

Preliminary Report on the Tirora Tahsil of the Bhandara District.

PART I.

1. THE Tirora Tahsil consists of the north-eastern portion of the district.

General characteristics.

It is bordered on the north by Balaghat, on the east by Raj-Nandgaon estate, on the south it is divided from the Sakoli Tahsil by an irregular line following generally the range of low hills which divides the district from east to west. The boundary on the west is, for the greater part, the Wainganga River and its tributary the Bawanthari. The total area of the tahsil is 1,328 square miles or omitting the area under Government forest, is 1,185 square miles. It contains 603 villages; of which 261 are held on ordinary malguzari tenure, 337 are held by Zamindars on a revenue fixed at 69 per cent. of the total revenue assessed; and five are portions of land purchased outright free of revenue under the waste land rules.

2. There are three parganas in the tahsil and a portion of a fourth. Rampaili and a part of Chandpur in the north form the most fertile portion. The soil is deep and rich, and is generally embanked. Wheat, however, is grown much less than in similar soil in the Bhandara Tahsil and the staple crop is rice followed by 'urad' or 'lakhori.' The Tirora Pargana also contains some villages of excellent soil generally along the banks of Wainganga, but towards the hills on the south, the soil is generally sandy and fit for nothing but rice. There was, however, a colony of Kohlis in the south-west corner who built some fine tanks for their sugarcane gardens, but unfortunately they have by these same improvements become much indebted and many have now lost their property. The Kamphtha Pargana lies to the east, it consists mainly of zamindaris. One of these has been alienated and will now be settled upon the same terms as other malguzari estates. One special feature of these zamindaris, to which I have referred more specially in an appendix to this report, is that whereas at last Settlement twice the area in cultivation was fixed as the maximum area of forest land settled with the Malguzars and the excess excised and included in Government forest, in the zamindaris this excess area locally called the 'Fazil Jungle' was granted in proprietary right, but the Settlement was fixed for periods of three years.

3. The main crop of the tahsil is rice and a large area is irrigated from tanks and ponds. Much that is grown is of the better varieties and this is grown for export chiefly to the

Cultivation. Berars, while common rice is imported from Chattisgarh either by rail or even by road.

4. In point of communications this tahsil is singularly advantageously placed.

Communications. The Bengal-Nagpur Railway traverses it from end to end, a first class road connects Gondia, its principal market, with the Balaghat District. The Rampaili Pargana is tapped of its surplus produce by the roads leading to Tumsal and Tirora, and a fair-weather road is maintained between the Railway Station of Amgaon and the 'Great Eastern Road' which traverses the Sakoli Tahsil.

5. The main trade centre is perhaps Gondia, but much of the business done here is with Balaghat. The exports from this district are

Bazars and trade. principally the finer sorts of rice and some jungle produce such as 'harra' and 'lakh.'

There is a certain amount of trade done at other stations, but most of the export trade is from Gondia and Tumsal. There are a number of small bazars held: among these may be mentioned Tirora, Mundri, Ganglai, Murdara, Rampaili.

6. The population of the tahsil is 334,579 or 252 to the square mile as compared with a rate of 210 in the Bhandara Tahsil. I am not in a position to contrast the present population with that of last Settlement as the limits of the tahsil have been several times changed. I hope, however, to have obtained statistics by the time I send in my rent reports. It is believed, however, that the population has increased considerably and to a greater extent than in the other tahsils.

7. Below is inserted a table showing the difference in area cultivated and uncultivated at Settlement and at the present time :—

			Cropped.	In cultivation.	Occupied.	Unoccupied.	TOTAL.
			Acres.	Acres.	Acres.	Acres.	Acres.
KHALSA.							
Settlement	..	..	164,396	..	184,368	..	282,289
Last year	..	..	175,817	194,191	205,069	97,979	303,048
ZAMINDARIS.							
Settlement	..	..	177,868	..	203,957	..	472,712
Last year	..	..	220,868	242,613	253,005	202,646	455,651
TOTAL.							
Settlement	..	..	342,264	..	388,325	..	755,001
Last year	..	..	396,685	436,704	458,074	300,625	758,699

There is thus an increase of 54,421 acres in the cropped area or 16 per cent., and of 69,749 acres or 18 per cent. in the area occupied. In the Bhandara Tahsil the increase in the occupied area amounted to only 8 per cent. The increase in the total area I cannot yet explain nor variations in the khalsa and zamindari area respectively.

8. The next statement compares the occupation of land according to tenures last year and at Settlement.

		Area.	Payment.	Rate.	Increase or decrease per cent. in area.	Increase or decrease per cent. in rate.
		Acres.	Rs.	Rs. a. p.		
Malik-makbuza	Settlement	23,689	17,042	0 11 6	-9 %	+1 %
	Last year	21,524	15,618	0 11 7		
Absolute occupancy	Settlement	59,150	49,478	0 13 5	-19 %	+2 %
	Last year	47,877	41,263	0 13 9		
Occupancy	Settlement	58,309	46,372	0 12 9	+139 %	+12 %
	Last year	139,472	1,24,318	0 14 3		
Ordinary	Settlement	168,445	1,05,587	0 10 0	-4 %	+47 %
	Last year	161,229	1,48,646	0 14 9		
Occupancy-cum-ordinary.	Settlement	226,754	1,51,959	0 10 9	+33 %	+35 %
	Last year	300,701	2,72,964	0 14 6		
All tenants	Settlement	285,904	2,01,437	0 11 3	+22 %	+28 %
	Last year	348,578	3,14,227	0 14 5		

There has been the usual reduction in area held in absolute occupancy right, but the reduction is less here than in the Bhandara Tahsil as I think from all accounts the great scarcity of 1868 and 1869 probably was less felt here than in the rabi lands in Bhandara. It is, however, in the nature of things that a class of tenants to which no additions are ever made must gradually die down, and I do not think that the disappearance of the absolute occupancy tenants is a matter for

very great concern. It was a status more suited for wealthy men than for the peasants upon whom it was bestowed. The grant of this transferable right has, by enhancing their credit, made the accumulation of debt by tenants possible and gradually the land so held is passing either to bankers or money-lenders or else on purchase by the Malguzar it loses its particular right which can never be recovered. In this tahsil, however, the majority of the absolute occupancy tenants have obtained their holdings by inheritance not by purchase. The area of the home-farm of the proprietors has risen from 78,717 acres to 85,410 or by $8\frac{1}{2}$ per cent. and now comprises $18\frac{1}{2}$ per cent. of the total occupied area. These figures will give a general idea of the tahsil which is about to come under Settlement.

9. The rainfall of the Tirora Tahsil is very similar to that of the Bhandara Tahsil. The average for the district is 57.72 inches.
Rainfall.

10. As regards prices I have but little to add to the statistics I gave in the Preliminary Report for the Bhandara Tahsil. From enquiries made during my tour this year, however, I have been confirmed in the conclusions to which I arrived last year, that prices have risen at least 50 per cent. All Malguzars and cultivators agree that the small khandi of unhusked rice, equal to the three-fifths of the standard khandi, cost formerly Rs.2 whereas now the average price is between Rs.3 and Rs.3-8 and this year as much as Rs.4. This is the price of the common rice; the price of the better classes of rice being much higher.
Prices.

It is *prima facie* probable that prices here should have risen more in proportion than in the Bhandara Tahsil as at the time of last Settlement the tahsil was absolutely without means of communication with other markets except the ordinary country tracks, whereas at the present time it is the portion of the district most advantageously opened up both by the Railway and the roads to Balaghat and Tumsal.

11. A subject akin to the rise in the prices of the cultivators' crop is the question whether there has or has not been a corresponding rise in the expenses. As a preface to this enquiry I would quote a paragraph drawn from a memorial made by fifty-one Malguzars of Pauni against the enhancement of their revenue as proposed by Mr. Lawrence at last Settlement. It runs as follows:—
Expenses of cultivation.

"The materials that are unavoidably required for the agricultural purposes are now very dear; for instance one pair of common bullocks that could be bought for Rs.20 is now procurable for not less than Rs.60 and the services of day labourers that are required for transplanting paddy and many other purposes were obtainable during the former times for half an anna while the same is now hardly procured for 2 annas a day."

This statement of expenses in agriculture was made in 1866 in a formal document by people well acquainted with the subject and in a respectable position. There was, it may be, a tendency to exaggerate then the increase in expenses, but this would be done more by reducing the estimate of former times than by exaggerating the present estimate, a useless course to pursue, as the prices of bullocks and of agricultural labour are facts of general knowledge, and to make a gross and apparent error in this part of the case would have been to throw discredit upon the whole.

To what conclusion do we then come? If these statements were true the expenses of cultivation must have remained practically stationary since Settlement. An excellent pair of bullocks can be purchased now for Rs.60; none but Malguzars would ever give more than Rs.75 or Rs.80, and it is specially stated in the quotation that Rs.60 was price of *common* bullocks. Again, in the country villages the daily wage of a casual labourer is never more than 2 annas a day while in many places the Malguzar gives only Re.1 for 10 days.*

The regular pay of a servant maintained throughout the year is 10 to 12 'bhatia' 'kuros' a month, value Re.1-8 to Rs.2. Three khandis value Rs.9 at harvest and Rs.4 in cash called 'Jiuna,' a present made at Diwali. The average total pay is thus about Rs.36 or Rs.3 a month. No doubt, in addition to this, the servant gets his food on occasion and perhaps a present of cloth at the time of a marriage and so on; but even if such perquisites are added the total will not exceed Rs.4 a month or 2 annas a day.

*Note.—In the Kamptha Pargana I find a woman works 16 days, a man 12 days, for a rupee and one meal of rice in the middle of the day.

While I cannot admit a general rise in the price of bullocks, I am not unwilling to grant that the mortality among bullocks from disease may perhaps be greater now than formerly; but of this, though it is a general opinion, I cannot obtain statistics. It is my firm opinion that some pastures now are hopelessly infected, and that to stamp out the disease these pastures should be closed to cattle as I understand is done in England when foot and mouth disease breaks out. Increase of cultivation has circumscribed the grazing area and the cultivators will not take the slightest precautions for segregating the infected cattle. They are confined in the same stalls and watered from the same troughs as those not yet infected and the result is that when any disease breaks out the mortality is fearful. People calculate the life of a pair of bullocks engaged in rice cultivation as not more than six to eight years: though bullocks treated with care and liberally fed may last 18 to 20.

12. I have below drawn up an account of the receipts and expenditure of a substantial tenant with two yoke of bullocks and 20 acres of land partly irrigated, partly unirrigated and partly growing wheat.

His income from each sort of land would be approximately as follows:—

	Area.	Seed.	Crop.	Price.	
Morand II, Murkhand ..	5 acres.	1½ khandis rice ..	28 Kh.	Rs. at 5	Rs. 140
		½ „ „lakhori”	2½ „	„ 10	25
Sehar Warsalang ..	5 „	1½ „ rice ..	23 „	„ 5	115
Sehar Warthemia Saman ..	4 „	2 „ „ ..	16 „	„ 5	80
Morand I, Sadharan ..	6 „	1½ „ wheat ..	6 „	„ 10	60
Straw and bhusa ..	..	..	..	..	15
				TOTAL ..	435

The price of rice I have kept at the usual rate though a part of the irrigated crop would probably be ‘*chinur*’ or some similar kind of rice which fetches a much higher price.

The outturn of wheat I have put at the low estimate of fivefold as of late it has been a very precarious crop here.

The expenses will be:—

	Rs.	a.	p.
Seed rice 5 khandis ..	25	0	0
Wheat, 1½ do. ..	12	0	0
Lakhori, ½ do. ..	5	0	0
Transplanting rice at Rs.8 a khandi ..	40	0	0
Cutting crop ..	10	0	0
Wages of a servant (see above) ..	40	0	0
Purchase of wood, &c. ..	Rs. 5 to 6	0	0
Iron for two ploughs ..	2	8	0
Ropes (hemp and leather) ..	2	8	0
Repair of embankments, manuring, &c. ..	4	0	0
Food of four bullocks ..	16	0	0
Customary dues—Patwari 1 kuro ..	0	8	0
Lohar, 2 kuros per plough ..	2	0	0
Carpenter ..	2	0	0
Kotwal, 1 kuro and khallabhara ..	1	0	0
Nai, 2 kuros per head ..	2	0	0
Dhobi, khallabhara ..	0	6	0
Garpagari ..	0	6	0
Pujari ..	0	6	0
Rent ..	34	0	0
TOTAL ..	205	10	0

If the seed was borrowed there would be Rs.9 sawai to pay also. Thus the yearly charges on this land would be about Rs.215. For the yearly depreciation of his bullocks Rs.20 more should be added.

The balance left to the cultivator thus works out to about Rs.200 or Rs.16-8 a month.

This calculation has been made on the supposition that the cultivator has no grown up son and has therefore to employ a servant and thus the amount of profit would not be insufficient for his maintenance. In this connection as regards the cost of living in respectability I will adduce an example:—Two Mahomedan Malguzars the other day when asking me to get their estate under the Court of Wards stated that as a personal allowance they would only ask for Rs.25 to Rs.30 a month notwithstanding their large families. If the Malguzars of an estate of 8 villages can keep up appearances on this sum a tenant would be fairly well off on Rs.16-8 a month. Out of this sum he would have of course to pay his subscription to village expenses and these sometimes fall rather heavy; especially the worship of the Nagri or plough every third year and to save for the marriage of his children. Rents here are so ridiculously low as compared with the out-turn of the crop and the other expenses of cultivation that a calculation of this sort does not help much towards the elucidation of a fair rent: but there is no doubt that one-tenth of the produce could easily be paid and a rent of Rs.43 or Rs.45 be fixed instead of Rs.34 which is the deduced rent of the land in question according to factors accepted for the Bhandara Tahsil with a rate of .70, the average rate hitherto applied.

13. It is a matter which requires some explanation that the expenses connected with ceremonies of marriage and the like should have risen so much in proportion to the rise in the general standard of comfort. I have had many conversations with elderly native gentlemen on this subject, and I think it may be traced to two facts—firstly to the extension of credit effected by the grant of rights at last Settlement, and secondly to the sudden rise of prices which followed the Settlement. There was a continual rise of prices through the seventies just when the extension of credit began to take effect and the money-lenders saw the advantage of investments upon landed security. It was then that each man vied with his neighbour as to his expenditure on such occasions as marriage, and by his expenditure; by his amount of debt even, his position in the village society was assured.

But these good times could not go on; from 1881 to 1885 prices fell considerably and though a rise was again experienced in 1886 this was the result of what is known in the district as the “Lesser Dearth” to distinguish it from that of 1868-1869. Prices have never fallen much since that time, but debts had been accumulating and customs had formed from which now there is no escaping. A Malguzar's son will spend at least Rs.500 on a wedding; a well-to-do tenant Rs.150 to Rs.200 and even a labourer Rs.40 or Rs.50, more than a year's salary. A Patwari in the district whose pay is about Rs.12 a month, recently borrowed over Rs.200 for his marriage. I learn also that the ‘present’ paid to the father of a bride by the bridegroom is increasing and amounts now to a considerable sum. The census returns show an excess of only 4,000 females over males in the tahsil and in the country of many doubly-married men, this state of affairs would show that the supply of the other sex is hardly equal to the demand. A Malguzar seriously put before me the fact that in his village the number of enforced bachelors was upon the increase.

Besides this incubus of marriage expenses there is yet another cause even more disastrous of the indebtedness of the cultivator and more Malguzars and tenants have been ruined by their love of litigation than by all other causes put together. I am daily besieged by aged litigants with often hardly a cloth to cover them but with the inevitable ‘daftar’ or bundle of papers, copies, etc., each of which has been talked over so often that the owner, though illiterate, can often himself recognise and point out each document. I came across a case the other day, where each side admitted an expenditure of Rs.500 over a field worth Rs.15 and then they obtained a decree which satisfied neither. This curse of litigation is another offspring of the grant of a right of transfer of landed property for which the people were not fit.

14. The factors which were fixed for the Bhandara Tahsil were chosen to a great extent by a Committee of Malguzars, though some variations were made by me and, subsequently, by the Commissioner of Settlements. But at the same time exception was taken to the fact that these factors were not based upon statistics, but upon opinion merely.

I have now collected the holdings of four groups of the Bhandara Tahsil, which consist of one class of soil and I append a list comparing the acreage rate of these holdings with the deduced rent with an average rate of .70 and also shewing the factors obtained by bringing these acreage rates to a common denominator.

		Factors.	Standard Rate.	Deduced Rent in Rs.	Actual Rent.	No. of Holdings.	Deduced Factors.
Kanhar—	Sadharan ..	36	.70	1.57	1.54	14	41
	Bandhia ..	45		1.97	1.77	82	47
	Warthemia Saman ..	34		1.49	1.70	14	45
	Morand I—Sadharan ..	32		1.40	1.20	85	32
Morand I—	Bandhia ..	40		1.74	1.40	40	37
	Pathar ..	24		1.05	1.08	9	28
	Warthemia Saman ..	34		1.49	1.55	7	41
	Warsalang ..	50		2.19	2.07	7	55
	Do. Khari ..	67		2.93	4.00	1	166
	Murkhand ..	60		2.62	2.37	6	63
	Do. Khari ..	80		3.50	3.45	1	92
	Mutfarrikat ..	20		.87	.77	6	20
	Bari Kachar Walit ..	64		2.80	4.54	2	121
	Morand II—Sadharan ..	24		1.05	1.00	62	26
Morand II—	Bandhia ..	30		1.31	1.10	4	29
	Pathar ..	18		.79	.73	22	19
	Wahuri ..	14		.61	.33	1	9
	Warthemia Saman ..	28		1.22	1.44	40	38
	Do. Khari ..	37		1.62	2.83	17	75
	Do. Jhilan ..	35		1.53	2.10	2	56
	Do. Khari ..	47		2.05	2.41	2	64
	Warsalang ..	44		1.92	2.00	26	53
	Do. Khari ..	59		2.58	2.15	1	57
	Murkhand ..	52		2.27	2.10	25	56
	Do. Khari ..	69		3.02	2.40	2	64
	Mutfarrikat ..	14		.61	.61	37	16
	Do. Khari ..	19		.83	1.08	1	29
	Bari Kachar Warpani ..	24		1.05	1.21	2	32
	Do. Abadi Warpani ..	42		1.84	5.07	1	135
	Warthemia Tikra ..	12		.53	1.35	1	33
	Do. Saman ..	22		.90	1.62	64	27
	Do. Khari ..	33		1.44	1.56	3	41
	Do. Jhilan ..	27		1.18	3.00	3	80
	Warsalang ..	33		1.44	1.45	68	38
Sihar—	Do. Khari ..	50		2.19	2.00	5	53
	Murkhand ..	44		1.92	1.70	15	45
	Do. Khari ..	66		2.89	6.99	2	186
	Mutfarrikat ..	8	.70	.35	.60	18	16
	Bari Santha Motsthal ..	54		2.37	.71	2	19
	Do. Kachar Warpani ..	24		1.05	2.08	1	55
	Do. Abadi Warpani ..	42		1.84	4.02	1	107
	Sadharan ..	14		.61	1.00	3	26
	Pathar ..	12		.63	1.00	2	26
	Warthemia Jhilan ..	15		.66	.46	1	12
Khardi—	Warsalang ..	20		.88	1.75	3	46
	Murkhand ..	30		..	..	..	..
	Do. Khari ..	45		1.96	7.15	1	190
	Mutfarrikat ..	8		.35	.50	42	13
	Warsalang ..	20		.87	1.88	3	50
	Do. Khari ..	30		1.31	6.93	1	185
Bardi—	Murkhand ..	30		1.31	.68	1	18
	Mutfarrikat ..	3		.13	.22	1	6
	Do. ..	3		.13	.14	2	3
Retari—	Do. ..	20		.87	.73	4	19
Marhani—	Bari Santha Motsthal ..	64		2.80	1.56	2	42
	Do. Abadi Warpani ..	56		2.44	.30	1	8
	Do. Kachar Warpani ..	32		1.40	1.81	2	48
	Do. Kachar Walit ..	64		2.80	4.74	1	126
Kachar—	Bari Kachar Walit ..	72		3.15	10.98	3	293
	Mutfarrikat ..	20		.87	2.61	1	69

I have not of course been able to separate rents for every sort of land, and for some of the more uncommon classes which I have found separately held the number of instances obtained is not sufficient for any conclusions to be drawn. I proceed, however, to comment on the figures as they stand.

Kanhar Sadharan.—The number of holdings found was small, and though the rent points to a greater difference between this soil and morand I than the adopted factors bring out, I would not, however, on this account recommend a change especially as the kanhar in the Tirora Tahsil is perhaps slightly inferior to much found in Bhandara.

Kanhar Bandhia.—Approximates closely to the factor, and this confirms me in my opinion that the sadharan factor should be left unchanged.

Kanhar Warthemia Saman.—At the time of writing the report of the Bhandara Tahsil I had not met with kanhar land used for rice alone, and I therefore proposed the same rate as for *morand I*, *warthemia saman*. I have now found a great deal of land in the Rampaili Pargana of the Tirora Tahsil and some along the Wainganga in the Bhandara Tahsil where the land is exactly similar to the embanked wheat land of Pauni Chauras, but where for some reason or other rice followed by 'urad' or 'lakhori' is the regular crop and wheat is never grown. I am of opinion, and the figures bear me out in this, that the factors for kanhar bandhia and kanhar warthemia saman should be the same. I therefore propose the following factors for kanhar rice land:—

Warthemia Tikra.	Warthemia Saman.	Warthemia Jhilan.	Warsalang.	Murkhand.
27	45	50	55	65

The warthemia tikra factor I have put the same as the same position in wheat land. The position is probably never found in this class of soil.

The irrigated factors I have not raised much above the factors for irrigated *morand I*, as the difference between the productivity of these soils, when both are irrigated, is admittedly not great.

Morand I, Sadharan.—This has been taken as the standard 32 as before, and the other soils brought in relation to it.

Morand I, Bandhia.—The factor works out rather lower than the factor formerly approved, but the difference is not sufficiently great to warrant the reduction of the factor.

Morand I, Pathar.—Similarly I would not recommend the alteration of this factor.

Morand I, Warthemia Saman.—As in the case of kanhar in the same position I was led, by my ignorance of the district, to generalise from insufficient data and the factor I proposed was intended to apply to the small bandhis found here and there and not to the larger 'gathas' approximating more to kanhar in value, but containing a certain number of limestone nodules. So far in the Bhandara Tahsil these were uncommon or rather they were nearly always cropped with wheat in alternate years and so were classed as embanked wheat land.

In this tahsil, cropping with wheat is the exception and I therefore propose to raise the factor to 40 to agree with the factor now deduced and to be equal to the factor approved for embanked land. The factors for irrigated and inferior land as deduced agree sufficiently with the approved factors and I propose no change.

Morand II.—The factors for sadharan, bandhia, pathar and mutfarrikat agree sufficiently closely with the approved factors.

For *Morand II, Wahuri*, I only found one holding: this shows that such land lets at a very low rate, but upon the basis of one holding alone I cannot propose any change.

Morand II, Warthemia Saman.—The figures I was able to obtain for this soil were found in villages where the general rent-rate was rather high, and I do not recommend so great a change in the present factor as the figures would support.

It might, however, be advisable on the analogy of the kanhar and *morand I*, to raise the factor so as to make it equal to that for *morand II*, bandhia. This is borne out by the figures, and I am more inclined to recommend it as in the present year, with the approval of the Commissioner of Settlements, from the class *morand II* has been excluded some of the worse soils which were, by reason of the partial admixture of clay, so classed last year.

The difference in the classification is not by any means great; it practically amounts to this, that in a case of doubt whether the land should be classed as sihar or *morand II*, last year it would have been classed as *morand II* and this year as sihar.

The factors now deduced for the 'jhilan' and warsalang positions are abnormal as the jhilan figure is higher than the warsalang and the warsalang higher than that which is deduced for murkhand.

The factors for morand II rice-land which I would recommend for Tirora are:—

Warthemia Tikra.	Warthemia Saman.	Warthemia Jhilan.	Warsalang.	Murkhand.
15	30	36	48	54

Sihar.—In this soil practically no wheat is grown; but I have met with it sometimes and so the factors for khardi wheat-land have been entered.

Sihar Mutfarrikat.—The factor deduced from 18 holdings amounts to 16 and I think the approved factor 8 might be raised to 12. The crops generally grown in this kind of soil are juari and 'kultha,' especially the latter; while occasionally, if the owner has extra manure to spare, chillies will be planted out in it. The soil itself is uncommon and is generally found on the banks of small streams where the soil is too poor to class as marhani but too good for retari.

The factors which work out for sihar rice-land are rather higher than the approved factors with the exception of the factor for 'murkhand,' and this exception may be explained by the fact that the best irrigation is generally obtained by tenants of long standing upon whom there has been less enhancement. Considering the raising of the morand II rice-land factors, I think the following might be chosen for sihar:—

Warthemia Tikra.	Warthemia Saman.	Warthemia Jhilan.	Warsalang.	Murkhand.
12	24	30	36	48

The general tendency of these changes is to raise the comparative value of rice fields over wheat. This is in accordance with the deductions to be made from the figures, and it is also clear from the proportion of the crops that rice is the favourite in this tahsil.

Khardi.—The number of holdings in this soil which I have been able to separate are few and are not sufficient, in my opinion, to warrant any change. The factor for mutfarrikat land might, however, be raised a little to say 10.

Bardi and Retari and Marhani and Kachar.—Here again the number of holdings does not warrant an alteration. Myself, I think the present factors generally suitable with one exception. Marhani, when it grows garden crops is an excellent soil and quite equal to morand I, as stated last year, but when devoted to the growth of 'kultha' 'or juari' and classed as mutfarrikat it is not equal to morand I mutfarrikat in which 'lakhori' and linseed can be grown. I propose, therefore, to reduce the figure of marhani mutfarrikat from 20 to 16 and I propose to adopt for rice the factors for morand II.

I have so far omitted mention of the 'khari' position and of garden land. It is excessively difficult to obtain statistics for such land. My figures for khari have thus been largely drawn from large towns like Tumsal where land is much in demand and the rent excessive. I have thought it best to enter the figures which I could obtain; but too much weight must not be put upon them. They can at any rate be taken as evidence that the factors at present approved are not too high. The garden land figures also are few and often work out into absurdities. The rent of such lands as these are always governed by many outside circumstances. The kachar land gardens, of which instances are given, are close to Bhandara, and the rent is therefore extra high. The caste of tenant also makes a good deal of difference and a 'Mali' or 'Maral' will always pay at a higher rent than a Kunbi or Powar.

I have, however, come lately upon some sugarcane gardens for which a differential rate is paid according as the land is used for sugarcane or for other crops. This is taken as a payment for the water as no tenants unconnected with the proprietary body can take water from the tank for sugarcane without payment.

There are two customary rates: in Mauza Koka the land pays 14 annas extra for every 2 annas paid in the ordinary years when sugarcane is not planted. In Mauzas Jambhora, Kesalwara, Elkajhari, and other villages of the neighbourhood where the tanks are not as good as in Mauza Koka, the charge is Rs.2 an acre in addition to the rent.

The proprietors, in speaking of the tenants' right to take water for sugarcane gardens, use a peculiar term 'bari pakarna' which seems to imply that any tenant has a right to plant a sugarcane garden on payment of this extra rent for the water.

In Koka the rent of the tenants' gardens is Rs.3 for 6.90 acres when sugarcane is not grown, and Rs.27 for the same area when under sugar. The extra rent in the sugarcane (*i.e.*, one year in three) must, I think, be out of proportion to the real profits, and I think the reason of this may be disinclination of the Malguzar to have the heavy rents paid for sugarcane garden entered in his fixed rent-roll. He prefers to have a low rent fixed under the idea that his revenue will be decided upon that, while he makes a larger income under the name of water dues.

The custom in the other villages mentioned will give the average rent for sugarcane land at about Rs.3-8 to Rs.4 an acre and as the alternate crop here is irrigated rice the factor for sugar will be $\frac{1}{4} \times \frac{36}{1} = 84$ in sihar land and $\frac{4}{2} \times \frac{48}{2} = 96$ in morand duyam. These figures would warrant the increase of the factors for sugarcane irrigated from a tank to 50 per cent. above the factors for ordinary irrigated garden land, but the area is small and I am not sure if any change is necessary.

Actually, however, in the assessment of the sugarcane land in these villages, I propose to assess the land as irrigated rice-land, and to take the average price of water in the Siwai income.

I had hoped in the present year to obtain some reliable facts as to the comparative values of soils from crop experiments, but, after collating them, I find the results so abnormal that they are practically useless as a guide. The year was so unpropitious that many fields usually irrigated received no water at all and the difference between the *saman* and *jhilan* positions was accentuated. In both sihar and bardi, the *jhilan* crop appears to have been double or more than double that in *saman* land, but this would not be the case always in sihar. My experiments in morand duyam land shew that the crop in *tikra* land was nearly half that in *saman* land. The difference of the crop in sihar and morand duyam was also considerable as the latter is retentive of more moisture.

These results, however, though confirming the factors chosen in some measure are not such as to command any confidence and I have therefore not tabulated them here.

To the report is attached a table of factors shewing (i) the factors now proposed; (ii) the factors sanctioned in the Bhandara Tahsil.

PART II.

1. The rise in the rent-rate during Settlement in this tahsil is very similar to that in the Bhandara Tahsil, according to the revised figures sent in my letter No. 667, dated 1st October, 1895. They are compared below:—

Forecast of probable enhancement.

			Bhandara.	Tirora.
Malik-makbuza	..	..	— 3 %	+ 1 %
Absolute occupancy	..	..	+ 8 %	+ 3 %
Occupancy	..	..	+ 4 %	+12 %
Ordinary	..	..	+13 %	+47 %

The present rent-rates per acre are also compared below :—

			Bhandara.	Tirora.
			Rs. a. p.	Rs. a. p.
Malik-makbuza	..	..	0 12 8	0 11 7
Absolute occupancy	..	..	0 14 1	0 13 9
Occupancy	..	..	0 13 7	0 14 3
Ordinary	..	..	0 14 8	0 14 9

Speaking generally I should say that the soils of the two tahsils are very much alike; to Pauni Chauras the Rampaili Pargana corresponds in fertility. The

Bhandara Pargana and the lower part of the Ambagarh Pargana are very similar to the Tirora Pargana and the western part of the Kamphtha Pargana. The poor lands of the north of the Bhandara Tahsil again have their parallel in the zamindaris of Salekassa and Darrekassa and in the villages lying on the slopes of the hills which bound the tahsil on the south.

If this tahsil is rather poorer on the whole in soils it is, on the other hand, more advantageously situated as regards communications.

Prices, I have pointed out above, have probably risen rather more than in Bhandara as the former level was lower. This higher rise will be in some measure counterbalanced by the wages of labour still paid in grain.

Thus it appears to me that there are *prima facie* reasons for anticipating a similar percentage of enhancement in both tahsils. Unfortunately at the time when the statistics of the Bhandara Tahsil were presented for orders, they were not quite correct, else the forecast would possibly have been higher than was then assumed; and I think, therefore, that in this tahsil a slightly higher percentage of enhancement may be expected than was accepted there.

2. The logical enhancement of 50 per cent. upon last Settlement rates are shown in the table below as well as the percentage of enhancement which I hope to get in the tahsil :—

Enhancement of rents.				Logical Enhancement.	Proposed Enhancement.
Absolute occupancy	..	..	..	+48%	28%
Occupancy	..	..	..	+34%	25%
Ordinary	..	..	..	+ 2%	5%

It must be remembered that far more trouble was taken in the enhancement of the rents of protected tenants by Mr. Lawrence who left ordinary rents to right themselves.

As Baden Powell brings out in his work on the "Land Revenue Systems of India," there is a period when hereditary cultivators pay the highest rents, namely, when cultivators are few; the new cultivators have to be coaxed by low rents to stay whereas the older cultivators will pay much higher rents rather than leave the land their fathers cultivated. This period gradually disappears as the conditions of the competition change, as landlords cease from competing for tenants and tenants begin to compete with one another for land.

This is no doubt one reason for the higher rents of the protected tenants at last Settlement, but it is also true that in many cases they have the best land in their possession.

The increase I have proposed for absolute occupancy tenants may seem rather inadequate; but I do not advocate a larger enhancement for the reasons I have stated.

Taking these figures the revised tenants' payments will be approximately as follows :—

							Rs.
Absolute occupancy	..	..	..	..	..	..	52,800
Occupancy	..	..	..	..	..	..	1,55,400
Ordinary	..	..	..	..	..	..	1,57,000
TOTAL							3,65,200

Several of the Malik-makbuzas are old Malguzars turned out at last Settlement to make room for the Zamindars, and they deserve a liberal treatment. A 25 per cent. enhancement would raise their revenue to Rs.19,500. The enhancement proposed by me upon Malik-makbuzas in the Rent-rate reports for Bhandara is generally higher than that here proposed; but the circumstances are there different. In that tahsil the majority of the Malik-makbuzas are non-resident Brahmans, who often draw from their sub-tenants a sum amounting to many times the Government revenue. Here the Malik-makbuzas more generally belong to the cultivating classes and the rents will work out relatively higher as the Bhandara Malik-makbuzas are principally found in the fertile Chauras plain.

3. In dealing however with the forecast of revenue enhancement in this tahsil it will be necessary to treat separately the khalsa and the zamindari estates, and for this purpose I have had the figures separately abstracted.

Revenue enhancement.

They are shown in the following tables :—

Khalsa.

	Settlement amount.	Rent-rate.	Present amount.	Rent-rate.	Increase or decrease.	Proposed amount.	Rent-rate.	Increase or decrease.
	Rs.	Rs. a. p.	Rs.	Rs. a. p.		Rs.	Rs. a. p.	
Malik-makbuza ..	11,611	0 12 8	10,950	0 12 10	+1%	13,700	1 0 0	+25%
Absolute occupancy ..	23,718	0 14 2	22,216	0 14 7	+3%	28,500	1 2 9	+28%
Occupancy ..	26,471	0 13 6	61,325	0 14 10	+10%	76,600	1 2 7	+25%
Ordinary ..	48,490	0 10 9	59,771	1 0 6	+53%	61,000	1 0 10	+2%
TOTAL. ..	1,00,679	0 12 2	1,43,312	0 15 5	+27%	1,66,100	1 1 11	+16%

Zamindars.

	Rs.	Rs. a. p.		Rs. a. p.			Rs. a. p.	
Malik-makbuza ..	5,430	0 9 7	4,668	0 9 6	-1%	5,800	0 11 10	+24%
Absolute occupancy ..	23,761	0 12 7	19,047	0 12 11	+3%	24,300	1 0 6	+28%
Occupancy ..	19,900	0 11 10	62,993	0 13 9	+16%	78,800	1 1 2	+25%
Ordinary ..	57,097	0 9 6	88,875	0 13 9	+45%	96,000	0 14 11	+8%
TOTAL ..	1,00,758	0 10 6	1,70,915	0 13 8	+30%	1,99,100	0 15 11	+16%

Although there has been a trifle more enhancement in occupancy rents in the zamindari area than in the khalsa, I have budgetted for an equal increase; now as the proposed enhancement being considerably below what might be taken it should be considered rather as the enhancement that can be taken without bearing too heavily upon the cultivators than as the full-st enhancement justified by circumstances. In ordinary rents I have calculated a greater enhancement in the zamindari area as more land will probably be found there without rent.

4. The anticipated total assets of the tahsil are shown in the accompanying tables.

Khalsa.

	From tenants.	From Sir, &c.	From Siwai.	Total Malik-guzari.	From Malik-makbuza.	Grand Total.	REMARKS.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Settlement ..	1,00,679	25,401	21,217	1,47,297	11,611	1,59,908	
	..	28,266 (a)	..	1,50,162	..	1,61,773	(a) At all-round rate.
Present ..	1,43,312	41,410	25,000	2,09,722	10,950	2,20,672	
Proposed ..	1,66,100	52,600 (b)	24,000	2,44,100	13,700	2,57,800	(b) Ditto.
		54,000 (c)					(c) Estimated increase on sir valuation when factors are applied.

Zamindari.

Settlement ..	1,00,758	24,805	33,422	1,58,985	5,430	1,64,415	
	..	27,264 (a)	..	1,61,444	..	1,66,874	(a) At all-round rate.
Present ..	1,70,915	38,431	35,000	2,44,346	4,668	2,49,014	
Proposed ..	1,99,100	43,100 (b)	34,000	2,78,100	5,800	2,83,900	(b) Ditto.
		45,000 (c)					(c) Estimated value when factors are applied.

5. The revenue in the khalsa was Rs.97,818 or 61 per cent. of the total assets as assumed and 60 per cent. of the assets with the sir valuation made at the all-round tenants' rent-rate. The revenue at present is Rs.97,532, the reduction being due mainly to the area taken up by the Bengal-Nagpur Railway. If a similar percentage of the total assets were now taken the revenue in the khalsa would be Rs.1,54,680, of which Rs.12,330 would be revenue of Malik-makbuzas allowing a 10 per cent. drawback for collection and Rs.1,42,350 revenue on the true malguzari assets at the reasonable figure of 55 per cent. This amount may therefore be taken as approximately the probable revenue. The enhancement is 58 per cent., a considerable one no doubt; but nearly half of it is met by proposed increase in rents. The Malguzars have at the same time been enjoying since the opening of the Railway extravagant profits as the present revenue only absorbs about 44 per cent. of the income.

6. The kamil-jama of the zamindari villages was assessed at Rs.89,432 with Rs.2,913 for the Fazil jungle area, in all Rs.92,345, being 56 per cent. of the total assumed assets or 55 per cent. of the assets with the sir valued at the all-round rate.

But of this amount only Rs.61,350 was taken as the revenue of the villages with Rs.2,150 for the excess jungle, the latter amount being fixed for a term of three years only.

The total makta revenue was thus calculated at 69 per cent. of the kamil-jama or 39 per cent. of the total assumed assets.

The revenue of the villages has since declined to Rs.60,117, owing to the excision of the Railway area and the forest revenue has risen in consequence of triennial re-assessments to Rs.4,265.

The percentages taken at last Settlement were quite sufficiently lenient, and there can be no ground for complaint if an equal share of the profits is again taken.

Zamindari.	Percentage of Kamil jama taken as takoli.	Amount. Rs.
Kamptha ..	65	33,500
Warad ..	86	12,300
Amgaon ..	68	8,500
Bijli ..	51	3,050
Palkhera ..	81	2,750
Nansari ..	49	900
Malpuri ..	53	500
Purada ..	44	650
Dongarli ..	70	350

The kamil-jama of the zamindari area will thus work out to Rs.1,59,000 and the makta-jama of the whole would be Rs.1,10,700 at the same rate. There is, however, one estate of Saoli Dongargaon which has been transferred by the zamindari family. The purchaser has no claim to be treated otherwise than as a Malguzar, and his estate will, therefore, be assessed at the full kamil-jama. I have not the total income of his estate separately abstracted, and I cannot therefore make a very close approximation. But with this addition the total revenue of this portion of the tahsil I estimate at Rs.1,12,000. As the statistics for each zamindari have not been taken out separately, a margin for error in the estimate should be left, as the percentage taken of the kamil-jama was different in the different estates. I, however, propose that, for the purpose of assessment as a general rule, the same percentage of the kamil-jama should be taken now as was taken at last Settlement.

I have been endeavouring to discover what principle was followed in fixing the share to be taken in each case, but up to the present time without success. I have discovered assessment reports of Mr. Lawrence; but the amount sanctioned as revenue in nearly every estate was considerably below the amount of revenue proposed by him, and I have not been able in this office to find any letter conveying orders upon the Settlement Officer's reports.

Of the total proposed enhancement of Rs.47,618, Rs.29,317 will be met by enhancement in rents.

7. The total revenue thus proposed for the tahsil is Rs.2,66,680 falling at a percentage of 49 upon the total assets and giving an increase of Rs.1,05,735.

A. B. NAPIER,
Settlement Officer.

BHANDARA: }
The 30th April, 1896. }

Statement showing the Scale of Factors proposed by the Settlement Officer for the Tirora Tahsil of the Bhandara District.

	GOHARI.				DHANARI.					GARDEN LAND.				REMARKS.		
	Wahuri.	Pathar.	Sadha- ran.	Lawan.	Bandhia.	Wardemia Tikra.	Wardemia. Saman.	Wardemia Jhila.	Warsalang.	Murkhand.	IRRIGABLE INCLUD- ING CANE LAND.					
											BARAM.		KHARI.			
											Ordinary.	Khari.	Ordinary.		Khari.	
Proposed	20	30	40	50	50	..	..	..	..	..	..	..	..	..	Inferior.	
Present	20	30	40	50	50	..	..	..	..	..	..	..	64	64		20
Proposed	20	30	40	50	..	..	..	..	..	..	..	..	..	..	20	
Present	20	30	40	50	..	..	..	..	..	..	..	..	..	..	..	..
Proposed	18	27	36	45	45	27	45	60	55	65	..	..	..	..	..	..
Present	18	27	36	45	45	18	34	42	50	60	..	..	..	..	..	..
Proposed	16	24	32	40	40	18	34	42	50	60	..	..	..	..	..	..
Present	16	24	32	40	40	15	30	36	48	54	64	72	32	56	16	..
Proposed	16	24	32	40	40	18	34	42	50	60	..	..	..	..	20	..
Present	15	23	30	37	37	..	..	..	..	..	..	..	..	..	20	..
Proposed	15	23	30	37	..	..	..	..	..	..	..	..	..	..	18	..
Present	14	18	24	30	30	15	30	36	48	54	54	60	24	42	14	..
Proposed	14	18	24	30	30	15	28	35	44	52	54	60	24	42	14	..
Present	10	12	14	18	18	12	24	30	36	48	..	..	..	..	12	..
Proposed	10	12	14	18	18	12	22	27	33	44	..	..	..	..	8	..
Present	10	12	14	18	18	8	6	15	20	30	28	36	20	24	10	..
Proposed	10	12	14	18	18	3	6	15	20	30	..	..	..	..	8	..
Present	..	..	..	..	..	3	6	15	20	30	..	..	..	..	3	..
Proposed	..	..	..	..	..	3	6	15	20	30	..	..	..	..	3	..
Present	..	..	..	..	..	3	6	15	20	30	..	..	..	..	3	..
Proposed	..	..	..	..	..	3	6	15	20	30	..	..	..	..	3	..
Present	..	..	..	..	..	3	6	15	20	30	..	..	..	..	3	..

A. B. NAPIER,
Settlement Officer.

APPENDIX.

THE FAZIL JUNGLE OF THE TIRORA TAHSIL.

At the last Settlement considerable areas of forest were excised from the area over which proprietary rights were granted to Malguzars. The general rule was to allow to such villages not more than twice as much forest and waste land as there was cultivated land in the village. The remaining forest was excised often without much care for the convenience either of the people or of the Forest Department in after years. Of this excess jungle thus excised the area situated within the limits of the zamindaris was not included in Government Forest, but was returned to the Zamindars and to the Taluqdar of Chakaheti, who was practically a Zamindar in every thing but name.

Sometimes these Fazil jungle portions formed parts of villages and sometimes they formed whole villages.

The appended statement gives the names of the villages in which Fazil jungle is found. It shows the area of Duchand (*i.e.*, malguzari), if any, and shows the amount of land now occupied by Malguzars or tenants within the Duchand and Fazil areas separately.

The total area of Fazil jungle in the tahsil is 1,18,377 acres, and about a tenth of this area is under cultivation. The rest consists of in many places valuable forest comprising teak, bijasal, saj and bamboos in addition to the less valuable sorts of timber.

List of Duchand and Fazil Jungle villages in the Tirora Tahsil.

TALUKA.	Name of village.	DUCHAND.			FAZIL.		
		Total.	Occupied area.	Unoccupied area.	Total.	Occupied area.	Unoccupied area.
1. Kampta	Mendipur	1,487-71	900-82	586-89	1,656-14	20-27	1,635-87
	Bagarban	403-43	142-58	260-85	2,125-13	...	2,125-13
	Hirapur	2,625-37	1,065-58	1,559-79	811-23	...	811-23
	Sejgaon	749-71	351-22	398-49	258-61	15-84	242-80
	Pangdi	...	...	...	2,124-13	143-60	1,980-83
	Girola	...	...	...	1,768-09	...	1,768-09
		5,266-22	2,460-20	2,806-02	8,743-66	179-71	8,563-95
2. Warad	Jartarpardi	220-62	110-85	109-77	331-60	23-53	308-07
	Nawegaon	1,800-59	1,290-66	509-93	632-50	278-49	354-01
	Kidangipur	858-13	328-73	529-40	543-83	165-92	377-91
	Dhamle-wada	1,397-16	846-39	550-77	509-96	...	509-96
	Nimgaon	657-35	268-77	388-58	479-02	...	479-02
		4,933-85	2,845-40	2,088-45	2,496-91	467-94	2,028-97
3. Gangejhari Shikmi,	Kharra	364-61	149-90	214-71	2,494-04	178-68	2,315-36
	Sangrampur	...	...	...	1,691-85	30-99	660-86
	Gangejhari	1,090-46	478-05	612-41	2,287-60	...	2,287-60
	Junewani	...	...	...	1,470-65	...	1,470-65
	Majidpur	482-75	168-41	314-34	922-10	109-97	812-13
		1,937-82	796-36	1,141-46	7,866-24	319-64	7,546-60
4. Amgaon	Thana	1,662-48	879-86	782-62	700-36	98-27	602-09
	Pawardona	496-57	108-75	387-82	711-40	3-69	707-71
		2,159-05	988-61	1,170-44	1,411-76	101-96	1,309-80
5. Phukimeta Shikmi.	Yerneda	547-63	321-66	225-97	525-14	73-07	452-07
	Waghlongri	47-91	44-82	3-09	771-04	161-97	609-07
	Sorekhari	774-81	277-41	497-40	203-39	49-25	154-14
		1,270-35	643-89	726-46	1,499-57	284-29	1,215-28

List of Duchand and Fazil Jungle villages in the Tirora Tahsil—(contd.)

Taluka.	Name of village.	Duchand.			Fazil.		
		Total.	Occupied area.	Unoccupied area.	Total.	Occupied area.	Unoccupied area.
6. Saoli — Dongar-gaon Shikmi.	Alebedar	289.64	45.16	244.48	661.00	0.78	660.22
	Jambli	971.88	456.85	515.03	2,337.87	358.90	1,978.97
	Pancharwani	110.69	40.19	70.41	916.10	197.13	719.27
	Deotola	966.24	344.68	621.56	1,095.71	...	1,095.71
	Wowara	2,492.22	975.99	1,516.23	1,455.78	295.93	1,159.85
	Maramjob	...	...	...	2,153.80	...	2,153.80
	Rengepar	...	...	...	2,435.01	...	2,435.01
	Pungdi	...	...	...	1,538.63	...	1,538.63
	Jhulia	...	...	...	2,030.40	56.85	1,973.55
	Koralwahi	...	...	...	1,768.09	270.15	1,497.94
	Dodka	...	...	...	2,914.17	410.53	2,503.64
	Baghera	...	...	...	2,933.15	308.63	2,624.52
	Nimba	457.24	245.97	211.27	2,142.84	356.57	1,786.27
		5,287.82	2,108.84	3,178.98	21,682.85	2,255.47	22,427.38
7. Baji	Bakalsarra	406.93	175.43	231.50	845.78	43.95	801.83
	Pawarlaona	310.92	252.86	58.06	521.37	122.63	398.74
	Pendhri	246.36	149.95	96.41	1,038.30	359.26	679.04
	Gudharia	...	...	...	1,016.82	26.71	1,020.11
	Jambli	...	...	...	1,691.87	446.01	1,245.86
	Surnalkassa	...	...	...	413.08	...	413.08
	Piparia	2,586.15	1,391.96	1,194.19	2,450.36	168.91	2,281.45
		3,550.36	1,979.20	1,571.16	8,007.58	1,167.47	6,840.11
8. Darekasa Shikmi.	Kamkajhari	...	...	...	498.01	...	498.01
	Kapalgaria	1,083.31	22.98	1,060.33	4,175.89	244.87	3,931.02
	Chanduraj	...	...	...	417.10	283.30	133.80
	Jamkudra	943.82	291.27	652.55	1,751.78	68.11	1,683.67
	Telkajhria	...	...	...	2,864.50	...	2,864.50
	Tuyagondi	455.00	34.00	421.00	2,163.80	577.01	1,586.79
	Dandhari	...	...	...	4,899.54	...	4,899.54
	Dakalkuhi	...	...	...	809.74	192.27	617.47
	Deoteshwar	...	...	...	1,505.43	161.77	1,343.66
	Kachargarh	...	...	...	1,055.75	...	1,055.75
	Kawalgunda	...	...	...	2,171.40	99.65	2,071.75
	Banjaritola	...	...	...	1,306.53	481.31	825.22
	Darekasa	...	...	...	1,019.41	312.89	706.52
		2,482.13	348.25	2,133.88	21,639.00	2,424.18	22,214.82
9. Salekasa Shikmi.	Kolarbhari	...	...	...	3,347.55	251.21	3,096.34
	Kosamtara	...	...	...	3,144.88	63.65	3,081.23
	Nawatola	281.02	114.92	166.10	1,700.81	221.84	1,478.97
	Managarh	...	...	...	4,732.05	1,035.98	3,696.07
		281.02	114.92	166.10	12,925.32	1,575.68	11,349.64
10. Palkhera	Telankheri	966.08	383.83	582.25	1,358.14	...	1,358.14
	Palewada	1,932.04	938.35	993.69	957.50	...	957.50
	Murdoli	433.90	100.34	333.56	2,385.26	20.52	2,364.74
		3,331.99	1,422.52	1,909.47	4,700.90	20.52	4,680.38
11. Malpuri	Alebedar	...	...	...	945.38	...	945.38
	Asolpani	221.78	92.84	128.94	1,809.07	145.22	1,663.85
	Garada	154.13	79.21	74.92	1,936.75	14.76	1,921.99
	Jambhulpani	...	...	...	649.57	139.18	510.39
	Beranda	346.11	220.52	125.59	2,674.61	253.35	2,421.26
	Malpuri	573.65	300.08	273.57	3,039.21	376.63	2,662.58
	Sondalgondi	...	...	...	787.49	52.90	734.59
		1,995.97	692.65	603.32	11,842.08	981.44	10,860.64
12. Purada	Purada	6,733.08	2,818.07	3,885.01	2,067.45	166.35	1,901.10
	Murpar	2,511.71	1,261.90	1,249.81	1,081.65	71.42	1,010.23
	Pancharwani	1,174.90	707.51	467.39	1,801.59	496.03	1,305.56
	Bijepar	...	...	...	3,054.35	334.67	2,719.68
	Phukimeta	1,359.71	568.26	791.45	999.21	331.88	667.33
	Maramjob	...	...	...	557.01	...	557.01
		11,779.40	5,385.71	6,393.66	9,531.26	1,340.35	8,220.91

These Fazil jungle plots were settled separately from the other villages at last Settlement and the period for which the settlement was made was only three years, and since that time there have been successive re-assessments every three years.

The table below shows the amounts of revenue imposed upon the different zamindaris at each re-settlement.

	Kamil jama.	Settlement Nakta.	1870.	1875.		1877.	1880.	1882.	1887.	1890.	Present.
	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Kamptha ..	725	500	500	500		500	500	350	350	350	350
Warad ..	330	300	300	300		350	300	300	40	40	40
								Ganga jharl.	1,000	1,000	1,000
Amgaon ..	800	600	600	600	Amgaon 50	50	..	..	20	100	100
					Phukimeta 115	50	..	..	70	70	70
					Saoli Dongargaon 435	500	500	500	500	1,250	1,250
Bijli ..	513	350	400	500	Bijli 18-8	30	..	..	50	75	75
					Darekasa 350 8	250	450	450	100	480	480
					Salekasa 105-8	75	200	200	170	170	170
					Piparia 65-10	65-10	..	..	..	..	..
Palkhera ..	195	150	100	100		50	..	..	80	80	80
Malpuri ..	135	100	100	100		100	80	80	150	300	300
Purara ..	215	150	165	200		175	175	175	700	350	350

These few facts and figures have been put forward first of all to clear the way and to give an idea of the area and amount of revenue with which the subsequent discussion will refer.

In the original scheme for the settlement of this forest area, two reasons were put forward for the limitation of the period of settlement to three years; firstly, it was expected that the value of the forest would rise considerably; secondly, it was hoped that the necessity of re-assessing these forests triennially would form the foundation in the minds of District Officers of an abiding interest in these forests and that this would restrain the Zamindars from wasteful and destructive fellings.

The first expectation has been fulfilled and the present rise in the revenue does not, I think, adequately gauge the increase in the value of the property.

The hope that the forests would be saved from destruction, has not been fulfilled in equal manner. In the words of a former Chief Commissioner, Mr. W. B. Jones:—"It may here be mentioned that the working of the short settlement system in the Balaghat and Bhandara zamindaris has been anything but satisfactory. Deputy Commissioners have admonished the Zamindars for their wasteful destruction of their forests, and when their admonitions were disregarded have at the next Settlement increased the sums assessed. Such increase was justified on the ground that Government had a right to its share in the profits realised in the tracts, but it often partook of the nature of a fine and no fixed principal of assessment is anywhere discernible. And the effect of the increase of assessment was often unfortunate since it drove the Zamindars in order to make it good to still further denude their forests. The system has proved entirely unsatisfactory"—(Note upon the Conservancy of Zamindari Forests 1884).

Enquiries were then instituted as to the best way to prevent the total destruction of the zamindari forests, and much correspondence finally ended in orders being issued in letter No. 606S., dated 20th June, 1887, from the Junior Secretary to the Chief Commissioner; these orders were to the effect that the five conditions enumerated below should be included in any fresh engagements for the settlement of these forest villages.

The conditions were as follows:—

(I) No *dahia* or *bewar* to be permitted in tracts in which they are prohibited by the Deputy Commissioner.

(II) In tracts specially reserved under the Deputy Commissioner's orders no timber to be cut except under express permission from the Deputy Commissioner, such permission to specify the character and amount of the timber to be cut in each case.

(III) Should any instructions be issued by the Deputy Commissioner regarding the system on which tracts reserved as above should be worked, such instructions to be carefully observed by the Zamindar.

(IV) An account to be kept by the Zamindar of all timber cut in the reserved tracts under permission as above and all timber so cut to be issued under a pass.

(V) Should the provisions of clauses 2, 3 and 4 be infringed, the Government to be at liberty to take reserved tracts under direct management for such term of years as it may think fit.

It is well known that the imposition of these conditions caused great dissatisfaction among the Zamindars and many refused to agree to them.

Upon this, orders were passed in letter No. 863S., dated 1st September, 1887, from the Junior Secretary to the Chief Commissioner that the rejection of these conditions by the Bhandara Zamindars, when the Zamindars of Balaghat had accepted them, could not be permitted and that one of three courses was to be followed. If the Zamindars accepted the conditions, they should be allowed a settlement at easy rates; if they refused they were to be assessed at two annas an acre.

If the Zamindars refused settlement, they would receive 5 per cent. on the assessed takoli, the mahal being brought under direct management.

In consequence of these orders all Zamindars were again called upon to accept the conditions laid down, and again a number among them from this tahsil, the Zamindars of Amgaon, Malpuri and Purada and the purchaser of the Shikmi zamindari of Saoli Dongargaon refused to accept the conditions and their estates were taken under direct management. The order under which the estates were so taken over declared the period of management as ten years, but in a very short while the recusant Zamindars discovered what a mistake had been made by them and gradually, upon their presenting their submission to Government, their estates were returned to them. The correspondence on the subject is long and complicated, but this is a resumé of its main stages.

The reason of the contumacy of these Zamindars is excessively obscure. I have held conversations with many of them, and they are quite unable to show any good ground for the position they took up. There is no doubt that they were worked upon by one or two who considered themselves more astute than the rest, who stated that the conditions for the protection of the forests from injury were but the insertion of the thin end of the wedge to prepare for the confiscation of the whole and instances were given, showing how certain rights to levy Pandhri and excise, &c., had been withdrawn. Perhaps the principal objector was Gobardhan Bapu of Gondumri and he has told me that he sees the value of agreeing to Government interference to save a foolish Zamindar from ruining himself and his forests; but he said he could not agree to Government being able to revoke the gift of proprietary rights and to annul the Settlement of the forest in case of any breach of the conditions. It was in vain that I assured him that this was not the penalty proposed for such a breach, but that the Government would simply manage it on the Zamindar's behalf. There was of course a very great difference when the estates of the recusant Zamindars were taken under management in 1891, as this was due to their refusal of Settlement.

There are then three matters in connection with the Settlement of these forests upon which the orders of the Administration are required :

1. The period of Settlements.
2. The conditions to be attached.
3. The re-adjustment of boundaries.

2. I have quoted above the opinion of Mr. Jones on this question. It is short and decisive. "The system," i.e., the three years' Settlement, "has proved entirely unsatisfactory." It must now be decided whether it is to be continued with the insertion of such conditions as to change its character or whether it would not be better to depart from it entirely and to settle the forest mahals for the same period as the remaining zamindari area.

The only reason against a long-term Settlement is that where the income is fluctuating and may increase considerably, Government may assign to the owners a disproportionate share of the profits. The reasons in its favour are many. But first it will be well to see in what manner this difficulty might be obviated. It

seems to me clear that triennial Settlements have no advantage over a Settlement of twenty years, except when there is anticipated some sudden rise in the demand for forest produce. It is quite obvious, as Mr. Jones has pointed out, that to raise the revenue for the subsequent three years because the income for the preceding three years was higher, is rather a penalty for extravagant felling than a re-adjustment between the State and the proprietor of the fair profits of the forest if properly worked. The only way to do this satisfactorily is to assess annually as revenue a certain percentage of the ascertained profits. The objections to a fluctuating revenue are stated in letter No. C-176S., dated 4th May, 1891, from the Junior Secretary to the Chief Commissioner to the address of the Secretary to the Government of India, Revenue and Agricultural Department. In the fourth paragraph of his letter he writes :—"I am to submit that a fluctuating assessment of forest revenue is not so well suited to the circumstances of these estates as a fixed assessment, nor does the Chief Commissioner regard the fluctuating system as really in the interests either of the Government or of the people of the Bhandara district. It is impossible to ascertain with any approach to accuracy what the forest income of these zamindaris is without inquisitorial proceedings and vexatious harassment to all concerned, which would be altogether incommensurate with the pecuniary gain to Government. It is, in the Chief Commissioner's opinion, undesirable to perpetuate friction and discontent among such a considerable section of the people for such a trifling gain, amounting in the whole Bhandara district to probably not more than between two and three thousand rupees. For these reasons a fixed assessment for a reasonable term of years is, in the Chief Commissioner's judgment, a more suitable arrangement."

It would appear to me that a triennial re-assessment of revenue would carry with it most of the objections urged against an annual assessment without any of its advantages.

It may be assumed that, within the next twenty years, no new Railway will be made giving greater accessibility to the Bhandara forests. Neither of the two rival schemes for extension of the Railway southwards propose, as I understand, to carry the line through this district, and therefore the increase of value, if any, will be gradual and will follow the increase in cultivation. Any objection that a long-term Settlement will alienate a portion of the State's fair share in the profits of the forest will militate equally or with rather great force against the settlement of land revenue for such a period.

There is again no staff available for the re-assessment of forest revenue triennially upon a satisfactory basis, and the whole earlier correspondence shows how unsatisfactory the materials were upon which the revised 'takolis' were proposed. One instance alone of this may be given, namely, that apparently until the Fazil jungle mahals were taken under direct management, the profits of the Zamindars from cultivation in these areas were never taken into account in a settlement. This error could, probably, never occur now; but it is difficult in the absence of accounts, or perhaps even more difficult in the presence of such intentionally incomplete accounts as are produced, to make even the roughest approximation to the actual income received.

I therefore very strongly recommend that the Settlement of the forest mahals be for the same period as for the remainder of the district.

This in itself will have a tendency to check wasteful fellings as, if the Zamindar sees that he will have to pay the same revenue for the period of Settlement whether he has destroyed his forests or not, it will be clearly in his interest to make such arrangements as to keep up a steady income for them.

3. The conditions formerly laid down (see para. above) were somewhat modified or rather explained in letter No. ²⁹⁵³ S., dated ^{15th} 20th July, 1891, from the Junior Secretary to the Chief Commissioner to the address of the Commissioner, Nagpur Division, as follows :—

The conditions to be attached to the Settlement.

I am to say that the Chief Commissioner approves of the general application of Rule I prohibiting *dahia*. It has been almost if not quite stamped out already.

Rule II should, however, be worked on the lines laid down in * Resolution S., dated 4th May, 1891, that is to say, forests should only be specially reserved when wasteful management has been found to be practised, and the Chief Commissioner considers that all cases in which such reservation is proposed should be referred to you for previous approval.

It has been clearly laid down in the same letter, that these rules apply to the forests under Section 121A of the Land Revenue Act independently of the terms of Settlement, but it will be well, in order to avoid future misunderstanding, on the parts of the Zamindars, that the rules should be incorporated in their Wajibularz.

In my view it will perhaps be well to slightly alter Rule II to express clearly the interpretation now put upon it, and I would suggest the following draft :—

I. The cutting of *dahia* or *bewar* is prohibited.

II. The Zamindars shall, in the management of their forests, be guided by all rules laid down from time to time by the Chief Commissioner.

III. In case of disobedience of these rules, the forests or any part of them shall be specially reserved under the orders of the Deputy Commissioner with the sanction of the Commissioner of the Division.

IV. In tracts reserved no timber shall be cut without the express permission of the Deputy Commissioner and an account of timber cut under such permission shall be kept.

V. In cases where the provisions of Rule IV are infringed, the Government may take over the management of the tracts in question on behalf of the Zamindar for such period as it may think necessary for their proper conservation.

I think these rules will clearly show the Zamindars that Government does not wish to do more than to see that the forests are managed in the manner most advantageous to themselves and the people who live in their zamindaris.

4. In the Bhandara Tahsil, I called attention to the inconvenient manner in which, in some cases, the demarcation of excess forest lands had been done, and the Chief Commissioner was pleased to order that in the Chakaheti Estate, the distinction between Fazil and Duchand areas was not to be maintained. It was expressly laid down, however, that these orders did not prejudice the case in zamindaris generally, which should be dealt with separately on their merits.

The case of the Chakaheti Estate was sent up for orders after I had completed the attestation of every village in it and I was therefore able to put up my proposals in a more complete form than I can do with reference to the Fazil jungle mahals in the Tirora zamindaris.

I will, however, make certain proposals as regards the manner in which these mahals may be treated, leaving it to be decided in individual cases the actual method of treatment to be employed. I may mention, at the outset, that the case is not so simple here as in the Chakaheti Estate as where there are two mahals in the village, one Fazil and one Duchand, it sometimes occurs that the Duchand area has been settled with an inferior proprietor whereas the Fazil forest is always, or nearly always, held direct by the Zamindar or, occasionally, leased by him separately from the remainder of the village.

A reference to the statement appended to this note will show that there are 42 villages, containing both Fazil and Duchand, and in eight of these there is no cultivation in the Fazil area; and 31 villages, consisting entirely of excess forest, in 12 of which there is no cultivation. In those villages where there is no cultivation in the Fazil area, no alteration of boundary will be necessary; it may, however, be expedient where there is no difference in the tenure to adjust the boundary occasionally when the cultivation in the adjoining Duchand has so increased as to leave insufficient ground for the 'nistar' of the cultivators.

A second class of villages are those consisting of Fazil jungle in which there is now so much cultivation as to make the appellation of forest mahal a misnomer.

* The Chief Commissioner is doubtful of the advantage or the feasibility of proceeding to make a general classification of zamindari forest lands and would prefer to leave the reservation of tracts under Rule II to be effected in particular cases as occasion is given for it, by destructive management on the part of the Zamindars or by considerations of public interest. (Para. 2.)

Instances of this class are Mauza Chand Suraj certainly and perhaps the Fazil area of Mauza Pandhri Circle No. 3 and Nawegaon Circle No. 35.

A third class would contain those villages in which the present boundary should be so adjusted as to include in the Duchand area the present cultivation of the Fazil area where this adjoins the Duchand. This question is complicated by differences in ownership; but such re-adjustment could be made with advantage in a certain number of villages, such as Majithpur and Malpuri, where the two portions of the village are held by the same person. It might perhaps be argued, from what I have said above, that in all villages where both Fazil and Duchand belong to one owner, the distinction between them might be abolished, especially if it be decided to settle all the Fazil jungles for the same period as the villages. I am not, however, in favour of quite so stringent a measure. The maintenance of the distinction tends in some way to the conservation of the jungle as it excludes the right of villagers to miscellaneous cutting for 'nistar.' These rights are often most destructive to the forest, and the owner has either to sit by and see his property ruined or else to incur the odium of his villagers and sometimes the displeasure of the authorities for curtailing these rights, although he has really the praiseworthy motive of conserving his forest. I am not arguing against the grant of a most necessary right to the villagers, but I have been met lately by a number of most unfounded complaints and extravagant demands made by cultivators in this respect, and I do not think either that there is any necessity to grant 'nistar' rights in Fazil jungle as a general rule or that to do so would be in the true interests of the people themselves.

I propose then, with the sanction of the Administration, to settle one or two forest mahals as ordinary villages, with an ordinary Wajibdar and with ordinary rights of villagers in the jungle.

I propose also to alter the boundaries of certain other villages, wherever possible, so as to bring the cultivation and a suitable area of waste into the Duchand, and to leave the remainder to consist of as compact blocks of forest as can be arranged.

In the remaining villages no change would be made either because it is unnecessary or because, owing to the difference of ownership, it is impossible.

If these proposals are sanctioned in the abstract, it would appear that special sanction to the alteration of boundaries can best be applied for in the Rent-rate Reports of the different groups. If the special proposals are then approved, the small alteration in the area of the mahals can be made before the assessment of the group is submitted for sanction. With one word upon the right of Government to make the adjustment of the boundaries, I will conclude. Since the year 1891 when the boundaries of the Fazil forest mahals were demarcated, an idea seems to have been growing up in the district that the Fazil jungle is held by the Zamindars on a special tenure, different from that under which their other villages are held. For this, of course, there is no foundation, the only difference is in the period of the Settlement and it was specially laid down under the orders of the Chief Commissioner that any necessary re-alignment of boundaries would be made. In para. 10 of letter No. 8638., dated 1st September, 1887, to the address of the Commissioner, Nagpur Division, the Junior Secretary to the Chief Commissioner writes: "It is manifest that in several instances the zamindari forests have been almost entirely destroyed. In such cases the forest mahal must be amalgamated with the rest of the zamindari when the land revenue 'takolis' come under re-settlement." There has not been nearly so much destruction of jungle in the Tirora Tahsil as in Sakoli as far as I have at present seen, but I believe the most extravagant fellings were in Saoli Dongargaon and Darekasa, which I have not yet been able to inspect. This ruling, however, would be applied equally to cases in which the jungle had given place to cultivation as to cases in which it had been destroyed in unculturable land.

5. With this report are sent traces of the *five* villages I have mentioned as examples, but in order to save delay the outlines of fields have only been mapped and not the lines representing the embankments by which rice plots are subdivided

A. B. NAPIER,
Settlement Officer.

Memorandum No. $\frac{2692}{147}$, dated Nagpur, the 15th August, 1896.

Preliminary report on the Tirora Tahsil of the Bhandara District.

SUBMITTED to the Second Secretary to the Chief Commissioner in the Revenue Department.

2. This is eminently a rice-growing tract and much of the crop is irrigated from tanks, to the construction of which the configuration of the country lends itself readily. The rainfall is, as a rule, seasonable and plentiful and the distribution suits the system of cultivation in force, that of transplantation, which involves a lot of hard and irksome work in the fields during the rainy season. In the black-soil lands a second crop of pulse is also raised, but wheat and spring crops generally are of relatively small importance. There are varying degrees of fertility and, generally speaking, the richness of the soil decreases towards the east and south. The most fertile tract is the Rampaili Pargana in the north-west corner, while the villages of the Salekasa and Darekasa zamindaris on the east consist mainly of jungle clearings, lying in an undeveloped country with a poor sandy soil. A large portion of the tahsil is held in zamindari right, and in the direction of Tirora the villages held in malguzari and in the superior zamindari right are a good deal intermixed. The peculiar incidents attaching of yore to the zamindari status have been lopped off one by one with the flow of time, and the only privileges which now distinguish a Zamindar from an ordinary Malguzar are—

- (i) the fact that he pays a lighter revenue than his less favoured compeer ;
- (ii) that he has been maintained in possession of the forests of his estate, whereas in the khalsa these waste areas were reserved as State property in the Settlement effected 30 years ago.

The incidence of the population falls at 252 to the square mile as against 210 in the Bhandara Tahsil, which accords with the general theory that rice-growing tracts support a denser population.

3. The tahsil is intersected by the Bengal-Nagpur Railway and is well provided with roads and fair-weather tracks, which are so aligned as to fulfil adequately the purposes of feeders.

Prior to the opening of the Nagpur-Chhattisgarh narrow-gauge line in 1882, this region was somewhat land-locked, and carts had to travel far afield for the disposal of surplus produce. There is then every reason to believe that prices ruled lower in this tahsil than in Bhandara at last Settlement. The construction of the Railway has tended to their equalization, and the Settlement Officer is, under these circumstances, probably right in his conclusion that there has been a greater rise of prices during the currency of the now expiring Settlement in Tirora than in the sister tahsil on the west. The rate at which rice was sold in years immediately preceding the present season of drought was about 75 per cent. in excess of that on which the previous assessment was based. But it is unnecessary to elaborate this point further, as the rise of prices proved in the case of Bhandara and accepted in the Chief Commissioner's Resolution No. 3286, dated the 29th July, 1895, will amply suffice for our present purposes.

Mr. Napier furnishes some interesting information on the subject of the cost of cultivation and the profits derivable in a year of normal rainfall. The petition of the Malguzars of Pauni, quoted by the Settlement Officer, was submitted, I gather, at a time when the prices of food-grains had, in consequence of the American War, risen very largely. It is not unreasonable to assume that the wages of labour and the cost of plough-cattle advanced in sympathy with this rise, nor is it surprising that these higher rates when once attained have not materially declined since. But it has to be remembered that the previous assessment was not based on these high prices, but on lower rates prevailing in a period antecedent to these abnormal times. What is therefore required then to complete the investigation is that the cost of plough-cattle and the rate of wages should be ascertained for the period which preceded the inflation of prices that commenced in 1861. As matters stand, the conclusion arrived at in the case of the Bhandara Tahsil, *viz.*, "that a rent-enhancement of 50 per cent. above the rental paid at last

Settlement is fully justified on the score of the rise of prices," appears equally applicable to the conditions of Tirora.

5. In framing a forecast of revenue enhancement, it is necessary to discriminate between the areas held in zamindari and malguzari tenure. In view of this fact, it is convenient that the rental enhancement in each case should be separately estimated. This procedure has been adopted by the Settlement Officer in accordance with my instructions. First as to the khalsa. During the last 30 years the absolute occupancy area has declined, as in other parts of the Provinces, much land having been relinquished during the scarcity of 1868-69. The rent-rate of this class has remained practically stationary. There has been a very marked expansion of the area held in occupancy right, and the rent-rate has advanced 10 per cent. With an advance of 18 per cent. in the occupied area throughout the district, the area held by tenants-at-will has developed considerably, and the rent-rate is now 53 per cent. in excess of the figure at which it stood at last Settlement. The Settlement Officer estimates a further enhancement of 16 per cent. in the rental. Under his proposals the enhancement will fall almost entirely on the protected classes, whose rents he would enhance 28 per cent. and 25 per cent. respectively. In the light of past experience I question whether over a large area it will be possible to work up to such high percentages, and would prefer to substitute 25 per cent. and 20 per cent. for 28 per cent. and 25 per cent.

For the rest I accept his estimate, though I would increase the margin on siwai by Rs.2,000, adopting Rs.22,000 instead of Rs.24,000. The revised assets of the khalsa would then amount to Rs.2,52,000, of which Rs.13,700 would be contributed by malik-makbuzas.

Taking 55 per cent. of^(a) malguzari assets, plus 90 per cent. of^(b) malik-makbuza payments, the revised assessment would amount to Rs.1,43,395, giving an increment of Rs.45,862 or 47 per cent. on the present demand.

I would then accept 45 per cent. as a safe estimate which may reasonably be expected to be attained. The corresponding figure in the Bhandara Tahsil was only 31 per cent., but the increase in cultivation has been larger in this tahsil. Moreover, the Settlement Officer's figures on which the Bhandara estimate was based, were subsequently discovered to be somewhat erroneous, and the forecast would probably have been higher had the correct figures been, in the first instance, reported. *Thirdly*, it would appear that the siwai income was not over-assessed at last Settlement to the same extent in Tirora as in Bhandara. In the latter tahsil Mr. Napier took Rs.20,000 as the present income from this source against Rs.43,162 incorporated in the assets at last Settlement on this account. In dealing with Tirora, on the other hand, he has slightly raised the Settlement figure from Rs.21,217 to Rs.24,000. I have, however, suggested the reduction of this estimate by Rs.2,000.

6. Next as to the zamindaris, where there has been a 24 per cent. increase in the occupied area, and where, as far as my observation goes, we shall find ourselves confronted with a very material extension of cultivation to the poorer soils. Here, as in the khalsa, the area held by absolute occupancy tenants has declined while the occupancy area has increased largely. For the tahsil as a whole the present occupancy rate is 32 per cent. in advance of the occupancy-cum-ordinary rate of last Settlement. Unfortunately the joint-rates, are not given separately for the khalsa and zamindaris; but, judging from the statistics available, it would appear that the actual rise in the occupancy-rate has not been less than that stated above.

I would therefore lower the Settlement Officer's percentages of anticipated enhancement on absolute occupancy and occupancy tenants to 23 per cent. and 20 per cent. Mr. Napier holds that more unassessed land will be found in possession of tenants-at-will than in the khalsa. But it will be safer, I hold, not to estimate for a larger increase than 5 per cent. In this way the revised cash-rental would be reduced by Rs.6,382.

The Zamindars no doubt derive a large income from their *fazil* jungles, and the Settlement Officer's siwai estimate is not in all probability very far out. Still I would grant a larger drawback on the present ascertained income of

(a) Rs.1,31,065. (b) Rs.12,330.

Rs 35,000; and it will suffice, in my opinion, to include Rs.30,000 on this account in the assessable assets which would then amount to Rs.2,73,500. It appears that 39 per cent. of total assets were assessed at last Settlement in the shape of a Land Revenue and Forest Takoli. Taking the same percentages now, without making any allowance for the fact that the Saoli Dungargaon zamindari is now assessable to a full malguzari revenue, we get Rs.1,06,665 as the probable demand on revision. The present payments being Rs.64,382 the actual increase would be Rs. 42,283 or 66 per cent., and it would seem a safe conclusion that the increment will not fall below 60 per cent., which is nothing out-of-the-way when the large increase of cultivation is considered.

7. For the tahsil as a whole the increments as above foreshadowed would be as follows :—

						Present jama.	Percentage of increase.	Proposed jama.
						Rs.		Rs.
Kotalsa	..	..	..	..	..	97,533	45	1,41,000
Zamindari	..	..	..	..	..	64,382	60	1,03,000
TOTAL						1,61,915	50	2,44,000

I hold then that a 50 per cent. increment of revenue may be anticipated in this tahsil, and it will of course be understood that the above figures include an assessment on the *fazil* jungles of the zamindaris.

8. It is hoped that the revised assessments of this tahsil will be ready for announcement with effect from the 1st July, 1897. Under the programme, this tract is to be settled up to the 30th June, 1916. The term would then be 19 years for the greater part of the tahsil, and 18 years for those portions, the revised assessment of which may take place with effect from the 1st July, 1898.

9. No suggestions have as yet been put forward touching the formation of assessment groups. After careful consideration I incline to the view that, although zamindari and malguzari estates may be somewhat intermingled in the heart of the tahsil, it will be inadvisable to aim at compactness in this instance and geographical considerations must give way to practical considerations of convenience. It is, in my opinion, expedient that each zamindari should be treated as a separate assessment group.

10. On the subject of factors I have but little to remark. The ratios deduced by the Settlement Officer from actual payments afford an interesting and instructive commentary on our sanctioned scale of factors, and where the number of holdings is sufficient to furnish a reliable basis for comparison, indicate that the scale in force in the Bhandara Tahsil approximates fairly well to the actual values of the various soils. The modifications suggested by the Settlement Officer appear to me reasonable and have been justified by the arguments and statistics that he has put forward. They are mostly unimportant and such as a Settlement Officer has discretion to make for cause shewn in dealing with a particular group.

The wheat factors remain unaltered. For *kanhar* rice-lands, to which the *morand I.* factors were previously applied, ratios have now been framed.

The raising of the *warthemia saman* factors in the case of *morand I.* and *II.* to the level of embanked wheat-land of the same class is, I think, a step in the right direction. Rice followed by a crop of pulse is, according to such information as we now possess, at least as valuable as wheat. The raising of the other factors for rice-lands within these soil classes is a mere adjustment of detail. The factors for *sihar* rice-lands have also been raised slightly, which step is justified by the statistics as to actual rents collected by the Settlement Officer. At the same time the factors for *marhani* rice-lands have been fixed on the level of *morand II.*

To this I see no objection. The soil is not a very common one, and as the value of it varies considerably from place to place according to the proportion of sand and other ingredients it contains, we must, I hold, be guided by the Settlement Officer. The same remarks apply to *marhani* in the minor crop class.

The raising of the factors for *sihar* and *khardi* in the minor crop class seems fully justified by the statistics of actual payments which relate to a sufficient number of cases to justify alterations in the scale.

Owing to inadvertence no factor is proposed for *morand* II., *mutfarrikat*. We may adhere to 14 as sanctioned for Bhandara.

The factors for sugar-cane and garden land may, I hold, be left unaltered. In the cases specified where cane is watered from a tank on payment of a special water-rate, I am disposed to think that it would be best to assess the land as irrigated rice-land in which category it falls for two years out of every three and to take the water-rate paid in the third year into consideration in fixing the Malguzar's siwai assessment.

11. It is unfortunate that the Settlement Officer should not have made more use of his crop experiments. The year was doubtless an exceptional one and the selection of typical crops was a matter of special difficulty; but I have reason to suppose that he left this important work until it was too late in the season to deal with it adequately. It is hoped that this year he will make up lost ground in this respect and collate, for his final report, some useful and reliable information as to the relative values of soils in different positions.

12. The question of the terms on which the *fazil* jungles are now to be settled is treated by the Settlement Officer in the appendix to his report. The subject came under discussion when I visited the district last camping season, and the recommendations now submitted are practically in accordance with the conclusions then arrived at. The traces of five villages submitted by the Settlement Officer in illustration of his recommendations are forwarded for the Chief Commissioner's inspection.

13. I am of opinion that the system of triennial re-settlement should be abandoned, and that these areas may, with advantage, be settled for the same term as the cultivated portions of the estate to which they belong. It will be necessary for the Settlement Officer to keep the income accruing from these areas quite separate from the assets of the cultivated portions of the estate, and if some *duchand* jungle is leased out with *fazil* on a joint lease, it will be expedient to effect an arbitrary apportionment. In this way a distinct and separate assessment will be impossible on the *fazil* jungles, which will constitute a separate mahal. This is a consideration of material importance in the event of any punitive action under clause (3) *et seq* of Sec. 124, A. of the Land Revenue Act being requisite during the currency of the Settlement.

14. The Settlement Officer should undertake, as suggested, the revision of the boundaries of the *fazil* jungle, and the principles upon which his action should be guided are, I would submit, those which have been adopted by the Administration in dealing with the excision of culturable waste lands from Government forests for purposes of ryotwari settlement. They might be stated as follows:—

- (a) All hills and unculturable waste should invariably be retained within the *fazil* area, as also such culturable lands for which there is no present or proximate demand.
- (b) Where the *fazil* jungle has been almost entirely broken up, the distinction may, where practicable (*i.e.*, where there is no dual proprietorship), cease, and the *fazil* may merge into, and be amalgamated with the old *duchand* area over which the ryots have free rights of 'nistar.'
- (c) All existing cultivation should, as far as possible, be excluded from the *fazil* jungle, and where in its vicinity there is culturable waste, the limits of the *duchand* may be extended, provided there is a demand for land in the vicinity.

Such an arrangement will involve a mere adjustment of existing boundaries between the *fazil* and *duchand*, and may occasionally be justified by the absence of waste within which 'nistar' rights may be exercised.

- (d) In future no cultivation within *fazil* jungles should be permitted without the written permission of the Deputy Commissioner. In this view it is desirable that the zamindars should be consulted in the matter, and that reasonable but not excessive areas should be set apart for purposes of cultivation during the next 18 or 20 years.

15. I would add that the blocks ultimately selected for conservation under the title of *fazil* jungle should be clearly marked on the map and noted in the records. It may be desirable to colour-wash this portion of the Patwari's trace green, to prevent all risk of misunderstanding. Further, the Zamindars should be called upon to demarcate these areas without delay on the ground by clearing lines and erecting marks similar to those used to define the boundaries of Government forests.

16. The procedure suggested by the Settlement Officer of submitting along with the Rent-rate Report proposals for altering boundaries of *fazil* jungle, should prove convenient and may be adopted. Traces illustrative of the proposals would accompany.

17. The question of the form which the zamindari Wajib ul-arz should take, and what rules touching forest conservation should be included therein, can well be left over for future consideration.

L. S. CAREY,

Commissioner of Settlements and Agriculture, C.P.





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