	e e
	F	i i
	Cesë.	ರೆ ಟೆ
		*
ļ	Rent,	· ·
١	er Er	* Ř
	Area covered by crop.	
	Crep.	
	Total area of holding.	
	Khata No.	

Signature of landlord or authorized agent.

Signature of landlord or autho-rized agent.

Total in words.

	_	Corresponding weight.	
Ke	Crop.	Rate.	
ET I		Value.	
's P(		Corresponding weight.	
OHO	Crop.	.etafi	
NDL		.enlaV	
-LA		Corresponding weight.	
	Crop.	Rate.	
Details of Pathent—Landlord's portion.		Value,	
$P_{\Delta}$		Corresponding weight,	
OF	Crop.	Rate.	
AILS		Value.	
D I	؞	Corresponding weight.	
•	Crop.	Rate.	
******	 	Value.	
		Name of person through whom paid.	
		Date of payment.	
, ,	,	'	
	-odtna	Signature of landlord or	स्थापन नमने
PORTION.	 	.abrow ni laioT	
		Corresponding weight.	
	Crop.	Rate.	
'ORT	ļ,	Value.	
		Corresponding weight.	
A X.T.	Cro?.	Este.	
DETAILS OF PAYMENT—TENANT'S		Value.	
	ے ا	Corresponding weight.	·
	Crop.		
PAT		Rate,	
# C	Á	Value.	
rs (	Crop.		
TAT		Value.	
Ü		Value.  Corresponding weight.	
	ي ا	Rate. Corresponding weight.	
	Crop.	Rate.  Corresponding weight.  Value.  Corresponding weight.  Value.	
	Crop.	Value.  Corresponding weight.  Value.  Corresponding weight.  Value.	
	Crop.	Rate.  Corresponding weight.  Value.  Corresponding weight.  Value.	

year.
current year
daring
paid
crop
of
lotal weight of crop paid
Total

Total weight of crop paid during current year.

Rato. Value of balance.

Balance.

Balance. Rate. Value of balance.

Total balance.

Total balance.

						Total				
	PORTION.	al year	(5) Thana No.			laterest.	Total arrears			
	-Tenant's	(2) Agricultural year	(5) T		ınd arrears.	Arieate.	Total			
FORM C.	s) Receipt-	(2)	ana		(7) Particulars of holding and arrears.	Harrest.		ed sgent.		
	T (ARREARS		(4) Thana		Particulars	Year.		or authoriz		
	Produce-rent (arreaus) Receipt-Tenant's portion.	(1) Serial No. of receipt		of tenant	(7)	Polding.		Signsture of landlord or authorized agent.		
		(1) Serial	(3) Village_	(6) Name of tenant		Kbata No.	3	Signatur		
400					XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX					
•		1					<b>)</b>			
	S PORTIOM.	ear	(5) Thana No.			Interest.	Total arrears			
	PRODUCE-RENT (ARREARS) RICEIPT-LANDLORD'S PORTION.	(2) Agricultural year_	T (5) T		and arrears.	Arrens	Total			
FORM C.	RICEIPT-	(2) Ag	8m8	. (4) Thans	(7) Particulars of holding and arrears.	of holding	of holding	Наттек <b>,</b>		ired agent.
<del>                                      </del>	(arrearr)		. (4) Tb			76 es.		or suthor		
	ODUCE-RENT	(1) Serial No. of receipt_		(6) Name of tenant		bolding.		Signature of landlord or authorized agent.		
	~	, •	(8) Village					<u></u>		

	Signature of landlord.		Total,		
	Total in words,				
PORTION.	Year, Har-	Amount,		rent	
olord's	Har- rest.	Amount.		produce	d'agent_
NTLANI	ear Har- Year.	Amount.		rears of	authorise
P PAYME	Yoar, Har Year.	Amount.		ount of a	dlord or
DETAILS OF TATMENT—LANDLORD'S PORTION.	Year, Har-	Amount,		se on aco	Signature of landlord or authorised agent
I .	Persons throngh whom paid,		Total amount paid in year	Total balance on account of arrears of produce rent	Signatu
_030030	Date of payment.	20220-5		1000000	1882.
78 330 30	Signature of 400000	x 80000	70f21.		
	Total in words.				ŀ
Rrions,	Year, Har-	Amount.		ent	
Details of payment—tenant's portions,	Ye.d. Har-	Amount.		produce r	d agent
ENT—TEN	Year, Har-	Amount.		rears of	Signature of landlord or authorised agent
OF PAYM	Year, West,	Amount.	<u>,——,                                   </u>	ount of a	dlord or
DETAILS	Year, Har-	Amount.	<u> </u>	se on acco	ure of lar
	Person through whom paid.		Total amount psid in year C.	Total balance on account of arrears of produce rent	Signat
	Date of payment.		Total amon		

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#### APPENDIX XXII.

COMPARISON OF CONDITION OF MAUZA BIKU IN 1820 AND 1917.

#### I 1820.

#### Mauza Biku.

1. Mouzah	Aslee	Measured Ruckbeh, Bighas	•••	1271
Total	1	Cottahs	•••	16

This village is well inhabited. The whole of the capable land is under cultivation nevertheless the assamies are so numerous that in a favourable season they cannot each get as much land as they would undertake to cultivate. Some outlay is necessary every year for the repair of a bund on which the village depends for irrigation. I suppose the jumma of this village to be fixed at Sicca Rs. 1,400, and in explanation of the difference observable between that sum and the amount of the assessment proposed by the Board in the list forwarded to me, beg leave to state that after some trouble I succeeded in obtaining the original Putwarrie Account for the year 1226 from which the gross produce appeared to have exceeded Sicca Rs. 2,000. Although the rabi crop in that year was almost destroyed by the frost, the rice crop was abundant, and the market price of grain much higher than ordinary; opposing this circumstance to the quantity of land in cultivation, I have to the best of my judgment allowed a sufficient deduction. The raiyats here are of all castes, the generality Bahmuns, Koits, and Koyree. The aggregate amount of land paying in money is 119 bighas 9 cottahs 10 dhoors.

The following are the existing rates per bigha for the several articles of produce :-

#### Do Fussilen Nuccuppel.

					Rs.
Merwoah and poppy, per bigha		111	***	• • •	7
Merwoah and wheat, per bigha		9	•••	•••	6
Merwoah and barley, 1st per bigha	9.M. (FE / 1)	*9*	•••	•••	5
Morwoah and barley, 2nd per bight	12/4 1/2	-	***	•••	4
Sugar cane, 1st 2nd per bigha	100	<b>3</b> \	***	•••	8
Sugar cane, 2nd per bigha	(Cipe)	<i></i>	***	•••	3

#### THE FUSSILEH OR ONE CROP.

						Rs.	8,	p.
Poppy, per bigha	***	•••	***	***	i	4	0	0
Chillies and capsicum, per bigha	***	***	***	•••	•••	4	8	0
Sathie, per bigha	***	•••	***	***	***	2	0	0
Koortee, 1st per bigha	1**	***	***	***	•••	1 :	12	0
Koortee, 2nd per bigha	***	***	•••	•••	•••	1	3	0
Koortee, 3rd per higha	***	***	***	***	•••	0 .	14	0
Cotton, 1st per bigha	•••	***	***	***	•••	4	8	0
Cotton, 2nd per bigha	***	***	***	•••	***	3	12	0
Cotton, 3rd per bigha	***	•••	,		***	3	8	0

The total demand on the raiyat in excess of the original sum in "nuccuddee" lands and besides the proprietory half share is as follows:—

		' <u>-</u>		•					Sa.	Rs.
Original	•••	•••	•••		***		•••	•••		100
Bulla Rupee-										
10 Cundehs	•••	***	•••		•••		***	3.2		
Hujetaneh		***			•••			1		
Amanee Kurrutch	per	bigha one anna,	the	rate	per	bigha	7			
Rupces, being 14	bigl	nas 13 cottahs	•••		•••	·	***	15		4.3
						Total		•••	10	24יצ

#### iiyxxx

#### Bhowles.

Total produce. Hisseh Hukmee, Royttee.

	10	00	50	50					
							8a.	Rs.	
Deduct Dehyek on	e seer 8 c	ottahs per 1	naund of R	yottee share	•••	1.35			
Mungun	•••	•••	• • • •	•••	•••	·20			

Puchcowah Goreva 2.25 б 47.15 Remaining net Ryottee share

Expense of estimating the produce to be paid by the raivat at the rate of one anna for every sixteen maunds of the whole produce, 6 annas 5 gundahs.

The leases in this village are conditional. The Bramins pay no Dehyek, the Bahmuns and Koits, one seer and a half per maund; the Kuhars, Koories and Mooshers two seers. The distinction between a Bramin and Bahmun is this, the former officiates as priest at the several village ceremonies, and is supposed to read and understand the vedas, the latter wears the "zoonar" but cannot rise to the sacredotal office, and has not any knowledge of literature; he, however, is reckoned among the "Honourable" (Shurfa) of the village community and holds the same rank in it as the Patans, Rajpoots and Koits.

#### II.—1917.

#### Biku No. 20, thana Nawada.

Area, 799 acres of which 492 is cultivated. The laggi is now 6 haths which make the area 1,080, bighas. In 1820 it was probably 51 haths which would give 1,280 bigha which approximates to the area given.

The Government revenue is Rs. 1,493-4-0. The area under cash-rent is 107 acres (=161 bighas of 1820). The cash-rates at present vary from Rs. 2-11-0 to Rs. 8-2-0 per bigha of a 6 hath laggi which corresponds to limits of Rs. 2-1-0 and Rs. 7-1-0 per bigha of a 51 hath laggi. Average rent is about Rs. 8 per acre or Rs. 5 per bigha of 51 hath laggi. Cashrents have not therefore changed to any extent except in the poorer lands. The system of produce-rent is batai nist recorded after dispute. The landlords produced no papers. It was admitted by the tenants that appraisement was sometimes done if they agreed.

The abwab now taken are not specified in the record-of-rights.

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#### APPENDIX XXIII.

#### SPECIMENS OF KAMIAUTI BONDS.

T.

I, Sohan Bhuinyan, resident of mauza Dihak pargana Pahra, in the district of Bihar do hereby acknowledge to have taken an advance of Rs. 24-14-0 for agreeing to work as a kamis and menial servant from Jainu Singh, by caste Rajput, of Diha. In this document which I execute I willingly and voluntarily bind myself to plough on nakdi and bhaoli lands of Jainu Singh, and to grow cotton, sugarcane, etc., for him, and to work wherever the lands of Jainu Singh may be situated. I and my descendants for ever bind ourselves to be ready to perform any work given to us, and to perform all the duties of a menial servant without objection. If at any time I abscond I shall be liable to be brought back by the said Jainu Singh by force and shall offer no objection, and if I refuse to return or offer resistance I shall be liable to pay the nakdi and bhasli produce of one plough and Rs. 100 in cash and then I and my descendants can be released from our obligations. I shall be paid the same diet allowance or wages as is customary in this village and around. If I cause any other work of the aforesaid Jainu Singh to suffer he shall have authority to administer justice as he thinks proper. For the above this document is executed by way of Sewaknama so that it may be of use where occasion requires.

Dated 15th Asarh 1262.

11.

I, Somar Rajwar, son of Geyan Rajwar, of Andherbari, pargana Jarra, district Gaya,) am by profession a labourer and a kamia. As I have to pay off the debt of Babu Bhikhari Singh of aforesaid village, to make some clothes and also to incur expenditure on food, and which cannot be done without recourse to borrowing, and because nobody gives a loan without my district Gaya,) am by profession a labourer and a kamia. As I have to pay without recourse to borrowing, and because nobody gives a loan without my executing a Kamiauti document, I requested Babu Dhanpat Singh, son of g Babu Gajadhar Singh, deceased, of village Andherbaris by profession agriculturist and service-holder, to advance a loan of Rs. 13-4-0 on Kamiauti terms and to get a document executed by me on stamped paper. To this the aforesaid Babu agreed. I, therefore, of my own free will, have taken a loan of Rs. 13-4-0 half of which comes to Rs. 6-10-0) from the aforesaid Babu Dhanpat Singh of the above-named village and have put the money to my personal use. I, therefore, bind myself and execute this document agreeing to assist the agriculturist with my wife in all the work of a kamia and in the agricultural operations, e.g., sowing, etc., I shall receive antia, dinora and wages as per custom of the village and shall raise no objection. I shall also have to repay the money at a lump in Jeth of the year 1916, when I shall take back the stamped document. And so long I do not repay the money, I shall always discharge my duties, and if I happen to go away elsewhere I shall pay to the said Babu Dhanpat Singh interest at one anna per rupee per month until the aforesaid loan is paid off. On my failing in this the said Babu Dhanpat Singh shall be entitled to realize the money from any of my properties that he may find, and to this neither I nor my descendants or successors-in-interest shall have any objection. I have therefore executed this document concerning interest to be made use of later on if required. Be it noted that if I have to go elsewhere for a day or two I shall put my son in charge of the said agriculturist as my substitute and the said agriculturist will have authority to take work from my son.

**R**s. a. p. Total 13 4 0 Half of which 6 10 0 Dated 2nd August 1914.

## APPENDIX XXIV.

RECORD OF VILLAGE IRRIGATION.

Fard Abpasi.

Name of Village, Majhiawan.

Name of Thana, Mufassal Gaya. Thana Number 126.

Thana Number 126.	Вепатка,	10	See remarks column of serial No. 6 of Majhiawan pyne scheme record.	Vide serial Nos. 7 and 8 of general scheme record of Majhiawan <i>pyne</i> .	Water comes into this modawa from pyne No. 666, vide serial No. 3 of this irrigation record.	Vide general scheme records of Majhiawan ryne, serial Nos. 9, 10 and 11.
Thana Nu	Arrangements, if any, which exist for deciding disputes between temants.	6	ī	In ease of dispute between tenant regarding irrigation, it is decided by the agent of malik and mukarraridar.	Ditto	Ditto
	Method of distributing the water. State whether consent of malik is required or not. Rights of tenants:	ω		Tenants irrigate their lands by means of latha and kundi and by putting a garandi near plot No. 673 without taking permission of malik and without payment of any rent. Water of pyne No. 666, flows to Mohana No. 674.	Tenants irrigate their lands by turns by means of water without the permission of malik and without payment of any rent.	Tenants irrigate the'r lands by turns by means of latha and kundi without taking permission of malik and mokurraridar and without payment of any rent.
[Extract only.]	Harvest and area irrigated. If badh, or whole block of land is trrigated completely, name should be given.	1		Paddy and Rabbi crops and sugareane of an area of about 2 acres in Kita Pankapar.	Rabbi crops of Kita Suia for an area of about 3 acres.	Paddy crop of Kita  Fyne se purabarea about 7 acres.
	Name of person who should repair it,	9	स्य	मेव जयते	Malik and mo- karraridar of this village.	:
	Cost of construction,	ıo	Ī	: :	Not, known	i
	Date of construction.	•	:	₹	Not known	:
Majhiawan.	Kane of person who constructed it,	n	÷	:	Original pro- prietor, Baj Tikari,	i
Name of Village, Majhiawan.	Source of irrigation and name, if any, with plot number,	8	Majhiswan <i>pyne,</i> No. 724.	Yajhiswan <i>pyne,</i> Nos. 68½ and 666.	Mohana, No. 674.	Majhi <b>a</b> wan <i>pojne</i> , Nos. 804, 175 and 165.
Z,	Serial No.	п	63	ന	ਚ	r3

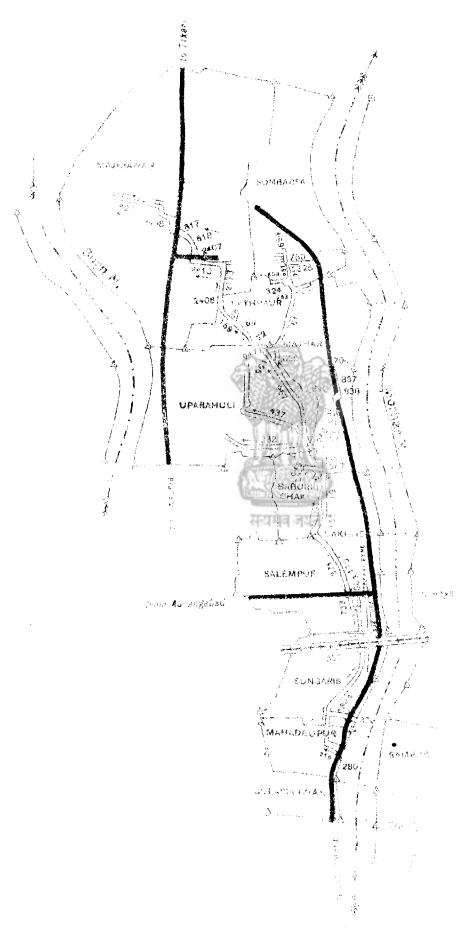
RECORD OF

Serial No. 19.

#### Name of Pyne. Majhiawan Pyne.

1			2			3 4							İ	6			
	Villages t	pton	h which p3	пе раг	ses.		•	Moh	ana,			Pa <b>r</b> aband	i,		Bandh	or C	lahka.
	<b>A</b>		В		C		A		В	c	A	В	C	D	A		В
Serial number,	Name.		Thans.		Thana number.	Plot number of Pyne.	Number to which the village is entitled.		Plot number of field in which the mokens is.	Plot number of karka, if any.	Besson in which it continues.	Number of days affer which a village can take water accord- ing to parabands.	Number of days of	Order of turn.	Number which is fixed for the	village,	Plot number.
Í	Mahadeo <u>r</u>	our ,	Mufassal	Gaya	116	215	None	***	***	100	Vide serial No. 6.	There i	s no pa	rabandi age.	Non <del>o</del>	***	145
9	Sugaria	<b>,</b>	Ditto	, <b>•••</b>	117	108	None	***		1	Ditto	There in	is no po	trabandi age.	Do.	•••	844
3	Ditto	•••	Ditto	,	117	370	None	A CARLO			Ditto	***	<b>144</b>	•••	Do,	μ.	
								(	स्थापे संयो	्रा इ.स.				·			
4	Ditto	***	Ditto	***	117	344	None		<b>J-1</b>	494	Ditto ".	Vide	serial No	o, 2,	Do,	***	***
	Ditto	·	Ditto	•••	117	881	None		,	".		<b>,,,,</b>			Do.		***
0	Dakhuer	<i>,,</i> ,	Disto	994	136	724	Nons	***	***	ėse .	From the month of Asin so long as required,	1	1	5	Do.	111	424
7	,Ditto	pas	Ditto	***	138	684	None	•••		···	, }		,,,		Do.		***
	Ditto	. ,	Ditto	***	186	666	One	,,,	673	874	ੀ j •••	,		,	l garandi		In fron

#### MAP OF THE MAJHAIWAN PAIN



XXV.

Majhiawan Pyne.

Name of village in which pyne originates.

Mahadeopur, No. 116. Thana, Mufassal Gaya.

7			8			9			10	)		11
t to	·	·	Tage it.		C	onstruction of Py	ne.	Repai	r o	i Pyne.		
as righ			of vil	į	A	В	С	A		В		
Whether the village has right to take water by dhekis or by any other means.			Whether the maliks of village have right to sell water or not.		By whôm construct- ed.	Date,	Cost,	Name of person who is regionsible for its repairs.		Proportionate share of cost which the village has to pay.	,	
No	•••	No			Vide serial No. 6.	***		Vide seria No. 6.	1	Nil	•••	(1) The source of the pyre in this village river Morhar, plot No. 280. This pyne here silted up in this village and wal does not ordinarily flow, but when triver is high the water flows over the Sonbarsa road into pot No. 108 whiles in village Sugaris, thans No. 117.  (2) This village is not irrigated from the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superior of the superi
No ·		No			Ditto			Ditto ,				(1) This plot was the former course of the surface within this village; but now it slited up.—Vide remarks 1 of serial No. 1 (2) This village is not irrigated from the sync.
Right of the water is Latha Lundi.			***		Ditto			Ditto		Nil	•••	41) The source of this pywe is river Morha No. 372 within this village. When the is sufficient water in this river the wat itself flows into this pyne; Lut when the is not sufficient water, then t maliks of villages Majhiawan No. 12 Uorahuli No. 130. Sonbarsa No. 12 Majhar No. 129 and Dakhner No. 136 ma a water-passage in the river-bed up to though of pyne which passes through village Rampur, Thana No. 115 and Guai Chak Thana No. 113 through which t water comes to this pyne.
					·	1	स्यमेव स्थामेव	(ट्रें) 1यने				12, In order to make the water passage of man from each house from each of twillages comes. They get only half day wages from their landlords.  (3) In the rainy season when flood water the rainy season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the season when flood water the sea
												comes into the pune by itself all t mohavas and the branches of the py remain open and the water flows free At th t time there is no parabands.
												(4) When water is brought in to the pyne means of the water-passage in the riv bed then paralandi begins.
												(b) During the parabandi of one village t mohamas and the branches of other villa are closed. After taking the water duri their para the landlord and raiyats of t village on the expiry thereof cut t garandi which keeps the water in the village.
												(6) The water of this pyne which is abo the level of Sonbarsa road comes into p No. 344 by overflowing the road.
Vide se No. 3.	rial		•••		Ditto		•••	Ditto				The water of the pyne flows through t pakka railway bridge and goes to villa Dakhner, plot No. 724.
Ditto			•••			***		•••		***		
No	•••	No		****	Former malik Raju Miterjit Singh,	Not known	Not known	Malik and mukararidae this village and Majhia wan, Thana No. 126, Son 129, and Uptribula, No. 129, and Uptribula, No. 130.	of .	11 pies	•••	There is one pakkn bridge in this py which carries over it the Nigra pyne.
Right taking wa is by la and kundi	rtha		•••			***	114	•••		<b>,</b>		
Ditto		i	***		***	<b>,</b>	<b></b>					The malks of this village during the para turn the water through the mohana by putting a garandias enter in column 6 and after the expiry of pathe garandi is cut and the moha is closed.

#### APPENDIX

RECORD OF

Serial No. 19.

#### Name of Pyne. Majhiawan Pyne.

1			2			3		4				5				6	
	Villages t	hrou	gh which py	ne pa	sses,	,	-1	Mohan	a,			Parabana	i.		Band	h or C	hahka.
	A		В		С		Ā		В	c	A	В	¢	Q	A		В
Serial number.	Name,		Thana,		Thana number.	Plot number of Fyne.	Number to which the village is entitled.	i +-	in which the	Piot number of kurka, if any.	Season in which it continues.	Number of drysafter which a village can take water actording to paraboat;	Number of days of	Order o' turn.	Namber which is fixed for the village,		Plot number.
<b>9</b>	Irakhner Salempur		Mufassal ( Ditto	łąya 	136 133	733	Nove in eith village,	nër			Vide serial No. 6.	No po	skhner s No. 6. araban li 138 Salem	for	None either lage.	in ∀il-	*4*
<b>20</b>	Dakhner Balempur Dakhner		Ditto Ditto		196 133 136	175 871 165	None in eith village. None	er .	- Figure		Vide serial No. 6.  Vide serial No. 6.	No po	nkhner se No. 6. **račandi ge Salemi erial No.	for our.	None either lage, None	in vil-	428
11 (1)	Ditto	•••	Ditto		138	168	None				There is no purab ndi in this branch,				None	{	irs <b>d brune</b> h,
11 (8) 11 (8)	Majbar Do	•••	Ditto Ditto	##. ###.	129 129	584 607		7			<b></b>	-•-			Garandis put w necessary	here	44.
11 (4)	Do,	<del>9</del> **	Ditta		129	840	None				•••			<b></b>	Vide 50 No. 11(2)	rial	***
<b>1</b> 1 (6)	Do.		Ditto	•••	129	731	None			***	***				Ditto	·	•••
11 (6)	Do,	•••	Ditto	•••	129	837 838	None			***	***		,		Ditto		•••
11 (7)	Do.	•••	Ditto	•••	129	700	None			•	•••		<i>.</i>		Ditto	•••	•••
12	Dakhner		Ditto		186	185	Vide ser	ial									
13	Majhar		Ditto		129	<b>54</b> 6	No. 11. None			•••	Vide serial	13	4	4	None		***
14	Uprakuli	•••	Ditto	<b></b>	130	057	{ 2 (1) { (2)		835 850	932 43;	No. 6.	13	4	2	2 garandis	•	First garan- di is in front of the south- west cor- ner of piot No. 1833, and second in front of south and east corner of plot No. 438.

#### KXV-continued.

MAJHIAWAN Pyne.

Name of village in which pyne originates.

Maha leopur, No. 116 Thana, Mufassal Gaya

7	8		0	k.	1.	0	11
τι α Ο γ.	lage of.	Co	nstruction of pyr	e,	Repairs	of pyne.	
as riggi or by	of wil	A	В	c	A	В	
Whether the village has right take wa'er by dekis or by a other means.	Whether the maliks of Allage have right to sell water or not.	By whom construct-	Date,	Cost,	Name of person who is responsible for its re, airs,	Proportionate shave of cost which the willage has to pay.	
Both the villoges have right to take water by lath; and kundi.	Not in either village,	Vide serial No. 6.		•••	Vide serial No. 6.		The pyne passes under the Aurangabad road through a bridge.
Vide serial No. 7.	Not in either village.	Vide serial No. 8,	194		Vide serial No. 6.		
The right of taking water is by tathuand kundi.	No	Vide serial No. 6.	.,,		Vide se ial No. 6.		The pyne passes along the boundary of village Baburi Chak and the village Babu Chak has a right to take water from it by means of latha and kundi.
Mojhar Wati. No	No	Vide serial No. 11(2),	***		Vide serial No. 11(2),	NQ	(1) In rainy season when flood water comer then the mouth of the branch pyne remains open through which the water flows out itself. When soil water is brought in to the main pyne by making a water-passage in the river-bed the malsks of village Majhad during their para put a garandi in the main pyne by the north-east corner of plot No. 166 as entered in serial No. 13 to tart the water into this branch and after the expiry of the para the garandi is cut. Vide remarks column of serial No. 13.  (2) From this branch this village is not irrigated.
Right of taking water is by lotting kunis and chand.	Хе	Raja Miterşit Singh.	Net known	Not known	Malik and mokarravidar of this village.	Sixteen annas in the branch	(1) Through Nala No. 587 excess water from the fields falls into this pype.  (2) Between plots Nos. 603 and 464 there is a pakka bridge over which the water of the pype flows and under this bridge the water of pype No. 655 goes to pype No. 604, but the proceed name. Nos. 658 and 604 are filler
Vide serial		•••	***		124		up with mud.  The water of this plot crosses the Sonbarse road by flowing across it.
No. 11 (.). Ditto			***		***		tong by nowing moroce it.
Dit'o	***					***	These two numbers are due to the division by the boundary of the District Board road.
Ditto	•••	•••					<u> </u>
***	,,,	•••					
The right of taking water is by litha	No	Vide seriak No. 6.	•••	•••	Vide serial No. 6,	Annas 3 and pies 9.	(1) The Nigar water of village Babur Chak, thana No. 185, fulls into this pgn through Karle No. 1070.
and kundi.			-	·			(2) During the para entered it column 5, waver is also taken by thi village through the branch entered it serial Nos. 11 (i) to 11 (2).
Ditto	No	Ditto			Ditto	Ditto	(1) During the para entered in column 5, two generalis are nut in the main you which turn the water into this village by the two mohanas entered in column 4. After the extiry of the para the two garandis are cut and the mohanas are closed.
							(2) Mohana No. 332 has been silted up for the last seven years and lands are not irrigated from this. See remarks 3 of serial No. 4 of Uprahuli 23nc.

#### APPENDIX

RECORD OF

Serial No. 19.

Name of Pyne- Majhiawan Pyne

1	, , , , , , , , , , , , , , , , , , ,	2		3		(	•		<u> </u>	Б	<u> </u>		6	
	Villages throng	th which pyne pas	sses.			Moh	ana.		1	Parabandi.			Bandh or C	hahku.
	A	В	С		A		В	С	A	В	c	Œ	A	В
Serial number.	Мате,	Thans.	Thank number.	Plot number of Pyne.	Number to which the village is entited.		Plot number of field in which the wokana is.	Plot number of karka, if any.	Season in which it continues.	Number of days after which a village cun take water according to parabatui.	Number of days of para.	Order of turn.	Number which is fixed for the village.	Plot number.
14 (1)	Uprahuli	Mufassai Haya	180	964	None	•••	199	***	In this branch there is no perabana		***	***	Se None	o ond tranch
· 14 (ž.)	Majhar	Ditto	129	830	None		M)		Vide scrial No. 14 (1).	•••		***	None	
14 (3)	Mayher	Ditto Ditto	129	Vide re- mark,	None 1	•••	 ' 262	within village M.jh.	Ditto	,,,,	***	•••	None	***
14 (4)	Pathraura	Ditt>	128	258	None	••• • .	p e	•••	Ditto .,.	•••		•••	Non	***
14(5)	Pathraura	Ditto	128	2 <b>51</b> 851	None in villag	either	•••	, ***	For village Pathraura, vide serial No. 14 (1). For village Sonbarsa, vide serial No. 14 (7).	}	•••	***	None in either village.	•••
14(5) (1)	(Pathranga	Ditto Ditto	128 127	824 650	None	•••			In this sub- branch there is no para- banai.		***		None in either village.	1st Sub-
14 (6)	(Pathraura (Sonbarsa	Ditto Ditto	128	261 651	Vide No. 1									4.4
14(6) (1)	Pathranra	Ditto	128 127	325 750	None	***			In this sub- branch there is no para- bandi.				None in either viliage.	2nd Sub-

XXV.

MAJHIWAN Pyne.

Name of village in which Pync originates.

Mahadeopur, No. 116. Thana, Mufassal Gaya.

7 8			0			10	11	
at to	llage ot.	Construction of Pyne.		Repairs	of P3 ne.			
sa righ or by	of vier of n	. A	В	c	A	В		
Whether the village has right to take water by dhekis or by any other weads.	Whether the railes of village have right to sell water or not.	By whom construct-	Date,	Cost,	Name of per on who is responsible for its repairs.	Proportionate share of cost which the village has to pay,		
Sonbarea Wali.	1	[					(1) In the rainy season the mouth of	
No	No	Vide serial No. 14 (7).			Vide serial No. 14 (7).	Nil	by itself.  (2) When there is not sufficient water in the river, then soi water is brought into the main pune through the water-passage in the river-bed, In south-east corner of plot No. 940, a garandi is put in the main pune during the pura entered in serial No. 14 (7) and tarus the water into this branch. When the pura expires the garandi is out and the mouth of the branch is closed.	
							(3) There is a pakket bridge near plot No. 960 which carries the water of this pyne over the Utrain pyne.  (4) From this branch this village is not irrigated.  (5) It may also be noted that when the parabanat of village Majhiawan is overthe maliks of village Chakan bigha array, be Pathraura who are maliks of Sonbarsa thana No. 127 also, when necessary, make the water of Crahali ryue run into Machiawan pyne through fields during their para in the Uprahuli pyne and thence	
Right of taking water is by latha and kundi.	No	Vide serial No. 14 (7).	***	सन्यमेव	Vide serial No. 14 (7).	NII.	take it to Sonbarsa through this branch.	
Vide serial No. 14 (?).	<b></b>		40.	***	•••	***	When there is sufficient water, then the water of this branch goes through this mohana into the karke, but when there is not sufficient water in the branch, then the excess water of the fie ds of village Majhar flow through the mohana into this branch. From this mohana village Pathraura is irrigated, but the Pathraura maliks and raiyats have no right to take the water through this mohana by putting a garandi in the branch.	
The right of taking water is by latius, kundis and chands.	No	Vide norial No. 14 (7:.	-11		Vido serial No. 14 (7).	Nil.		
Both the villages have right to take water by lathas, kundis and chamas.	Not in either village,	Vide sariai No. 14 (7).	,,,		Vide serial No.14(7).			
Both the villages have right to take water by /4-tha and kundis.	No	Former maliks of Pathranca and Sonbarsa,	Not known	Not known	Maliks of villages Pathran- ra and Son- barsa.	In this sub- branch Path- naura-annas 8; Son barsa, annas 8.	The mouth of this sub-branch is a foot higher than that of branch pyne No. 261 then flood water comes to the branch, then excess water which overflows goes into subbranch,	
•••				•				
Branck. Both the villages have right to take water by tathas and kundis.	No	Former malik	Not known	Not known	Maliks of villages Patheranta and Sonbarea.	In this Sub- branch Path- raura annas 8 village Son- barsa, 8.	The mouth of this sub-branch is a foot higher than that of branch No. 261, excess flood water comes to the branch then was water which overflows goes into the sub branch;	

#### APPENDIX

RECORD OF

Serial No. 19.

Name of Pyne.

Majhiawan Pyne.

1		3		3		4			5			6	,
	Villages throu	th which pyne pa	.898a.		Mohana,				Paraband	li,		Bandh or Chahka.	
	A	В	C	į	A	В	C	A	В	C	D	A	В
Serial number.	Name,	Tiana.	Thana number.	Plot number of Pyne.	Number to which the yilage is cutitled,	Plot number of field in which the mohana is.	Plot number of karka, if any.	Season in which it continues.	Number of days after which a village can take water according to parabank.	Number of days of para.	Order of turn,	Number which is fixed for the vilage.	Plot number,
14 (7)	Soubarsa	Mufassil Gaya	127	654	2 (1) (2)	747	Vide remarks	Vide serial No. 6.	15	2	3	None	•••
15	Uprahuli	Do	130	957 947	Vide Serial No.	Vide Serial		. •••	•••	<u> </u>			,
16	{Uprahuli   Pathraura	Do	128	72	None	No. 14.		For village Up- rahuli, vide serial No. 14 village Path- raura has got				None in either village,	···
£17	Pathraura	Do	128	69	None			no parabandi.			,	None	•••
18	Do	Do,	128	169	One ,	171	326	***	•••		***	None	•••
19	Majhiawan	Do,	126	2406 2178	Nong	2045	299	Vide serial No. 6.	g21 ,	6	One	None	In front of south-east corner of plot No. 2240.
21 3	Do	Do	126	2 <b>4</b> 07 818	None			1+4				None	•••
23 24	De	Do	126	817 2408	None							None	turk trd

XXV-concluded.

Mајніаwан Pyne.

Name of village in which pyne originates.

Mahadeopur, No. 116. Thana, Mufassal Gaya.

7	8 9				10	11	
at to	llage ot.	C	onstruction of P3	Inc.	Repaire	of Pyne.	
us righ or by	of vi	A	4	C	A	В	
Whether the village has right to take water by decide or by any other means,	Whether the mailts of village have right to sell water or not.		By whom constructed.		Name of person who is responsible for its repairs.	Proportionate share of cost which the rillage has to pay.	
The right of taking water is by lathas and kundis,	· [	Former malik.	Not known	Not known	Maliks of this village.	16 annas in the branch.	(1) There are no stecific plot Nos, for these moleculars. The two moleculars are shown by their alamats in the map on the northern and southern ails of plot No. 747.
							(2) This branch terminates at the wesern plot of No. 533 of this village.
							(3) The para entered in column 5 is from the main pyne.
4+							
Both the villages have right to take water by lathas and kundis.		Vide serial No. 6.			Vide serial No. 6,		
***					<b>300-</b>		
There is right of taking water by lathas and kundis.	•••			स्यमेव	्ट) जयने		The month of this nobana is a foot higher than the level of the pyne. The maliks and the raiyats of this village have no right to lower the level of mohana. When there is much water in the pyne then the banda of the pyne is broken at the mouth of mohanas through which flood water passes. When there is no need of irrigation in village Majhiawan, then with the permission of the maliks and makarraridare of village Majhiawan water is taken by cutting the banda closing the mehana during the para of village Majhiawan, then and No. 120. After the expiry of the para of village Majhiawan the Patriaurs raiyats can take water from this pyne without hindrance.
The right of taking water is by Dhekul and Chand.	No	Vide serial No. 6.	Aurė	***	Vide serial No. 6.	Annas 5 pies 9.	Refore the beginning of parabandi when water is brought through nareh from the river Monhar, then this village gets one day as kharbhijowan which is also called Chalha Jarawan which is not included in the para.
Vide serial No. 19.	.,.		,		•••	···	(1) The pynecrosses the Tikari road under a pakka bridge.
							(2) There is no specific plot No. for this karka. In the southern all of plot No. 2048 there is a thin tarna which has been shown in the map by arrow mark.
ido Serial No. 19.	***	-			•••	•••	
řo						••	
Do	•••	***					The pyne crosses the Tikari road by flow-ing over it.
ide serial No. 19,			•••	***	***		The pyne ends in Ahar No. 622 of this village.

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#### APPENDIX XXVI.

PROPOSED FORMS FOR IRRIGATION RECORDS.

#### FORM A.

GENERAL INFORMATION.

1. Name and number of pyne.

- 2. Thana in which it lies.
- 3. History and cost of construction, if known.
- 4. Source of water supply and method of getting water at head works.
- 5. Shares of cost of repair.
- 6. List of villages with than numbers situated on the pain.
  - (a) with rights.
  - (b) without rights of any kind.

( Note,—The object of this is to save repeating themas and then a numbers in every entry in Form B and to save the trouble of entering in Form C villages which have no rights at all).

7. Whether there is paraband, in the pyne or not.

(Note. - If there is no parabandi in the p iin Form C need not be filled up).

#### FORM B.

#### DISTRIBUTION AND RIGHTS TO WATER IN THE VILLAGES.

,				MYVAY				
Sørial Number.	Namo of villago.	Khasra number of Pyne.	Rights of using latha, kundi, etc.	Number of mohanas to which village is entitled.	Khesra number of mohana or nearest plot.	Khesra number of channel issuing from mohana.	Remarks.	
1	2	3	4		ž		ΰ	

(Note.—Villages would be entered in this according to the order in which they came in the pine, i.e., the kbesra numbers in column 3 indicate the course of the pyne).

#### FORM C.

#### USE AND CONTROL.

Village name	Par	abandi.		Rights to obstruct the free		
with thans and thans number.	Duration.	Duration. Time. Order.		flow of water by crection of bandhs.	Remarks.	
1	2	3	4	5	6	
			i			

(Note. - Villages will be entered in this according to the order of their turn in the parabandi).

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#### APPENDIX XXVII.

RULES FOR THE PREPARATION OF IRRIGATION RECORDS.

- 1. The irrigation record prepared during the Settlement operations consists of two parts, viz. [1] the village fard abpashi, and [2] the general pyne scheme record. The first is an account of the means of irrigation within the village, and the rights of landlord as against tenants, tenants as against landlord, or tenants as against each other. The second is a special record of every irrigation scheme which benefits more than one village, or while benefiting one village has its origin in another. It is thus a record of the corporate rights of one village as against another. The two taken together supplement each other and for any particular village form a complete record of its rights to water. But while they are complementary, they must not be redundant. Entries which affect the villagers of one village only, simply waste space if put in the general record; while entries in a village abpashi concerning rights against another village are quite valueless as they are not attested by the latter. The criterion is simply this "could two villages dispute over this matter?" If the answer is "yes" it is a matter for the general record; if "no", for the village fard abpashi. The two records will be connected by cross-references from one to the other.
- 2. These records will have been prepared originally by the inspectors at Khanapuri (vide Khanapuri rules 61 and 62). As received by the attestation officer they may be very imperfect. In every camp there will be deputed at least one Munsarim who has had special training during recess in preparing these schemes. It is probable that in many, if not most cases he will have to prepare a fresh record and fresh trace before bujharat of the scheme is begun. He will almost certainly have to make some local enquiries. He will also do bujharat. The Assistant Settlement Officer should see that the bujharat is intelligently done with the aid of the map. In any case the Assistant Settlement Officer must make a local inspection of every pain and will find it most convenient to do so during the hearing of disputes.
- 3. In arranging his programme the Assistant Settlement Officer should do so with special regard to the pyne schemes. It makes no difference to his ordinary work in what order he takes up villages; but it will make all the difference to his work in irrigation if he groups his villages according to the pynes with which they are connected. The Assistant Settlement Officer must endeavour to finish all work on a pyne scheme for which he is responsible and to attest it at the earliest possible moment. He will thus avoid difficulties and delays in the bujharat and attestation of the connected village furd abpashis. This applies equally whether the pyne lies wholly in his own camp or partly in his camp and partly in another camp.

He must be on the look out all the time for pyne over-looked by the Khanapuri Inspectors.

4. Where a scheme lies in the camps of two or more officers the general scheme will be attested by the Assistant Settlement Officer in whose camp the village of its origin lies unless special orders are passed by the Assistant Settlement Officer in charge to the contrary. The attestation officer in charge of the scheme should send copies of the scheme to other attestation officers concerned in order that they may check it with their village fard abpashis before attestation of it is taken up. The latter officer after check with his fard abpashis may, with special permission of Assistant Settlement Officer in charge, get bujharat of the scheme done in his own villages; in which case all badars and disputes will be returned with the copy of the scheme to the attestation officer in charge of it. The scheme will be attested at the same time as the village in which it originates is attested. It should be draft published at the place which is most convenient for all villages concerned. The attestation officer in charge of the scheme should notify the date of draft publication to other officers in whose camp any part of it lies and these latter should also give notice that section 103A objections may be filed before them as well as before attestation officer in charge of the record. All section 103A objections of general pyne schemes must be kept in a separate file in Register VIII; and in case of schemes not in the charge of Assistant Settlement Officer in whose camp they were filed, must be forwarded to Assistant Settlement Officer concerned immediately on expiry of the time limit. For the purpose of Register VII and Return III each general scheme will be regarded as a village.

The form of irrigation general scheme register is given on the opposite page. One scheme will be entered on each page. The Assistant Settlement Officer will be held generally responsible that it is correctly maintained, but the following persons will fill in the columns noted against their designation:—

Irrigation Munsarim	* * *		• • •	1, 2, 3, 4, 5	, 9, 10, 22,	, 13
p. P. Kanungo	•••		•••		7	, 16
Peshkar		***	***	•••	·•• 8	, 14
Assistant Settlement	Officer	1++	***	•••	6, 11	1, 15

	1. Name of pyne.		2. Thana(s) in which it lies.							
3. Serial No.	4. List of villages on par with Thana number.	5. Date of check with fard a pashi.	6. Date of attn. of furd abpashi.	7. Date of draft pub. of fard abpashi.	9. Date of completion of munsarim's preliminary check of trace and record (Rules 2 and 8).					
					10. Date of bujharat.					
					11. Date of local enquiry by Assistant Settlement Officer.					
					12. Date or dates of decision of disputes.					
		## ##	प्रमुख जयते		13. Date of tarmin of General Scheme.					
	8. Record of der	patch of copies to c	other camps (rule	4).	14. Date of Peshkar's check.					
	Village.	Date of despatch.	Camp No.	Date of receipt.						
					15. Date of attestation of General Scheme.					
					16. Date of draft publication of General Scheme.					

An attestation officer receiving a copy of a scheme from another camp will have this entered in his register and columns 1, 2, 3 and 4 filled up completely. He will also show dates of check of copies in column 5 for his own villages as the check proceeds and when it is finished return the copy with all badars affecting it to the camp from which it came. When he receives information that the general scheme has been attested he will note date of attestation and date of receipt of information of it in column 15 in red ink, and proceed to attest his own village fard abpashis (or such entries as have not been already attested under rule 6) and to draft publish them, filling up columns 6 and 7 for these villages. Note that the date in column 6 is date of attestation of entries connected with general scheme though other portions of the fard abpashi may have been previously attested under rule 6. The date of draft publication of fard abpashi will in any case be the same as that of draft publication of the village. He will then send a note of the dates in columns 5, 6 and 7 to the attestation officer in charge of the scheme and the latter will enter these in his own register in red ink.

If these instructions are understood and followed every attestation officer will have a complete history of the attestation of the pains in his charge, showing the work done in his own camp in black ink, and that done in other camps in red ink. He will also have a record of the work done by him on pynes that are not in his charge, but run into his camp.

- 5. The attestation officer at attestation must initial:-
  - [a] every entry of parabandi,
  - [b] every entry of shares in cost of repair,
  - [c] every entry in remarks column,
  - [d] every entry which has been the subject of a dispute,
  - [e] all corrections made,

and sign the whole.

- * 6. No entry in a village furd abpashi which is connected with a general scheme can be attested until the general scheme has been attested. The other entries may be attested and signed independently. Till all entries are signed the village furd abpashi cannot be draft published.
- 7. It must be noted that no village can be shown as complete in fortnightly attestation returns unless its fard abpashs is complete and that consequently if it has connection with ann pain scheme it cannot be shown as complete till that pync scheme is attested. An exception is made to this rule in the case of pyncs which pass from one camp to another. In that case any Assistant Settlement Officer who is not responsible for the attestation of the general scheme may show his villages as complete with a note in remarks column that the fard abpashs is pending. In no case however must such village be draft published before the general scheme is attested

#### SYSTEM OF PREPARING THE GENERAL SCHEME.

- 8. The trace.—The first essential is an accurate trace on a scale of 2 inches to the mile. The Munsarim should first check the trace of the khanapuri inspector with the 16-inch map and note on a badar form all mistakes, omitted branches, mohanus, karhas, etc. He should be ordered to prepare a fresh trace if these defects are numerous. The trace should also show the khasra numbers of the plots in the pyne. If a pyne is on a village boundary the dot alamat must be put in to show clearly whether it lies in one village or both. An arrow alamat must be put in every part of the pain with its point in the direction of the flow; and the double arrow where the water flows both ways. Alamats of bridges and weirs should also be put in. Roads, railway lines, and other pains should be indicated whether they cross the pain.
- 9. A pyne will usually be found to consist of the main pyne and several branches. Generally there is a portion locally recognized as the main pyne. If not, the Assistant Settlement Officer will have to select arbitrarily that portion which he will treat as the main pyne. Any channel taking off from the pyne in one village and passing into another will be considered to be a branch [shakh]. Any channel which does not go beyond the confines of the village in which it originates will be considered to be a mohana and karhā. This is necessary to secure uniformity, and should be explained to the people at bujharat if they raise any objection to the entries. Detailed instructions for filling up each column of the form are given below. The general system is to plot down all the khasra numbers of the pyne in column 3 of the form until a branch is reached; then to draw a line in red ink and plot down the numbers of that branch till its end is reached; and then again to draw a line and return to the main pyne. Mohanas with karhas running from them are entered in column 4 opposite the khasra numbers from which they originate. Pynes may run in and out of the same village and consequently the name of a village may appear several times in column 2. The entries in column 3 control the arrangement of the whole form; and no attempt should be made to bring all the entries concerning one village together unless they come so naturally. The scattering of the village names leads to some difficulty in entering up the rights of villages in the rest of the record. The detailed rules below are intended to meet such difficulties; but if the Assistant Settlement Officer is in doubt cases should be freely referred. The rules must be strictly followed, as unless we adhere to a conventional system the record arranged as it is will teem with ambiguities.

^{*} Note.—It was found necessary to relax this rule to avoid undue delays. Where alteration was subsequently required fresh draft publication was done.

10. Column 1.—One serial will be given to every khasra number. In the case of plots on a village boundary having a khasra number in each, the two numbers will be bracketed and one serial only given. In case the plots in the two maps do not correspond, the matter must be referred to Assistant Settlement Officer in charge.

In the case of a branch the serial number of main pyne from which it is sues with a subserial in brackets will be given.

It should be noted that mohanas have no separate serial number in column 1.

- 11. Column 2 needs little explanation. The name of the village with Thana number is entered opposite its kharra No. [V. rule 9]. The sign ,, ,, may be used instead of repeating the village name where entries of it follow immediately one below the other, but the name should be entered again at the head of a fresh page.
- 12. Column 3.—Khasra numbers of pyne. If the general instructions have been understood no further details are required. For plots on village boundaries see Rule 10.
  - 13. Column 4-
    - [A] "Taedad jitne karne ka mouza mustahak hai"—If village is entitled to no mohanas, enter "nahin" and a dash [—] in [B] and [C].

If village has one mohana only, enter the figure 1 in [A] and khazra numbers in [B] and [C]

If plot has more than one mohana enter thus in column [A]

3	[1]
	[2]
	[3]

Note that the number in [A] is the number of mohanas in that khasra number of pain and not necessarily the total number in the village. They are always entered against that khasra number of the pyne from which they issue. If there is any difference between, the number of mohanas to which a village is entitled and the number which it actually possesses the case must be referred.

[B] "Khasra number khet ka jis men mohana hai.—It should be noted however that in 99 cases out of 100 mohanas take off not in a plot but between two plots. In that case the number of the plot after passing which the mohana takes off is given or in simple language the upstream plot on the mohana side.

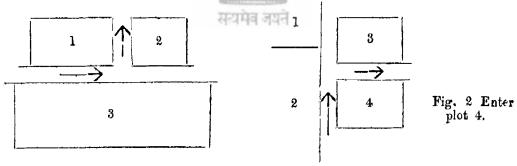


Fig. 1. Enter plot 1.

- [C] "Number khasra kurhe ka agar koi ho".—If the map gives no plot number enter a dash in this column, unless the karha is sufficiently broad to warrant giving it a batta number. Doubtful cases should be referred.
- 14. Column 5, Parabandi.—Parabandi is often in hours or pahars though the form provides for days. Hours or "pahars" should be clearly stated as such and should not be reduced to fractions of days in order to suit the form.
  - [A] It will rarely be found that there is an accurately fixed period during which parabandi is in force. It is generally the months immediately before or after the rains and some such entry as "Asin se Bhado tak" is usually made. Sometimes parabandi is different in different periods—

If there is no parabandi the words "Parabandi nahin hai" must be written all along [A] and remaining columns left blank.

Some villages have arbitrary methods of deciding when parabandi begins e.g., khurbhijawan. Further, porabandi is occasionally taken on certain days of the week. Special enquiry should be made about these particular customs.

Columns [B] [C] and [D] explain themselves. In [B] is entered the number of days [pih ir or hours] that elapse b tween the para of each village. It is in practice of course merely the total number of days of the cycle initius the days of the village para. It seems unnecessary and in fact is liable to be misleading, e.g, where a village like Goghan araha in Nawada has three paras at different times in the same pain. The method of filling up these columns is as follows:—We suppose four villages A, B, C and D, of which A has first para of 3 days B has 2nd para of 2 days, C has 3rd para of 4 days and D has fourth para of 1 day. The entries will be:—

		<b>(</b>		}
A	ak.	7	3	1
В	Bhado tak.	8	2	2
C	1	6	4	3
D	Asin se	9	1	4
	A			

The facts of parabandi of a village are entered against the first serial entry of that village s against other entries of that village cross references will be made to the serial where the information is given. In case of a long series of serials of one village such reference may be written all along the column for convenience.

The following special cases must be noted :-

- [1] Parabandi in part only of the pyne—If the parabandi is in a branch the entries of it will be made in the branch only and the entry parabandi nakin has will be made against the main pyne and other branches all along the column. To avoid errors, the facts that parabandi belongs to the branch only should be noted in remarks column.
- [2] Parabandi within a parabandi—e.g., a branch has a para of 7 days with main pyne which is again subdivided within the branch. The whole para is generally entered in main pyne against the village in which branch takes off with a note in remarks column that it is subdivided, and the divided para is entered in the branch. Explanations are given in remarks column with cross references.
- [3 Two parabandis in one pain.—A case has been found of a pyne getting water from two sources. In the water from each source was a separate parabandi. In this case one parabandi was in days and the other in hours and they were entered without confusion. Other cases would probably be more difficult and must be referred.
- [4] Cases arise of villages taking the water in a certain serial order but without fixed time limit. This is nest explained in remarks column and in 5 [A] must be written "Nisha Parabandi dekho khani kaifiat," all along the column. Columns [B] and [C] of course remain blank.

It should be noted that there is a printed note in remark column that "outside the period of parahandi there are no restrictions on the taking of water." This is far from being universally true. Enquiry should be made and the entry, if inapplicable, cancelled.

Internal parabandi in a mohana between pattis of the same village should be entered in village fard abpashi only with a cross reference.

14. Column 6.—Is most difficult to fill. It is easy if a village either has or has not a right to bund the pyne, and if in the former case it always bunds in one place. Such a simple case hardly ever occurs.

The following two cases are ordinarily met with: -

- [1] The pyne is never bunded anywhere; entry " Pain haza bandha nahin jata hai" all along the column.
- [2] The village has full control of the pyne during its para and can put in a bund anywhere. Entry " andar pari hash zarurat garandi ba na jutu hain."

The case of a village on the course of a pyne having an absolute right to put a fixed number of bunds in the pyne at any time is unknown though it is the only positive case to which the form is strictly applicable.

 Any masonry structure such as chahka or chilks in the bed of the pyne should be entered in column 6 and its purpose and other particulars explained in the Remarks column. Any such structure in the side-banks of the pyne should be entered and explained in the Remarks column only.

If the place where the village has a right to make a bund lies in another village the entry should be "nuhin lekin dekho khana kaifiat".

In the remarks column will be entered details of where the village does make its bund.

If there is no restriction as to where the bunds are made the column for khasra number should be left blank.

15. Column 7.—The words "denke wagairah se" must be interpreted to refer to the main pyne or branch and to mean "any method of taking water from the main pyne other than by a mohana". It is obvious that a village's rights within its own mohana and karhas are unlimited except by agreement among the villagers themselves and with this the general record has no concern. The same would be the case with last village on the pyne. A further difficulty is what entry should be made if the village never uses denki, latha, kundi, etc., but has entire rights in the pyne, and obviously could if it wished.

To meet such difficulties the Assistant Settlement Officer must observe the following rules .-

- [1] Ignore any mohanas and let the entry in column 7 refer only to khasra number in column 3.
- [2] If the village has no right in that plot [except perhaps to open a mohana in it] enter "nahin".
- [3] If the village has full right in a plot but does not exercise the right of latha kundi enter clearly "Is number men denki waqairah se pani nahin liya jata hai" leaving the question of right open. If this is the case in the whole village the entry "mauza haja men latha, etc" with cross reference in other plots will save a little space and may if several plots come together be entered all along the column.
- [3] If no denki latha kundi, etc., are used in the whole pyne the entry "pyne haza men latha kundi se pani nahin leya jata hai" may be made all along the column on every sheet.
- [4] If a village has right of denki, latha, kundi or the like in one plot but not in another the entry in the latter will be "nahin tekin dekho sumar No....... (the former)".
- 16. Column 8.—Enter "hak hai" or "nahin" as the case may be.
- 17. Column 9.—Facts should be entered against the name of the village principally concerned in the first place in which that name occurs. This is very often the first serial in the pyne. Against the first entry of every other village "dekho sumar No......" will be written across the three sub-columns. Do not confuse the record by entering this reference against every serial. If, however, the pyne is broken up into branches it should appear once in each branch. If not entered anywhere in the branch under the above instructions it should be entered against the first serial.

Some times branches are made by a different person to the maker of the main pain. In this case ignore the branch and enter all the cross references in main pyne or other branches as the case may be. In the particular branch enter the fact of its construction using the words "shakh haza ka tamir kuninda" or the like to leave no room for doubt.

Where mohanas are separately constructed the facts appear in the village fard abpashi and the entry "nisbat tamir mohana haza ke dekho gain fard abpashi" in remark column of general record.

If any pyne or any part of a pyne is a natural channel the word " kudrati" will be written along the column for the portion concerned.

18. Column 10.—The headings of the form are liable to mislead. They suggest that the division of the repair costs is between villages which is very rarely the case. It is between maliks. The malik is entirely responsible according to Gaya custom for gilandazi. The goam and other help given by raryats is regarded as a personal service to the malik, not as a public service to the village. Where there is a separate malik to each village on the pain it comes to much the same thing. But cases like the following are found frequently. A malik owns four villages having a pyne and repairs the whole pain. The Assistant Settlement Officer has put down 4 annas of repair costs to each village. No doubt it improves the look of the record, but it is absolutely wrong. If the mulik sold one of those villages, he could make what arrangements he liked with the purchaser, and the costs would probably be in proportion to the parabandi or the area of the village, and not four annas at all. A word of warning is therefore necessary to Assistant Settlement Officers. Ascertain the facts about shares of cost of repair and record what you ascertain in the least unsuitable place, but never in any circumstances edit your facts to suit the form.

The following are examples of entries in particular cases :-

A. All villages on the pain belong to different maliks. All have rights and their maliks share cost of repair—Enter—

#### 10 [A]

"Malikan mauza haza o mauza falana o mauza falana ke" opposite serial No. 1 and "Dekho Sumar No. 1" opposite first serial of every other village

#### 10 [B]

Shares of each malik in annas or hissas, opposite the first entry of his village.

B. Each village on pyne belongs to a different malik but some have no interest and do no repair.

#### 10 [A]

As in A opposite first serial of first village interested, with reference opposite first serial of every other village interested.

10 [B]

#### As in A

Opposite first serial of every village not interested " dekho sumar  $N_0$ ...."

" Kuchh nahin."

N.B.—do not not put a mere reference in this column.

C. One mulik does all repairs because he owns all the villages on the pain (or at least all those with any interest—)

#### 10 [A]

As in A or B but with note in remarks column.—In sab mauziat ka malik ek hai, isliye solah anna maramat karta hai.

#### 10 [B]

Interested villages merely a dash.

Non-interested villages " kuchh nahin."

- D. Same as C but costs distributed by malik for account purposes. These may be so entered.
- E. No regular arrangement but each malik is expected to repair within his own village.

10 [A]

10 [B]

REMARKS.

Simply a dash.

"Har ek mauze ka malik apne mauza ke andur moramat karta hai."

N. B.—This may be written all along column 10 [A] if all villages are interested instead of the entries here given.

- F. Repair of main pyne shared between maliks and repair of branches done by village or villages on them.
  - [1] Ignore branches at first. Enter facts of repair in main pyne according to rule given above in those parts of record dealing with main pyne, i.e., the first entry of a village in main pyne even though it has been previously mentioned in a branch. The only difference will be in column 10 [B] where entry will be "sadar pyne men utna."
  - [2] Take each branch as an independent prin and enter accordingly, except that in column 10 [B] the words "shakh haza men" will appear.
- §3. Same as above but some branches are included in special repair shares and some in general repair shares. Proceed as in F. for main pyne and for those branches where there are special arrangements. In other branches note all along 10 [A] that the shares of repair in this branch are the same as those in the main pyne.
- H. The pyne is arbitrarily divided into certain portions, and the shares of villages concerned vary in each. Such cases should be referred before columns are filled up as probably each requires special treatment.

- I. No repair is ever done. Entry "Pyne haza men maramat nahin hota hai" all alone 10 [A]
- K. Variations and combinations of above which should be referred.

The following points should be noted in this connection:-

- [1] Try to avoid confusing the record by entering facts of repair or references to it more often than necessary.
- [2] In case of pune with no branches it will be entered or reference made once for every village in its first serial.
- [8] Where there are branches but F. and G. do not apply, the entries should be made the opposite the first serial of each village; but reference should be also made opposite the first serial of each branch if there happens to be no other reference to it in the branch.
- [4] Repair of mohanas is a matter for the village fard abpachi.
- 19. Remarks Column This is for matter which cannot properly be contained in the schedule, or to explain entries which are not quite applicable where they stand. It should be reduced to the smallest possible dimensions by eliminating every thing that can be shown within the schedule; but owing to the nature of the form prescribed it will always be overloaded.

The following entries will be always made against serial 1.

- [a] The source of the water in the pyne.
- [b] The method of getting water, e.g., bandhs, goam, etc.

Opposite the first serial of every branch there should be a similar entry explaining how water is brought into the branch.

Among other things which should appear in re.narks column are the following :-

- [1] Pakka bridges or aqueducts on the pyne.
- [2] Dhongas, etc., in the pyne.
- [3] Khasra number of Ahars into which a pain falls with reference to village fard abpashs.
- [4] Roads which are crossed by the pyne and how this is done -most important.
- [5] Explanations of particular customs in parabandi. See under parabandi, rule 14.
- [6] Explanations of ambiguous or imperfect entries in any other column. See the rules generally.

The above list cannot be exhaustive. The Assistant Settlement Officer should endeavour to ascertain all the facts and more especially any rights or customs peculiar to the pain and record them somewhere.

20. General note—The Assistant Settlement Officer must endeavour to follow the principles laid down above strictly. The form is unfortunately unsuitable in many respects for the facts to be recorded and if every Assistant Settlement Officer pursues a different method of meeting the difficulties, the record will probably lend itself to various interpretations which is the one thing we desire to avoid. Owing to the absence of such rules last year every pyne and every village fard obpashi connected with it has had to be rewritten in janch.

### THE VILLAGE FARD ABPASHI.

- 21. This is the record of the means of irrigation in each village and is made by the Amin at khanapu i. It should give an account of all the means and appliances used for irrigation describing each separately.
  - 20. These should be entered in the following order: -
    - (i) Rivers.
    - (2) Pgnes.
    - (3) Branches of Pynes.
    - (+, Mohanas and Korhas.
    - (5) Village Pynes (see below).
    - (6) Ahars with their Kerhas.
    - (7) Tanks.
    - (8) Borrow pits or natural hollows.
    - (9) Wells (other than temporary wells).

Note that first the pyne is entered—then its first branch in the village and then mohanas and karhas from that; next is entered the second branch and then mohanas and karhas from the latter and so on; each pyne is thus completed before the next is entered. Mohanas direct from the main pyne will be entered before, or after, or between the branches according to the place where they take off. This will be easily understood if it is remembered that the

entries in village fard abpashi follow the order of the connected entries in the general record.

Ahars directly connected with branches or mohanas will follow these.

- 22. The general instructions for filling up this form are as follows:-
- Column 1.—A serial number for each separate source of irrigation (including river or pain even if irrigation is not done from it in the village).
- 23. Column 2.—The name of the source of irrigation, i.e. 'pyne, ahar', etc., should be written with all its khasra numbers. In case of ahars "from khasra No............ may be written.
- 25. Columns 3, 4 and 5.—The facts required for these columns should be ascertained as accurately as possible. Where the cost or date is an estimate the words "takhminan" or "andaz" should be entered. (See special instructions in case of a general scheme being connected with the village rule 31 (B).
- 26. Column 6 .- Requires no explanation.
- 27. Column 7—the heading explains itself. The area irrigated should be entered approximately in acres. If a single patti or other local division benefits exclusively by an irrigation work the fact should be noted.
- 28. Column 8.—The headings here are also clear, and information should be given in some detail. It is occasionally found that the consent of the matik is not required for paddy irrigation but is required for rabi irrigation. The entry should be clear. Some Assistant Set lement Officers last year wrote "banigrani amtagan malik" which of course left the question of consent open. It should always be noted whether the raiyat pays anything to the milik for irrigation. (See note under pains below also).
- 29. Column 9.—Explains itself.—But do not as some A. S. O.'s did last year enter "takrar kabhi nahin hai", and leave it.
- 30. Rivers.—Are rarely a direct source of irrigation.—They are generally utilized by means of pains—Columns 1 and 2 should be filled up and (if no direct irrigation is done from them) the remaining columns left blank except remarks column where a reference may be given to any other serial in the record which takes its origin from the river.

#### 31. Pains-

- A. Village pynes.—i.e., pynes having their beginning and end in the same village. Enter full details; and if there is any parabandi between tauxis or pattis, etc., enter details of it in column 8.
- B. Pains having a general scheme record.
  - (1) The village has no rights in the pyne and does no irrigation from it. It must never theless be entered in columns 1 and 2, all other columns left blank and an entry made in remarks column. "Iskenisbot dekho sadar misil abpashi falana pain ka sumar No.——".
  - (2) The water runs into ahars or monanas or brunches which serve the village though no irrigation is done from main pain. Main pain is entered just as in (1) but in column 8 the facts are noted, viz, that pain runs into such and such an ahar, or the like.
  - (3) Irrigation is done from main pyne. Fill up columns 1, 2, 7, 8 and 9; leave 3, 4, 5 and 6 blank (these details having already been given in general scheme), and give reference as in (1) to the general scheme. Branches are similarly entered under separate serials.
  - (8) No irrigation done from main pyne but irrigation is done from a branch Main pain will be entered as in (2) and branches according to instructions in (3).
  - (4) No irrigation is done from main pyne or a branch but the village has mohanas and karhas. Enter main pyne as in (2) referring in column 8 to the branch. Again enter branch as in (2) referring in column 8 to the mohana. The facts about the mohana must be entered in full and if it has been constructed or is repaired by some one who does not repair the main pyne, details must be given in columns 3, 4, 5 and 6 as much facts do not appear in the general record.
  - (8) Internal parabandi between puttis and tauzis whether from main pain, branch, mohanas, or kurhas, must be detailed in column 8. Such internal parabandi does not appear in the general record.
- 32. Ahars.—If an ahar in one village is used for irrigation by another, the fact must appear in fard abpashi of both villages with cross reference in remarks column.
- 33. Surplus water.—Enquiries should be made as to what becomes of the surplus water run off from any village. It is always understood that no village can claim as of right surplus water from another, but it could maintain a claim to it against a third village. Moreover other villages sometimes object to surplus water being run on to them. The facts about surplus water should be entered in the fard abpashis of both villages (i.e., the one that gives and the one that receives it).

#### APPENDIX XXVIII.

A GLOSSARY OF TERMS USED IN THE IRRIGATION RECORDS IN THE DISTRICT OF GAYA...

Α

Abpashi .- Irrigation.

Ahar—A reservoir of water for agricultural purposes. It is generally formed on a plot of land of higher level than that of the surrounding country. The district being elevated to the south, the reservoir is left open on its southern side and its three other sides are embanked. Thus the water oming in from the south is impounded in it. If there is no ground so elevated, the ground is embanked on all four sides and surface water or pyne water is collected therein. There is no under ground excavation as in the case of a tank. It is on the surface and its bottom or bed is higher than the lands it irrigates. When it is necessary to irrigate crops a passage (khanr) is cut in the bank where it is low to draw off the water to the fields. But every large ahar has an artificial pipe or masonry outlet in its bank to pass off the water either to irrigate crops or to protect the embankment from erosion.

Alang.—The main embankment of an ahar where the surface is lowest, which is generally to the north.

Ahar ka pet.—The belly of an ahar, i.e., the space enclosed by the embankments.

Ahar ka pith .- The land behind the main bank of an ahar.

Ahari.—A miniature ahar. Its bed is cultivated and the water collected in it irrigates the crops in its bed as well as those outside.

In large villages there is usually an ahar or two and there are several such aharis: one or two heing in each kita which is at a distance from the ahars from which the water is taken by small channels into the aharis.

Al, Ar, Ari.—The ridge of a field.

Ahor.—A small hollow dug in a river bed and filled with percolating water (vide dabur). An ahore is generally near the bank of a river and the water collected therein is raised by water-lifts to a channel or fields on a higher level.

Arosh.—A masonry parapet on the top of a well usually furnished with a cushion of straw on which the bucket is laid while pouring out the water.

Angari.—A well having shallow water, in which water-lifts cannot work for the whole day.

В.

Binhua or Bandhua. - The two side banks of an ahar bandhua.

Bhaunha, bhamahri, bhaoari.—The arch drain running underneath a chhilka (q. v. or a masonry outlet in the bottom of a bank of an ahar. Sometimes there are 2 or 3 such outlets one over the other. When the ahar is full, both the outlets work, but when the water sinks down, only the one nearer the bottom, works. The outflow is therefore regulated according to the height of the water in the ahar.

Baoli.-A small tank.

Bhinda.—The embankment round a tank or a pond.

Barka.—The rope holding the bucket in a water lift.

Bhok/a.—A sub-channel taking off from a pain.

Baha.—A natural shallow channel in which surface water collects. Sometimes a channel dur in the bed of a river to conduct water to a paix is also called baha.

Bhur.—A small breach or hole in an embankment through which water runs out. It is also a hole in the bottom of a well or a river bod through which water percolates.

Bundh.—A dam or embankment across a river bed or a large pain to head the water into subsidiary channels.

Barhiain .- Excess water or flood water.

Baharain.—The end of a pain or a bhokla.

I arsan .- Rain water.

Baluain.—The training works (such as dabur, nareh, etc.), to conduct water into a pain when the river dries up after the rains or in a year of scanty rainfall.

C

Chanan .- Irrigation by letting the water flow from field to field.

Chhilka or chahka.—A masonry spill dam. It is provided generally in one bank of an ahar or a pair where it acts as a safety sluice to allow the water to flow away before it can overtop the bank. A chhilka is generally the term used for a spill dam in an ahar. It serves the same purpose as a kanwah with this difference that the former is in a bank where the bed is low and the latter is always in a corner of the ahar where the bed is high. A chhilka has masonry parapets to prevent the spill-water washing away the embankment at its sides.

These are called janghas or thighs. There is usually a bed of bricks or pieces of stone outside the embankment on the slope in order to protect it from being eroded.

A chakka is generally the term used for a spill dam across a pyne or in the bank of an Akar which is provided with a small sluice gate which shuts off the water when it is not needed further down in the pyne or in the channel outside the akar. This sluice gate is called pake.

A. chkilku is generally open on the top whereas a chalka is sometimes enclosed on its top.

Chanr.—The swing water-basket. It is a rectangular basket made of bumboo. Two cords attached to its two ends or ridges are held by two men who stand on either end of the ditch and immerse it in the water and, then swing it forward, thus filling it up, and throw the water up into a channel on a higher level which leads it into the fields. Sometimes the water thus raised up is poured out into the fields themselves.

Chanrmahi.—Irrigation by the swinging basket.

Chanrwala, -- The men who work the water-basket.

Chanriyar.—The ditch from which the water is lifted by a water basket.

Chhip.—The end of a beam which projects beyond the rope over the well (wide latha kundi).

Chakri — A counterpoise made o a piece of stone or a clod of earth, etc., fixed to the end of a lever beam furthest from the basket.

Chain.—A hole in the hed of a river or a pain through which water cozes out or in which water of the surrounding portion percolates and collects. It is also used of a surface depression containing water.

Chah Pokhta -A well with masonry lining; a pakka well.

Chah Khan .- A well with wattle lining; a kachcha well.

Chulah Jaraon.—It means the same as khurbhijawan (q. v.) Chulah means stove and jaraon means fuel. As some fuel is necessary to create fire in a stove in order that it may work properly and serve its purpose, so some water is first necessary to moisten the bed of a pain so that when parahandi in the pain begins, it may work without any hinderance.

Chilaun or chilauncha —A wooden or bamboo mat laid across a channel to support an earthen channel to carry the water of one channel over the channel below.

D

Dhongo.—A wooden drain pipe usually made of the trunk of a palm tree. In Aharis or small Ahars, a narrow passage is cut in its embankment to draw off the water when necessary. But in a large ahar if such a passage be cut, the water rushing out will wash away and damage the bank and it is in such ahars that a wooden or pottery pipe is set in the bank to carry off the water. But if the ahar is still larger a masonry outlet or bhaon (q. v.) is built into the bank.

Dur or Dors.—The strings by which the water basket swings.

Dhekuli or dhenki, dhenkula. deokua.—A small water lever smaller than the latha. It is resorted to when the water is at a small depth below the level at which it is wanted to irrigate crops.

Dasiain pain,—A large pyne that irrigates a considerable area and feeds a number of distributaries. It is literally a pyne having ten branches or serving ten villages. Similarly a still larger pain is called birhiain, i.e., having 12 branches or serving 12 villages.

Dhonra.—A natural shallow nuli with perpendicular sides. It is generally formed by surface water seeking its course to a lower level.

Danrs or darera.—The same as bandh (q v.), but it is a slanting embankment across the bed of a river which drives the current of it to its that side on which the mouth of a pyne lies.

Dabur.—A large hollow like a tank dug in the river bed which is filled up with percolating water. A channel is then dug out in the bed of the river from this tank up to the mouth of a pain and the water collected therein is brought to the pain (vide nareh).

Derhiain.—The training works (e. g., dabur, nareh, etc.) to conduct water into the pain when the rivers dry up after the rains or in a year of scanty rain-fall.

Dhurhi.—The wooden post forked at its top, which carries the axle (danda) and pulley (ghirni) used when lifting water from a well by a leather bucket mot and bullocks. A large pucca well having a large quantity of water is necessary to work a leather bucket in this way. Hence this contrivance is not in very general use in Gaya.

Danda.—The axis of the pulley used for supporting the rope of a mot.

Daung.—An artificial channel on artificially raised up bank to conduct water to a field on a high level.

 $\mathbf{G}$ 

Ghagha.—A small branch issuing from a river.

Garandi.—A small embankment thrown across the bed of a pyne so as to divert water into channels taking off from it. A garandi in a large pyne in which the current is strong, is made by first planting a number of posts in its bed and then tying to them fascines (called gung or mora) which cannot be easily washed away and are used as a foundation on which is thrown earth and sods.

Gunr.—Fascines (bundle of straw or branches) used as foundation for a garandi.

Goam.—A body of men employed in erecting a bandh across the bed of a river or a large pain so as to divert the water into channels or any other work connected with irrigation. A large number of persons is required to repair the bank of a large pain or ahar when it is washed away by the force of water therein. It is impossible for the landlord to carry out such repair without the help of the raiyats who get nothing for their co-operation beyond a meal if they work the whole day. If a pyne or an ahar is the common property of several villages the landlords and the raiyats of all these villages combine. When the necessity for such co-operation is announced in a village every cultivator has to supply one man per plough or sometimes one man per bouse or family for the purpose.

Gahra .- A small ditch.

Gulli.—The stick placed across the mouth of a bucket to which the rope is fastened to the lever.

Ganr mekha.—The stick or peg placed across a lever beam at its end furthest from the well to which the counterpoise is fixed.

Genri.—A small peg fitted into the iron ring at the mouth of the leather-bucket. The end of the rope over the pulley is fastened to this rod.

Goang paunr.—The wooden beam laid across the well on which the person drawing the water stands. Vide pautha.

Gantaki or garaki, galaki.—Crops overtopped by water and damaged.

Gilandazi.—The earth-work for repairing the banks of a pain or an ahar. A general term for irrigation works.

Genrabandi.—The incidental earthwork for building genra (minor embankments). The general system of enclosing fields in small embankments to provide for the distribution of water without waste.

Gherawa.—The main embankment in geniabandi encircling a large space (vide thath a pani).

T

Inara .- A well with masonry lining, a pucca well.

J

Jangha.—The masonry parapets in an ahar to prevent the spill water washing away the embaukment at its sides (vide Chhilka).

Jharna.—A natural waterfall from a hill.

 $J_{ori}$ .—The same as Dori (q. v.)

 $\mathbf{K}$ 

Khajana pani.—A reservoir of water.

Kanwah.—A safety channel. It is generally a narrow opening at the low end of the side embankments of an ahar to let out the surplus water and to prevent an overflow.

Khanr.—A passage cut in an embankment of an ahar to let out the water to irrigate crops.

Khanrahu.—The same as khanr.

Kandari.—A depression dug in a river or pain or an ahar by the side of a bank. By means of a channel water is brought from the portion of the river, pyne or ahar where there is water to this depression, and is then lifted by a lever or other means.

Karha.—A small channel; usually applied to a channel smaller than a bhokla and larger than a tanrua.

Kundi or kunri.—A water bucket.

Karin.—A log of wood hollowed like a canoe. One end is attached by a rope to a beam which acts as a lever with a weight at the end and its other end, which is broad and open, rests on the water channel leading to the fields. The end near the source is immersed by the pressure of a leg and then released when the water flows into the channel through the open end.

Karinwaha.-The man who works a karin.

Khandaut.—The small ditch near an embankment left when earth is taken out for repairing it.

Khunta.—The posts in the pain to which the fascines are fastened for building garandis.

Kurur.—A wooden frame used for removing sand and constructing a small channel called nureh in the bed of a river. It is practically a plough with a wide wooden spade for a furrow which forms a channel in the sand when pulled forward. It is very hard work using a kurur.

Khurhhijawan.—When water brought into a pyne, and if there exists an arrangement for the distribution of the water conveyed by it among the villages on its course, the village having the first turn sometimes gets water for a day or two extra in order to allow for the loss that occurs owing to the bad being dry. This is specially the case when the village having the first turn is not the first village on the pyne. This perquisite is not allowed when the parabandi begins again. Literally, it is water sufficient to immerse a hoof (kinr means hoof and bhijawan means watering), vide chulhajalaon.

Kuan.- A kachha well.

Khambha.—The post on the top of which the beam of a water lift swings.

Khandak.-A large ditch.

Khanta.—The hollow around the inside of the embankment of an ahar.

Khanit.-A ditch made behind the embankment of an ahar by removing the earth for repairing it.

Khai, - A ditch or hollow.

K.lli.—The stick placed across the mouth of a bucket to which the rops is fastened to the lever.

Khol.—The hole in which the axis of the beam of a water lift works.

Kiari.—The inner field within a gherawa (q. v.).

Khar.—A deep scour made by the current of a river in which water remains deep throughout the year. Sometimes such a scour is made behind the bank of an ahar by water rushing out of it.

T.

Latha kundi.—A lever with a bucket. There is a bamooo beam working on an upright post. The end of the beam over the well has a bucket suspended from it and its other end behind the post has a weight or counterpoise (such as clod of earth, etc.) fixed to it. When water has to be drawn out the rope hanging from the beam over the well is pulled down and the bucket immersed in the water and when it is filled up, the rope is lot go and the bucket is raised by the weight on the other end of the beam.

Latha or lath .- A lever beam.

M

Molanz or munh .- The mouth or intake of a pyne or channel.

Mot .- A leather bucket.

Marani.—A turn in a water course.

Makri.-A piece of wood tied under the lover beam to keep the ax's in its place.

Mureri.—The masonry work at the mouth of a well.

Melwani.—Irrigation by natural flow of water from a pyne or an ahar: when once the arrangement to draw water therefrom has been made the water will flow itself from field to field which is called kheta kheti.

N

Nala .- A natural water course.

Nali.—A small channel. It is generally an artificial shallow and narrow channel with perpendicular sides from a sub-channel or from a well to the fields.

Narch.—A training work. A channel dug in the bal of a river generally by a knrur. It conveys water from a dabur or ahor to the mouth of a pane. It is also called arain or anain. But strictly speaking an arain is a channel made on an artificially upraised level in the river bed, e.g., the portion of the Lolipur pain in village Tanrams, than Mufassal Gaya.

Nigar.—The letting off of surplus water when the irrigation is over (vide paragragh 211).

Nal.—An earthen or masonry drain pipe.

Pahama.—The same as narch. It is so called in Sherghati thana.

Pind.—The bank of an ahar, really the side bank, sometimes applied to any bank.

Pith.—Literally back. Figuratively it is the main bank of an a har. The land immediately below the main embankment is called ahar ke pith.

Patawan or patauni .- Irrigation.

Pokhar. - A tank.

Panchhanda.—A man whose duty is to control water in the small channels carrying it to the fields and diverting it from one channel into another as required.

Pain.—An artificial water channel passing through several villages and having its source in a river or an ahar. It originates sometimes from the spill water of another pyne or from surface water called thatha ka pani.

Parabandi.—An allotment of the water of a pyne or reservoir to different villages by turns agreed upon or regulated by custom.

Para.—A turn.

Pokhari.—A small tank.

Pautha.—The wooden beam laid over a well on which the person drawing water stands.

Palo.—A wooden frame to which bullocks are yoked to draw a mot.

Paudar.—A steep slope by a well made out for the bullocks to walk down while drawing a mot.

Pani hancha.—The cost or price of water. A village having no right in a pyne but irrigable therefrom sometime purchases the water.

2

Sair .- The same as chanr. It is so called in Sherghati thana.

Sairabh ke pani.-Flood water.

Sarabarah.—The same as bhandwara, i.e., the persons appointed to watch the bandh of pain or an ahar or the training works in the bed of a river. It is used in Sherghati thana.

Shakh.—A branch, i.e., a channel having its source of supply in a still larger channel and going beyond the village where it originates.

Singha.—Literally horns. The training banks of an ahar. Sometimes training banks are added to an ahar to conduct surface water into it. It is also the bank of a pain extended into the bed of a river so as to allow only so much water to run into it as required.

Sot.—A long shallow water course (nala) made by surface water seeking it's course to a low level.

Soi.—Water which cozes up or percolates from the bed of a river. It is such soi water which fills up a nareh or dabur.

Saiya.—A well supplied from a spring. Such a well is not exhausted even if water is drawn out the whole day (vide angari).

Sitha.—A cushion of straw or soft material placed on the mouth of a well on which the bucket rests when the water is being poured out.

Sundh.—A narrow channel dug in the bed of a pyne from the mouth of a branch or bhokla in order to draw the water of the pyne into the branch or bhokla.—literally an elephant's trunk.

T

Talao or talab .- A small tank.

Terua or tanrua.—An artificial channel. It is smaller than and generally a branch of a Karaha.

Thatha ka pani.—Surface water flowing from a high to a low level. To impound such water, an embankment is thrown up enclosing a large space, say 100 to 200 bighas in area and within this outer embankment minor embankment area erected. The whole space being thus divided and subdivided, a number of square fields is formed within each enclosing a few bighas. The outer embankment enclosing the whole space is called gherawa and the minor inner banks are called genras and the square fields thus formed within are called kiaris. It is thus that even surface water is retained and utilized in this district for irrigating rice crops in high level villages. The earth-work which it involves is called genrabandi.

### APPENDIX XXIX.

### REPORT ON THE SURVEY OF THE GAYA MUNICIPALITY.

Early in 1913 the Municipality made enquiries as to the cost of a survey of the Municipality. The estimate furnished was Rs. 1,760 for traverse and Rs. 3-10 per acre for cadastral survey and khanapuri in congested urban area and annas 10 per acre for the same in non-urban area. There were no exact or even approximately exact figures showing the areas falling into each category but on the areas as now found the estimate worked out to about Rs. 17,000. The actual cost has been Rs. 12,368-4 made up as follows:—

					Rs.	a.	p.
Traverse	,	***	•••		1,710	0	0
Survey and rec	ord-writing	•••	***	***	10,075	4	.0
Reproduction	of maps	***	• *	•••	358	0	0
Director of Lu	nd Records' c	ontrol	***	•••	<b>2</b> 26	0	0
			Total	•••	12,368	4	0

The estimates for the survey of congested urban area were based on the cost of Rs. 5 (including traverse) per acre of the Municipal Survey in Dumraon, the only one of which we had any record. That, however, was a fairly small survey and was done after the Cadastral party had left the area and it was away from headquarters. Our present experience shows that a Municipal Survey at Cadastral head-quarters if made part passes with the ordinary survey can be done at about Rs. 2-8 per acre for congested area excluding traverse.

- 2. The Municipality decided to have the work done and on application to Government the extension of the Calcutta Survey Act to Gaya was sanctioned by Notification No. 11144M., dated the 1st October 1913.
- 3. There was a good deal of discussion with the Municipality as to the form the record should take. It was arranged that the maps should be on the 64 inch scale for the congesnted urban area and on the 16 inch scale for the non-urban area. A wall map on the 16 inch scale for the whole area was also to be prepared. It was about the khasra that most discussion took place. The Municipality at first proposed somewhat elaborate entries in the khasra under the heading "description of holding" including, among other things, the number of rooms in each house. It was pointed out that these would necessitate entering and might give rise to trouble. There was also some doubt as to whether the entry of plinth area might not be troublesome. As, however, it was decided to extract the area of all buildings separately surveyed, the recording and totalling up the plinth areas for each holding involved no additional difficulty.

The form of khasra finally adopted was a fairly simple one.

4. The traverse was done at the end of the field season of 1913-14 by the Traverse party. It was hoped to get the sheets so as to allow of survey being started in July 1914 so that khanapuri could be finished before plague became prevalent. There was some delay in sending the sheets but survey finally started in September in some of the outlying portions of the Municipality where the mapping was to be on the 16 inch scale. As soon as work began on the 64 inch scale difficulties arose. The traverse was done in the area surrounding the congested urban area as usual according to Revenue Survey villages. The congested area which consists of two blocks one on either side of the Phalgu river had been traversed as two blocks without showing Revenue Survey boundaries. This led to two difficulties. The first was that we had to have separate maps of each Revenue Survey village for the purpose of the ordinary record-of-rights and secondly in cutting up the traverse circuit of the congested areas into sheets it had not been found possible in all cases to have the sheet margins on accessible places such as streets or lanes. In some cases the only traverse stations on a sheet were up in one corner. The first difficulty was got over by making a rough boundary survey of the Revenue Survey villages on the spot and showing this on the 8 inch index map supplied by the Traverse party. This was sent to the Traverse party who by its aid gave us 16 inch plots of the traverse stations nearest to the boundaries for each Revenue survey village on which an accurate survey was done.

The second difficulty was referred to the Traverse party and it was explained by them that to give sheets each showing only a block surrounded by rolds or lanes would necessitate replotting into 348 sheets instead of 121. It was suggested that where sheets ended in the middle of houses or other inaccessible places, overlap survey should be done and that in difficult cases special connecting sheets should be prepared by pricking off traverse stations from adjoining sheets. These measures had as a matter of fact already been adopted on the suggestion of Babu Manoranjan Singh.

5. The survey showed the Municipality to consist of 14 entire Revenue Survey villages and parts of six others as follows:—

Revenue Survey villages within the Municipality :--

eo o chao ca	. 105 1	11100 Op 11111		adioibane	• ' -	F	R. S. No.	Thana No.
Kakura	***	•••	•••	***	***		510	249
Manpur	***		•••	•••	141	•••	511	250
Pehani	***		•••	***	•••		470	251
Salempur		•••	•••	•••	•••		121	319
Pahei	•••	•••	•••	•••	•••	•••	2	à
Maranpur	•••	***	•••	•••	•••		191	10
Ghoghri T	and	•••	•••	•••	•••	•••	120	11
Bairagi Big	zha	•••	•••	• • • •	•••	•••	3	2
Bairagi Big	gh <b>a</b>	•••	***	•••	•••		4	3
Murarpur	•••	•••	•••	•••	•••		2	5
Sahebganj		•••	***	•••	•••		1	6
Alamgirpui		***	•••	•••	•••		3	7
Sipahi lain	•••	•••	•••	•••		•••	4	8
Rampur	•••	•••	•••	•••	•••	•••	5	8

The first four are in thank Mufassal Gaya and the last ten in thank Town Gaya.

Revenue Survey villages partly inside Municipality:-

					K.	S. No.	lhana No.
Abgila	•••	•••	***	• • •	•••	523	314
Nauranga			***	•••	•••	123	<b>3</b> 16
Bhusanda	• • •	•••	•••	•••	•••	122	317
Barka Delha	•••	•••	•••	•••	***	6	183
Kandi Nawada	***	•••	•••	•••	•••	1	989
Khakhra		•••	•••	•••	•••	5	ť
771-marrie 111	•••	•••	• • • •	•••	*	-	-

The first five are in thana Mufassal Gaya and the last one in thana Town Gaya.

The total area is 6,061 acres of which approximately 4,000 is congested urban area. The number of plots in the Municipal record is 26,089. The survey was tested by 39.12 linear miles of personal partal by the Assistant Superintendent and 12.59 linear miles of independent partal, which gives an average of 5.47 linear miles per square mile. In each sheet block partal was done the total amounting to 63 acres. In only two objections under section 20 of the Act did the survey require correction though some corrections were found necessary in the boundaries of the railway land when comparison was made with the land acquisition plans. The Municipal Engineer, Mr. Hurley, informs me that he has had frequent occasion to use the maps and has never found them inaccurate.

- 6. When the survey was finished we had therefore the following maps on which to base our khanapuri.
  - (1) 16 inch maps for each Revenue Survey village. These were of two sorts-
    - (a) These falling inside the congested area. These showed only agricultural holding the congested area being shown in blocks demarcated by the principal roads on or other features.
    - (b) Those falling partly inside and partly outside or wholly outside the congested area. These showed every detail except for the parts of congested area if any, covered by the 64 inch Survey.
  - (2) Sixty-four inch maps for the congested urban area blocks.

The question was how best to utilize these for khanapuri of the two records. The following plan was adopted. In the Revenue Survey villages falling entirely inside the congested urban area khanapuri was done for the Municipal record on the 64 inch maps and the khanapuri for the record-of-rights was done on the 16 inch maps of class (1) (a) above.

In the other Revenue Survey villages 16 inch maps were required for both records and those in class (1) (b) required further subdivision into—

- (i) Revenue Survey villages lying wholly inside the Municipality:
  - (a) No part of which was surveyed on 64 inch scale.
  - (b) Part of which was surveyed on 64 inch scale.
- (ii) Revenue Survey villages lying partly inside and partly outside the Municipality.

In class (i) (a) the surveyed map showed every detail, which was not required for the record-of-rights but was required in the Municipal record. Of these maps therefore a reproduction was made in blue. Khanapari for the Municipal record was done on the original map and that for the record-of-rights was done simultaneously on the reproduced map, only such details as were necessary being inked up. In class (ii) on the other hand the portion of the villages lying inside the Municipality were not too full of detail for the record-of-rights and the Municipality only wanted part of the map. A reproduction was made in blue and Municipal Khanapuri was done on that, only the Municipal portion of the map being inked up. Khanapuri for the record-of-rights was done on the original map. A similar plan was followed in case (i) (4) the original map showing details except in the part surveyed on the 64 inch scale going to the record-of-rights, the reproduced map inked up to the edge of the 64 inch survey and the 64 inch map going to the Municipal record.

It was found advisable during survey and khanapuri to give amins cards to show their authority for entering on premises and they were told to stop surveying the premises

if obstructed and to report. Very few cases of obstruction occurred and on explanation from the Superintendent or Assistant Superintendent the amin was allowed to proceed. No recourse to the penal sections of the Act was necessary.

- 7. In the absence of standard rules, we had to make up our rules as we went along. As the result of my experience of the result of the rules I think the chief direction in which they require improvement is as regards the numbering of plots. In some of the blocks of railway land there are far too many letters in one plot to make the map easy to read and if I was doing the survey over again I would make it a rule that if more than, say, six letters were required the map should be examined by the Assistant Superintendent to see if numbers could not be used instead.
- 8. The basis of the khanapuri was the Municipal demand register as the landlord's jamabandi is the basis in ordinary khanapuri. The register was not entirely up-to-date as the mahallas were in most cases not properly entered and mutation of names in the case of deceased rate-payers had not been made. In the latter case the names of the present occupants were entered, a reference being given to the name of the deceased occupant in the remarks column. In the large bulk of cases occupants pay the Municipal taxes as they are also owners of their houses. The fact of khanapuri being based on the demand register led to rule 23 that kirayadars were not to be recorded since monthly tenants do not pay taxes which are included in the rent. The heading in the khasra of column 8 is however "occupants" a discrepancy which has I think led to the mistake in some instances of recording monthly tenants as occupants but this should not cause difficulty to the Municipality as the immediately superior tenure-holder who pays the tax will be found in column 7.
- 1.3 per cent. of the entries in the record were checked by the Assistant Superintendent and 15.7 per cent. by Inspectors and Kanungos giving a total of 17 per cent.
- 9. During the course of survey and khanapuri there were two boundary disputes between Revenue Survey villages decided under the Bengal Survey Act, 315 internal disputes relating to agricultural land in the Municipality decided under the Bengal Tenancy Act, and 697 disputes under the Calcutta Survey Act. There were no appeals under section 11 of the Calcutta Survey Act.
- 10. One of the boundary disputes was between Salempur in the east side of the river Phalgu and Alamgirpur on the west. The dispute was as to in which village the river lay including the 7 steps leading from the Vishnupad temple to the river. The claim of Salempur was based on the Revenue Survey map which showed the whole of the river as lying in Salempur including the steps. The curious point was however that the Revenue Survey map showed the steps in the wrong position and facing in a different direction from that in which they face now. Moreover the boundary of Salempur did not agree with that of Alamgirpur as shown in the Revenue Survey maps. It appeared from the evidence that the steps had not been moved or rebuilt since the Revenue Survey so that the Revenue Survey map had to be held inaccurate in this point. The malik of Salempur tried to prove possession but though he succeeded in proving possession over the river by showing that he let out the fishing, his attempt to prove possession over the steps by proving that he let out the right to sell flowers thereon failed. In the result the river bank was held to be the boundary generally but the steps were held to be in Alamgirpur.
- 11. The most important of the internal disputes related to certain claims by the present holders of land and houses that they were the proprietors thereof. As regards the houses they were no doubt proprietors but as regards the land the only proof they had was that they had bought it as proprietors a long time ago. As a matter of fact the proprietor is the person whe pays the land revenue and whose name stands duly recorded in the Collector's registers. The claimants had to admit that from this point of view they had no proprietary interest in the land. Their main objection was the fear that in view of the record the recorded landlords might sue them for rent. The same view was arged before me in cases in which objections were being heard by me under section 20 of the Calcutta Survey Act. I explained to them that as their names had not been recorded in Register D they could not be entered as proprietors and that as we neither recorded rent in the Municipal hhasra in respect of these non-agricultural holdings nor any liability to pay rent this question was left perfectly open. With this explanation the claimants appeared to be satisfied.
- 12. The origin of these quasi-proprietary rights the holders of which has been recorded as arazidars is at present shrouded in mystery as such documents as were produced were somewhat contradictory. In some cases Government appears to have settled the villages as a whole after obtaining them from Raja Mitrajit Singh. For example the villages Murarpur was settled with one Gopal Das an Oriya. In other cases Government let out on makarare leases portions of land to individuals and it is possible that these small settlements were the forerunners of the present claims.

The mahalwar register in the Collectorate Office shows that most of the villages were resumed in 1834 or 1841. In most cases khasra surveys appear to have been made and the mahalwar register refers for details in one case to the maps. Unfortunately all but one of these khasra surveys were done before the Mutiny and the papers were lost when the Collector to was burnt. The one remaining is of Sipahi lain which contains none of the congested area in dispute. It has therefore been impossible to say how the regists were dealt with at the time of resumption

I may be able to get further information when I examine records in the Board's Office in connection with the Final Report on the Settlement of the District and will deal with the matter more fully in that Report if anything is discovered which throws light in the matter.

The entry of these rights as described above was made after consultation with the Collector.

- 13. It is to be observed that section 8 of the Calcutta Survey Act only deals with disputes as to boundaries but as a matter of fact such disputes are the least common, since boundaries are usually well defined. All the disputes practically arose as to the record being made for the Municipality. Under section 23 of the Act Government has power to make rules for the collection and record of information but no such rules have been made as far as I can find and our record has therefore no legal effect. I do not think that this is a great defect. Some of the disputes raised were more properly matters for the Civil Courts involving larger interests and more complicated questions of law than the matters usually dealt with by the Settlement Department. What we aimed at was to give the Municipality a correct record of existing facts. The decision of disputes was essential if the record required by the Municipality was to be complete and their investigation in a judicial way even though there was no authority for it, tended to correctness.
- 14. Under the orders of the Commissioner special steps were taken to survey and record the existence of places and inscriptions of religious and archæological interest. These were all where possible mapped and in the Municipal khasra details of them have been noted.
- 15. Khanapuri was completed in May 1915 and recess work then began. Here again we had to make our own rules. The main points which required attention were—
  - (1) Numbering the Municipal khasra in one serial.
    - In khanapuri as several amins were employed continuously a separate khasra was used for each sheet whether 64" or 16". These had to be put into one serial and care was necessary to see that no mistakes occurred.
  - (2) Extraction of areas and agreement with those in the record-of-rights.
- 16. The reproduced maps, the record and connected papers were deposited in the Municipal Office on the 22nd May 1916 and a notice was published to this offect at page 445 of the Bihar and Orissa Gazette dated 31st May 1916.
- 17. Fifty-eight objections were filed under section 20 and were disposed of by me. 21 were allowed or partly allowed and 37 were disallowed. The bulk of such cases were (1) objections by arazidars claiming to hold as proprietors, a matter which has been referred to in paragraphs 11 and 12; (2) objections to lanes being recorded as belonging to the Municipality but which were claimed as private property. The point for determination in the latter case was whether there was a public right of way or not and in most cases there was no difficulty in coming to a decision.
- 18. Corrections in the maps and record were also made as a result of claims by the East-Indian Railway Company based on their land acquisition plans. Most of the alterations were small. The only two of any consequence were about some land occupied by the Police Department and certain drains. In the first of these cases the Police Department admitted the claim. The second case was about a drain which lay inside the Railway land but which was connected with the Municipal drainage system and over which by agreement of Railway Company the Municipality had certain rights. The Municipality claimed that the drain should be entered as Municipal property. It was decided that the drain having been made by the Railway Company in their acquired land must be recorded as Railway property. I did not think it possible in a record under the Calcutta Survey Act to record rights of easement. In the other cases the land acquisition plans were accepted without question and the maps were corrected accordingly.
- 19. Fifty copies of each sheet of the Municipal map were reproduced and given to the Municipality, in addition to the wall map on the 16" scale. The original maps are deposited in the Bihar and Orissa Drawing Office. The corrections made in the original maps after reproduction of the copies have been copied on one of the sets of reproduced copies so that the Municipality will at any time be able to bring their other copies up-to-date.

An index map on the 8" scale was also prepared for administrative use at the cost of the general operations in Gaya district. It shows the principal roads and buildings. Copies of this were not supplied to the Municipality.

20. The Officers deserving special mention in connection with the work are the late Mr. Duncan who was Superintendent of Survey when the actual Cadastral Survey began and dealt with most of the initial difficulties, and Babu Manoranjan Singh who was Assistant Superintendent throughout and was responsible for the original drafts of the rules adopted. I am also indebted to him for a note on the work which I have utilized in preparing this report.

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### APPENDIX XXX.

## LIST OF GOVERNMENT AND TEMPORARILY-SETTLED ESTATES.

I.—Estates which were excluded altogether from the operations because they had been recently surveyed and settled by the Collector.

I.—(A) Government Estates.

Serial No.			Thana No.	Name of Tha	na,	Tanzi No. of the estate.	Date of exposition of existing settlemen	piry g t.	Remarks.
1	2		3	4		5	6		7
1	Bara	•••	610	Nawada	•••	7441	31st March	1924	Old Tauzi No. 4315.
2	Jhakhor	•••	611	Ditto	•••	7414	Ditto	•••	Old Tauzi No. 4839.
8	Gogan Karhari	•••	340	Ditto		7445	Ditto	•••	Old Tauzi No. 3544.
4	Bakhwa Jagir	341	339	Ditto	•••	7415	Ditto	•••	Ditto.
Б	Sadikpur	•••	115	Pakribarwa	a	7414	Ditto	•••	Old Tauzi No. 4301.
6	Majhiawan		272	Tikari	•••	7446	31st March	1927	Old Tauzi No. 2715.
7	Panti	**	728	Aurangabad		7446	31st March	1924	
8	Sidha	•••	715	Ditto	***	7446	Ditto		
9	Madarpur	•••	725	Ditto		7446	Ditto	•••	
10	Arazi Panti	٠٠٠,	726	Ditto	12	7446	Ditto	•••	
11	Kut Kuri	•••	441	Ditto	•••	7446	Ditto	•••	:
12	Pokhraha	•••	724	Ditto		<b>744</b> 6	Ditto		Only the portion affect- ing Government has been excluded from
13	Pahri	•••	434	Barachati	44.	<b>3</b> 236	Ditto	•••	present survey.
14	Maheai	•••	183	Rajauli		7439	Ditto	***	Old Tauzi No. 2554.
15	Sirampur		310	Nawada		7445	Ditto	•••	Old Tauzi No. 4289.

### I .- (B) Temporarily-settled Estates.

Serial No.	Name of village.	!	Thana No.	Name of Thana.	Tauzi No. of the estate.	Date of expiry of existing settlement.	Renar <b>te.</b>
1	2		3	4	В	8	7
1	Banbasi	•••	214	Barachati	4489	31st March 1924.	
2	Chordaha	•••	267	Ditto	4509	Ditto.	
3	Gansha	•••	81	Sherghati	4561	Ditto.	
4	Sihauta	•••	73	Ditto	4763	Ditto.	
5	Tirkha	***	402	Mofassil Gaya	4612	Ditto.	
6	Nawadih	•••	366	Sherghati	4666	Ditto.	
7	Fatehpur Sanrha		98	Arwal	419	Ditto.	
8	Ditto	***	98	Ditto	420	Ditto.	
b	Ditto	•••	98	Ditto	421	Ditto.	
10	Ditto	•••	\$8	Ditto	422	Ditto.	
11	Ditto	•••	98	Ditto	423	Ditto.	
12	Ditto		98	Ditto	424	Ditto.	
13	Ditto		98	Ditto	425	Ditto.	

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II.—(A) Government Estates held khas.—Term expiring in or before 1919.

Berial No.	Name of village.		Thana No.	Name of Tha	na.	Tauzi No. of the estate.	Date of expiry of existing settlement.	Remarks.
1	2		3	4		5	G	7
:	ч							
1	Barhauna	•••	611	Jahanabad	141	5606	1909-10	
2	Sakra	•••	53	Nawada	***	7445	1909-10	
3	Dhamol	•••	48	Ditto	•••	7445	1909-10	Old Tauzi No. 7443.
4	Khakhanduwa	***	309	Ditto	***	7445	1909-10	Old Tauzi No. 4244.
5	Sonsihari		433	Ditto	•••	7444	1909-10	
6	Garh Dubaur	•••	169	Rajauli	•••	7439	1910-11	Old Tauzi No. 2523.
7	Gopalpur	•••	165	Ditto		7439	1910-11	Ditto.
8	Ratanpur	•••	166	Ditto	•••	7439	1910-11	Ditto.
9	Sili Dubaur		167	Ditto	***	7439	1910-11	Ditto.
10	Dudhi Mati	***	168	Ditto	•••	7439	1910-11	Ditto:
11	Chitarkoli	***	170	Ditto	***	7439	1910-11	Ditto.
12	Bagdewa	•••	174	Ditto	Sale.	7439	1910-11	Ditto.
13	Mahuatanr		173	Ditto		7439	1910-11	Ditto.
14	Baurhi Kalan	•••	179	Ditto		7439	1910-11	Ditto.
15	Pandna	•••	172	Ditto		7489	1910-11	Ditto.
16	Bhalui	***	178	Ditto	AT.	7439	1910-11	Ditto.
17	Parariya	***	171	Ditto	M.	7439	1910-11	
18	Hemza Bharath	•••	100	Ditto		7439	1910-11	Old Tauzi No. 2534
19	Baarhi Khurd	•••	180	Ditto		7439	1910-11	Old Tauzi No. 7438
20	Majhauli	•••	66	The same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the sa	यम	7439	1910-11	
21	Chatkari	•••	290	Ditto	•••	7440	1909-10	
<b>2</b> 2	Nawadib	•••	65	Ditto	•••	7439	1910-11	
23	Baratanr	.,.	254	Sherghati	•••	4491	1910-11	}
24	Chandrahuan		83	Barachatti	•••	7441	1909-10	
25	Durjun Khap		81	Ditto	,	7442	1909-10	<b>!</b> 
25 26	Suji Khap	•••	86	Ditto		4751	1909-10	
20	prili viigh	•••	)	17100	•••	""	200- 10	

II.—(B) Government Estates held khas.—Term expiring after 1919.

Serial No.	Name of village,	Th No	ana	Name of Tha	na.	Tauzi No. of the estate.	Date of expiry of existing settlement.	Remarks.
1	2		1	4		5	6	7
1	Bhimalpur	5	33	Jahanabad		5605	1920	
2	Jaitipur Kurwa	5	25	Ditto	•••	5€05	1920	

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III—(A) Government estates held by various persons in perpetual lease.

Serial No.	Name of village.		Thana No.	Name of Tha	D <b>4.</b>	Tauzi No. of the estate,	Date of expiry of existing settlement.	Remarks.
1	3	-	3	4		δ	đ	7
1	Jogiya Nala		124	Jahanabad		<b>2</b> 99	Perpetual.	
2	Mobarakpur	•••	126	Ditto	•••	299	Ditto.	
3	Gauhara	•••	122	Ditto	•••	<b>2</b> 99	Ditto.	
4	Alawalpur		103	Ditto	•••	<b>2</b> 99	Ditto.	
5	Benipur	•••	147	Dirto	•••	299	Ditto.	
в	Narhi	•••	155	Ditto	•••	<b>.2</b> 99	Ditto.	
7	Chandbigha		148	Ditto	•••	<b>29</b> 9	Ditto.	
8	Kunin	•••	11	Tikari	•••	593	Ditto.	
.8	Nimri	•••	4	Ditto	•••	299	Ditto.	
10	Solano Bigha	•••	29	<b>P</b> itto	•••	299	Ditto.	
11	-Kaistanr	•••	38	Ditto		299	Ditto.	
12	Tut <b>urk</b> hi	•••	5	Ditto		299	Ditto.	
13	·Ghanghail <b>a</b>	•••	47	Ditto	3.	299	Ditto.	
14	Jalalpur	••.	44	Ditto	1.	299	Ditto.	
15	Sirgawan	•••	40	Ditto		299	Ditto.	
18	Sarbahada	•••	14	Ditto		299	Ditto.	
17	Barahtai wa	•••	42	Ditto		299	Ditto.	
18	Karimda <b>s</b>	•••	22	Ditto		299	Ditto.	
19	Bhikhanpu <b>r</b>	•…	17	Ditto		299	Ditto.	
<b>2</b> 0	Khabhra		39	Ditto		299	Ditto.	
21	Ahmadpur		414	Aurangabad	기식	1411	Ditto.	
22	Sihuli	•••	405	Ditto	•••	5001	Ditto.	
23	Raipur Fandhwa		<b>2</b> 26	Daudnagar	•••	209	Ditto.	
24	Makbuljur Khas		10	Ditto	•••	299	Ditto.	
25	Purahra		17	Ditto	•••	299	Ditto.	
26	Ratanpur	•••	22	Ditto	•••	209	Ditto.	Ì
27	Baghoi	•••	231	Ditto	•••	299	Ditto.	
28	Baijalpur	•••	<b>2</b> 56	Ditto	•••	299	Ditto.	
29	Gahn <b>a</b>		11	Ditto	•••	299	Ditto.	
30	Bantara Said	•••	239	Ditto	·•·	299	Ditto.	
31	Baijalpur	•••	<b>2</b> 55	Ditto		299	Diito.	
32	Birai Nawalih	•••	4	Ditto		299	Ditto.	
<b>3</b> 3	Baljalpur	•…	241	Ditto	•••	299	Ditto.	
34	Konika	•••	4	Arwal		299	Dicto.	
₹5	Ahiyapur		11	Ditto		299	Ditto.	
36	Wasilpur	••.	13	Ditto		299	Ditto.	
37	Motl·a	•••	27	Ditto		299	Ditto.	
38	Jalpura		74	Ditt <b>o</b>		299	D'tto.	
39	Sarwan		84	Ditto	<i></i>	299	Ditto	

lxx 111—(A) Government estates held by various persons in perpetual lease—contd.

Serial No.	Name of village.		Thana No.	Name of th	Ana,	Tauzi No. of the estate.	Date of expiry of existing settloment.	Romarks.
1	2		3	4		5	8	7
40   M	Iohamadpur Gahn	a	82	Arwal		299	Perpetual.	
41 M	Iuradpur Hujra	•••	80	Ditto	***	299	Ditto.	
42 A	nıra	***	96	Ditto	•••	299	Ditto.	
48 B	al htari	••• ;	73	Ditto	. •••	299	Ditto.	
44 D	urra	*** .	67	Ditto	•••	299	Ditto.	
45 R	asulpur Tetara	•••	87	Ditto	***	<b>2</b> 99	Ditto.	
46 H	laibatpur	,,,	100	Ditto.	•••	2.9	Ditto.	
47 S	hekhpura	•••	111	Ditto	•••	299	Ditto.	
48 A	bgil <b>a</b>		180	Ditto		299	Ditto.	
49 K	hambaini	***	99	Ditto	•,••	<b>29</b> 9	Ditto.	
50 R	ampur Wainn	•••	97	Ditto	•••	299	Ditto.	
51 I	ajoř	•••	113	Ditto	•	299	Ditto.	
52 K	alaudara	•••	177	Ditto	•••	299	Ditto.	
<b>63</b> R	upaich	•••	178	Ditto		299	Ditto.	
64 G	oind	***	176	Ditto		299	Ditto.	
55 P	arasrampur	•••	127	Ditto		299	Ditto.	
56 K	amta	***	129	Ditto		299	Ditto.	
57 T	awakala	•••	130	Ditto	N.K.	299	Ditto.	
88 K	husdihra	•••	140	Ditto		299	Ditto	
69 J	ımuhari	•••	141	Ditto		299	Ditto.	
60 K	oilbhupat	***	145	Ditto	व जर	299	Ditto.	
61 M	anipura		152	Ditto		299	Ditto.	
62 B	elawan	•	158	Ditto	•••	299	Ditto.	
63 K	aler	•••	159	Ditto	•	299	Ditto.	
64 H	irdai Chak	•••	163	Ditto	,.,	299	Ditto.	
65	hauki		165	Ditto	•••	299	Ditto.	
- 1	ehdiyaba l	•••	136	Ditto	•••	2 39	Ditto.	
67 A	bgila	•••	83	Ditto	,	<b>29</b> 9	Ditto.	
i	elkhara Khas	•••	112	Ditto	,	299	Ditto.	
i	kronja	***	187	Ditto		299	Ditto.	
1	uran	•••	198	Ditt.		299	Ditto.	
i	aghra	***	200	Ditto	***	299	Ditto.	
1	iyara	•••	43	Ditto	•••	299	Ditto.	
1	atifpur Paraha	•••	47	Ditto		299	Ditto.	
	nunathi		<b>5</b> 2	Ditto	•••	299	Ditto.	
j	asulpur Pariyari	•••	54	Ditto	•••	299	Ditto.	
- 1	riyari		216	Ditto	•••	509	Pitto.	
1	irzapur	[	217	Ditto	•••	299	Ditto.	
78 K	injar		218	Ditto	•••	299	, Ditto.	

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III.—(A) Government estates held by various persons in perpetual lease—confid.

Serial No.	Name of village,		Thana No.	Name of Than	a.	Tauri No. of the estate.	Onte of expiry of existing settlement.	Remarks.
ı	3		8	4		5	6	7
19	Kanaia Chak	•••	223	Arwal		<b>2</b> 99	Perpetual.	
80	Rainath	***	243	Ditto		299	Ditto.	
٤1	Koriam	***	1	Ditto	•••	299	Ditto.	
83	Sakri	***	6	Ditto		299	Dit o.	
83	Bahadurpur	•••	123	Pitto	no.	290	Ditto.	
84	Nadi Khurd	•••	269	Ditto		299	Ditto.	
85	Wor Bigaha		247	Ditto		200	Ditto.	
86	Moglapur		191	Ditto		299	Ditto.	
87	Samanpur Baddo	***	225	Ditto		299	Ditto.	
88	Belsar	•••	164	Ditto	•	299	Ditto.	
89	Jonha	•••	199	Ditto	,,,	209	Ditto.	
390	Solsa	***	148	Ditto	***	299	Ditto.	
81	Sonbarsa	•••	7	Ditto	225	299	Ditto.	
9:	Sonari		248	Ditto	8)	209	Ditto.	
93	Banci Surajpur		246	Ditto		299	Ditto.	
94	Belaura	•••	188	Ditto		299	Ditto.	
95	Sonbarsa		5	Ditto	1	299	Ditto.	
96	Walidad	• • •	118	Ditto	M	299	Ditto.	
97	Sonbarsa		9	Ditto		299	Ditto.	
98	Bishunpar Okri	•••	513	Jahanabad		3881	Ditto.	
99	Jaitipur Kurwa	••.	<b>52</b> 5	Dit.o	ল	3884	Ditto.	
100	Maranchi	•••	125	Mufassai Gays	L.,.	<b>15</b> 99	Ditto.	
IOL	Jamalpur		- 119	Ditto	,,,	1599	Ditto.	
102	Kusmaha	,,,	856	Sherghati	,	4590	Ditto.	
103	danichuk	•••	857	Ditto	•••	4590	Difto.	
104	Tetar a	•••	855	Ditto		4590	Ditio.	
105	Malichak	••• }	860	Ditto		4629	Ditto.	
106	Az Raqbe Khakha:		308	Nawada	•••	7445	Ditto.	

III.—(B) Government estates held by various persons in temporary lease.

Serial No.	Name of village.	Thana No.	Name of Thana.	Tauzi No. of the estate.	Date of expiry of existing settlement.	Remarks.
1	2	8	4	5	G	7
1	Dodakatar	853	Sherghati	4490	1918	

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IV.—(A) Private estates in which Government has mukarrari rights.—Term expiring in or before 19.9, under direct management.

Serial No.	Name of village.		Thena No.	Name of The	10 <b>4.</b>	Tauzi No. of the estate.	Date of expiry of existing settlemens.	Bemarks.
1	• •		3	4		5	8	7
1	Eurh Paraia		18	Mufassal Ga	y <b>a</b>	1599	191 <b>0</b> -11	
2	Paraiya Khurd	•••	122	Ditto		1599	1910-11	
3	Azmatganj	•	132	Ditto	•••	1599	1910-11	
4	Shalipur	,	120	Ditto	·	1509	<b>1</b> 910 <b>-</b> 11	
5	Sungaris	,	117	Ditto	•••	1599	1910-11	
6	Daklmer		136	Ditto	1,44	1599	1910-11	
7	S.dempur	•••	133	Ditto		1599	1910-11	
8	Sarabdipur	<b>,</b> .	143	Ditto	•••	1599	1910-11	
9	Malahi Chak		118	Ditto	•••	1608	1910-11	
10	Rajoi Rampur		146	Ditto		1599	1910-11	
11	Majhiawan	•••	126	Ditto		1599	1910-11	
12	Majhar		129	Ditto	green (	1599	191(-11	
13	Uparahuli		130	Ditto		1599	1910-11	
14	Kajari		201	Ditto	$\sim$	1599	1910 11	
15	Kauriya	••••	110	Ditto		1599	19!0-11	
16	Gularia Chak		113	Ditto		1599	1910-11	
17	Tarwa		114	Ditto		1599	1910-11	
18	Fatebpur		193	Ditto		1599	1910-11	
19	Kashthua		90	Ditto		159.)	1910-11	
20	Ubhai		108	Ditto	49.4	1599	1910-11	
21	Nad		107	Ditto		1599	1910-11	
22	Maranpur	•••	169	Ditto	]	1599	1910-11	
23	Lachhuman Righa		106	Ditto	•••	1599	1910-11	
24	Kusdihara		111	Ditto		1559	1910-11	
25	Paranpur		112	Ditto		1599	1910-11	
26	Khaira	•••	123	Ditto		1599	1910-11	
27	Nariari		142	Ditto	[	1599	1910-11	
28	Bishunpar	•••	139	Ditto	•••	1599	1910-11	
29	Belaro	•••	140	Ditto	•••	1599	1910-11	
30	Simuara		164	Tikari		5151	1909-10	
31	Gaharpur		336	Ditta	•••	5151	1909-10	
32	Paclimahla	•••	154	Ditto		5151	1909-10	
33	Paranpur	•••	317	Ditto	•••	5151	1902-10	
84	Utren	•••	308	Ditto		5151	1909-10	
85	Pali		296	Ditto	• • •	5151	1909-10	
36	Ranipur	•••	601	Jahanabad		1370	1910-11	
37	Hati		449	Ditto		1370	1910-11	

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IV.—(A) Private estates in which Government has mukarrari rights.—Term expiring in a before 1919, under direct management—concil.

Serial No.	Name of village	•	Thana No.	Name of Thans.		Tauzi No. of the estate.	Date of expiry of existing settlement.	Remarks.	
1	2		3			5	G		
38	Dharaut	•••	652	Jahanabad		1370	1919-11		
39	Ghejan	••-	179	Ditto	:	1755	1910-11		
40	Gyani Bigha		180	Ditto	•••.	1755	1910-11		
41	Bishunpur		234	Ditto	•••	1755	1910-11		
42	Gopalpur	•••	178	Ditto		1755	1910-11		
43	Salempur		230	Ditto		1755	1910-11		
44	Rampur		232	Ditto	•••	1-55	1910-11		
45	Narayanpur		285	Ditto	•••	1755	1910-11		
<b>4</b> 6	Patiawan		283	Ditto	•••	1755	1911-12		
	1					]			

IV.—(B) Private estates in which Government has mularrari rights, leased to farmers.—Term expiring in or before 1919.

Serial No.	Name of village.	Thana No.	Name of Thana,	Tauzi No. of the estate.	Dute of expiry of existing settlement.	Remarks.
1	2	3	4	5	6	7
				W/		
1	Baddi	170	Atri	3697	1916	
2	Maniara	171	Ditto	3697	1916	
3	Singha	208	Ditto	3697	1916	
4.	Sirphara	172	Ditto	3697	1916	
				]		

IV—(C) Private estates in which Government having mukarrari rights has settled them with others in perpetual lease.

Serial No.	Name of village.  Thana No.  Name of Thana.  Tauzi No. Of the of existing settlement.		Name of village. Thana Name of Thana.		Date of expiry of existing settlement.	Remarks.
1	2	3	4	5	G	7
1	Durbe	177	Mufas-al Gaya	4100	Ferpetual.	
2	Khiri	163	Ditto	4109	Ditto.	
3	Kastha	171	Ditto	4100	Ditto.	
4	Haspara	162	Ditto	4100	Ditto.	
5	Farsa Kalan	74	Ditto	4100	Ditto.	
					1	

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V.—(A) Temporarily-settled estates under Government management.—Term expiring in or before 1919.

Serial No.	Name of villag	ge.	Thana No.	Name of Thans.	Tauzi No. of the estate.	Date of expiry of existing settlement.	Romarks.
1	2		3	4	5	6	7
1	Moti Chak	<b>,</b> .	412	Mufascal Gaya	4750	1909-10	
2	Salempur	•••	779	Sherghati	4750	1909-10	
8	Pathra		418	Mufassal Gaya	4750	1909-10	
4	Gohati		<b>4</b> 09	Ditto	4750	1909-19	
5	Nawadih		785	Sherghati	4750	1909-10	
6	Fazalaha	.,.	782	Ditto	4750	1909-10	
7	Kundilwa		78Q	Ditto	4750	1909-10	
8	Kusa		783	Litto	4750	1909-10	
9	Inguna		413	Mufassal Gaya	4750	19 9-10	
10	Chhakarbandha	,	2	Sherghati	4730	1909-10	
11	Pipra	.,.	791	Ditto	4750	1909-10	
12	Anuradhi		790	Ditto	4750	1909-10	
13	Baraina		226	Ditto	4750	19/ 9-10	
14	Bøla 🔐		795	Ditto	4750	1909-10	
15	Sobha Khap		425	Mufassal Gaya	4750	1909-10	
16	Manik Chak		428	Ditto	4750	1969-10	
17	Chahra Pahra		80	Sherghati	4750	1909-10	
18	Chhatarpur		79	Ditto	4750	1909-10	
19	Rabdi		86	Ditto	4750	1.09-10	
20	Umed Chak		31	Ditto	4750	1909-10	
21	Sahdeo Khap		427	Mufassal Gaya	4750	1909-10	
22	Bagahi		99	Barachatti	4750	1909-10	
23	Tanrwa		72	Sherghati	4750	1909-10	
24	Cherahi		50	Ditto	4750	1909-10	
25	Habibpur	•••	788	Ditto	4750	1909-10	
26	Ghuji		831	Ditto	4667	1906-07	

V.—(B) Temporarily-settled estates under Government management.—Term expiring after 1919.

Serial No.	Name of village.	Thana No.	Name of Thana.	Tauzi No. of the estut.	Date of expiry of existing settlement.	Remarks,
1	ŀ	3	•	5	8	7
1	Kajarsot	829	Sherghati	4594	1926	

VI.—(A) Temporarily-settled estates settled with proprietors.—Term expiring in or before 1919.

Serial No.	Name of village.	Thana No. Name of Thaus.		Thuri No. Date of expiry of existing estate, settlement.		Remarks.
1	2	3	4	5	6	7
1	Jaduachak ·	53	Barachati	4581	1916	

## VI.—(B) Temporarily-settled estates settled with proprietors.—Term expiring after 1919.

Serial No.	Name of village.	Thana No.	Name of Than2.	Tauzi No. of the estate.	Date of extiry of existing settlement.	Remarks,
1	2	3	4	5	6	7
1	Kachauri	748	Sherghati	<b>470</b> 3	1925	

# VII -(A) Temporarily-settled estates leased to farmers,—Term expiring in or before 1919.

Serial No.	Name of village.		Thans.	Nume of Thu	na,	Tauzi No. of the estate.	Date of expiry of existing.	Remarks.
. 1	. 2		3	•		5	8	7
1	Dhamni		49	Darachati	jĄ,	4750	1919	
$_2$	Nauniyan		52	Ditto		4750	1919	
3	Surahi Chak		69	Ditto	ů.,	4759	1919	
4	Hamzapur	•••	48	Ditto	ùa a	4700	1919	
5	Baherwa		45	Ditto		4750	1919	
6	Gohi	•••	233	Ditto	•••	4750	1919	
7	Kusmha Tal		36	Ditto	•••	4750	1919	
8	Gointha Mittha		232	Ditto	***	4750	1918	

## VII. - (B) Temporarily-settled estates leased to farmers.—Term expiring after 1919.

Berial No,	Name of village.		Thana No.	Name of Tha	na.	Tauzi No. of the estate.	Date of expiry of existing settlement.	Remarks.	
1	2		3	4		5	6	7	
1	Dhab	•••	786	Sherghati		4750	1935		
2	Tetaria Khurd	•••	429	Mufassal Ga	ıya	4750	1921		
3	Khurauna	,	397	Ditto	•••	4750	1935		
4	Asni	•••	396	Ditto	•••	4750	1935		
5	Tetaria Kalan	,	799	Sherghati	***	4750	1921		
6	Ghorwadih		781	Ditto	•••	4750	1935		
7	Mahimapur		426	Mafa sal Go	ya	<b>47</b> 50	1934		
8	Ekauni	,,,	789	Sherghati	141	4750	1924		

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VIII.—(A) Villages containing Government lands not included in any tauzi held khas.

Serial	Name of	village.		Thana No.	Name of Thana.	Remarks.
1	2			3	4	5
1	Sonbarsa	•••	•••	5	Arwal.	
2	Sipah	•••		22	Do.	
3	Mahuari	•••	•••	25	Do	
4	   Hasanpur Pipra 			94	Do.	Ì
5	Sakri		•••	132	Do.	•
6	Mahruli	•••	•••	133	Do.	
7	Musuda	•••		138	Do.	
8	Niranjanpur	•••		139	Do.	
9	Ismailpar Koil		•••	142	Dα,	
10	Sarwarpur	•••		144	Do.	1
11	Kaler	•••	···	150	Do.	
12	Belsar	***		164	Do.	
13	Anchha		•••	51	Daudnagar.	
14	Тејрига	•••		2	Aurangabad.	
15	Dihra	•••	·	15	Do.	

VIII.—(B) Villages containing Government lands not included in any tauzi under temporary lease.

Serial	Name of village.		Thana No.	Name of Tha	na.	Date of expiry of existing settlement,	Remarks.
1	2		3	4	,	б	C
1	Kera		45	Daudnagar	•••	31st March 1916.	
3	Makbulpur	•••	120	Arwal	•••	1323 Fasti	Rupi bigha alias Mak- bulpur.
3	Bichlagaon	•••	121	Do	•••	Ilo.	burper.
4	Saidpur		122	E o	•	Do.	
5	Bahadurpur		123	Do		D.	
6	Turkharsa		143	Do	•••	31st March 1917.	
7	Mahdewa		1	Aurangal ad	•••	1315 Fasli.	
8	Bhuiya	• · ·	3	Po.	•••	Do.	

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APPENDIX XXXI.

List of Officers who worked in the Survey and Settlement operations of Caya district.

Serial No.	Name of Officer.	Designation.	Nature of employment,	Period of employment.	Remarks.
1	2	3	4	5	6
				Y. m.	
1	J. A. Hubback, r.c.s	Settlement Officer	Supervision and general control.	1 2	
٤	P. W. Murphy, I.c.s	Ditto	Ditto ditto	0 9	
3	E. L. Tanner, i.c.s	Settlement Officer and Assistant Settle- ment Officer in charge.	Ditto dittə	5 8	
4	A. B. Duncan, 1.c.s	Ditto	Ditto dit <b>to</b>	3 6	Died of wounds on active service.
Б	J. A. Saunders, I.C.s	Assistant Settlement Officer in charge.	Ditto ditto	0 11	
6	W. H Boyce, 1 c.s	Ditto	Ditto ditto	0 6	
7	N. F. Peck, I.c.s	Ditto	Ditto ditto	0 7	
8	J. R. Dain, I.c.s	Ditto	Ditto ditto	1 6	
9	J. H. Murphy	Professional Adviser	In charge Cadastral headquarters office.	0 6	
10	M. Shamsuddin Haidar	Deputy Collector	In charge Settlement head- quarters office.	1 6	
11	Pandit Lakshmi Misra	Ditto	Ditto ditto	0 1	
12	Babu Sudhanshu Bhushan Mitfa.	Deputy Collector and Assistant Settlement Officer in charge.	In charge Settlement head- quarters office, section 104 and case work.	4 3	
18	Babu Madhab Chandra Misra	Deputy Collector	In charge headquarters office, Attestation, section 193-A and case work.	4 2	
14	Babu Ramu Lal Varma	Ditto	Revision, Attestation, section 103-A, sect on 104 and case	4 9	
16	Babu Phani Bhushan Mitra	Ditto	work. Attestation and section 103.A	0 10	Tran fer
16	M. Syed Muhammad Mahfuz	Ditto	Attestation	0 5	Bengal.
17	M. Anwar Karim	Ditto	Attestation and section 103-A work.	0 7	
18	Babu Palin Bihari Aikst	Ditto	Attestation, section 103A work and case work	2 3	Died.
19	Rai Brajuandan Prashad Singh	Ditto	Attestation and section 103-A work.	1 2	
20	A. F. L. Sharling	Ditto	Attestation	0 6	
21	M. Salamul Haq	Sub-Deputy Collector	Khanapuri, Attestation and section 103-A work.	1 8	
22	Eaba Bhupati Bhushan Ghosh	Ditto	Khanapuri	1 0	
23	Babu Jahnavi Prashad Singh	Ditto	Ditto	0 6	
24	Babu Sukhdey Narsyan	Ditto	Khanapuri, Attestation, sec- tion 103A and recess work, also in charge of headquar- ters office	5 2	
25	Babu Manoranjan Sinka	Ditto	Khanapuri and in charge of Cadastral headquarters office.	3 1	
26	Babu Bijay Kanta Sen	Ditto	Khanapuri	0 7	
27	Babu Mahendra Nath Sarçar	Ditto	Ditto	0 6	Died.
28	Babu Baidya Nath Ray	Ditt	Revision and Attestation	0 8	

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Serial No.	Name of Officer.	Designation.	Nature of employment.	Period of employment.	Remarks.
1	2	3	4	6	6
				Y. m.	
29	Babu Rajaui Kanta Sen	Deputy Collector	Revision	0 6	
80	Babu Radha Kanta Sharan	Ditto	Khanapuri and Attestation	1 1	
31	Babu Bishun Lal	Sub-Deputy Collector	Khanapuri and Attestation and recess work.	3 0	Dismissed
32	M. Hafiz Abdul Aziz	Ditto	Khanapuri, Attestation and sec- tion 103-A.	2 2	
33	Babu Deva Sagar Singh	Ditto	Khanapuri	0 6	
34	Babu Jogesvar Preshad	Ditto	Khanapuri and Attestation	0 6	
35	Babu Krishna Chandra Ghosh	Deputy Collector	Khannpuri, Attestation and section 103-A.	1 2	
36	Babu Uma Charan Das	Eub-Deputy Collector	Khanapuri, Attestation and section 103-A and recess work.	3 7	
37	M. Amjad Ali	Ditto	Khanapari	0 6	
88	M. Safdar Husain	Ditto	Attestation	0 6	
<b>-3</b> 9	Rabu Muthura Prashad Chau- be.	Deputy Collector	Attestation, section 103-A and recess work.	2 0	
40	M. Shah Muhammad Masleh Uddin.	Sub-Deputy Collector	Attestation	0 6	
41	Babu Chintamani Acharya	Ditto	Khanapuri	0 5	
42	Mr. William Raha	Ditto	Ditto	0 4	
43	Babu Kshitish Chandra Sen	Ditto	Ditto	0 5	
44	M. Fazlur Rahman	Ditto	Khanapuri. Attestation and recess work.	1 5	
45	M. Inayat Ahmad Bii- grami.	Ditto	Khanapuri	0.5	
46	M. Kutubul Moin	Ditto	Khanapuri and Attestation	0 5	
47	Babu Lalit Kumar Sen	Ditto	Attestation	0 4	
48	Baba Sarjya Narayan Singh	Ditto	Attestation and section 103-A work.	1 8	
49	M. Muhammad Tahir	Ditto	Attestation and section 103-A work.	1 3	
50	Rabu Jag Datta	Deputy Collector	Attestation and section 103-A and case work.	3 8	
51	Babu Paijanth Sahay, No. II	Ditto	Khanapuri and Attestation	0 7	
52	Habn Chandra Kumar Mathur,	Ditto	Khanapuri and Attestation and case work.	8 9	
53	Babu Satish Chandra Guha	Ditto	Attestation and section 103-A work.	0 8	
54	Babu Satya Narayan Singh	Sub-Deputy Collector	Attestation and section 103-A work.	1 6	
f 5	Babu Bhupendra Nath Ghoshal.	Ditto	Attestation, section 103-A and case work.	2 9	
<b>5</b> 6	Babu Sant Bilss Singh	Ditto	Attestation, Khanapuri, Recess work and recovery.		
57	M. S. M. Ali Hassan	Ditto	Attestation	0 6	Died.
58	M. A. R. Shamshad	Ditto	Attestation	0 5	
59	Babu Binay Kumar Bhatta- cbarji.	Ditto	Attestation, section 103-A and recess work.	1 9	Died.
60	Babu Labanya Mohan Sanyal	Ditto	Khanapuri	0 1	
61	Babu Ashutosh Sen Gupta	Ditto	Khanspuri and recess work	0 3	[

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Serial No.	Name of O fficer.	Designation,	Nature of employment.	Period of employment.	Remarks.
1	9	3	4	5	в
62	J. E. Coutts	Sub-Deputy Collector	Cadastral Recess	Y, M. 0 3	
63	M. Abdush Shakur	Munsif	Khanapuri, Attestation and Case work.	1 6	
64	M. Abul Barakat	Do	Khanapuri, Attestation and Case work.	1 6	
65	Babu Munishwari Prashad	Do	Khanapari, Attestation and Case work.	1. 5	
66	Babu Harihar Prashad	Do	Khanapuri, Attestation and Case work.	1 6	
67	Babu Jagdhar Prashad	Do	Khanapuri, Attestation and Case work.	1 6	
68	Mr. Shamsuddin	Do	Khanapuri, Attestation and Case work.	1 6	
69	Babu Nand Kishor Chaudhuri.	Do	Khanapuri, Attestation and Case work.	1 6	
70	Babu Bhuvaneshvari Sharan Varmı.	Sub-Deputy Collector	Khanapuri	0 5	
71	M. Abdul Jalil	Ditto	Khanapuri	0 4	
72	Mr. Priya Ranjan Das	Ditto	Attestation	0 6	
73	Babu Kshirodhar Ray	Outsider Assistant Settlement Officer.	Khanapuri	0 4	
74	M. Khabirul Haqq	Ditto	Khanapuri	0 5	
75	G. Mendies	Ditto	Khanapuri	0 5	
76	Babu Maheshwari Prasad Varma	Ditto	Khanapuri	0 4	
77	Babu Parameshwari Dayal	Sub-Deputy Collector	Khanapuri	0 5	
78	L. G. L. Evans, 1.0.s	Assistant Magistrate	Khanapuri and Attestation	0 6	
79	W. H. Lewis, I.C.S	on training. Ditto	Ditto	0 6	
80	J. P. J. Elmes, I.C.s	Ditto	Ditto	0 6	
81	G. P. Statham, Indian Police	Assistant Superinten- dent of Police on	Khanapuri	0 6	
82	W. B. Brett, i.c.s	training. Assistant Magistrate	Khanapuri and Attestation	0 6	
83	R. E. Russell, I.C.s.	on training. Ditto	Ditto	0 6	

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## DEPARTMENT OF LAND RECORDS AND SURVEYS, BIHAR AND ORISSA.

No. 2430.

FROM

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DIRECTOR OF THE DEPARTMENT OF LAND RECORDS

AND SURVEYS, BIHAR AND ORISSA

To

THE SECRETARY TO THE BOARD OF REVENUE,

BIHAR AND ORISSA.

Dated Patna, the 26th July 1919.

Sir,

I have the honour to submit the final report on the Survey and Settlement Operations in Gaya district written by Mr. E. L. Tanner, i.c.s.

The operations covered practically the entire area of the district which is 4,748 square miles. They began in November 1911 with traverse survey and finished in March 1918. Mr. Tanner joined the Settlement when record-writing began in December 1912, and became Settlement Officer in the following year. With the exception of a short period in 1914 he held the post until the completion of the operations.

- 2. In Chapter VIII Mr. Tanner discusses the agricultural statistics of the district, and compares them with those of other Bihar districts. Of the total area sixty per cent. is cultivated, the percentage in the Jahanabad Subdivision, situated on the Patna border, being over 80. Fifty-five per cent. of the crapped area grows winter crops, 60 per cent. rabi crops, and the percentage sown in the bhadai harvest, 9 per cent., is the lowest in Bihar. Twenty-four per cent. of the area grows two crops a year and 55 per cent. is irrigated. In respect of irrigation Gaya is only surpassed by Patna, where 60 per cent. of the cropped area is irrigated. The possibilities of further extension of cultivation are poor as most of the uncultivated area is situated in the south of the district, where the land is infertile and lacks facilities for irrigation. The principal crops are rice, gram, wheat, oilseeds, harley and maize. Rice is by far the most important, being grown on half the cropped area.
- 3. In view of the prevalence of produce-rents and the prospect of having to deal with numerous applications for their commutation special attention was given to crop-cutting experiments. Altogether over 11,000 experiments were made on the triangle system devised by Mr. Hubback in Shahabad. In paragraphs 141 and 142 of the report Mr. Tanner discusses the results of these experiments and compares them with previous estimates of outturn. His estimates slightly exceed those of Sir George Grierson and Mr. Stevenson-Moore, and agree fairly well with those made by Mr. (now Lord) McDonell in 1876. It is worthy of note that the estimates still used by the Agricultural Department in preparing the annual crop forecasts appear to be much too high. Mr. Tanner puts the average outturn per acre of rice lands at twelve maunds of paddy, whereas in the annual forecast the normal crop is assumed to be fifteen maunds of cleaned rice, a figure which must necessarily give an exaggerated idea of the stocks of food held in the district. These experiments

throw an interesting light on the bhaoli or produce-rent system which is prevalent in South Bihar. Unless Mr. Tanner has grossly exaggerated the average outturn, the landlords realize a much smaller precentage of the crop than they are nominally entitled to, a circumstance which will be discussed when considering the objections raised by them to the cash-rents fixed in villages where produce-rents have been commuted under section 40 of the Bengal Tenancy Act. Paragraph 141 of the report compares the outturn of bhaoli lands with that of lands held on cash-rent and shows the latter to be 16 per cent. higher than the former, another interesting fact.

4. In writing the revenue history of Gaya Mr. Tanner was hampered by the scarcity of material, most of the early records having been burnt during the mutiny. The difficulty of his task was increased by the frequent variations in the district boundary due to numerous transfers and re-transfers of pargana to and from adjoining districts. He has, nevertheless, compiled from various sources an interesting account of the chief parganas of the district, the estates to which they belong, and their treatment during, and subsequent to, the Decennial and Permanent Settlements. He also deals with the proceedings taken after the latter settlement to resume and assess to revenue lands held revenue-free without a valid title. The records of the resumption proceedings, like those of the earlier settlements, are, unfortunately, defective, but their effect can be gauged from the fact that between 1819 and 1870 the revenue of the district increased by Rs. 3,88,621. The revenue in 1916-17 amounted to Rs. 14,83,775, which represents an average incidence of 7 annas 3 pies per acre, the fourth highest incidence in Bihar, the districts with higher assessments being Muzaffarpur, Saran and Patna. Of the total revenue of the district 90 per cent. is derived from permanently-settled estates, 3 per cent. from temporarily-settled estates, and 7 per cent. from Government estates. Eighty square miles is held revenue-free. The number of revenue-paying estates, which in 1870 was 4,400, has since then increased by partitions to 9,000. The increase is still in progress, the number of estates partitioned by the Collector between 1902 and 1917 being 447.

In spite of the fact that the average number of applications for mutation of names annually presented by proprietors is about 16,000. Land Register D was not found in Gaya to be less out of date than in other Bihar districts.

5. Gaya was the first district in which the tract notified for Survey and Settlement included a considerable area for which maps and records-of-right prepared under the Bengal Tenancy Act were already in existence. The area referred to covered 800 square miles, and included the Belkhara Mahal, the Deo, Maksudpur and Tikari Estates, and most of the villages of which Government is proprietor. One of the first questions which arose was whether the original maps and records should be corrected and revised, or whether new maps and records should be prepared. Had the area formed a compact block capable of being easily supervised by a special staff, it is probable that some economy could have been effected by merely revising the old maps and records. The saving would, however, have been confined to the cost of the field operations, survey and record-writing, for it was clear that no shortening of the subsequent stages of the work was practicable. Experiments made in a number of villages with the object of comparing the results of revision with those of a re-survey showed the latter to be immeasurably superior. The revised maps invariably contained many unnecessary plot numbers, and were often so full of corrections as to be almost illegible. It was finally decided to abandon the idea of revision and to re-survey and to prepare a new recordof-rights for the whole area, a decision which, having regard to the high standard of accuracy in the maps and records which the Courts and the public of this province insist on, was undoubtedly wise. It should be borne in mind that in Gaya the choice lay between revising each map as a whole or making a new one. The system of blue prints now in use in the North Bihar revision operations, which render it possible to utilize such portions of the original map as are capable of being brought up to date by a moderate amount of revision, and to make a fresh survey of the remainder, had not then been introduced.

When the next revision of the maps of the district becomes due the work should be rendered much easier by the system of adopted stations introduced in 1914 and described in paragraph 64 of the report. The difficulty of finding the old traverse stations and the scarcity of fixed points, which, in their absence could serve as a basis for a fresh survey, has been a source of considerable trouble in North Bihar.

6. The most interesting portion of the report is contained in Chapters IX and X, which deal with produce-rents and their commutation. The area held on such reuts in Gaya constitutes 68 per cent. of total area held by raiyats with rights of occupancy, a percentage which exceeds the figure for any other Bihar district, Patna coming second with 44 per cent. Ever since settlement operations began in South Bihar, the officers dealing with the applications received from raivats for the commutation to cash of their produce-rents have been confronted with problems exceeding in interest and importance any agrarian problem that has arisen since the passing of the Bengal Tenancy Act. The real nature of produce-rents, their relation to cashrents, the conditions, if any, which justify a refusal to commute them, and the terms on which they should be commuted, have all been the subject of discussion. Mr. Tanner's report contains in the fullest measure the material necessary to decide these questions. It has hitherto been believed, and the Civil Courts have invariably acted on the belief, that a landlord taking producerents obtains from his tenants a proportion varying from one-half to ninesixteenths, and sometimes even higher, of the gross produce of each holding. It was supposed that the tenants willingly pay this enormous rent in return for being allowed to irrigate their lands, and in consideration of the fact that in years when the outturn in small their rents are automatically and proportionately reduced. It was contended that it is against the interest of both landlords and tenants to abolish produce-rents, and that it would be a gross injustice to the former to substitute for them any cash-rents which fell far short of the cash equivalent of the very high produce-rents which they are supposed to receive. These contentions, it should be noted, are still put forward by the opponents of the commutation methods adopted by the Settlement Department. Mr. Tanner's report effectually disposes of them. He shows that the connection between irrigation and produce-rents is not so close as was imagined. In Aurangabad subdivision, for instance, where the percentage of land held on produce-rent, 81 per cent., is the highest in the district, the percentage of the area irrigated from private canals is least. He points out that under the original batai system the landlord claims, not one-half or nine-sixteenths of the gross produce, but one-half of the produce after certain deductions have been made, deductions which reduce his nominal claim to 40 or 45 per cent. of the gross produce. He shows (paragraph 182 and elsewhere), that this share, much less the higher shares claimed under the danabandi system, is never actually paid, the severity of an otherwise unworkable system being mitigated in practice by systematic under-appraisement in villages where danabandi prevails, and by peculation on the part of the raiyat in villages where the crop is divided. He shows that the lands held on produce-rent are indifferently cultivated, and that their average outturn, as shown by crop-cutting experiments, is less by about 16 per cent. than that of the lands held on cash-rent. He further shows that about 10 per cent. of the producerented lands, as against only 5 per cent. of the cash-rent lands is annually left uncultivated. The importance of these facts when discussing the justice of the principles adopted by the Settlement Officer in commuting produce-rents is obvious.

In commuting produce-rents a Revenue Officer is bound to take into consideration (1) the cash-rents pail for similar lands, (2) the cash value of the produce-rents actually received by the landlord in the past. Raiyats rarely obtain receipts for produce-rents, and are therefore not in a position to produce any evidence on the second point. The landlords who can produce such evidence usually decline to do so. In those villages where evidence on the point is forthcoming, a rent intermediate between the cash-rents paid for similar lands and the average cash value of the produce-rents actually received by the landlord is fixed for each holding. Where the necessary

evidence of the amount of the produce-rents paid was not produced by the parties, it was customary, in the districts of Bhagalpur, Patna and Monghyr, to decree a rent exceeding by 12 to 16 per cent. the cash-rents paid for similar lands. This method was followed until in Shahabad the Commissioner, on appeal, declared it to be unfair to the landlords, and held that it was the duty of the Settlement Officer, in villages where the landlord withheld his accounts, to make an estimate of the value of the produce-rents realized. The use for this purpose of the cess returns filed by the landlords was condemned, and the Revenue Officers were directed to wait until the standing crops were ripe, make crop-cutting experiments with a view to determine the probable average outturn per acre, calculate the value of the share due to the landlord, and apply this to the area of the holding. Mr. Tanner's report on the commutation proceedings is largely taken up with a discussion of the accuracy of the assumptions involved in this procedure. These assumptions are (1) that the whole of the raiyat's lands are annually cultivated, and that the outturn is up to the average indicated by the crop-cutting experiments, (2) that the landlord collects in full the share of the produce to which he is nominally entitled. In the other South Bihar districts a large proportion of the landlords were content to accept the rents fixed by the Settlement Officer on the basis of the prevailing cash-rents rather than produce their rent accounts in the hope of obtaining more. In Gaya the premium placed by the new procedure on the concealment of accounts was so great that very few indeed were produced, and those who produced them invariably requested the Revenue Officer to ignore the accounts and to adopt instead the procedure of crop-cutting experiments. These facts inevitably suggest the inference that the produce-rents actually collected fall very far short of the share to which the landlord is nominally entitled, an inference which is supported by the fact that an examination of those papers which were produced shows (paragraph 183) the former to be on the average less than half the latter. Further corroboration of the inference is given by a consideration of the chakath rents paid in Gaya. Under the chakath system a landlord, who for any reason, finds it incovenient to appraise or to divide the produce of lands paying produce-rent agrees with his raivats that rent shall, for a period of years, or occasionally for an indefinite period, be paid in cash at specified rates per bigha. The cash-rents, called chakath rents, fixed at these private commutations are (paragraph 192 of the report) (1) not much higher than the average cash-rents of the district, (2) considerably lower than the rents fixed by the Settlement Officer under section 40, Bengal Tenancy Act, and (3) little over half what the landlord would have received under the produce-rent system if the latter were not the sham which it has been proved to be. In some villages, (paragraph 190), the commuted rents fixed by the Settlement Officer were nearly twice the chakath rents fixed by landlords for lands in the same village. Yet there is evidence to show that chakath rents fixed by agreement, sometimes, as in the Maksudpur village referred to in paragraph 182, exceed the average value of the produce-rents realized.

7. In paragraph 190 of his report Mr. Tanner refers to the question which arose as to the proper view to be taken of chakath rents in commutation proceedings. It was contended that they should be regarded as cash-rents paid for lands in the vicinity, and that the commuted rents should be fixed on a consideration of the chakath rents as well as the landlord's theoretical Mr. Tanner on the other hand maintains that the proper method of regarding chakath rents is as a test whether the commuted rents are or are not too high to be paid by the tenants. He does not, it should be noticed, suggest that chakath rents are fair rents. To do so would be to take an unduly favourable view of the results of the produce-rent system. This system is, in plain terms, a system of nominal rents too high ever to be realized in practice. The produce-rents actually paid by the raiyats, and their chakath equivalents, represent the utmost which the landlord can force them to pay, under the threat, should they refuse, of sucing for, and obtaining decrees for the unpayable rents to which he is nominally entitled. To regard the rents paid under such a system as fair rents for raiyats with rights of occupancy is either to ignore the principles underlying all tenancy

laws, or to attribute to the tenants a power of resistence to excessive demands which renders such laws unnecessary. To go further and to maintain that in fixing cash-rents a Revenue Officer should have regard not only to the chakath rents but also to the nominal rents which the landlords, in spite of their control over the sources of irrigation and of the machinery for extortion supplied by the Civil Courts, are unable to collect, is a suggestion so monstrous as hardly to deserve serious consideration. It must not, however, be assumed that this suggestion will not be again heard of. The fog which has so long surrounded the South Bihar system of produce-rents has prevented its real nature from being known. Observers have usually taken it at its face value, and the doubts of its fairness necessarily suggested by a comparison with the maximum rates of eash-rent were usually met by the argument that since the raiyats willingly endured it, it must be fair. Sir George Grierson, whose eulogy of the system contained in his notes on Gaya is largely responsible for the views so long held on the subject, appears never to have suspected that the bhaoli system, like many oriental institutions, was other than it professed to be. Taking the landlords' realizations, as shown in their papers, to represent one-half or nine-sixteenths of the gross produce, he found the balance left for the support of the raiyats to be so small that he concluded 45 per cent of them must often be in want of food. This conclusion, as Mr. Tanner points out, is as incorrect as the premises on which it is based, but it is remarkable that any one who believed it to be true could have spoken with such enthusiasm of the system of which, if true, it was the direct outcome. Sir William Vincent, when District Judge of Monghyr, expressed his reluctance to give decrees for arrears of rent payable under what he termed "the prevalent but inequitable system by which the raiyat pays to the landlord nine-sixteenths of the produce of his holding".

8. The extent to which many landlords in this province have succeeded in nullifying the provisions of the tenancy laws by establishing a legal claim to rents too high to be paid by their tenants will probably never be fully realized. Two instances which have come to light in the course of recent settlement operations are those of the district of Palamau and the Dhalbhum pargana of district Singhbhum. In both these areas the cash-rents nominally payable were never collected in practice, but the fear of being sued for them was used as a lever to compel the tenants to pay such amounts as the landlords thought they could be made to pay. It is highly improbable that such a state of affairs could exist in a temporarily-settled area, for no landlord would willingly subject himself to the assessment of Government revenue on an imaginary income. Every Settlement Officer who has worked in this province can recall other instances in which he suspected, if he could not actually prove, the existence of a state of affairs similar to that which has been shown to exist in Palamau and in Dhalbhum, a state of affairs which is incompatible with the possession by raiyats of any security of tenure. Mr. Tanner's investigations in Gaya, corroborating, as they do, the opinions formed by his predecessors in Monghyr and Patna, show that the South Bihar system of produce rents is, in all essentials, a similar system, a system under which a raiyat, should he refuse to assent to his landlord's demands, is liable to be sued for a rent which the latter does not in ordinary circumstances attempt to collect and which, presumably, is too high to be regularly paid. In Dhalbhum and Palamau the situation has been met by fixing fair rents, which, it is hoped, the tenants will be able to pay without difficulty. In Gaya the solution is not so easy. Commutation of the produce-rents to cash is the most obvious method, but the difficulties of adopting this course are many. Chief among them is the fact that the control possessed by the landlords over the means of irrigation is in many cases such as to enable them to enforce any system of rent they choose and any standard of rent up to the maximum which the tenant can be made to pay. Such being the case it is improbable that any large proportion of the raivats paying produce rents will apply for commutation particularly if the commutation be made on the assumption that the landlord has, in the past, collected the full rent to which he is nominally entitled. Failing commutation, however, it is clearly essential in the interest of the tenants to deprive the landlord of his most powerful and unfair weapon by

taking away from him the power to obtain from the Court decrees for rents which his tenants cannot possibly pay. I would reduce the proportion of the gross crop for which the landlord can sue to the maximum which Mr. Tanner's inquiries show he has heitherto been able to collect viz., to one-fifth. If the economic pressure which he can bring to bear on the raiyat is such as to enable him to collect a higher percentage than this without the help of the Courts, there is no remedy, and the Tenancy Law must in such cases romain a dead letter. To help him to collect more than this by g ving him decrees for over double the amount is, I submit, opposed to all ideas of justice.

I support Mr. Tanner's proposal, made in paragraph 190, to follow the example set in Bengal by imposing a similar limit on the commuted rents fixed under section 40 of the Bengal Tenancy Act.

The proposal to limit rents to a fixed proportion of the gross produce has been frequently discussed. One of the chief obstacles to its acceptance at the time of the passing of the Bengal Tenancy Act was the belief that producerents exceeding any limit which it occurred to any one to suggest as fair were regularly and willingly paid over large areas in south Bihar. This theory has now been disposed of. Another objection to the limit of one-fifth of the gross produce was that existing rents are on the average much below this amount and that the standard of one-fifth, if laid down as a maximum, might produce an undesired effect by coming in time to be regarded as the standard of a fair rent towards which all lower rents should be raised. This objection obviously does not apply to proposal to substitute it for existing standards, which although recognized by the Courts, are so high as to be unenforceable, and the sole object of which is to keep rents at the highest possible pitch. The situation in South Bihar disclosed by Mr. Tanner's report is too serious to be regarded with indifference. In the unequal fight which he has hitherto waged the raiyat's chief weapons, when sued for arears of produce-rent, have been to deny that he holds on produce-rent; to allege that the custom is division not appraisement (where the crop is divided Courts put the burden of proof of non-payment on the landlord); to dispute the area of his. holding. the amount of the produce, and the share to which the landlord is entitled, and to plead payment. Most of these defences are now barred. In regard to the amount of the produce and the question of payment there is not likely to be any diminution of perjury on either side. The other points, however, will in future be settled by a reference to the record-of-rights and the obtaining of decrees for produce-rents will in consequence be much easier than formerly. The effect of this will be to enable the landlords to exploit more thoroughly than in the past, the economic conditions which lead to rack-renting.

9. The most disquieting feature of the situation, a feature common to Patna and South Monghyr as well as to Gaya, is the fact that strenuous and, on the whole, successful efforts have been and are being made by landlords to alter, to the disadvantage of the raiyat, the recognized features of the produce-rent system. The landlords, knowing that the batai system, under which they are nominally entitled to about 40 or 45 per cent. of the gross crop, gives the raivats opportunities of peculation, and is, moreover a less efficient instrument for obtaining punitive decrees in the Civil Courts, are endeavouring to substitute for it the system of danabandi or appraisement. Under this system the landlord is nominally entitled to half the gross crop subject to certain deductions or remissions. These remissions are, at the outset, usually liberal enough to make the system approximate to the batai system which it replaces, and are intended to reconcile the raiyats to the change. Once the new system is established the remissions are gradually cut down and the landlord claims half the gross crop. The danabandi system, moreover, possesses from the landlord's point of view, the advantage that in suits for arrears of rent, the burden of proving payment of danabandi rents is always placed on the raiyats, a burden which, as they rarely obtain rent receipts, they find it difficult to discharge. To the half share of the gross crop established by the initial form of the danabandi system are added from time to time various awabs such as dahiak, mangan, nocha, hujitana, etc., which eventually bring it up to ninesixtcenths or higher of the gross crop. In Gaya, this process is compared

with other portions of South Bihar, but will not put a stop to, its further development. It must not, however, be imagined that the raiyats of Gaya will necessarily be more leniently treated than those of Patna who are nominally liable to pay to their landlords a larger share of their crops. It cannot be too often repeated that there is no real connection between the share which the land claims and that which he collects, and that a claim to half the gross produce, supported by the record of-rights, will prove as efficient a means of extracting from the raiyat the utmost that he can be forced to pay as the claims to 24 or 25 seers out of each maund, which previous to the settlement operations, constituted one of the chief weapons in the armoury of the landlords of Eastern Patna.

10. One feature of the chakath system of rents which Mr. Tanner has not referred to in his report is worthy of notice. These rents are usually fixed for a short period during which the landlord for any reason finds it inconvenient to arrange for the appraisement or division of the raiyat's crops. Some landlords. however, have found the system so attractive that they have adopted it permanently, and in many villages where rents were formerly payable on the danabandi or appraisement system, chakath rents have now been in force for over twenty years, and the custom of appraisement has been altogether abandoned. One effect of this policy is to deprive the bhaoli system of what is often declared to be one of its best features, viz., that by which the rent is, in times of scarcity, reduced in proportion to the raiyat's ability to pay. From the landlord's point of view, however, the perpetual chakath system possesses obvious advantages. It is for all practical purposes a system of eash-rents subject to none of the restrictions on enhancements imposed by the Bengal Tenancy Act, for the tenants, if they refuse to pay the chakath rate demanded, must be prepared to revert to the danabandi system which they detest. In Gaya moreover it appears to have been held that so long as a raiyat pays a chakath rent he is debarred from applying for commutation under section 40 of the Bengal Tenancy Act. If this be correct interpretation of the section, a point which is open to doubt, steps ought to be taken to remove the disability and to enable these raivats to obtain, if not a reduction of their rents, at least a degree of protection from further enhancement.

11. The average incidence of the cash-rents paid by raiyats with rights of occupancy is Rs. 6-1-1 per acre. The only Bihar district in which this is exceeded is Patna, where the incidence is Rs. 7-8-0. In both districts, it is true, most of the poor lands are held on produce-rents but the high pitch of the cash-rents, as compared with those paid in North Bihar, is undoubtedly largely due to the influence of the produce-rent system. In 1838 Sir George Grierson wrote in his "Notes on Gaya":—" Every square yard which a tenant can improve is given to him on a cash rent often fixed for ever, and the land which he cannot improve himself he holds on terms calculated to compet the only person who can improve it to do his duty."

The statement that many of the cash-rents are fixed for ever is an obvious reference to the rents known as shikam, all cash-rents in Gaya being divided into shikam and chakath. The belief that shikam rents were not enhancible is corroborated by all the references made to them in the older records. Unfortunately, in Gaya, as in the rest of the province, the tendency of the older classes of privileged raiyats, possessing rights recognized by local custom and usage, to merge into the more numerous body of occupancy raisats created by the tenancy laws, has operated to the detriment of the former. In Gaya, the tradition of the non-enhancibility of shikam rents, where it has not been actually violated, is fast being forgotten. The rapidity of the change, and the extent to which the absence of a record-of-rights for the whole district has contributed to it, may be gauged from the fact that when a record-of-rights was prepared for the nine-annas Tikari Estate in 1893-98 there was so little doubt on the subject that the Settlement Officer declared all the shikam holdings to be tenancies on fixed rentals. The record then prepared has saved the shikam raiyats of the Tikari Estate. Outside this estate shikam raiyats were treated during the recent operations as ordinary raiyats, and those claiming fixity of rent were called on to prove their claim by producing their rent-receipts

for the last twenty years, a task in which most of them failed. The result is that outside the Tikari Estate the shikum raiyats of the district have, with insignificant exceptions, been reduced to the status of mere occupancy raiyats. This result of the settlement proceedings may have been unavoidable, but it is none the less deplorable, particularly in view of the fact that the action taken a few years earlier in Shahabad succeeded in preserving the rights of the guzashta raiyats of that district whose claim to fixity of rent is certainly not superior to that of the shikam raiyats of Gaya.

12. Mr. Tanner makes several suggestions for the amendment of section 40, Bengal Tenancy Act, which are summarized in paragraph 195. The most important of these is, undoubtedly, the addition of a proviso to the effect that, although the Revenue Officer must have regard to the various particulars mentioned in section 40, the cash-rent fixed must be fair and equitable. The Settlement Officer's request for this amendment of the section is based on the belief that at present, notwithstanding the provisions of section 24, a Revenue Officer commuting rents under section 40 has no power to inquire into the fairness of the rent arrived at on a consideration of these particulars. I am doubtful if this is a correct interpretation of the law, but as it has hitherto been acted on, it seems advisable to adopt Mr. Tanner's suggestion and to place the matter beyond doubt. If the Revenue Officer is to fix only such rents as are fair and equitable, he must also, as the concluding portion of paragraph 195 of the report shows, have power to reject compromises by which raiyats agrice to pay rents that are obviously too high.

It has been argued that to commute produce-rents to cash will lessen the incentive to landlords to maintain their irrigation channels in a state of repair, and that the consequences of allowing commutation may therefore be disastrous to all parties. This argument has so influenced even some of those who recognize the inherent defects of the produce-rent system and desire its abolition, that the discussions on the subject have hitherto taken the shape of inquiring in what circumstances it is justifiable to ignore this risk and to allow the raivats' applications for commutation. In paragraph 184 of his report Mr. Tanner has given his own views on this subject. These views were formed at a comparatively early stage of the operations, and he now believes that commutation might be more freely allowed than he then thought possible. The subject, the Board of Revenue has already declared, is not one on which it is possible to issue general instructions binding on the officers dealing judicially with applications under section 40. No such instructions have been issued, nor, although the question has been prominent for the last twelve years, has any judicial decision been given by the Board establishing principles which may serve as a guide to Revenue Officers. Some guidance to the latter is urgently called for. Mr. Tanner recommends that instructions on the subject should be added to section 40. The difficulty of giving effect to this recommendation is obvious, but unless some action be taken it seems possible that Revenue Officers may remain indefinitely without any authoritative guide as to the policy which they should adopt.

I should like to add some remarks of my own on the subject. It is a mistake to argue the case on the assumption that the landlord's interest in maintaining the irrigation channels is materially diminished by fixing cash rents. This is not the case, for every landlord is well aware that unless these channels are kept in a state of repair the rents fixed under section 40 cannot be paid. Individual landlords may, after commutation, neglect their own interests, just as some of them now do in spite of receiving produce-rents, but I do not believe that such neglect is more likely to happen after commutation than before. What is likely to happen is that some of those landlords who resent the substitution of each for produce-rents may deliberately allow their bandles and ahars to remain unrepaired, with the object of compelling their raiyats to revert to the bhaoli system. Ought this possibility to be a ground for refusing commutation? I am inclined to agree with Mr. Tanner that it ought not The raiyats know better than any Revenue Officer the risks and penalties which they incur, when, by applying for commutation, they assert their right to security of tenure on a fair rent, a right which has hitherto

been denied to them. It may be conceded that the majority of the producerent paying raivats of Gaya have no prospect of obtaining such security, but
I do not believe that it is in the interests of the community to discourage
those who have the hardihood to claim their rights. Their number is
comparatively small, for in Gaya, as Mr. Tanner points out, even if all the
applications under section 40 were allowed, the area held on produce-rents would
still be 60 per cent of the total area held by raivats. Whatever decision be arrived
at it is essential that there should be no misunderstanding as to the real facts of
the case. If it be necessary in any circumstances to refuse commutation, the
necessity is due, not to the conditions of South Bihar making produce-rents
preferable to cash-rents, but to the fact that, under certain economic conditions,
Government is powerless to force landlords to accept fair rents.

As Mr. Tanner suggests, the Act ought to provide for an appeal against an order rejecting an application for commutation. Mr. Tanner also suggests in paragraph 195 the provision of some means by which raiyats can obtain a reduction of rents, if the landlord, after produce-rents are commuted to cash, fails to maintain the irrigation system. I have explained my views on the subject when forwarding the final report on the Shahabad operations. When a cash-rent has been fixed on the assumption that the landlord will supply facilities for irrigation, a more reduction of the rent to the rate which would be a fair rate for unirrigated land is no compensation to a raiyat for the loss caused to him by being deprived of the means of irrigation. I believe that a Civil Court, if the facts were properly placed before it, would either hold that no rent is payable by the raiyat during the period of such deprivation, or would, if it gave the landlord a decree for his rent, allow the raiyat's counter-claim for compensation. If this be a correct view of the existing law, it would be a mistake to enact any amendment, which, by suggesting that the raivat is adequately compensated by a more reduction of rent, would leave him in a less advantageous position than he is at present.

13. In Chapter XI Mr. Tanner deals with the irrigation system of Gaya, describes the method in which irrigation rights have been recorded, and makes suggestions for the maintenance by Government agency, at the expense of the owners, of irrigation works which the latter have neglected to keep in repair. He declares the present system of maintenance by a multitude of private owners to be expensive and inefficient, and looks forward to a time when the majority of the present channels will form part of a system administered by Government. It is to be feared that this desirable state of affairs is still remote, and in the meantime such action as may be taken to compel the private owners to perform their duties must be undertaken with caution, and must, in the beginning, be regarded as experimental. The subject will, it is to be feared, prove highly contentious and the prospects of success are doubtful.

The irrigation records prepared in Gaya contain, as do those prepared for Patna and Monghyr, although in a different form, an account of the recognized local customs which regulate the different matters on which disputes are likely to arise between the owners of different villages using the same pyne or water-channel. The share of the responsibility for its maintenance borne by each of the owners is also specified. The possibilities of dispute are so numerous that it is improbable that they have all been anticipated and provided for, but it is certain that, in dealing with those which ordinarily arise, the records will be of great assistance to the Courts. In paragraph 205, Mr. Tanner recommends the adoption, when the records are revised, of a new set of forms described in Appendix XXVI, as calculated to make the irrigation records easier to prepare, less bulky, and less liable to be misunderstood. This suggestion will no doubt be considered when the revision of the irrigation records of South Bhagalpur is taken in hand.

14. In paragraph 170 of the report Mr. Tanner has made suggestions for amending the form of rent-receipt prescribed by the Bengal Tenancy Act in order to make it more suitable for use in estates where produce-rents are paid. He proposes separate forms for (1) eash-rents, (2) produce-rents, (3) arrears of

produce rents. I agree with him in thinking that separate receipts should be given for each and produce-rents, but the necessity of having a third form for payment of arrears of produce-rents is not so obvious.

The question of the form in which receipts shall be given is, however, of minor importance compared to the necessity for taking vigorous action to compel the landlords of South Bihar to give to their tenants receipts in some form. Every settlement report published supplies fresh proof that the withholding of rent-receipts is a crying evil, which, besides being the cause of harassment to raiyats, leads to an intolerable waste of public money by compelling the Civil and Revenue Courts to devote a great part of their time to the investigation of disputes which, if receipts were regularly given, would rarely arise To put a stop to this state of affairs it is insufficient, as Mr. Tanner points out, merely to fine an offender once. An example should be made of the most notorious among them by continuing to fine them, and to fine them heavily, until they comply with the law.

15. The number of applications for settlement of fair rents, although low in comparison with the number received in Shahabad, was much higher than in Patna. Rents were settled for nearly 15,000 holdings, most of the applications being presented by the landlords of two or three of the largest estates. The smaller proprietors, believing, no doubt, that their tenants can be made to agree to pay any rents that may be demanded from them, refrained as usual, from submitting their claims to an enhanced rent to the Revenue or the Civil Courts, an example which was followed by one of the chief estates in the district. It is unlikely, however, that the tenants will in future be as amenable to persuasion as they were before the settlement proceedings, and it is not improbable, Mr. Tanner points out, that the settlement operations may be followed by the institution of a number of suits nominally brought to compel payment of arrears of existing rents, but really designed to enhance them.

Most of the enhancements allowed under section 105 were given on the ground of rise in prices. The enhancement allowable in the case of rents current for over ten years varied in the different subdivisions, from one and a quarter to five and a half annas per rupee. In many of the holdings dealt with, however, it was found that no enhancement was legally allowable, and in others compromises were entered into for less than the full enhancement, with the result that the bet enhancement given on this ground averaged only one and a quarter annas per rupee.

Before granting an enhancement of rent the Revenue Officers followed the precedent set in Shahabad, and made a special investigation of all villages in which the existing rents exceeded, on the average the value of one-fifth of the gross produce. Such villages were comparatively rare, but their examination justified the soundness of the policy followed by disclosing, in the majority of cases, independent reasons for believing the existing rents to be too high. The Special Judge, who was at first doubtful of the propriety of the test of fairness applied by the Settlement Officer, was finally led to approve of it. It is clear, that without some such criterion, settlement of fair rents under the Bengal Tenancy Act degenerates into a mechanical process of enhancement, and it is worthy of note that the critics of the principle adopted by the Settlement Officer are those who oppose the recognition of any restrictions on the enhancement of existing rents, however high. It is a pity that the raivats of Malhari, the only raivats who applied for reduction of rent, withdrew their applications. The investigation of the legal possibility of reducing cash-rents which are obviously unpayable (the rents in this village averaged Rs. 18 per bigha) would have been interesting. The net result of the fair rent proceedings was to increase the existing rent-roll by over Rs. 20,000.

There were few cases under section 106, the landlords showing their usual tendency to resort to the Civil Courts in order to set aside the record-of-rights. Out of 1,724 cases the record was corrected by the Settlement Officer in 459.

16. The Special Judge upheld 75 per cent. of the orders under section 105 accinst which appeals were instituted. The results of the appeals against

decisions under section 106 were not so satisfactory, as out of 318 appeals 116 were allowed, and 51 cases were remanded for further inquiry.

- 17. The total cost of the operations was Rs. 18,38,356, the cost rate per square mile, Rs. 388, being exactly the same as in Shahabad. Receipts amounting to Rs. 67 per square mile reduced the net cost to Rs. 15,20,246. Out of this sum the amount recoverable from private landlords and tenants was Rs. 11,64,941, in addition to Rs. 17,100, the cost of the copies of the village maps distributed to the latter. The amount actually recovered as the result of the application of the rates sanctioned by Government was Rs. 13,15,646. The computation of costs and their recovery were, as usual, carried out without trouble and at a very slight expense, the cost in Gaya being only two per cent. of the demand.
- 18. In paragraph 226 of his report Mr. Tanner has given a well-deserved commendation to the officers who worked under him, and whose assistance contributed to the success of an unusually arduous and complicated programme. The report contains a clear and interesting account of the difficulties experienced in the course of the work and the methods adopted in dealing with them, in addition to many valuable suggestions for the modification of the revenue laws and regulations. It includes, moreover, the most complete exposition of the produce-rent system yet written, a fact which alone would suffice to render it of incalculable value, not only to the district officials, but to all officers who are required in the course of their duties to investigate the problems and disputes to which that system gives rise.

I have the honour to be,

SIR,

Your most obedient Servant,

P. W. MURPHY,

Director of Land Records and Surveys,
Bihar and Orissa.

## BOARD OF REVENUE, BIHAR AND ORISSA.

No. 17-82-2.

FROM

T. W. BRIDGE, Esq., i.c.s.,
OFFG. SECRETARY TO THE BOARD OF REVENUE,
BIHAR AND ORISSA,

To

THE SECRETARY TO THE GOVERNMENT OF BIHAR AND ORISSA, REVENUE DEPARTMENT.

Dated Bankipore; the 4th December 1919.

SIR,

I am directed to forward the Final Report on the Survey and Settlement operations in the district of Gaya (1911—18) together with a copy of letter No. 2430, dated the 26th July 1919, from the Director of Land Records and Surveys, Bihar and Orissa, reviewing the same.

- 2. The Director's review of the report is clear and comprehensive and it is unnecessary to recapitulate here the summarized account which he gives of its contents.
- 8. As regards the technical side of the work, the Board has no criticism to offer except, that the experience gained in the experimental revision of the Tikari records was of the greatest value in indicating faults to be avoided in North Bihar. The discussion of the comparative costs of resurvey and revision contained in paragraph 62 cannot be pursued with profit, as the system now adopted is entirely different, and costs have little relation to area. It is probable that the gross cost of revision will seldom be less than that of original operations in the same district. The only way in which economies can be effected is by the avoidance of new building construction and the maintenance of reasonably large programmes supplying continuous employment to a more or less permanent staff.
- 4. Paragraph 36.—It is gratifying to note the improvement of the nineannas Tikari. Estate effected by management under the Court of Wards.
- 5. Paragraphs 89 to 43.—Mr. Tanner's account of resumption proceedings is interesting as showing that rights of occupancy, raiyati rights in trees and the existence of abwab in produce-rents are not mere creations of the legislature or inventions of the Sottlement Department.
- 6. Paragraph 73.—The old practice of amalgamating all the lands of a raiyat, both cash and produce-rented, in the same khatian, was dangerous, as has been shown by actual experience in Champaran, and is no longer in vogue. But the existing system of separate khatians has the defect that it gives no clue to the whole property of each raiyat. The defect is due not morely to the separation of khatians for lands held on different systems but also to the fact that holdings belonging to the same joint family are entered in different names. Great difficulties are likely to be experienced in the preparation of electoral rolls from the fact that separate khatians are prepared as above explained and no attempt is made in the settlement papers to bring together the khatians belonging to individuals or joint families. The experience gained in the first election may suggest some method whereby in future revision settlements this defect can be neutralized. A system of joint tabulation would give results, useful for general statistical purposes as well as for the special requirements of rural electorates. Experiments in this direction are understood to have been made in the North Bihar Settlement but the results have not yet been reported.

- 7. Paragraph 83.—The Board agrees with the Settlement Officer that in original operations it is impossible for an officer to supervise effectively more than eight attestation camps. In revision operations, however, one officer can supervise ten or twelve camps (assuming normal communications) if the attestation officers are at all experienced. In revision new problems are less frequent and the work consists largely of the preparation of rent and area schedules to ensure that old recorded rights have not been broken or rents illegally enhanced.
- 8. Paragraph 84.—As regards the alteration of rents by temporary lease-holders the interpretation of the law now followed by Settlement Officers with the approval of the Board is (1) that if the lessee without authority alters an existing raiyati rent, the old rent is recorded as the legal demand, the new rent being noted as payable for the period of the lease; (2) but if the lessee without authority settles a holding, the rent fixed by him is regarded as valid against the superior landlord.
- 9. Paragraph 85.—The Board accepts generally the view taken by the Settlement Officer regarding the value of rent suit decrees in determining the rent payable. The essence of the position, more especially in regard to producerents, is that the decree is for the landlord's share of the produce of one or more harvests which necessarily vary, while the Revenue Officer has before him the question either 'what is the system of rent in force', or 'what is the system of division'. The decision of the Civil Court in a rent suit is not conclusive evidence except in respect of the rent demand of a particular year, but where the system or the shares have been in issue in a rent suit the decision in regard to them must be strong evidence before a Revenue Officer who is dealing with these questions.
- 10. Paragraphs 86 and 170.—In these paragraphs which deal with the production of false papers and the withholding of rent receipts, the Settlement Officer has made a very strong indictment against the class of landlords, unfortunately large, who are guilty of habitual malpractices in respect of these two matters. The former is rendered possible by the latter. The same cause leads to every known complication and dispute that comes before the tori court and the commutation officer. It is Mr. Tanner's deliberate opinion that until a vigorous campaign under section 58 of the Bengal Tenancy Act is carried out in Gaya there will be no security for raiyats against false suits for arrears of rents. The non-grant of rent-receipts for produce-rents is practically universal in Bihar and the requirements of the law even are not generally known. The reason is that in most areas produce-rented lands are not regarded as occupancy holdings and are not even included in the village jamabandis. A vigorous campaign in the direction recommended by the Settlement Officer would undoubtedly lighten the work of all civil and revenue courts and the Board considers that it should be undertaken, if the repeated warnings already given to those concerned continue to be disregarded. It is to the interest of zamindars as a class that a higher standard of morality should be attained in this matter and that pressure should be brought to bear on the worst offenders whose misconduct casts a slur on the whole community
- 11. Paragraph 90.—The annulment of raiyati rights after proprietary partitions has been made the subject of a separate reference to Government in connexion with the Palamau operations.
- 12. Paragraph 99.—The kamiauti system in Gaya is not of the very aggravated type found in Palamu. It is prevalent to some extent, though under different names, all over Bihar.
- 13. Paragraphs 106—7.—The paucity of case work under section 105 s explained partly by the wide extension of produce rents and partly by the fact that landlords in Gaya have other and more effective methods of raising rents.
- 14. Paragraph 109.—The Board agrees with the view taken by the Settlement Officer that a Revenue Officer dealing with a landlord's application under section 105 for enhancement of rent has power to reduce the rent, if he consider this course to be equitable.

- 15. Paragraphs 110 and 190.—The recommendations which have been ma for the amendment of the Bengal Tonancy Act have already been separate submitted by the Settlement Officer through the Director and forwarded Government with the opinion of the Board in Mr. Sweeney's letter No. 19-10—1 dated the 7th March 1919. The Board supported the proposal to restrict produrents to half the gross produce as a maximum but did not accept the propose that no cash-rent should exceed one-fifth of the gross produce. The latter prince ple is excellent as a criterion of a fairness in fair rent cases but its definite precription by law is open to serious objection. The proposal of the Directoto limit the maximum for which a landlord can sue to one-fifth of the gropoduce, while it is a logical consequence of the finding of the Settlement Office as to the actual limit of realization, is of so radical a nature that the Boar does not think its embodiment in legislation is practical politics at present.
- 16. Paragraph 113.—The proposal that the three months limitation i cases under section 106 should be declared not to bar the subsequent addition of parties has already been recommended to Government by the Board.
- 17. The chief interest of Chapter VIII on statistics is the evidenc afforded by them that produce-rents are uneconomic in that they lead to les extended and less careful cultivation and consequently smaller outturns.
- 18. Paragraph 154.—The Board has already declined to support th suggestion that the transfer of raiyati holdings subject to the payment o landlords' fees should be authorized by legislation. The time is not ye ripe for the general introduction of this measure into Bihar.
- 19. In Chapter IX the Settlement Officer gives a full and interesting account of rents in the district. The chief features are (1) that 65 per cent of the raiyati area is produce-rented, and (2) that the average incidence of raiyati cash-rent, Rs. 6-1-0 per acre, is the highest in Bihar, with the exception of the Patna District.
- 20. Paragraph 170.—The Board will consult Commissioners and District Officers as to the suitability of the proposed receipts forms.
- 21. Paragraph 157.—The proposal that changes from cash to producerents should be declared illegal except when made by an order of a revenue court on the joint application of both the parties and on the court being satisfied that it is in the interest of both seems to deserve unqualified support.
- 22. Faragraph 171.—The Settlement Officer's suggestion with regard to the suppression of abwab does not go far enough. Section 63 of the Chota Nagpur Tenancy Act requires an application by the tenant against the offending landlord, while the fact is that the raiyats from whom abwah can be collected are precisely those who are too ignorant or too weak to complain. It is therefore clearly necessary, as was proposed in connexion with Champaran, that the Collector should be empowered to act either suo motu or on information obtained from a court.
- 23. The two great economic problems of Gaya, namely, produce-rent and irrigation, require serious consideration. It has been found that 65 per cent. of the raiyati area is held on produce-rents and that produce-rents are essentially uneconomic. It also appears from statistical information compiled in the settlement that 42 per cent. of the cultivated area is irrigated from private sources and it is accordingly suggested that the maintenance of irrigation, which is essential, is dependent to a certain extent on the continuance of produce-rents. The practical questions that arise are (i) to what extent commutation can and should be carried out, and (ii) what arrangements should be made for continuing and improving the existing irrigation system. Mr. Tanner has discussed both questions in a practical way.

The transfer of commutation cases from the Settlement Department has proved to be somewhat unfortunate as the disposal of these cases has been postponed for about four years and Government have been deprived for this interval of the additional light they would otherwise have thrown on the problems of produce-rents and irrigation discussed in the report. Mr. Tanner has stated with great care and elaboration his opinion on many difficult questions arising in the course of commutation work. His opinions are entitled to great weight and the information which he has collected and the arguments which he has used in support of his opinions will have to be carefully considered by the original and appellate courts which will deal with pending and future commutation cases, but as there is room for difference of opinion on certain points and as it is possible that the points of difference may come up for decision before the Board in its judicial capacity, as a revisional court, the Hon'ble Member prefers to express no opinion on them at the present stage.

- 24. Chapter XI of the report.—The valuable suggestions made by Mr. Tanner on the subject of irrigation will be considered separately when the Board addresses Government regarding the action to be taken on the Private Irrigation Bill. This Bill was held in abeyance in 1911-12 pending a consideration of the facts that would be disclosed by the settlement operations in Gaya and the time has now come to decide whether it should be circulated for fresh discussion.
- 25. The completion of the Gaya Settlement forms a landmark in the agrarian history of Bihar. It marks the close of a gigantic task which was undertaken with some misgiving in 1892 and has spread over quarter of a century. Long before the passing of the Bengal Tenancy Act in 1885 it had been recognized that justice could not be done to the Bihar peasantry unless the Revenue Settlement were supplemented by a minute investigation and careful record of their rights. The great famine 1874 brought their miserable condition forcibly before the public mind and the long inquiries which preceded the passing of the Bengal Tenancy Act impressed on Government the conviction that legislation alone would not be a sufficient safeguard against tenant oppression by landlords. The initiation of work was delayed for several years by the theory that the record-of-rights would be useless unless it were continuously maintained, but the experiment conducted b Mr. Collins in 1885 had shown the paramount importance of an initial record and eventually the force and pertinacity of Sir Anthony (now Lord) Macdonnell triumphed over all the opposition which had been displayed by landlord associations. In 1892 he summed up his conclusions in the following words, which are eproduced from the Muzaffarpur Report (paragraph 1018):

"I think it has been conclusively shown that the Act has been in no way effective in Bihar to suppress the evils at which it was aimed; that it will remain ineffective so long as the people continue in their present terribly depressed condition, or a record-of rights is not made and maintained, and that, where a record-of-rights has been made, the results have been in every way satisfactory and beneficial to all concerned. There is not now, and there has not hitherto been, any practical limitation to the power of the Bihar landlord to enhance rents, except his own sense of moderation and the capacity of the raiyats to pay. That this should be so is unfair to the general tax-payer and a negation of the moral responsibility which rests upon the Government to see justice done to people who are among the poorest and most helpless of HeD Majesty's Indian subjects."

The work of Survey and Settlement was actually started in Muzaffarpur and Champaran in the cold weather of 1891-2. During the 26 years that have since elapsed, field maps and detailed records have been prepared for all districts of Bihar, comprising 36,000 square miles, 41,000,000 plots, 7,000,000 holdings, a cash rental of Rs. 40,000,000, and a produce-rented area of 3,000,000 acres. The cost has aggregated more that  $1\frac{1}{2}$  crores of rupees of which roughly one-eighth has been paid by the State, one-half by landlords, and the remaining three-eighths by tenants. The labour and money expended in these operations have been fully justified by the results, for they have been

of incalculable benefit not only to the tenantry whose protection was their primary object but also to the landlord class who originally opposed them. That opposition, as Mr. Stevenson-Moore showed in the Muzaffarpur Report, was largely due to dread of the cost and fear of the unknown but there are no landlords, save those of the worst sort, who would willingly revert to the chaetic conditions which prevailed before their estates were surveyed and settled. The whole agrarian population has now been placed in possession of reliable and authentic title deeds, the courts no longer labour under the handicap of uncertainty as to the identity of areas, boundaries, rents and other incidents of land tenure, while all branches of the administration have been facilitated by the existence of records and statistics which though not continuously maintained are sufficient for general requirements and furnish a clear basis to work up from for any special purpose. Experience has shown that the record-of-rights does not become obsolete in a generation and the opinion is now generally accepted that if revision be accomplished within a cycle of twenty-five years, the benefits of the record will be largely preserved. The work of revision has already been completed in Champaran, it is now in progress in the adjoining district of Saran, and is about to be started in Muzaffarpur. These were the first districts to be taken up in the original operations, and according to the latest programme of the Director of Land Records and Surveys, the remainder will be completed within twenty to twenty-five years of their first survey and record. If this hope be realized Bihar will be secure in the continuous possession of agrarian records which are indispensable alike for estate management and for the protection of tenants' rights.

26. In conclusion the Board desires to commend to the very special notice of Government the services of the Settlement Officer, Mr. Tanner. The problems which he had to tackle in Gaya were not less complicated and formidable than those which confronted most of his precursors in the long roll of Bihar Settlement Officers. He brought to bear on his task conspicuous ability, industry and judgment, and the interesting report in which he has gathered together the results of his labours is one which forms a worthy conclusion to the series of Bihar Settlement Reports. The Board fully endorses the thanks which Mr. Tanner has expressed alike to the controlling officers who supervised his work, to the survey and settlement staff which carried out the operations in detail and to the local officers who gave him their active co-operation and assistance.

I have the honour to be.

SIR,

Your most obedient Servant,

T. W BRIDGE.

Secretary to the Board.



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