

divided the demand between themselves on *bakhras* real or supposed. The measurement of the cultivation at the settlements did away with the payment of revenue on *lugahs* or *bakhras* to which the area held by an individual owner might not correspond in the least. The people decided to pay their revenue according to their holdings, and separate ownership of land became crystallized.

At settlement the Nawáb, and his son, Muhammad Zafar Khan, laid claim to be considered proprietors of the whole of the land of the Teri Tahsil held by them under the *istamrári* tenure. This claim, being quite untenable, was quickly disposed of. The Khan was, however, held to be owner of several small estates, which now comprise nearly all the *zamíndári* villages in the tahsil. The Khan of Teri holds, as Khán for the time being, the following villages:—

In the Seni-Khwarram Circle.—Hindki Banda, Katta Kanra, Chak Pail, Chak Lowár, Karboghi Gora Khel and Banda Bhatiárán.

In the Darra Circle.—Band Becharagh, Rakh Mirandi, Banda Dáúd Sháh, Mansúrgarh and Sam Banda.

The Nawábzádás, or descendants of Nawáb Sir Khwája Muhammad Khan, own the following estates:—

In the Seni-Khwarram Circle.—Zanaka and Chanda Manzai.

In the Darra Circle.—Khari Banda, Mami Khel, Chashmai Akor Khelan, Dharangi, Dherakki, Barbara Banda, Ahmedi Banda, Melu, Trikh Sam, Bakha Banda, Urmur and Sangeni.

In the Nari-Chauntra Circle.—Shahidan Darga.

In the Thal Circle.—Mandao.

Certain descendants of Sardár Sháhbáz Khan own Bozha and Chakhtu; Sayads own Resi and Toi Banda; a Khattak family from Lachi owns Chanda Fateh Khan, and a Bárák family owns Sartoi, all in *zamíndári* tenure.

29. Excluding the area covered by the village sites and hamlets, and the small area owned by Government for public purposes, there were at settlement 29,356 holdings owned by 30,882 shareholders. There are now 36,159 holdings in the hands of 32,025 shareholders. The average cultivated area in each holding in the different circles is:—

CIRCLE.	AVERAGE AREA IN ACRES PER HOLDING.		AVERAGE AREA IN ACRES PER OWNER.	
	Settlement.	Now.	Settlement.	Now.
Seni-Khwarram	18'2	11'3	11'9	8'7
Darra	13'0	10'3	11'9	9'8
Nari-Chauntra	3'3	2'6	3'7	3'3
Thal	8'2	7'5	6'4	8'0
Lawaghar	3'0	2'3	4'0	3'2
Tahsil	6'7	5'3	6'4	6'0

The average holdings in the Seni-Khwarram and Darra Circles work out high owing to the large areas held by the Khan's family. Excluding the *zamíndári* villages Major Leigh in 1894 calculated (Assessment Report, paragraph 17), that the average cultivated area per holding was 13 acres and per owner 11 acres. The difference, however, between these figures and those quoted above, is not sufficient to make it worth while going into such details. Besides, to get a true average, we must include the large landowner as well as the very poor one.

The holdings are smallest in the Nari-Chauntra and Lawaghar Circles, but here, though the villages are much smaller than in the rest of the tahsil, many owners have land in more than one village. As the figures are compiled from the village records, each such landowner is taken account of in every village in which he holds lands. We may roughly estimate that in these two circles the average proprietor owns at least four acres of cultivated land.

Throughout the tahsil each landowning shareholder is proprietor of six cultivated acres. This is not much in an unirrigated tract like this. Each such plot has to support 2·2 persons besides the owner. It is evident that there is not much room for improvidence and self-indulgence; hence the hardness of the Khattaks as a race. Allowance must be made for the smallness of these unirrigated holdings in fixing the assessment, though the argument must not be pressed too far, as a reduction in the rent need not imply any improvement in the people's resources or condition unless the present severe style of living is maintained.

30. Statistics have been prepared to show the extent of cultivated land mortgaged and sold during the several quinquennial periods that have elapsed since the former settlements. In the Bárak Circles, where the existing revenue demand was announced in the cold weather of 1886-87 we have three such periods; and in the Khattak Circles two periods dating from 1893-94. The division of the alienees into zamíndárs of the same or other villages, money-lenders, and village menials, adopted in the Kohát-Hangu Report has been maintained for reasons similar to those stated therein.

In the succeeding paragraphs these statistics are discussed separately for each circle. For the tahsil as a whole the enormous area of 61,908 acres, or 32·1 per cent., of the total cultivation is mortgaged. The percentage mortgaged at settlement was 27·4. It is the Bárak tract that is responsible for the huge extent of these transactions. There the percentage of the cultivated area mortgaged is 45·8, in the Khattak tract it is only 11. The percentages of mortgaged land at settlement were 7·3 in Khattak and 40·5 in Bárak. The proportional increase in Khattak has, therefore, in ten years been four times that in Bárak in seventeen. Out of this area, however, 45,512 acres, or 73·5 per cent., are mortgaged to zamíndárs, the proportions in Khattak and Bárak being 45·6 and 77·8, respectively. The reason for this state of affairs is partly that many of the transactions are not due to indebtedness at all, but have been entered into to facilitate cultivation by clubbing scattered holdings, and by granting possession, though not full ownership, to men whose houses happen to be near the fields. Though this explanation covers a large area, allowance must also be made for the fact that, in many of the wilder parts of the tahsil, no money-lender will advance money on land. The security and return are not sufficiently good to make it worth his while to penetrate into places where the collecting of rents is a matter almost as dangerous as it is problematical. Except in Chauntra and round Lachi and Teri, there is no comparison between the trouble a *bannia* in the Khattak country undergoes, and the ease with which his *confrère* in the central Punjab rides round the fields of his debtors. The Khattak has, therefore, in many cases to borrow from a fellow zamíndár should necessity force him to borrow at all.

Much the same may be said of the figures for sales. Since settlement 23,678 cultivated acres (12·3 per cent. of the cultivation) have been transferred by sale. Out of this zamíndárs have bought 20,088 acres, and money-lenders have acquired only one-tenth of this area. Sales have been most numerous in the Seni-Khwarram Circle, but throughout the tahsil sale transactions affected a smaller area in 1898-1902 than in 1893-97, which is a satisfactory sign.

On the average, cultivated land in Teri mortgages for Rs. 25 per acre, and has during the last five years sold for an average price of Rs. 31 per acre. The latter figure is 68 times the land revenue on the land sold, but the proportion varies enormously from 32 times in Seni-Khwarram to 321 times in Lawaghar.

It is to the dealings of money-lenders in land that we must trust for evidence of indebtedness or the reverse. At settlement 5,375 cultivated acres were mortgaged to men of this class. One-quarter of this area has been redeemed, or sold outright; 10,941 acres have been mortgaged since settlement, leaving 12,276 acres under mortgage in 1903. This is 6·4 per cent. of the total cultivated area, a much higher proportion than in either the Kohát or the Hangu Tahsil. Since settlement 2,012 acres, or 1 per cent. of the cultivation, have been sold to money-lenders. In Kohát money-lenders wer

found to have bought 5·1 per cent. and in Hangu 2·2 per cent. of the total cultivated area, but there the statistics covered 25 years, whereas in Teri we are considering the transactions of seventeen years in Bárak and only ten years in Khattak. At settlement Hindús owned only 291 cultivated acres, paying Rs. 155 revenue; they now own 1,377 acres and pay Rs. 601 revenue. This is not serious.

Mortgages with possession.

Circle.		Seni-Khwarra.	Darra.	Nari-Chauntra.	Thal.	Lawaghar.	Tahsil.
MORTGAGED TO LAND-HOLDERS IN THE SAME OR OTHER VILLAGES.	Cultivated area mortgaged at settlement	1,649	1,088	16,305	21,120	2,477	42,639
	Percentage of area mortgaged to present cultivated area.	4·0	3·2	39·5	32·1	24·9	22·1
	Out of above area still mortgaged ...	311	218	5,126	5,067	993	11,715
	Area still mortgaged of area mortgaged in 1886-92.	...	...	1,332	1,182	184	2,698
	Area still mortgaged of area mortgaged in 1893-97.	961	264	2,292	6,244	517	10,278
	Area still mortgaged of area mortgaged in 1898-1902-03.	1,219	804	4,825	12,923	1,050	20,821
	Total cultivated area now mortgaged ...	2,491	1,286	13,575	25,416	2,744	45,512
	Percentage of above to present cultivated area.	6·0	3·8	32·9	38·6	27·6	23·6
	Consideration money per acre ... Rs.	14	27	36	21	39	27
MORTGAGED TO MONEY LENDERS (HINDU AND MUHAMMADAN).	Cultivated area mortgaged at settlement	2,181	108	726	2,229	131	5,375
	Percentage of present cultivated area ...	5·3	·3	1·8	3·4	1·3	2·8
	Out of above area still mortgaged ...	801	32	187	266	49	1,335
	Area still mortgaged of area mortgaged in 1886-92.	...	...	153	410	15	678
	Area still mortgaged of area mortgaged in 1893-97.	1,964	185	368	1,344	22	3,818
	Area still mortgaged of area mortgaged in 1898-1901-03.	816	444	1,003	4,218	64	6,545
	Total cultivated area mortgaged ...	3,581	661	1,646	6,238	150	12,276
	Percentage of above to present cultivated area.	8·6	1·9	4·0	9·5	1·5	6·4
	Consideration money per acre ... Rs.	8	20	31	21	33	19
MORTGAGED TO KAJINS AND OTHERS.	Cultivated area mortgaged at settlement	277	68	1,463	2,789	177	811
	Ditto now mortgaged ...	159	103	1,212	2,468	178	4,120
	Percentage of present cultivated area ...	·4	·3	2·9	3·7	1·8	2·1
	Consideration money per acre ... Rs.	12	30	31	24	54	27
TOTALS.	Total cultivated area mortgaged at settlement.	4,107	1,259	18,494	26,138	2,785	52,783
	Percentage of present cultivated area ...	9·9	3·7	44·8	39·7	28·0	27·4
	Total cultivated area mortgaged now ...	6,231	2,050	16,433	34,122	3,072	61,908
	Percentage of present cultivated area ...	15·0	6·0	39·8	51·8	30·8	32·1
	Consideration money Rs.	11	25	35	22	40	25
	Consideration money divided by land revenue on land alienated.	23	47	66	82	151	69
	Total debt on land Rs.	67,700	50,324	5,72,874	7,38,406	1,22,008	15,51,312

Note.—The areas in this and the next table are expressed in acres.

Sales.

Circle.				Seni-Khwarram.	Darra.	Nari-Chantra.	Thal.	Lawaghat.	Tahsil.
SOLD TO LAND-HOLDERS OF SAME OR OTHER VILLAGES.	Cultivated area sold during 1886-92 ...			...	...	1,201	1,373	134	2,708
	Ditto	ditto	1893-97 ...	3,821	1,034	1,247	3,736	145	9,983
	Ditto	ditto	1898-1902	3,776	980	1,113	1,398	130	7,397
	Total cultivated area sold since settle- ment.			7,597	2,014	3,561	6,507	409	20,088
	Percentage of total cultivated area ...			18.3	6.0	8.6	9.9	4.1	10.4
	Purchase money per acre ... Rs.			14	31	52	28	68	28
SOLD TO MONEY-LENDERS.	Cultivated area sold during 1886-92 ...			...	...	75	245	...	320
	Ditto	ditto	1893-97 ...	522	5	70	113	12	722
	Ditto	ditto	1898-1902	527	43	201	191	8	970
	Total cultivated area sold since settle- ment.			1,049	48	346	549	20	2,012
	Percentage of total cultivated area ...			2.5	.1	.8	.8	.2	1.0
	Purchase money per acre ... Rs.			13	32	47	40	36	27
SOLD TO KAMINS AND OTHERS.	Cultivated area sold since settlement ...			527	142	303	593	13	1,578
	Percentage of total cultivated area ...			1.3	.4	.7	.9	.1	.8
	Purchase money per acre ... Rs.			17	22	49	25	112	27
TOTAL PRIVATE TRANSACTIONS.	Total cultivated area sold since settle- ment.			9,173	2,204	4,210	7,649	442	23,678
	Percentage of total cultivated area ...			22.1	6.5	10.2	11.6	4.4	12.3
	Purchase money per acre ... Rs.			14	30	51	28	68	28
	Average percentage sold annually ...			2.2	.6	.7	.8	.3	...
SALE PRICE PER CULTI- VATED ACRE.	Average 1886-92 ... { Acres			...	...	1,397	2,051	153	3,601
	Rs.			...	...	43	22	64	32
	Do. 1893-97 ... { Acres			4,594	1,139	1,421	3,886	155	11,195
	Rs.			12	21	49	29	66	24
	Do. 1898-1902 ... { Acres			4,579	1,065	1,392	1,712	134	8,882
	Rs.			16	40	63	35	77	31
LAND PURCHAS- ED BY GOVERN- MENT SINCE SETTLEMENT.	Price of land sold during last five years divided by the land revenue payable on it ...			32	75	115	178	321	68
	Total area ...			380	...	24	...	...	404
	Of which cultivated ...			53	...	2	...	...	55
	Price paid per acre of total area Rs.			15	...	87	...	...	12
	Price per cultivated acre ... Rs.			107	...	1,040	...	...	141

31. In the Seni-Khwarram Circle 4,107 cultivated acres were mortgaged

Transfers in the Seni-Khwarram Circle. ten years ago at settlement; the area now under mortgage is 6,231 acres. This is an increase from 10 per cent. of the cultivation to 15 per cent. Considerably more than half this area is mortgaged to money-lenders. This rather serious state of affairs is partly due to a few large mortgages, such as the mortgage of half the villages of Chakhtu and Bozha (about 300 acres), by Khánzadás Sher Ali Khan, &c. But there is a considerable amount of indebtedness in the circle. The consideration money both for mortgages and sales is lower here than anywhere else in the tahsil. Money-lenders have only advanced Rs. 8 per cultivated acre. The sale price of land has risen during the last ten years, but is now only Rs. 16 per cultivated acre, representing thirty-two years' purchase of the land revenue. Since Settlement 9,173 acres of cultivated land have been sold outright; this is 22 per cent of the cultivation. Most of this, it is true, has been purchased by zamíndárs, but

money-lenders have acquired 1,049 acres, a much larger proportion of the total cultivation than in any other circle. At settlement Hindús owned only 53 cultivated acres, and paid one-thousandth part of the land revenue; they now own 476 acres, and pay one per cent. of the revenue.

These results, which have taken place within ten years of the introduction of a Regular Settlement, point to a very unsatisfactory state of affairs. Though the total land revenue assessment may not be too heavy, its re-distribution is urgently called for. In one or two villages in the Khwarram part of the circle it is difficult to find men to undertake the responsibilities of lambar-dárs, and their revenue is collected with great difficulty.

32. The Darra Circle, on the other hand, is remarkably free from debt.
Transfers in Darra Circle. The cultivated area mortgaged has risen from 1,259 acres to 2,050 acres, but this is only 6 per cent. of the total cultivation. Somewhat less than one-third of this area is in the hands of money-lenders. Since settlement 2,204 cultivated acres have been sold, of which only 48 acres have been acquired by money-lenders. Hindús at settlement owned only 67 cultivated acres, and even now they only own 165 acres. The sale price of cultivated land has doubled in the last five years, and is now Rs. 40 an acre, or seventy-five times the land revenue. There are no signs of indebtedness in this circle taken as a whole.

33. In the Nari-Chauntra Circle the very large proportion of two-fifths of the cultivated area is mortgaged, but this is an improvement on the state of affairs at Settlement when nineteen-tieths of the cultivation was mortgaged.
Transfers in Nari-Chauntra. During the seventeen years that have elapsed since settlement, the mortgaged area has decreased from 18,494 acres to 16,433 acres. Of this area only one-tenth is in the hands of money-lenders, but it may be remarked that this is more than twice the area they held at settlement. The money advanced on the land is Rs. 35 per acre. The land in this circle is undoubtedly the most valuable in the tahsil. The explanation given by Mr. Tucker for these extensive mortgages is still true. The Báraks habitually mortgage to one another those lands which they cannot conveniently cultivate owing to their distance from the owner's residence. In many cases these mortgages are for all practical purposes sales, but the owner has the satisfaction of not having finally parted with his land. In a number of cases a mortgage is, however, a temporary expedient to secure the continued cultivation of land during the absence of the owner on service or elsewhere. It will be observed that out of the area mortgaged to zamíndárs at settlement 68·6 per cent. has since been redeemed. Sales since settlement have affected 4,210 acres, or 10·2 per cent. of the cultivation. Zamíndárs have bought nearly all this area, only 346 acres having passed to money-lenders. The sale price has risen steadily and is now Rs. 63 per cultivated acre, equal to 115 years' purchase of the land revenue. At settlement Hindús owned 121 cultivated acres; they now own 271 acres and pay less than 7 per cent. of the land revenue. Though the poorest class of landowners may be going to the wall, the zamíndárs as a body are fully holding their own in this rich circle.

34. There has been a large increase in the cultivated area mortgaged in the Thal since settlement from 26,138 acres to 34,122 acres,
Transfers in Thal Circle. and more than half the cultivation is now mortgaged. Less than one-fifth of this is in the hands of money-lenders, who hold, however, nearly three times the area they had at settlement. A larger percentage is mortgaged to kamíns and others than elsewhere in the tahsil. The reasons for mortgaging land noticed in the Nari-Chauntra Circle are intensified here where there are large stretches of culturable land which the owners are unable to make full use of. During the rabi large numbers of men from Lawaghar, Chauntra and the Bannu District migrate to the Thal to secure a rain crop off land which would otherwise be waste. The average amount lent on the land is Rs. 22 per cultivated acre. Since settlement 7,649 cultivated acres, or 11·6 per cent. of the whole, have been sold. Sáhúkárs have, however, bought only one-fourteenth of this area at a price somewhat above the average. Hindús now own ten times the cultivated area they held at settlement, but even so they only own 7 per cent. of the total cultivation. The price of land has risen steadily in the last fifteen years, and now stands at Rs. 35 for a cultivated acre, or one hundred and seventy-eight

times the land revenue assessment. The figures for this circle by themselves would point to a heavy burden of debt, but the conditions of agriculture here are such that much of the burden is nominal, and the indebtedness is really not nearly so large as it looks.

35. The circumstances of the Lawaghar Circle are peculiar from a reason exactly opposite to that just noticed in the Thal Circle. Here there is a very limited quantity of culturable land, much of it scattered about in more or less inaccessible *nullahs*. There has not been much increase in the area mortgaged since settlement; it stood then at 2,786 acres, and is now 3,072 acres, or 30·8 per cent. of the total cultivation. All but 328 acres are held by zamíndárs, chiefly no doubt in order to facilitate cultivation by clubbing together scattered fields. The mortgage money—Rs. 40 per acre—is higher than elsewhere in the tahsil. This is of course due not to the quality, but to the scarcity of land fit for cultivation. Similarly the average sale price—Rs. 77 per acre—must not be taken to mean that this circle contains the best land in Teri! The lightness of the revenue assessment is evident from the fact that land sells for three hundred and twenty-one times its revenue. The people are however so poor, that in assessing we can take but little account of the value excessive competition has given to the land. Since Settlement 442 cultivated acres have been sold, practically all between zamíndárs. The fact that Hindús have only acquired 9 acres gives some idea of the character of the tract and its agricultural capacity.

36. The total amount of money advanced on landed security was estimated at the previous Settlements to be somewhat over nine and a half lakhs (Bárák Rs. 8,73,060, Khattak Rs. 85,115). It is now estimated to be fifteen and a half lakhs. These figures are only approximate, as, in Bárák at any rate, land is frequently mortgaged not for cash but in kind *e. g.*, sheep and goats, or grain. Instances have even been found of land being mortgaged against the value of a wife! An attempt has been made to reduce these transactions to terms of the currency. It is not clear how far a similar effort was made at the time of the Bárák Settlement. Dividing the total amount of debt by the number of *jamabandi* holdings, we find that the average sum due is Rs. 42-12.

In many cases no doubt in this unirrigated tract the indebtedness is due to actual distress brought about by misfortune, such as the loss of cattle or crops. But a great deal can be traced to extravagance and love of display. Crime is also rife, and is often a costly luxury. The Khattak does not, as far as I have observed, marry very young; in fact in many villages it is astonishing to see how many branches of a family die out in one or two generations. But a wife costs from Rs. 100 to Rs. 300, and land mortgaged to secure this sum is redeemed with difficulty. The frequency of civil and criminal cases about women may be ascribed to the great preponderance of males over females in the population, and the expensiveness of the regular marriage ceremonies.

In conclusion, it may be said that there is no evidence that the Khattaks as a tribe are being dispossessed of their land at a rate to cause any alarm. Another deduction which may be drawn from the figures is that the more recently settled Seni-Khwarraam and Darra Circles are much more highly assessed than the rest of the Tahsil.

37. Government has bought but very little land in Teri for public purposes, and that only in two of the five circles. The remark made in both the Bárák and Khattak Assessment Reports, that the price it has paid for cultivated land is out of all proportion to its real value, seems to be as true now as it was ten years ago.

PART IV.

SYSTEM OF AGRICULTURE, CROPS, &c.

38. The matured area harvested in the Seni-Khwarram Circle during the last five years has been :—
Cultivation in Seni-Khwarram Circle.

Soil.	AREA OF MATURED CROPS.								
	1898-99.	1899-00.	1900-01.	1901-02.	1902-03.	AVERAGE OF FIVE YEARS.			Average per cent.
						Kharif.	Rabi.	Total.	
Cháhi	116	129	138	143	170	56	82	138	5
Chashmai dofasli	114	104	91	95	106	54	50	104	4
Do. ekfasli	32	29	37	34	32	14	18	32	1
Abi dofasli	308	357	270	343	352	129	196	325	12
Do. ekfasli	59	123	65	50	43	14	53	67	3
Sailáb	48	75	83	69	79	29	42	71	3
Talábi	42	41	45	29	19	22	14	36	1
Bandiza	3,387	3,870	5,534	4,337	4,635	3,187	1,160	4,347	16.6
Dagoba	10,127	11,838	18,574	16,261	17,156	8,484	6,313	14,797	56.3
Bárgni	4,700	4,784	7,153	7,487	7,636	3,137	3,216	6,353	24.2
Total crops matured ...	18,933	21,350	31,990	28,858	30,228	15,126	11,144	26,270	100.0
Kharába	12,272	12,244	9,215	7,246	8,834	5,455	4,507	9,962	27.5*
Dofasli	47	131	35	29	52	...	60	60	*Of total sowings.

In this circle 2.5 per cent. of the cropping is irrigated. The irrigated area of 442 acres produces an annual average of 669 acres of crops or 151 per cent. Of the unirrigated area of 40,987 acres 62 per cent. produces a crop annually. The matured area varies a good deal. In one year out of the last five only 72 per cent. of the average acreage ripened, while in the best year of the five the harvests came to 122 per cent. of the average. More than one-fourth of the sowings have been recorded as having failed. I do not consider this too liberal an allowance for a tract like this. In fact my suspicion, that the allowance of one-fifth for *kharába* in the adjoining Kohi Circle of the Kohát Tahsil was too small, is confirmed.

The *cháhi* area has gradually increased, there being now 34 wells in use as compared with 15 at settlement. The wells are confined to the villages of Lachi Bala and Payan, Manduri, Khaddar Khel and Gumbat. The *chashmai* and *abi* area lies in small patches along the banks of the two Mahramzai Tois in the north-western part of the circle. There is no irrigated land in the central or eastern portion.

The soil is a good red clay round and above Láchi, but is light and sandy over the rest of the circle. This yields fair crops with a moderate rainfall in the central part of the circle and round Chakhtu on the Teri Toi. But towards Shakardarra and the Indus the ground is very broken and the soil thin and without any depth so it cannot withstand any drought.

The *bandiza* lands lie mostly in the Lāchi plain. They are kept chiefly for *kharif* crops and as a rule do well. In years of exceptional rainfall a *rabi* crop as well is taken off the *bandiza* fields. There is practically no *dofasli* land on the *dagoba* soil. Separate plots are set apart for *kharif* and *rabi* crops and go on producing them year after year; when a change is deemed advisable the land is allowed to lie fallow for two harvests. The *bārāni* lands are ploughed and sown whenever the conditions are favourable; about two-thirds of the sown area, yielding in each harvest about 3,000 acres of crops, comes to maturity.

The *kharif* is the larger harvest of the two and accounts for 57·6 per cent. of the total area of crops. *Bājra* and wheat occupy, respectively, 47 per cent. and 35·6 per cent. of the cropped area. Other crops grown are *jowār*, *tārāmira*, barley, gram, *māng*, cotton and a little *moth* and maize.

Cultivation in Darra circle.

39. The matured cropping in the Darra Circle during the last five years has been :—

Soil.	AREA OF MATURED CROPS.								
	1898-99.	1899-00.	1900-01.	1901-02.	1902-03.	AVERAGE OF FIVE YEARS.			Average per cent.
						Kharif.	Rabi.	Total.	
Chāhi	152	125	175	152	145	62	87	149	·6
Chashmai dofasli	2	1	2	1	2	1	1	2	...
Do. ekfasli	18	12	20	10	19	9	7	16	·1
Abi dofasli	543	516	541	556	500	254	279	533	2·2
Do. ekfasli	135	83	125	100	112	37	74	111	·5
Bandiza	2,526	2,409	2,979	2,915	2,842	1,788	974	2,762	11·4
Dagoba	11,172	8,927	12,564	11,934	12,430	6,509	4,889	11,398	47·2
Bārāni	8,777	7,117	9,973	11,145	8,781	5,053	4,111	9,164	38·0
Total crops matured ...	23,325	19,190	26,379	26,813	24,831	13,713	10,422	24,135	100·0
Kharāba	7,089	10,613	6,399	5,670	5,818	4,408	2,705	7,113	22·8 Of total sowings.

The irrigated cropping in the Darra Circle is 3·4 per cent. of the whole. The irrigated area of 743 acres produces on the average 808 acres of matured crops or ·109 per cent.; the percentage of the unirrigated area—33,209 acres—cropped regularly is as high as 70. The cropping is fairly constant; in the worst year of the last five the area cropped was 20 per cent. below the average, but in the best it was only 11 per cent. above it. The percentage of the area sown which fails is on the average under 23 per cent. The rainfall here is good and the proportion of good soil larger than elsewhere in the tahsil. This—the lowest allowance for *kharāba* in the five circles under report—may be accepted as sufficiently liberal.

At settlement there were 39 wells in use; there are now 49, all in the two villages of Teri (27) and Dallan (22). There is practically no spring irrigated area: the *ābi* lands lie in small plots along the Teri and Lilān Tois.

In the Gurgurri Darra above Amankot the soil is a good clay: the lands have been carefully embanked and terraced, so that this part of the circle is famous for its crops. The soil in the Karbogha Darra is lighter. Between Amankot and Teri the land is broken and seamed by *nullahs* and hills, but below Teri there is a level stretch with a light sandy soil, subject unfortunately in some places to the influence of salt with which the water becomes impregnated in the hills.

The best *bandiza* lands lie in the Gurgurri Darra. Nearly half the unirrigated cultivation in the circle is assisted by drainage from the hills which border it on the north and south. The system of cultivation here is to take first a *rabi* and then a *kharif* crop off the same plot and then leave the land fallow for a year. In the large village of Karbogha there is actually some *dofasli* unirrigated land.

The *kharif* harvest accounts for 56·8 per cent. of the whole cropping. The main crops are *bājra* (42 per cent. of the total cropping) and wheat (38·5 per cent.) Other crops grown are maize, *mung*, barley, *jowār*, cotton, *kangni* and a little *moth*, melons and *tárāmira*.

Cultivation in Nari-
Chauntra Circle.

40. The acreage of crops matured in the Nari-
Chauntra Circle during the last five years has been :—

SOIL.	AREA OF MATURED CROPS.								
	1898-99.	1899-00.	1900-01.	1901-02.	1902-03.	AVERAGE FOR FIVE YEARS.			Average per cent.
						Kharif.	Rabi.	Total.	
Cháhi	638	695	655	702	729	291	392	683	2·3
Chashmai dofasli	108	103	97	103	92	50	53	103	·3
Do. ekfasli	93	102	92	115	100	30	69	99	·3
Abi dofasli... ..	6	6	7	3	2	3	2	5	...
Do. ekfasli... ..	10	9	10	12	10	5	4	9	...
Bandgora	1,672	1,578	1,994	1,803	1,851	852	926	1,778	5·8
Dagoba	7,491	6,280	7,924	7,335	7,299	3,562	3,758	7,320	23·7
Báráni	21,242	18,073	23,284	20,006	21,170	9,656	11,388	20,994	67·6
Total crops matured ...	31,260	26,846	34,062	30,079	31,253	14,449	16,542	30,991	100·0
Kharába	12,579	14,183	8,389	11,848	11,106	6,444	5,177	11,621	27·5
Dofasli	55	60	58	36	32	...	48	48	...

The proportion of irrigated to total crops in this circle is 2·9 per cent., of which four-fifths are irrigated from wells. Every 100 acres of irrigated land produce 159 acres of matured crops, and every 100 acres of unirrigated land produce 73 acres of crops on the average. The yearly harvests fluctuate between 87 per cent. and 111 per cent. of the average cropped area. This is, therefore, the most secure circle in the tahsil. Out of the area sown a percentage of 27·5 fails to come to maturity. This is the same proportion as in the Seni-Khwarram Circle and is naturally a good deal higher than in the Darra. There is no reason to doubt that this is a fair approximation to the truth.

The only place in the district where the sinking of wells has been taken up properly by the people is in the Chauntra. At settlement there were 169 wells; there are now 188. Each well irrigates a little over two acres.

As noted in paragraph 21 the people have embanked and improved a considerable proportion of their unirrigated lands since settlement. There is still room for an extension of the *bandiza*, or as it is here called *bandgora* area. The unirrigated cultivation here is very carefully carried out. The wheat crop is the one the zamíndárs set most store by. Quite half the land is sown with wheat each alternate year; after the crop has been harvested, the soil is ploughed as soon as rain falls and a *bājra* crop is taken off it. The land then lies fallow for a year during which time it is ploughed again and again, especially after rain. This renders it very retentive of moisture and enables some sort of a crop to come to maturity even in years of deficient rainfall. It does not pay

to take three crops in succession (two wheat and an intervening *bājra*) off the land. There is therefore no *defarli* area.

The *rabi* harvest is the larger, accounting for 53·7 per cent. of the total cropping. The wheat crop is 45 per cent. of the total; *bājra* providing another 33·3 per cent. *Moth* and gram are also grown fairly extensively; *jowār*, mung and barley are grown, but there is very little cotton, the soil being too light.

Cultivation in Thal circle. 41. The area successfully cropped in the Thal Circle during the last five years has been :—

Soil.	AREA OF MATURED CROPS.								
	1898-99.	1899-00.	1900-01.	1901-02.	1902-03.	AVERAGE OF FIVE YEARS.			Average per cent.
						Kharif.	Rabi.	Total.	
Chāhi	6	10	7	4	7	3	4	7	...
Bandgora	4,757	4,596	5,815	6,734	6,870	3,819	1,936	5,755	13·0
Dagoba	1,437	972	1,472	1,710	1,542	784	642	1,426	3·2
Bārāni	34,750	32,223	43,053	37,033	39,343	5,413	31,870	37,283	83·8
Total crops matured ...	40,959	37,801	50,347	45,481	47,762	10,019	34,452	44,471	100·0
Kharāba	12,078	18,448	12,992	19,059	15,802	5,922	9,754	15,676	26·1

There is no irrigated cultivation in the Thal Circle. Out of the cultivated area 67·5 per cent. yields a crop each year on the average. In the worst year of the last five this proportion fell to 57 (or 15 per cent. below the average), and in the best it rose to 76 (or 13 per cent. above the average). The allowance deducted for *kharāba* has been 26 per cent. of the sowings, 37 per cent. in the *kharif* and 22 per cent. in the *rabi*. I should doubt whether considering everything this is sufficient. The circle consists of only nine villages, two of which Shinewa Gudi Khel and Thatti Nasrati are huge estates containing 62,031 acres (17,246 acres cultivated) and 44,216 acres (20,569 acres cultivated), respectively. The fields are large and laid out in long narrow strips. It is therefore very difficult to estimate the crop standing in a field, and the tendency of *patwāris* to exaggerate outturns must be allowed for. Though it is surprising how well the crops do in years of moderate rainfall, there must be a large area which fails in poor years. I am inclined to estimate the area of *kharāba* at one-third of the sowings on the average.

The *bandgora* lands are excellent. They lie along the foot of the hills where the numerous *nullahs* debouch on to the plain. The soil is a good reddish clay and is replenished by the silt brought down by the torrents; the dams and embankments are carefully planned and kept in good order. It is a fine sight to see the *bandiza* fields of Laudkamar and Chukara after a heavy storm on the Kark or Lawaghar hills; they are generally sown with *bājra* and *jowār* of which they yield very superior crops. There is not much *dagoba* land in the Thal. The *bārāni* lands have a light sandy soil, stronger however and bearing heavier crops than that of the Nari-Chauntra Circle. There is no particular system of cultivation. Should seasonable rain fall as much land as possible is ploughed up and sown without any previous preparation. People flock to the Thal from Lawaghar and Upper Chauntra, help to sow the land and work as farm labourers (*charikārs*) at harvest time, and in the summer return to their homes quite contented with their one-third or one-fourth share of the produce.

More than three-fourths (77·5 per cent.) of the cultivation takes place in the *rabi*. Wheat (45·4 per cent.) and gram (30·7 per cent.) between them occupy 76 per cent. of the cropped area. *Bājra* in this circle is a long way behind with 12·1 per cent. of the cropping to its credit. *Jowār* and *moth* are also extensively grown.

42. The successfully matured area of crops in the Lawaghar Circle during the last five years has been :—

Cultivation in Lawaghar Circle.

Soil.	AREA OF MATURED CROPS.								
	1898-99.	1899-00.	1900-01.	1901-02.	1902-03.	AVERAGE FOR FIVE YEARS.			Average per cent.
						Kharif.	Rabi.	Total.	
Cháhi	9	14	8	13	13	5	6	11	2
Chashmai dofasli	137	121	171	185	153	50	105	155	2.2
Do. ekfasli	52	54	59	60	55	19	34	53	8
Abi ekfasli	5	5	5	5	4	1	6	7	...
Bandgora	209	262	243	256	270	158	92	250	3.6
Dagoba	2,688	2,637	3,241	3,240	3,420	1,382	1,658	3,040	43.7
Báráni	2,799	3,117	3,827	3,521	3,975	1,630	1,815	3,445	49.5
Total crops matured ...	5,899	6,210	7,554	7,280	7,890	3,245	3,716	6,961	100.0
Kharába	3,501	3,891	2,423	2,401	1,844	1,503	1,309	2,812	28.8

In the Lawaghar 3.2 per cent. of the crops are irrigated ; the area has more than doubled since settlement, but is still only 200 acres without any prospect of any appreciable further increase. The irrigated area of crops is 225 acres. On each hundred acres of unirrigated land 69 acres of crops are matured on the average. The crop returns give 28.8 per cent. of the sowings as the area that fails. Here also I think *kharába* has probably been underestimated. In Shakardarra it was put at over 40 per cent. and in Lawaghar I am inclined to allow 35 per cent. at least.

The spring irrigated area lies in the village of Saráj Khel and in small plots at the bottom of the immense ravines which occupy most of the circle. There is no space for extensive *bandgora* cultivation, and though nearly half the rest of the cultivated area is assisted by drainage from the surrounding hills, its soil and that of the pure *báráni* lands is so thin, sandy and stony that there is but little similarity between the cultivation here and in the circles we have just discussed. One can only compare the land with the poorer parts of Shakardarra and the Seni-Khwarram Circle lying along the banks of the Indus, and join with Mr. Tucker in wondering that the people find it worth their while to cultivate the greater portion of their lands.

The unirrigated area is cultivated one year and kept fallow the next. For the *rabi* crop the land is ploughed frequently as in Chauntra, while should rain fall the *kharif* crop of *báfra* or *jowár* is sown along with the ploughing given to the land when the wheat has been cut.

The *rabi* crop occupies a little more than half the cultivated area. The principal crops are wheat (44.3 per cent.) and *báfra* (34.7 per cent.). *Moth*, *gram*, *mung*, *barley* and *jowár* are also grown.

43. Having discussed the nature of the cultivation carried on in the different assessment circles, it is now necessary to discuss the character of the harvests of the past five years, on which it is proposed to base the new assessments. The following table gives the area in acres of the crops which came to maturity in these ten harvests :—

Recent harvests.

YEAR.	SENI-KHWAREAM.			DARBA.			NARI-CHAUNTRA.			THAL.			LAWAGHAR.			TAHSIL.		
	Kharif.	Rabi.	Total.	Kharif.	Rabi.	Total.	Kharif.	Rabi.	Total.	Kharif.	Rabi.	Total.	Kharif.	Rabi.	Total.	Kharif.	Rabi.	Total.
1898-99	10,530	8,403	18,933	13,008	10,322	23,325	12,598	18,662	31,260	7,430	33,529	40,959	2,363	3,536	5,899	45,924	74,452	120,376
1899-1900	11,666	9,684	21,350	9,521	9,669	19,190	11,307	15,449	26,846	7,324	30,477	37,801	2,475	3,735	6,210	42,383	69,014	111,397
1900-01	15,405	16,525	31,930	14,098	12,286	26,379	15,706	18,857	34,563	11,157	39,190	50,347	3,768	3,786	7,554	60,189	90,144	150,333
1901-02	18,776	10,082	28,858	17,234	9,579	26,813	18,073	15,006	30,079	13,912	31,569	45,481	3,468	3,812	7,280	68,463	70,048	138,511
1902-03	19,212	11,016	30,228	14,606	10,225	24,831	15,983	15,270	31,253	10,268	37,494	47,762	4,159	3,731	7,890	64,228	77,736	141,964
Average	15,126	11,144	26,270	13,713	10,422	24,135	14,449	16,542	30,991	10,019	34,452	44,471	3,245	3,716	6,961	56,552	76,276	132,828

For the *kharif* of 1898 there was not only an insufficiency of rain at sowing time, but the Teri Tahsil got very little rain in September also, when it was needed to ripen the crops. The result was that the harvest was a poor one everywhere outside the Darra Circle. Rain in the end of September enabled a full area to be sown for the *rabi*, and though October, November and January were rainless, a fall in the end of December and good rain in February enabled a good harvest to ripen in the Barak Circles and in the Darra. The exposed crops of the Seni-Khwarram Circle withered away; this circle in fact did very badly throughout the year.

The year 1899-1900 was still more unfavourable, and is the worst of the five we are considering. There was only half an inch of rain in April 1899, none at all in May, the fall in June, July and August was short of the average, and after a fall in the beginning of September the rest of the year was absolutely dry. The sowings for the *kharif* were therefore restricted and 43 per cent. of the crops sown failed. The hardy *bajra* crop alone saved the situation. Except in the light moisture-holding Barak soils wheat could not be sown until the good rains of January 1900, when a large area was sown in the hope of gathering a late crop. But of the area sown 28 per cent. failed to reach maturity. For the year as a whole the statistics show that 84 per cent. of the average area was matured, but the outturn was much below this.

Fortunately there was a great improvement in 1900-1901, which as far as the *kharif* harvest is concerned has been maintained ever since. Timely and well distributed rains enabled a better *kharif* to be harvested than had been seen since 1897, the *bajra* crop especially being a fine one. For the *rabi* the people started ploughing on the good rains of August, rain in September enabled them to sow a large area which half an inch of rain in December and good rain in January and March brought to maturity. The outturn was well up to the average. *Rabi* 1901 is the best harvest in the cycle and amply made up for the failure of the previous year.

An exceptionally heavy fall of rain in the beginning of May followed by good rain throughout the summer, secured for the people a bumper *kharif* in 1901. It was common talk that such a crop of *bajra* had not been seen in the Teri Tahsil for some time; this staple showed an increase of 7,000 acres on unirrigated soils alone over the previous harvest. The area of sown crops that failed was only 16 per cent. The harvest would have been larger still if so much land had not been taken by the preceding excellent *rabi*. *Rabi* 1902 did not, however, maintain this high level. The rainfall in September was fair and a considerable area of wheat and gram was sown, but the next 5½ months were practically rainless. Later sowings were impossible and the unirrigated crops withered. Rain in the middle of March saved a certain proportion, but the harvest as a whole was very nearly as bad as *rabi* 1900, and worse on the unirrigated lands. The outturn was not improved by hail which fell after the *girdawari* had taken place.

Kharif 1902 was very nearly as fair as *kharif* 1901. The rainfall though not so heavy was well distributed, a slightly larger area was sown than in the previous year, but owing to one or two autumn rains not coming up to the average a larger proportion (22 per cent.) of the crops failed. The *bajra* crop again did well and the people had nothing to complain of. The harvest of *rabi* 1903 was well up to the average and a great improvement on *rabi* 1902. The months of November, December and February were rainless, but two inches of rain in September and October had enabled a large area to be sown, and a little rain in January, March and April served to bring a large proportion to maturity. The success of the light sandy soil in the Thal circle shows how retentive it is of moisture and how well it can do with but little rain to help it.

The character of the ten harvests on which the new assessments are based may be briefly described as follows:—

Harvest.	1898-99.	1899-1900.	1900-01.	1901-02.	1902-03.
Kharif	Bad	Very bad	Good	Very good	Good.
Rabi	Fair	Bad	Very good	Poor	Very fair.

The cycle is a fair one. Two very good and two good harvests counterbalance one very bad, two bad and one poor one. The average is higher than it would have been had the year 1897-1898 been included; on the other hand it is more favourable to the zamindárs than if it had included the current year 1903-1904. The area successfully cropped in Kharif 1903 was 57,700 acres, and though the outturn in grain was not very satisfactory, the harvest would appear in the above list as a very fair one. The prospects of Rabi 1904 owing to the extraordinary winter rains we have had are most bright, and if all goes well a record wheat and gram crop should be garnered.* This is all the more fortunate as it will provide an excellent starting point for the new assessment.

44. In the Bárak Settlement a useful set of experiments were carried out under Mr. Tucker's orders in Kharif 1884 and Rabi 1885. Details will be found in Appendix C in the Bárak Report. The results of the experiments are also shown in a somewhat different shape in Appendix A at the end of the present report. In considering these, it has to be remembered that 1884 was an exceptionally favourable year (paragraphs 35 and 36, Bárak Assessment Report), and that the experiments probably give outturns too high to be accepted as fair averages.

It is stated in paragraph 33 of the Khattak Assessment Report that experiments were conducted from Kharif 1891 to Rabi 1893, but the results are not given in the report, and no record of them can now be found. The only papers traceable contain merely an estimate of average yields prepared by the Sadr Kánúngo and his assistants. At any rate the outturns quoted in the paragraph referred to have evidently been so modified by various considerations of more or less weight that they are useless for our present purpose. They are not the results of experiments at all, but the outturns the Settlement Officer assumed for his produce estimate.

During the course of this settlement experiments have been conducted in accordance with the Settlement Commissioner's Circular of March 1898. They cover the eight harvests, Rabi 1900 to Kharif 1903. The results are given in Appendix A.

The two most important crops are wheat and *bājra*. For the whole tahsil experiments have been made on $21\frac{1}{2}$ acres of irrigated wheat and give an average outturn of $10\frac{1}{2}$ maunds per acre, and on 159 acres of unirrigated wheat with an average outturn of $6\frac{3}{4}$ maunds per acre. For *bājra* we have experiments on $4\frac{3}{4}$ irrigated acres with an average outturn of 16 maunds, and on 94 unirrigated acres with an average outturn of 6 maunds per acre. The experiments on unirrigated soils have been sufficiently extensive to warrant our placing considerable reliance on the results.

As in the other two tahsils the more intelligent Khans and Maliks were asked to make experiments with the help of the Kánúngos. Though some valuable results were obtained, *e.g.*, the *bárání bājra* experiments in the Seni-Khwarram Circle, the idea was not on the whole attended with much success.

The files of suits for rent instituted since 1896 have been examined, and an abstract has been prepared of the rates of outturn upon which the decrees were based. The abstract deals with about 130 such cases. The average results are shown in Appendix A. Unfortunately most of these cases have occurred in villages owned by the Khan or his family. The rates of yield adopted by the Courts are generally very high, in some cases absurdly so, and cannot be accepted as fair averages. Most of the wretched tenants must be sorry they found themselves involved in law suits about their rents. Now that fair average outturns have been worked out for the whole district, a table of yields will be drawn up for the guidance of the Civil Courts.

* The returns for Rabi 1904, which have come in while this report was being printed, show that this forecast has been more than fulfilled.—C. A. B.

Outturns assumed.

45. The chief crops grown, and the percentages of the matured area which they occupy, are :—

Circle.	Maize	Jowár.	Bájr.	Kangni.	Moth.	Múng.	Til.	Cotton.	Wheat.	Barley.	Gram.	Tárámirá	Total.	Other miscel- laneous crops.
Seni-Khwarram ...	5	6.1	47.0	...	7	1.5	1	1.2	35.6	1.7	1.3	2.1	97.8	2.2
Darra ...	3.2	1.8	42.0	1.6	1.1	3.1	8	1.9	38.5	2.0	...	9	97.4	2.6
Nari-Chauntra ...	...	2.9	33.3	...	7.0	2.4	...	4	45.0	2.1	5.3	2	98.6	1.4
Thal ...	1	4.8	12.1	...	4.1	5	...	2	45.4	1.0	30.7	...	98.9	1.1
Lawaghar ...	4	1.2	34.7	2	7.1	2.8	...	3	44.3	2.0	5.9	1	99.0	1.0
Tahsil ...	7	3.9	30.6	3	3.7	1.7	2	7	42.1	1.7	12.2	6	98.4	1.6

Rice is unknown in this tahsil, only 11 acres being grown in the Darra Circle. Wheat and *bájr*a between them occupy 73 per cent. of the cropped area. Gram is an important crop in the Thal Circle. Maize is practically confined to the Darra Circle. *Jowár*, *moth*, *múng* and barley are the only other crops requiring notice.

The main crops and the rates assumed on the principal soils on which they are grown are exhibited in the following table :—

Crops.	Circle.	Soil.	Produce per acre in maunds.	Crops.	Circle.	Soil.	Produce per acre in maunds.		
Wheat ...	Seni-Khwarram	Bandiza ...	8	Jowár ...	Seni-Khwarram	Dagoba ...	5		
		Dagoba ...	6		Nari-Chauntra	Bárání ...	4		
		Bárání ...	4½		Thal ...	Bandiza ...	8		
	Darra ...	Abi dofasli ...	7	Seni-Khwar- ram ...		Bárání ...	4		
		Bandiza ...	9			Bandiza ...	8		
		Dagoba ...	7			Dagoba ...	6		
		Bárání ...	5			Bárání ...	4½		
		Nari-Chauntra	Cháhi ...			14	Darra ...	Bandiza ...	11
			Bandiza ...			8		Dagoba ...	6
	Dagoba ...		6	Bárání ...	4½				
		Bárání ...	5	Bájr'a ...	Nari-Chauntra	Cháhi ...	15		
		Thal ...	Bandiza ...			9	Dagoba ...	5	
Bárání ...			4½			Bárání ...	3		
	Lawaghar ...	Dagoba ...	5	Thal ...	Bandiza ...	10			
		Bárání ...	3		Bárání ...	4			
	Barley ...	Darra ...	Dagoba ...	9	Lawaghar ...	Dagoba ...	5		
Nari-Chauntra		Bárání ...	6	Bárání ...		3			
Thal ...		Bárání ...	5	Moth ...	Nari-Chauntra	Dagoba ...	4		
Gram ...	Nari-Chauntra	Bárání ...	5			Thal ...	Bárání ...	3	
	Thal ...	Bárání ...	5			Lawaghar ...	Bárání ...	1	
	Lawaghar ...	Bárání ...	4	Mung ...		Darra ...	Dagoba ...	3	
Tárámíra ...	Seni-Khwarram	Dagoba ...	2½		Nari-Chauntra	Bárání ...	2		
Maize ...	Darra ...	Abi dofasli ...	14	Cotton ...	Seni-Khwarram	Dagoba ...	3		
		Dagoba ...	8		Darra ...	Dagoba ...	3½		
Kangni ...	Darra ...	Dagoba ...	4						

46. Wheat is the principal crop grown in the tahsil. It occupies 42.1 per cent. of the cropped area. The percentages in the Kohát and Hangu Tahsils were 39.3 and 31.7, respectively. The gross value of the grain in the wheat crop in Teri is estimated to be Rs. 5,31,621 per annum.

The variety grown in Teri is the *Khattaki* (the reason for the name is obvious), a hard red wheat which does not require much water and ripens quickly, and is therefore suitable for unirrigated land. The total acreage cropped with wheat each year is estimated to be 55,918 acres, out of which only 877 acres are irrigated. The estimate of the wheat area framed at the Khattak Settlement, viz., 19,168 acres, is not far off the average for the last five years, 18,694 acres, but the Barak Settlement estimate of 47,000 acres greatly exaggerated the wheat crop there which only covers 37,224 acres.

The largest experiments in unirrigated wheat have been those on the Nari-Chauntra *bārāni* soil where 41.89 acres yielded an average outturn of 311 sérs; at last settlement the outturn on 13½ acres was 300 sérs, and in judicial decisions on 11 acres decrees have been given at the rate of 295 sérs per acre. But these outturns of between 7 and 8 maunds of wheat are very high for pure *bārāni* lands, and I am quite convinced that the experiments have in both settlements been conducted on the better lands and do not make sufficient allowance for the poor bare *bārāni* soil scattered about on the uplands, especially towards the east of the Nari-Chauntra Circle. I do not think for the circle as a whole it would be safe to assume an outturn higher than 5 maunds per acre. This is a maund higher than the rate assumed for this soil in the Toi Circle of the Kohat Tahsil, and gives, I should say, a fairly true idea of the relative wheat bearing capacities of the tracts. For the *dagoba* and *bandiza* soils in Nari-Chauntra I have assumed 6 and 8 maunds. The produce on the small area irrigated by wells does not vary much, and here we can abide by the results of the experiments and put the outturn at 14 maunds.

With these rates as a guide we can fix the outturns in the largest wheat-producing circle in the tahsil—the Thal. Here experiments on 26½ acres of *bārāni* land give an outturn of 5½ maunds; at last settlement experimental cuttings of 85½ acres gave in an exceptionally good year an outturn of nearly 8 maunds; judicial decisions covering 84 acres were based on an outturn of 7½ maunds. But it must be remembered that we are dealing with an immense area of over 18,000 acres, all dependent on rain and liable to suffer more in dry years than the Chauntra. Mr. Tucker's estimate of 6 maunds was fixed to allow for the considerable area of *bandgora* land. Under these circumstances it would not be safe, I think, to assume an average outturn of more than 4½ maunds on the pure *bārāni* land. On the *dagoba* soil I estimate the produce at 6 maunds, and on the *bandgora*, much of which is very fine, the average outturn can be put at 9 maunds an acre. It may be noted in passing that non-official experiments on 8½ acres of *bārāni* land gave an average outturn of only 2½ maunds.

In the Lawaghar *bārāni* area experiments on 10 acres give a result of 4½ maunds. At last settlement experiments on 6 acres gave 3½ maunds; non-official experiments give an outturn of 4 maunds. Mr. Tucker assumed 3 maunds for all the wheat in the circle, though more than half is grown on land classed as *dagoba*. In the Kohi Circle the rate assumed was 3 maunds on *bārāni* soil, and this I propose to adopt here, with 5 and 6 maunds on *dagoba* and *bandgora* respectively. The irrigated area in this circle is small; an outturn of 8 maunds on the *chashmai dofasli* land is fair.

In the Seni-Khwarram Circle experiments on 37½ acres of *bārāni* wheat yielded 6½ maunds of grain, but experiments on 8½ acres of *dagoba* land only gave 3 maunds an acre, though the non-official *dagoba* experiments on 9½ acres gave an outturn of 7½ maunds. The *bārāni* experiments do not allow sufficiently for the poor land in the south of the circle and towards the Indus where in bad years the produce is very poor. In the Toi Circle 4 maunds were taken as a fair average outturn for pure *bārāni* lands. In Seni-Khwarram I should say that 4½ maunds is about right. The *dagoba* yield I have put at 6 maunds and the *bandiza* at 8. The *chāhi* outturn is about 12 maunds, and on *abi dofasli* probably not more than 7½ maunds are secured as some of the land is stony.

On the Darra *bārāni* land official experiments on 8 acres gave a yield of 7 maunds, and non-official experiments on 8½ acres one of 6 maunds, while judicial decisions put the produce of 170 acres at 8 maunds an acre. On 152 acres of *dagoba* land the Courts assumed an outturn of 8½ maunds, and experiments on 4 acres realised 10 maunds. On the other hand the Courts

went no higher on *bandiza* land and our experiments on $1\frac{1}{2}$ acres of that soil only produced $4\frac{1}{2}$ maunds, though this soil is notoriously superior. The *bārāni* outturn in Kuz Miranzai, which this circle most resembles, was put at 4 maunds. It cannot go above 5 maunds in the Darra. On the *bandiza* and *dag-ba* soils I have adopted outturns of 9 and 7 maunds as fair; these are the Kuz Miranzai rates. A considerable area of *bāri* land has been included in the *bandiza* in this circle. On the *ābi* lands an outturn of 7 maunds, and on the *chāhi* one of 12 maunds, have been estimated.

This crop occupies only 1·7 per cent. of the harvested area. Our best experiments have been on the Thal *bārāni* lands, where $4\frac{1}{2}$ acres give an outturn of 6 maunds. At last settlement experiments on $6\frac{1}{2}$ acres of *bārāni* land in Nari-Chauntra gave $6\frac{1}{2}$ maunds to the acre, the outturn on $4\frac{1}{2}$ acres of *bandiza* land in the same circle being only slightly higher. I think we can safely put the outturn on the Thal *bārāni* at 5 maunds, and on the same soil in Nari-Chauntra at 6 maunds. The only other important soil for this crop is the Darra *dagoba*. At the Khattak Settlement an outturn of 8 maunds an acre was assumed for all the unirrigated barley. This crop does well here; I have therefore assumed 7 maunds on pure *bārāni* land, and 9 maunds on *dagoba*.

The Thal Circle is the great gram growing tract in the district. The total average area on which this crop is matured in the Teri Tahsil is estimated to be 16,172 acres. Out of this 13,285 acres belong to the pure *bārāni* soil in the Thal. The only other soil which produces more than a thousand acres of gram is the Nari-Chauntra *bārāni*. The outturn on the Thal *bārāni* must therefore be fixed with care. Experiments on $20\frac{1}{2}$ acres give $7\frac{1}{2}$ maunds an acre. At last settlement the produce of 35 acres was weighed to be nearly 10 maunds per acre; this was in an exceptional year. In rent suits affecting 34 acres gram has been reckoned at $6\frac{3}{4}$ maunds. But gram is a delicate crop; to ensure a good harvest rain must fall seasonably as the periods for its sowing and reaping are not so elastic as they are in the case of wheat. It is also a deceptive crop for a patwāri to judge over large expanses; there may be a lot of leaf but the pods may contain little or no grain. We must be especially cautious, therefore, in accepting the area returned as matured and I would not put the average outturn as higher than 5 maunds an acre. A good deal of the gram sowings in the Thal are speculative, and, as I observed in paragraph 41, it is doubtful whether the allowance for *kharāba* is sufficient. The same rate will answer for the Nari-Chauntra *bārāni* gram, and in Lawaghar, where gram is relatively an important crop, I have adopted an outturn of 4 maunds to the acre.

This crop is grown to some extent in the Seni-Khwarram Circle on the *dagoba* and *bārāni* soils. Outturns of $2\frac{1}{2}$ and 2 maunds have been assumed—practically the same as at last settlement, and as adopted in the Toi Circle at this settlement.

47. This is far and away the most important crop in the kharif harvest. In the tahsil as a whole it occupies 30·6 per cent. of the annual harvested area. The proportion in the Kohāt Tahsil is 24·8 per cent. and in Hangu only 16 per cent. The total annual area in the Teri Tahsil on which *bājra* is matured is estimated to be 40,610 acres; only 594 acres are irrigated. The total value of the *bājra* crop in grain alone has been calculated to be Rs. 3,30,938.

The area cropped with *bājra* was greatly over estimated at the previous settlements. In the Khattak Circles on an average of two years it was put at 28,000 acres, and in Bārak the extent of the *bājra*, *mūng* and *moth* crops was taken to be 40,000 acres. Working on a five years' average of regular crop returns the figures are found to be 22,500 acres in the Khattak Circles and 23,750 acres in the Bārak Circles—a total of 46,250 acres—so that our outturns are being applied to an area which represents only 68 per cent. of the area the former Settlement Officers were working on.

Starting as in the case of wheat with the Nari-Chauntra Circle, and remembering that *bājra* does not do well on its soil, we find experiments on $11\frac{1}{2}$ acres producing an average of 3 maunds. This is the outturn given at last settlement by experiments on $13\frac{1}{2}$ acres; Mr. Tucker assumed 4 maunds in Lower Chauntra and 3 maunds in Nari and Upper Chauntra for all the *bājra*

grown in these circles. An outturn of 3 maunds does not seem high for a crop like *bājra*, but I do not see how we can estimate the average to be higher on the pure *bārāni* soil. The *dagoba* and *bandgora* experiments do not cover sufficient areas in either settlement to be very satisfactory, but comparing them with the outturns assumed in the Toi Circle, I think we can put the produce on an acre of *dagoba* land at 5 maunds and in the case of *bandiza* at 8 maunds.

The Thal Circle produces less *bājra* than any of the large circles, but the soil is more suitable than in Nari-Chauntra and the crop is appreciably better. No large areas have been experimented on this settlement; at the former one $7\frac{1}{2}$ acres of *band bārāni* (*dagoba*) land gave $6\frac{1}{4}$ maunds, and 7 acres of *bandgora* land gave an average of actually 15 maunds. Mr. Tucker assumed 5 maunds on all classes of soil for *bājra* and the autumn crops. We shall not be far wrong in taking the average outturn as 4 maunds on *bārāni*, 6 on *dagoba* and 10 on *bandgora*. The last soil as already explained gets excellent irrigation in ordinary years.

The kharif harvest in the Lawaghar Circle I reckon as much the same as in the poorer parts of Chauntra. The experiments curiously enough bring out the *bandgora bājra* as the worst. This only shows that we cannot rely on experiments on small areas for fair averages. I have adopted 3, 5 and 6 maunds as the produce of the *bārāni*, *dagoba* and *bandgora* soils, respectively.

In the Seni-Khwarram Circle experiments on 12 acres of *bandiza* land and $18\frac{1}{2}$ acres of *dagoba* land give nearly the same results, viz., 6 maunds; on 5 acres of *bārāni* land the produce was $5\frac{1}{2}$ maunds per acre; and non-official experiments on $40\frac{1}{2}$ acres of *bārāni* land give $5\frac{1}{2}$ maunds per acre. I am inclined to think that the non-officials did not trouble much about our distinctions between the different unirrigated soils and that their experiments include the better classes, probably with a view to show how little they produce. At last settlement 7 maunds were taken as the outturn in the Seni portion of the circle and 5 in the Khwarram for all unirrigated soils. A number of judicial decisions have been pronounced on land in this circle; on 82 acres of *bandiza* land the average outturn allowed has been 10 maunds; on 86 acres of *dagoba* 7 maunds; and on 93 acres of *bārāni* 4 maunds. The rates which we should adopt are, I think, $4\frac{1}{2}$ on *bārāni*, 6 on *dagoba*, and 8 on *bandiza*. This will allow for the poorer villages as well as those on the Lachi plain.

The Darra Circle is supposed to produce better *bājra* than any other part of the district. This probably accounts for the assumption at last settlement of the extremely high rate of 8 maunds an acre for all the unirrigated lands. This again has probably led the Civil Courts into giving decrees at the rate of $8\frac{1}{4}$ maunds on 189 acres of *bārāni* land, at $9\frac{1}{2}$ maunds on 196 *dagoba* acres, and at 9 maunds on 39 *bandiza* acres. On the other hand, our experiments give an average outturn of $4\frac{1}{2}$ maunds on $24\frac{1}{2}$ acres of *bārāni* land, $7\frac{1}{4}$ maunds on $4\frac{3}{4}$ acres of *dagoba* land, and 12 maunds on 6 acres of *bandiza* land. The last soil is indeed a very fine one, and this has led to the productiveness of the others being exaggerated. I am assuming rates of $4\frac{1}{2}$ maunds on *bārāni*, 6 maunds on *dagoba* and 11 maunds on *bandiza*. The *dagoba* outturn might possibly be put at 7 maunds, but this is the largest *bājra* producing soil in the circle, and caution is not out of place to allow for the more broken plots of cultivation.

The only irrigated *bājra* that need be considered is that grown on the Chauntra wells. Experiments on $4\frac{3}{4}$ acres give an outturn of 16 maunds; at last settlement the outturn on $4\frac{1}{2}$ acres was $17\frac{3}{4}$ maunds. As the produce does not vary much, 15 maunds have been taken to represent a fair average.

Maize is only grown in the Darra Circle. Here on the analogy of the Kuz Miranzai Circle 8 maunds an acre have been assumed to be the outturn on *dagoba* land and 12 maunds on well land. The produce on *ābi dofosli* land has been put at 14 maunds as against 15 in Kuz Miranzai.

To a great extent this crop is grown for fodder. The portion so used has been classed as such and is excluded from the produce estimate. Outturns for the considerable proportion that is matured have been based on the outturns assumed in the Kohat and Haugu Tahsils and on the experiments modified by the *bājra* estimates. The fortunes of the two crops are similar.

It is very difficult to estimate the outturn of these two crops. They are sown along with *bājra* and extensively used for fodder. *Múng* and *moth*. The outturn in grain is small; and to estimate it I have followed the experiments pretty closely.

Cotton is practically confined to the Seni-Khwarram and Darra Circles, and there it is only grown on *dagoba* and the better quality of *bárání* lands. *Cotton*. The soil in Teri is not suited for cotton and the outturn is poor.

The other kharif crops grown do not require special mention.

PART V.

TENANCIES, RENTS AND PRICES.

48. The details of cultivating occupancy in the Teri Tahsil are :—

Circle.	Seni-Khwarram.	Darra.	Nari-Chauntra.	Thal.	Lawaghar.	Tahsil.
Total cultivated area, 1902-03 ...	41,429	33,952	41,307	65,875	9,358	192,521
Percentage cultivated by owners ...	58.7	47.7	72.1	54.0	81.4	59.2
Percentage cultivated by tenants free of rent ...	.5	4.9	1.6	5.1	2.7	3.2
Percentage cultivated by occupancy tenants ...	15.4	25.4	1.3	1.3	...	8.5
Percentage cultivated by tenants-at-will. { (a) Paying <i>batai</i> ...	24.4	15.5	21.5	38.7	13.6	26.5
{ (b) Paying at revenue rates with or without <i>málikána</i> ...	.9	6.5	2.8	.9	2.2	2.4
{ (c) Paying other cash rents ...	.1	...	.7	...	.1	.2
Percentage of cultivation cultivated by owners at last settlement ...	57.7	54.3	80.9	72.8	84.2	67.9

The proportion of the cultivation carried out by the owners themselves was 68 per cent. at settlement, it is now 59 per cent.; in the Kohát Tahsil the proportion is 51 and in Hangu nearly 60 per cent. Throughout the district therefore the proportion of self-cultivating peasant proprietors is very high, the provincial average for the Punjab being under 45 per cent. and for the North-West Frontier Province 48.4 per cent. The area cultivated by tenants has increased most in the Thal Circle, where it will be remembered a great deal of new land has been brought under the plough.

The area classed as cultivated by tenants free of rent is small. It is generally land broken up out of the village waste by co-sharers in the village, the ownership remaining with the main proprietary body. Such land will now be assessed to revenue and will pay rent at least at revenue rates.

The area held by tenants with rights of occupancy is negligible in the Bārak Circles. In Seni-Khwarram however they cultivate three-twentieths of the land and in Darra as much as one-fourth. Quite three-fourths of these occupancy holdings are to be found in villages owned by the Khan of Teri's family. It has not seemed to me necessary to have separate statistics compiled for the holdings of the Akor Khels; but in paragraph 19 of the Khattak Assessment Report it is stated that 63 per cent. of the whole cultivated area owned by them was entered as cultivated by occupancy tenants.

This question of the status to be given to tenants on the Akor Khel lands was one of the most difficult that arose for decision during the Khattak Settlement when such rights were being defined for the first time. The result is one of the main points which the Khan of Teri has continuously urged against the fairness of the settlement proceedings. The method by which the rights of owners and tenants were determined in the Khattak tract is described in paragraph 40 of the Settlement Report. Owing to the criticism of Mr. Merk, Officiating Commissioner of Pesháwar, the records thus prepared were subjected to careful examination at the hands of Lieutenant-Colonel J. A. L. Montgomery, Settlement Commissioner. His conclusion was that the method of enquiry was the best, in fact almost the only one, that could have been adopted under the circumstances, and that every presumption of accuracy attached to the final orders passed after patient enquiry and careful consideration of all the facts. With this conclusion two Financial Commissioners Mr. (now Sir Charles) Rivaz and Mr. S. S. Thorburn agreed. The Khan was anxious to re-open the question of occupancy rights on the lands owned by the Nawábzádas at the re-settlement, but this could not be, and has not been allowed.

At first sight it would appear that tenants must have been treated with much greater consideration at the Khattak Settlement than at the Bárak one. But further consideration shows that it would have been surprising if a much larger number of tenants had not been able to prove their title to occupancy rights in part of the large areas in which they were settled by the Nawáb and his predecessors, than in the already fully occupied lands of the villages in the Bárak circles. The occupancy sections of the Tenancy Act were devised for the protection of just this class of tenant settlers on waste land. The Khan cannot of course be persuaded to admit the justice of this. But setting aside for the moment the abstract question of rights, it is not clear that the decision in favour of so many occupancy tenants inflicted any actual loss or injury on the Khan and his family. The tenants on 86 per cent. of the land held under occupancy rights pay rent in kind at the customary rates. There were no doubt excellent reasons for deciding that the small balance should pay at revenue rates or cash rents. Therefore, apart from the sentimental question involved, the objection to the grant of occupancy rights is practically only based on the extinction of opportunities for oppression and harassment. The feeling thus clashes with one of the primary objects for which the settlement was undertaken, and is therefore entitled to but little consideration.

49. As in the rest of the district the rates at which rents in kind are paid are regulated almost entirely by custom. On irrigated lands the rent is either one-half or one-third of the produce, but in the latter case the tenant frequently pays the land revenue. On the better *bandiza* (or *bandgora*) and the best class of *dagoba* lands in the Bárak Circles the rent is one-third, and in the Darra Circle one-half even, but a landlord who takes this high rent usually finds the seed or shares in the expenses of cultivation. On ordinary unirrigated land in the Nari-Chauntra and Thal Circles and the Seni portion of the Seni-Khwarram Circle the *batái* rate is one-quarter, while in the Khwarram portion and in the Darra Circle it is usually one-fifth. The excessive pressure on the small culturable area in the Lawaghar Circle keeps the rent there as high as one-third.

The total area cultivated by tenants-at will paying rent in kind is 51,060 acres, or 26·5 per cent. of the cultivation. The details of the areas on which the different rates of rent in vogue are paid are given in Statement No. VII, and in Appendix C the usual calculation of the average rent rate is worked out. Nowhere does the average rent on irrigated land work out as high as one-half. In this respect the Teri Tahsil, besides having practically no irrigated land, is much poorer than Kohát and Hangu. The unirrigated rents vary from '3 in Lawaghar to '28 in Thal and Nari-Chauntra, '25 in Darra and '23 in Seni-Khwarram. As far as rents go the two portions of the last named circle might have been kept apart as separate circles. But this is not really necessary. The Seni villages, where a rent of one-fourth obtains, will be assessed somewhat above the average for the circle, and the Khwarram villages, with their lower rent rate of one-fifth, will be assessed correspondingly below the average,

The proprietor's share of the produce as ascertained now and at the previous settlements is compared in the following statement :—

		Seni.	Khwarra.	Darra.	Nari.	Upper Chauntra.	Lower Chauntra.	Thal.	Lawaghar.
Irrigated lands	Last Settlement	·44	·50	·45	...	...	·24	·4	·41
	Now	·42		·43	·34			·43	·36
Unirrigated lands	Last Settlement	·24	·20	·21	·22	·29	·24	·20	·28
	Now	·23		·25	·28			·28	·30

The irrigated rents are not of much importance, though it may be remarked that in Nari-Chauntra the rate has risen from one-fourth to one-third. As regards rents on unirrigated land the main reason for the divergence in Nari-Chauntra and Lawaghar is that Mr. Tucker deducted from the produce percentages varying from 2 to 7 per cent. for *kamins'* dues before calculating the *batāi* rents: no such deduction has been made at this settlement. In the Seni and Darra Circles Major Leigh excluded holdings in which the rents were "in excess of those generally taken." This vitiates his results and it cannot be asserted that there has been any upward tendency in rents. But a rise in the rent rate has undoubtedly taken place in the Thal Circle. At settlement out of 16,320 acres paying *batāi* rents, 16,100 acres paid one-fifth; now out of 25,455 acres 11,733 acres pay one-fourth, 9,324 acres pay one-third, and only 4,029 acres pay one-fifth. This explains in a great measure the tremendous increase in the half-net-assets estimate in this circle.

50. There is practically only one system of feeding cattle throughout the tahsil. During the winter and early spring, from the middle of November to the middle of April, the cattle are fed on *tānda*, the straw of *bājra* and *jowār* chopped up fine, and are also given whatever *missa bhūsa* (of the *moth* and *mung* crops) happens to be left. From the middle of April to the middle of June they graze on the hill sides, the grass in ordinary years sufficing for their needs. During the next three months wheat straw, the ordinary *bhūsa*, is the main fodder staple helped out by any grass that may grow on the summer rains. From the middle of September to the middle of November *jowār* and *moth* have to be cut green and given to the cattle, but this is done as sparingly as possible. In the Darra Circle, where *maize* is grown in preference to *jowār*, its straw of course takes the place of *jowār* straw.

The area of crops grown exclusively for fodder is very small. The returns for last five years only show 1,000 acres of such crops and of these 970 are entered under the kharif harvest. The crops grown on this area have not been taken into account in the produce estimate. But I am afraid the figures are far from correct. A certain amount of barley has often to be cut for the cattle before ripening, and I imagine that a good deal of the *mung* crop is used up in this way too. It is not much use making even a rough estimate of the area of crops cut green and given to the cattle. All we can do is to bear this matter in mind as a reason for moderation in fixing the assessment.

No crops exclusively used for fodder, such as peas or turnips, are grown. The patwāris have been directed to be more careful, especially in the *rabi girdwari*, in classifying *chari* or crops cut green for the cattle.

On irrigated lands the landlord usually takes his half share of the straw as well as the grain. The area is too small to make it worth while calculating what this is worth. As in Kohāt it may be set off against the expense of maintaining water-channels and *bands*, a very speculative item in the general agricultural expenditure, and also against the under-estimate just noticed of fodder crops. The account probably balances against the landlord.

On the unirrigated area the tenant keeps all the straw and simply pays his grain rent to his landlord. Some of the Akor Khels are more exacting and claim part of the straw even on *bārāni* lands. The amount they recover depends on the quality of the harvest. In a bad year even the Khans probably fail to squeeze any straw out of their tenants, whose cattle must at all costs be kept alive to prevent cultivation breaking down altogether.

51. In the Bārak Assessment Report (paragraph 24) deductions, varying from 2 to 7 per cent. of the produce, were made when calculating the net rents for the dues taken by kamins.

Menials' dues. In the Khattak Assessment Report however (paragraph 28) it was recognised that the village menials were paid by the tenant after the landlord had received his rent share of the produce, and no such deductions were made. The practice throughout the tahsil in this matter is in reality the same. Kamins' dues are calculated by the plough, and it is the man who owns and works the plough, *i.e.*, the tenant, where there is one, who pays the blacksmith and the carpenter. These are practically the only menials found in the tahsil with any actual connection with agriculture. The custom is the same in the Bārak tract as in the rest of the tahsil. In a few villages here and there, for some special reason, the dues are taken from the common heap before division between landlord and tenant, but the instances are so few that no deduction from the general assets of a circle is in the least required.

In the outlying parts one man called the *kārigar* does the work of both blacksmith and carpenter getting double the due which in the larger villages the *lohār* and *tarkhān* take separately. The single due varies with the locality but may roughly be said to be:—in Seni 16 sers of wheat and 16 sers of *bājra*; in Khwarram 24 to 30 sers of wheat and the same quantity of *bājra*; in Darra 10 sers of each of these crops or 18 to 22½ sers of wheat and 18 to 15 sers of *bājra*; in Nari-Chauntra from 16 to 18 sers of both crops; in Thal 10 sers, and in Lawaghar 16 to 20 sers of each. In all cases the due as mentioned above is calculated by the plough.

Owing to the absence of irrigation regular crop watchers and *mirābs* are not kept; where necessary the *chaukidār* fulfils these functions. The barber or *nāi* is the handy village servant for ceremonies and messages. The *chamār* is but seldom found; the people make their own *chaplis* out of *mazri* or the dwarf palm, or purchase leather ones (*kheris*) at centres like Lachi. The *kumhār* or potter is unknown except at Karak, where he recovers the price of his pots not by an annual due but in cash at the time of sale. In some of the Akor Khel villages a *faujdar* or agent for the owner, is kept and paid from the common heap partly by the tenant and partly by the landlord, but the practice is rare, and is only another instance of exaction from the poor by the powerful. It needs no consideration when dealing with general results.

52. The area under tenants paying rents in cash is infinitesimal. No deductions as to the value of land can be drawn from the statistics, which are—

Cash rents.										Circle.	Cultivated area.	Rent.	Rent per cultivated acre.
											Acres.	Rs.	Rs. a. p.
Seni-Khwarram		48	30	0 10 0
Darra		26	137	5 4 3
Nari-Chauntra		306	421	1 6 0
Thal
Lawaghar		10	5	0 8 0

53. The prices to be assumed for computing the money value of the produce of the district were fully discussed in the Preliminary Report submitted in September 1900. The prices then suggested, and accepted by the Financial Commissioner of the Punjab as fair,

Commutation prices.

were based on the average of the harvest prices of the previous twenty-five years (excluding the five years of the Afghan War and the Tirah Expedition) shown in the Government Gazette as having ruled at Kohát. From these averages a deduction of 15 per cent. was made to allow for the cost of transport from the villages to the market, and for the probability that the construction of the railway to Kohát would keep prices at a lower general level than heretofore.

The Chief Commissioner in passing orders on the Kohát-Hangu Assessment Report considered that, while this deduction might be necessary in Teri, it was too liberal for the other tahsils in view of the great improvement in communications. At the time I wrote my report on prices in 1900, I understood that it was contemplated to run a railway from Kohát to Bannu through the Chauntra valley. This idea may now, I believe, be considered to be abandoned. No such far reaching change in communications as this railway would bring about, and as has actually occurred in Kohát and Hangu, is likely to take place. The Gumbat *iláqua* is the only one through which the Kohát-Khushalgarh Railway passes, and a large portion of the land in it is of the poorest description. Much of the Chauntra and Thal produce still finds its way to Kálábágh and Bannu. Such information as is available from the record of prices kept up in the circle note-books, shows clearly that prices rule considerably lower in the villages of Teri than in the town of Kohát. The deduction of 15 per cent. is therefore I think certainly called for in this tahsil. A further deduction would be necessary to allow for the difference in the nature of the communications and the consequent cost of carriage, were it not that the average prices of twenty ordinary years adopted as a standard, fall well below the prices food grains have been fetching during the last few years. The commutation prices are, however, relatively higher in Teri than in Kohát and Hangu.

In the following statement the prices actually obtaining at the previous settlements and those assumed then and now are compared :—

(PRICES ARE EXPRESSED IN RUPEES AND ANNAS PER MAUND.)

1	2	3	4	5	6	7	8	9
Crops.	ACTUAL PRICES AT HARVEST.					ASSUMED PRICES.		
	Average 1857-76.	Average 20 ordinary years to 1899.	Average at Kohát 1875-83 (prior to Bārak Settlement).	Average at Kohát 1884-93 (prior to Khattak Settlement).	Average Teri Circle Note-books, 1895-99.	Bārak 1884.	Khattak 1894.	This Settlement.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. p. p.	Rs. a. p.	Rs. a. p.
Wheat ...	1 8 0	2 0 0	1 10 0	2 4 0	2 6 0	1 0 0	1 5 0	1 12 0
Barley ...	0 14 0	1 3 0	0 14 0	1 5 0	2 0 0	0 10 0	0 14 0	1 1 0
Gram ...	1 6 0	1 14 0	1 12 0	2 0 0	2 4 0	1 0 0	1 5 0	1 3 0
Tarāmira ...	2 14 0	3 4 0	...	3 6 0	3 5 0	2 0 0	1 5 0	2 11 0
Maize ...	1 2 0	1 12 0	1 4 0	2 3 0	2 6 0	...	1 2 0	1 6 0
Jowar ...	...	1 10 0	1 4 0	2 0 0	2 3 0	Rs. 8 per acre.	...	1 6 0
Bājra ...	1 2 0	1 11 0	1 4 0	1 13 0	2 7 0	0 11 0	1 0 0	1 7 0
Kangui ...	0 14 0	2 1 0	...	2 2 0	2 2 0	...	...	1 11 0
Moth ...	1 3 0	2 1 0	...	2 2 0	2 6 0	1 0 0	...	1 11 0
Mung ...	1 13 0	2 10 0	...	2 10 0	3 4 0	1 0 0	1 6 0	2 0 0
Til ...	3 5 0	4 15 0	...	5 0 0	5 14 0	...	...	4 0 0
Cotton ...	3 7 0	4 1 0	...	4 6 0	3 10 0	2 0 0	2 11 0	3 5 0

In Bārak Mr. Tucker adopted the prices which had been used by Major Hastings for the Hangu Tahsil in 1877. He had nothing else very definite to go upon, but a glance at the above table shows that the prices were unduly low. In Khattak Major Leigh worked out the average prices current in the Kohát bazaar for the years 1886 to 1893, he then struck an average between these averages and the prices adopted by Mr. Tucker; and then slightly modified the results to allow for difficulties of communication, remoteness of markets, cost of carriage and octroi at the market towns. Why prices calculated by taking an average between those deemed suitable for Bārak ten years earlier and those obtaining in Kohát from 1886-93 should require further modification for the Khattak tracts, which are much more open and much nearer Kohát, was not

further explained. Nevertheless the Financial Commissioner, in reviewing the Khattak Assessment Report, was inclined to doubt whether the prices assumed were not rather high, and thought that the estimates based on them should be regarded with some caution. It may be remarked that the average prices for 1886-93 were higher on the whole than the average harvest prices quoted for 1884-93 in the above table.

The rise in actual prices which has taken place in the last twenty-five years, and the difference between the prices assumed now and at the previous settlements, have been calculated by applying the above sets of prices to the gross produce, as now ascertained, of the following main staples:—Bárák: wheat, barley, gram, *bājra*, *moth*, *mung* and cotton. Khattak: wheat, barley, gram, *tárómíra*, maize, *bājra*, *mung* and cotton. For the other crops data, of one class or another, are not available for the comparison.

The value in money of the gross produce of these crops at the different prices is—

	Bárák.	Khattak.	Tahsil.
	Rs.	Rs.	Rs.
At average prices obtaining, 1857-76 ...	5,25,357	3,67,519	8,92,876
„ „ harvest prices, 1875-99 ...	7,27,706	5,16,944	12,44,650
„ prices assumed at last settlement ...	2,53,633	3,22,495	6,76,128
„ „ „ at this „ ...	6,19,783	4,44,736	10,64,519

Owing therefore to the rise in actual prices between the periods 1857-76 and 1875-99 there has, throughout the tahsil, been an increase in the value of these products of almost 40 per cent. Mr. Tucker in his assessment calculations assumed prices which took account of only 49 per cent. of the value these crops have had at harvest time during the last twenty ordinary years; Major Leigh ten years later worked up to just over 62 per cent. of the value the crops have had during the same period. The expiring assessment of the tahsil is based on prices which take account of only 54 per cent. of the actual value of the main crops grown. The prices now assumed are in Bárák 75 per cent., in Khattak 33 per cent., and for the whole tahsil 57 per cent., higher than those assumed for the existing assessment. We are now assuming prices which bring 85·5 per cent. of the value of the crops at harvest time into the assessment calculations; the remaining 14·5 per cent. represents the allowance already mentioned for the difference between village prices and those obtaining in the Kohát market.

We cannot, however, take 40 per cent.—the increase in prices during the last twenty-five years—as the increase since the Bárák and Khattak Settlements. A comparison with the prices obtaining just prior to each of these settlements does not help us very much. The value of the five crops, wheat, barley, gram, maize and *bājra* at the harvest prices of 1875-83 (column 4 of table on last page) in the Bárák Circles works out to Rs. 5,68,083 and at the prices of the last twenty ordinary years (column 3) to Rs. 6,91,688; the same staples in the Khattak Circles at the prices of 1884-93 (column 5) were worth Rs. 5,44,781, and at the prices in column 3, Rs. 4,93,594. These figures show an increase of 22 per cent., and a decrease of 9 per cent., respectively. Prices were exceptionally high in 1887, 1888, 1892 and 1893, which fact altogether vitiates the Khattak comparison. The description given above of the method by which commutation prices were devised for the purposes of the Khattak Settlement shows that no real attempt was made to assess by the light of the prices then current.

The facts then that we have to work upon are, that the average harvest prices for ordinary years during the twenty-five years 1875-99 are nearly 40 per cent. higher than the corresponding prices for the twenty previous years, and 22 per cent. higher than the average prices for the nine years 1875-83 prior to the Bárák Settlement. As the last mentioned set of prices is included in the first (the 1875-99 average) and helps to keep down the average, I think we

are justified in saying that there has really been an increase in prices since the Bárak Settlement of from 25 to 30 per cent. and probably nearer the latter than the former figure.

For the Khattak tract the following argument is, I think, admissible. No Settlement Officer would have accepted the prices prevailing in 1884-93 as fair average ones on which to base assessment calculations. There has been a gradual rise in prices throughout the district and this rise has been less marked in the last decade than previously. The rise during the last twenty years having been put at 30 per cent., we may therefore take the rise since the Khattak Settlement to be one of at least 10 per cent.

While on this subject, it may be noted that the Settlement Commissioner, reviewing the Forecast Report, thought that the rise in prices had been 50 per cent in Bárak and 30 per cent. in Khattak. The Financial Commissioner while remarking that there were no very definite figures to go upon refused to accept this estimate, and put the rise at 25 per cent in Bárak and at 10 per cent. in the rest of the tahsil. This agrees very well with the conclusions my figures have brought me to.

54. As the cultivated area has decreased the rise in prices is one of the main reasons justifying an increase in the assessment. A useful guide is furnished by enhancing the assessment leviable at the rates adopted at settlement on the present cultivated area in the proportion that prices have risen. This is done in the following table:—

Circle.	Soil.	Present cultivated area in acres.	Settlement rate.	Resultant revenue.	Enhanced by 10 per cent. in Khattak and 30 per cent. in Bárak.	Rate of incidence per acre.
SENI-KHARRAM.			Rs. a. p.	Rs.	Rs.	Rs. a. p.
	Irrigated	442	3 0 0	1,326	1,459	3 4 10
	Unirrigated	40,987	*0 7 0	17,932	19,725	0 7 8
	Total	41,429	...	19,258	21,184	0 8 2
DARRA.	Irrigated	743	2 8 0	1,857	2,043	2 12 0
	Unirrigated	33,209	0 8 0	16,604	18,264	0 8 10
	Total	33,952	...	18,461	20,307	0 9 7
NARI-CHANDRA.	Cháhi	395	2 14 6	1,148	1,492	3 12 5
	Chashmai dofasli	64	2 1 3	133	173	2 11 3
	ekfasli	107	1 4 0	134	174	1 10 0
	Bandgora	2,339	*0 14 6	2,120	2,756	1 2 10
	Band báráni and báráni	38,402	*0 8 0	19,200	24,960	0 10 5
	Total	41,307	...	22,735	29,555	0 11 5
THAL.	Cháhi	5	2 13 0	14	18	3 15 7
	Bandgora	7,848	0 9 6	4,660	6,058	0 12 4
	Band báráni and báráni	58,022	0 4 3	15,412	20,036	0 5 6
	Total	65,875	...	20,086	26,112	0 6 4
LAWACHAR.	Cháhi	6	1 10 6	10	13	2 2 8
	Chashmai dofasli	124	1 4 0	155	201	1 9 11
	ekfasli	72	0 10 0	45	59	0 13 1
	Bandgora	319	*0 7 6	150	195	0 9 9
	Band báráni and báráni	9,437	0 3 9	2,210	2,873	0 4 10
	Total	9,958	...	2,570	3,341	0 5 4

* Averages.

Some explanation of the rates quoted in the fourth column is required. When different rates were adopted at settlement in two or more circles which have now been merged in one, average rates have been calculated. Similarly an average has been struck between Mr. Tucker's *dofasli* and *ekfasli bandgora* (or *bandiza*) rates, there being now only one *bandiza* soil. In the Parra Circle Major Leigh's rates were Rs. 3 on irrigated land and Re. 0-8-6 on unirrigated land. But his assessment of Rs. 21,300 was reduced by the Lieutenant-Governor and Financial Commissioner to Rs. 19,900; the rates shown above make

allowance for this. The Rs. 1,400 thus reduced in the Darra Circle were imposed on the Khwarram Circle; the unirrigated rate of 7 annas shown above is the average between the resultant rate in Khwarram and that sanctioned for the old Seni Circle. Throughout the Bárák tract a most important factor has to be borne in mind in considering Mr. Tucker's rates. The revenue rates quoted in paragraph 45 of his report brought out a *jama* of Rs. 49,770. It will be seen from paragraph 78 of the report that this sum included not only *taluqdári* but also cesses at Rs. 21-1-4 per cent. on the real revenue demand. The assessment he proposed to impose including *taluqdári* was Rs. 41,551; the balance of the revenue brought out by his revenue rates—Rs. 8,009,—consisted of the usual cesses. (The revenue imposed fell short of the revenue rates *jama* by Rs. 230. It is the practice now-a-days to discuss the land revenue assessment in its relation to the theoretical half-net-assets demand quite apart from the cesses. To exclude the cesses from Mr. Tucker's assessments we must therefore reduce his rates by practically one-sixth; this has been done above. The result gives us the revenue rates of the old settlement which correspond to the revenue rates now to be imposed. In the Thal Circle allowance has also had to be made for the enhancement of 2 annas in the rupee sanctioned from 1891. Had the two final Settlement Reports of the Bárák and Khattak tracts attempted to explain the results of the assessments, instead of merely quoting the proposals contained in the Assessment Reports, they would have shown the rates quoted in the above table.

The results brought out by this enhancement of existing revenue rates in proportion to the rise in prices can be conveniently summarised as follows:—

1	2	3	4	5	6
Circle.	Actual assessment, 1902-03.	Assessment at old rates on present cultivation.	Assessment enhanced for rise in prices.	Difference between columns 2 and 3.	Difference between columns 2 and 4.
	Rs.	Rs.	Rs.	Rs.	Rs.
Seni-Khwarram	22,176	19,258	21,184	-2,918	-992
Darra	18,494	18,461	20,307	-33	+1,813
Khattak tract	40,670	37,719	41,491	-2,951	+821
Nari-Chauntra	21,859	22,735	29,555	-2,124	+4,696
Thal	17,123	20,086	26,112	+2,963	+8,989
Lawaghar	2,862	2,570	3,341	-292	+479
Bárák tract	44,844	45,391	59,008	+547	+14,164
Tahsil	85,514	83,110	1,00,499	-2,404	+14,985

Here another complication is introduced, for in order to get a true comparison we must include in the assessments of the Bárák Circles the sum of Rs. 3,335 due in them as *taluqdári* (see paragraphs 16 and 17); whereas in the Khattak Circles the amount of the *taluqdári* (Rs. 2,887) must be kept out of account as it was imposed in excess of the revenue rates assessment.

The general rise in prices is found to justify an increase in the assessment of 17.5 per cent. A conclusion which can at once be drawn from the above figures is that the Seni-Khwarram Circle is at present over-assessed as compared with the other circles. Later on it will be found that I have had to propose a reduction in the assessment of this circle. In all the circles except the Thal the decrease in cultivation is reflected in the decrease in the revenue which would be imposed, were we now to redistribute the demand on the present cultivated area at the rates adopted at last settlement.

This estimate of the new revenue based on the rise in prices is about a lakh of rupees while the half-net-assets estimate gives a lakh and a half. The reason for this large difference is that the latter estimate assumes differential rates on the various unirrigated soils in the Khattak as well as in the Bárák Circles, and in the latter tract introduces a soil between the *bandiza* and the interior *hárám* lands. Speaking generally the prices estimate is rather hard on the Nari-Chauntra Circle, where the former unirrigated rates were comparatively

high, and falls lightly on the Seni-Khwarram and Darra Circles where the unirrigated soil rates were low considering the large proportion of excellent *bandiza* land. The new revenue will be distributed as equitably as possible by different rates for the three unirrigated soils. A considerable increase in revenue can obviously be taken without raising the burden on the land which can least afford to pay. In fact it is probable that, along with a substantial increase in the total demand, there will be a reduction on the poorest soils. The redistribution of the revenue, rather than the rise in prices, is in fact the main argument I have to advance in favour of the enhanced assessment I am proposing.

PART VI.

HALF-NET-ASSETS ESTIMATE.

55. As explained in the Kohát Hangu Report, crop returns had to be prepared for the last five years after the completion of remeasurements in Bárak, and of the special attestation in Khattak. The soils recognised in the annual crop returns were simply irrigated and unirrigated. Such returns gave no idea of the difference in productiveness of the separate irrigated and unirrigated soils in which the cultivation was classed at measurements. The actual appraisalment of the crops made by the patwári and his superiors who saw them was accepted as correct. The harvested area was simply regrouped according to the present soil classification.

The return of the average matured area for the five years 1898-99 to 1902-03 forms the basis of the produce estimate. To the area of each crop the average estimated outturn, described in paragraph 45, has been applied. The gross produce thus obtained has been turned into its money value at the prices noted in paragraph 53. The result gives us an estimate, admittedly a rough one, of the gross value of the produce of each class of soil in each assessment circle. The process is worked out in Appendix B.

It is not necessary to go minutely into the difference between the estimates of gross outturn made at the previous settlements and now; but it is interesting to note what the figures are:—

Estimated value of the gross outturn of crops.

Circle.									Estimate based on crops: Khattak, 1891-92 and 1892-93 ; Bārak, 1884-85.	Estimate accepted by the Settlement Officers.	Estimate now framed on average cropping, 1898-99 to 1902-03.
									Rs.	Rs.	Rs.
Seni-Khwarram	...	...	...	...	...	...	...	1,82,891	1,82,891	2,38,389
Darra	...	...	...	...	...	...	...	2,77,209	2,77,209	2,32,579
Total Khattak								4,60,100	4,60,100	4,70,968	
Nari-Chauntra	...	...	...	...	...	...	...	2,50,007	1,78,466	2,41,124
Thal	...	...	...	...	...	...	...	4,34,100	2,00,000	3,63,126
Lawaghar	...	...	...	...	...	...	...	44,793	20,000	43,995
Total Bārak								7,28,900	3,98,466	6,48,245	
Tahsil								11,89,000	8,58,566	11,19,213	

Mr. Tucker considered the measurement year 1884-85 an exceptionally favourable one, and declined to accept the estimate brought out by the crop returns as fair. The estimate he framed was just under Rs. 4,00,000. The prices now assumed are (paragraph 53) 75 per cent. higher than those he used; and in this proportion his estimate would now come to Rs. 6,97,500. But in paragraph 13 we found that he had over-estimated the cropping by one-ninth, so that the estimate must be reduced to Rs. 6,25,000 against the present estimate of Rs. 6,48,245. Similarly raising Major Leigh's estimate of Rs. 4,60,000 by 38 per cent. on account of the difference in assumed prices, we get Rs. 6,34,800 which must be reduced to Rs. 5,05,000 to allow for the over-estimate of the cropping, as against the estimate now made of Rs. 4,70,968. There is therefore no material difference between the general pitch of the rates of outturn assumed now and at the Bárak Settlement, while in the Khattak tract our

outturns are on the whole more lenient than those adopted ten years ago. The produce estimate is, I venture to think, a safe one.

To ascertain the proportion of the total value of the gross produce which is *rent*, we apply the average rent rates deduced in Appendix C. Though only 26·5 per cent. of the cultivation is in the hands of tenants paying kind rents, the result gives us a true theoretical rent, because the rates of rent are in practice stereotyped by custom, the result of long experience. The rent a landlord would receive for any given plot of land should he wish to give it to a tenant instead of cultivating it himself, can under ordinary circumstances be predicted with almost absolute certainty.

The value to the landlords as a body of the renting capacity of their land is shown in Appendix D. Half of this amount is the theoretical limit to which Government as lord of the soil restricts its demand in the shape of land revenue, and this is the sum which the Khan of Teri as assignee of the revenue of the tahsil is entitled to claim from the Kbattaks. By applying this demand to the average acreage of matured crops on each soil we deduce the half-net-assets crop rates which assist us in distributing the total revenue over the villages or estates. The details of the calculations will be found in Appendix D.

According to this estimate a full revenue demand for the tahsil would be Rs. 1,50,281, an increase of exactly 70 per cent. on the present revenue (including *taluqdári*) of Rs. 88,401.

56. The half-net-assets crop rates brought out by the process described in the last paragraph are shown in the table below. It is unnecessary to work out separate rates for the 78 acres of *sailáb* land and the 28 acres of *tálábi* land in the Seni-Khwarram Circle. They have been classed for assessment purposes with the *bandiza* area, with which their conditions are very similar :—

Soils.	Seni-Khawarram.	Darra.	Nari-Chauntra.	Thal.	Lawaghar.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Cháhi	3 3 7	3 11 8	3 5 2	2 9 1	2 2 1½
Chashmai dofasli	3 6 7	3 4 5	2 5 5	...	2 7 8
„ ekfasli	3 1 0		2 7 1	...	2 0 0
Abi dofasli	2 13 8	3 3 5	1 13 8	...	...
„ ekfasli	2 6 11	2 12 5		...	1 11 5
Bandiza	1 5 7	1 13 11	1 11 4	1 14 2	1 5 8
Dagoba	1 0 7	1 3 9	1 3 6	1 3 6	1 2 6
Báráni	0 12 8	0 14 6	0 14 10	1 0 5	0 10 2
Average incidence	1 1 3	1 4 0	1 1 8	1 2 3	0 15 4
Resultant revenue, Rs.	28,326	30,176	34,248	50,844	6,687

Comparing these results with those arrived at in the Kohát and Hangu Tahsils we observe at once that the irrigated rates are much lower in Teri. In point of fact there is but little resemblance between the small irrigated area in Teri and the rich *chashmai* and *abi* lands in Kohát and Hangu, and the area itself being very small its assessment is a matter of very minor importance. The proportions between the unirrigated rates work out at a very fair general level throughout the district.

Crop rates were not worked out at the previous settlements. There is, therefore, nothing in their reports to compare the above rates with.

57. There is no body of *ála-málik*s, or superior proprietors, in the tahsil whose income as such has to be taken into account in ascertaining the assets of the general proprietary body of the zamíndárs. The Khan of Teri is in a sense superior proprietor of the

Over-proprietary dues.

whole tahsil. The due he receives in recognition of this right has already been discussed as *talugdāri*.

The Nawāb and his predecessors realised from the people certain extra dues, numbering 13 in Bārak and 11 in Khattak, details of which will be found in the previous Settlement Reports. But at settlement all these dues were abolished, with the exception of *tirni*, *bua* and *kulhāri*.

Tirni is a grazing tax paid on camels, sheep and goats. Cattle, horses, donkeys and mules have never been liable in Teri. The collection of this due by the Khan was expressly sanctioned at both the Bārak and the Khattak Settlements. In the Bārak Circles the villagers paid without demur, but the Seni-Khwarram and Darra villagers refused to pay, and several years' successful defiance confirmed them in their contumacy. This was put a stop to by the issue in November 1902 of the Teri Dues Regulation (No. IV of 1902) which made the *qirni* (and *bua* and *hak talugdāri*) realisable, in case of default, as arrears of land revenue by order of a Revenue Officer. Rules* under the Regulation have lately been published fixing rates, detailing exemptions and prescribing the method of assessment and collection. The animals are enumerated every year with the kharif *girdāwari*. The rates at which *tirni* is levied are light, viz., sheep and goats over six months of age Rs. 10 per 100 head per annum; camels over two years of age Re. 1-8 per head per annum; camels between one and two years paying half rates, and camels under one year of age being exempt. The tax is now assessed and collected by the ordinary revenue establishment, the new system having been introduced from Kharif 1903. It is believed that the firm attitude adopted lately towards the more recalcitrant villages will soon result in *tirni* collections being made as smoothly as the collections of ordinary land revenue. The average demand for the last five years and the demand for the year 1903-04 are shown below :—

	Seni-Khwarram.	Darra.	Nari-Chauntra.	Thal.	Lawaghar.	Tahsil.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Average 1898-99 to 1902-03 demand.	1,500	1,386	2,404	1,038	792	7,120
Demand for 1903-04	1,486	2,329	2,724	752	833	8,123

These figures do not include the *tirni* paid to the Khan by the Tazi Khel Wazīrīs who come in the winter to graze in certain villages in the Darra Circle, or by Ghilzais who come to graze in the Khan's *rakhs*. The Khan's income from *tirni* paid by the Khattaks may be put at Rs. 8,000 per annum. At the end of the Khattak Settlement it was only estimated to be Rs. 4,400, viz., Rs. 2,700 from the Khattak Circles and Rs. 1,700 from the Bārak Circles. In the above table the amount of the tax levied this year in the Darra Circle shows a large increase; this is due to the fact that for the first two years of the quinquennium the Darra villages would not allow their camels, sheep and goats to be even counted.

Bua is a tax paid at the rate of Rs. 2 per house per harvest by non-agriculturists, i.e., by the trading and menial classes. It corresponds to the *hamiāna* or *muh tahrafa* of the Punjab, but is here levied by the Chief of the Khattak clan, not by the village proprietary bodies. The due falls almost entirely on men who are not revenue payers, and being thus distinguished from *tirni* its amount need not be taken into consideration in fixing the land revenue demand. The average demand for the last five years has been :—

	Seni-Khwarram.	Darra.	Nari-Chauntra.	Thal.	Lawaghar.	Tahsil.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Average 1898-99 to 1902-03 demand	904	949	1,786	1,430	717	5,786

* Notifications Nos. 538 G., 539 G., and 540 G., dated 18th March 1904.

At the Bárak Settlement the Khan's income from this source was estimated to be Rs. 2,200 and in the Khattak Settlement Rs. 1,000. The list of *bua* payers has not been revised yet in accordance with the new rules which very properly exempt all true agriculturists from payment, so that the amount due for 1903-04 cannot be quoted. It is, however, probable that there will be a considerable reduction in the demand, which will not, I think, exceed Rs. 4,000.

Kulhári is a tax of Re. 1 per axe on the wood cutters in the eastern portion of the Lawaghar range who supply fuel to the alum factories on the south of the Chichali Pass in the Isa Khel Tahsil. The average demand has been Rs. 490 per annum, of which Rs. 260 are paid by villages in the Chauntra, and Rs. 230 by villages in the Lawaghar Circle. The amount is small but it is paid by revenue payers, and must be taken into account in the case of the poor Lawaghar villages. At the Bárak Settlement it was estimated that the tax would realise Rs. 370 per annum.

58. Mention has already been made of the income of the Khattaks from the salt mines and from Government service. We have observed also that, seeing that the Khan receives grazing dues, the income of the zamíndárs from their cattle and herds must not be counted as an asset for the purpose of assessing land revenue.

Apart from the above the inhabitants of the Teri Tahsil have not many extraneous sources of income. A few of the larger villages in the Darra Circle have a good supply of *Mazri* or dwarf-palm which is extensively sold, but the waste lands of Teri cannot in this respect be compared with those of the Miránzai Valley.

Attention was drawn in paragraph 23 of the Kohát-Hangu Report to the large exports *viâ* Khushálgarh of firewood and charcoal. A considerable proportion comes from the eastern end of the Seni-Khwarram Circle, where the income is of great service in helping the poorer villages to tide over the effects of bad harvests. A steady trade in wood and charcoal is maintained when agricultural operations do not demand the whole time of the people, but the sources of supply are not unlimited, and the remuneration is poor compared with the trouble involved. At the Khattak Settlement it was estimated that the income from this source came to Rs. 4,800 per annum. No attempt has now been made to frame any similar estimate.

As far as the Bárak Circles are concerned it would appear that the people have no sources of income which are not already sufficiently taxed.

Throughout the tahsil these extra profits are not such as to affect the general estimates of the revenue the different circles can pay. Villages which possess *Mazri* or large quantities of wood will be assessed accordingly when the revenue is distributed over the estates.

On the other hand the Khattaks have not much miscellaneous expenditure on agriculture, which is not allowed for by the theory of rent. There are no long water-courses such as some of the Kohát villages have to keep up. The main expense the landowners are put to, is in maintaining *bands* and in repairing embankments. Some of the *bandiza* system of irrigation in the Thal villages is very elaborate. The *bands* require repairs after every very severe downpour of rain. But the people help each other, turning out with their oxen and harrows, and receiving as recompense their daily food and a feast (*balandra*). The Khattaks are not nearly so afraid of hard work as the Bangashes, who prefer to leave heavy repairs to *bands* and channels until the cold weather when they can be done by Jadrans or Ghilzai labourers who have to be paid in cash.

The profits and expenses of well cultivation are dealt with separately. Allowance for expenses on *bands* must be made in fixing the *bandiza* rates.

Value of produce per acre.

59. It is useful to note the value assigned by the produce estimate to each cropped acre on the various soils in each circle—

Annual value of cropped acre in each soil.

Soil.	Seni-Khwarram.	Darra.	Nari-Chauntra.	Thal.	Lawaghar.
	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.
Cháhi	15 6	17 6	19 8	12 2	12 1
Chashmai dofasli	16 4	15 4	13 12	...	13 2
" ekfasli	14 9	...	14 6	...	11 2
Abi dofasli	13 9	14 15	11 0	...	...
" ekfasli	10 2	12 14	...	...	9 14
Bandiza	11 8	14 11	12 3	13 7	9 0
Dagoba	9 0	9 14	8 12	8 11	7 11
Báráni	6 14	7 4	6 10	6 15	4 8

There is nothing in the Teri Tahsil, except the well area round Karak, to correspond to the highly cultivated irrigated lands between Kohát and Hangu. The value of the crops on the unirrigated land in Teri is slightly higher than in the other two tahsils, the reason being, as noted above, that the Khattaks devote far more attention to this their only real kind of cultivation. On the whole the values seem fair, and give a good idea of the relative productiveness of the soils.

There were no statistics from which to prepare similar estimates at the previous settlements. But we can compare the annual value of a cultivated acre as estimated then and now :—

Average value of the gross produce on a cultivated acre of land.

	SENI-KHWARRAM.		DARRA.		NARI-CHAUNTRA.		THAL.		LAWAGHAR.	
	Irrigated.	Unirrigated.	Irrigated.	Unirrigated.	Irrigated.	Unirrigated.	Irrigated.	Unirrigated.	Irrigated.	Unirrigated.
	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.
Settlement	13 2	3 11	13 6	7 6	...	4 1	...	3 4	...	2 0
Now	21 3	5 9	16 7	6 10	28 14	5 8	17 0	5 8	14 7	4 3

The figures for the Bárák Circles have been taken, as far as they are available, from paragraph 43 of Mr. Tucker's report; those for the other circles from paragraph 37 of the Khattak Assessment Report. It will be observed that in spite of the rise in prices a lower value is now assigned to an unirrigated acre of cultivated land in the Darra Circle than at the previous settlement.

60. The Khattaks in distributing the revenue assessed at last settlement on their villages adopted soil rates much more generally than the people in the Kohát and Hangu Tahsils. This was not so marked in the earlier settlement in the Bárák tappa, but in the other circles it is quite exceptional to find the revenue in *bhayachára* villages distributed by an all-round rate or on shares. This will be readily understood from the description of the tenures given in paragraph 28 above. In Seni-Khwarram 39 villages and in Darra 21 made use of soil rates, leaving only one *bhayachára* village in each circle assessed at a *sarsari parta*. Out of the 70 *bhayachára* villages in Bárák 45 adopted soils rates, viz. : 27 in Nari-Chauntra, 6 in Thal and 12 in Lawaghar. From the enquiries made regarding the wishes of the people about the distribution of the new revenue, it is practically certain that the idea of resorting to all-round rates or to assessment by shares will be almost entirely dropped.

In the table below a calculation has been made of the areas under the different soils upon which the zamíndárs distributed the revenue by soil rates. The proportion of the area so assessed to the total cultivation is also shown. It varies from 70 per cent. in Nari-Chauntra to 88 per cent. in Thal, and 89 per

cent. in Seni-Khwarram. The average soil rates which are thus found to be in use in the different circles are most interesting and important. A comparison between them and the soil rates now proposed shows how the new assessments will affect the people. It may be remarked that the villagers seem to have followed the Settlement Officers' rates very closely on the unirrigated soils, but they let the irrigated land off much more lightly than was intended. The reason why there is so little difference between the *dagoba* and *bārāni* rates is apparently because the Settlement Officers did not frame different rates for those soils. Except in the Thal Circle the enhancement proposed in the revenue will not affect the poorest class of land—the pure *bārāni*—some of which indeed will pay less than it does at present. The increased revenue will be paid by the more valuable *bandiza* and *dagoba* lands and to some extent by the small irrigated area. This cannot be regarded as otherwise than satisfactory.

Bachh rates adopted by the zamindars at last Settlement.

CIRCLE.	CHAHIL.			ABI AND CHASHMAI.			BANDIZA AND BAND-GORA.			DAGOBÄ AND BAND-BARANI.			BARANI.			MISCELLANEOUS, GANDI AND BARI.			BANJAR JADID.			TOTAL.		
	Area.	Revenue.	Rate.	Area.	Revenue.	Rate.	Area.	Revenue.	Rate.	Area.	Revenue.	Rate.	Area.	Revenue.	Rate.	Area.	Revenue.	Rate.	Area.	Revenue.	Rate.	Area.	Revenue.	Rate.
	Acres.	Rs.	Rs. a. p.	Acres.	Rs.	Rs. a. p.	Acres.	Rs.	Rs. a. p.	Acres.	Rs.	Rs. a. p.	Acres.	Rs.	Rs. a. p.	Acres.	Rs.	Rs. a. p.	Acres.	Rs.	Rs. a. p.	Acres.	Rs.	Rs. a. p.
Seni-Khwarram ...	55 100	49	0 14 3	482 98	735	1 8 4	5,817 93	3,586	0 9 10	19,590 91	8,860	0 7 3	16,449 91	6,904	0 6 8	889 64	410	0 7 4	1,810 68	219	0 1 11	45,092 89	20,763	0 7 2
Datta ...	92 100	176	1 14 4	326 55	612	1 14 0	1,591 91	1,145	0 11 6	8,918 74	4,712	0 8 5	12,767 71	6,208	0 7 9	601 40	370	0 9 10	...	...	...	24,295 72	13,223	0 8 8
Nari-Channtra ...	316 99	355	1 2 0	142 100	127	0 14 4	1,826	1,237	0 10 10	2,884	1,524	0 8 1	25,353	12,492	0 7 11	164 100	83	0 8 1	1,060 64	188	0 2 10	31,745 70	16,006	0 8 1
Thal ...	2 40	1	0 8 0	...	...	...	9,310	3,129	0 5 5	9,829	2,463	0 4 0	38,769	9,254	0 3 10	...	...	...	...	...	...	57,920 88	14,847	0 4
Lawaghar ...	5 83	2	0 6 5	71 36	26	0 5 10	578	210	0 5 10	2,293	573	0 4 0	5,717	1,345	0 3 9	...	...	...	60 22	14	0 3 9	8,724 85	2,170	0 4 0

NOTE.—Figures in antique type show percentages of each class at settlement.

PART VII.

THE ASSESSMENT.

61. In the Kohát and Hangu Tahsils it has been decided that the assessment during the course of the new settlement shall be a fixed one. The arguments against the introduction of any form of fluctuating assessment in Teri are even stronger than in the rest of the district. The difficulties in the way of adequate supervision of the assessment would be enormous, but apart from all this there is the imperative necessity for letting both the Khan and the Khattaks know once and for all, for the term of this settlement, what the latter have to pay to the former. Even should it be feasible at next settlement to make the demand in the unirrigated tracts of Kohát and Hangu fluctuating, a complete revolution will have to take place in the relations between the Khattaks and their Chief before any such scheme will be practicable in Teri.

As to the pitch of the assessment the remark of the Chief Commissioner in paragraph 13 of his Review of the Kohát-Hangu Report applies, *mutatis mutandis*, with equal force to Teri. To secure fixity and thus obviate the difficulties to the Khan and the people inevitable under a fluctuating system of assessment,—the very difficulties in fact which, it may be observed in passing, originally forced Government to intervene—the Khan must be prepared to forego part of what he would be entitled to if his revenue were adjusted to the character of each harvest, or if he were allowed to collect his revenue in kind.

There is one important point in regard to which the existing method of assessment in the Seni-Khwarram and Darra Circles requires amendment. It has already been referred to in paragraph 17. Here as in the Bárak Circles the assessment imposed should include both the amount levied as land-revenue proper and the amount levied as *talugdári*. The latter should not be imposed, as it erroneously was in the Khattak Settlement, as an extra due over and above a full land revenue assessment. This is a matter in which the responsibility for a fair decision rests entirely on Government, for it is quite impossible to make either the Khan or the Khattaks see reason in regard to it. I have not taken the trouble to discuss the point with either party. The people would only assert that *talugdári* is an iniquitous imposition. The Khan does not know that the due was treated differently in Bárak and in Khattak, and if he did know, would say that its treatment in Khattak was undoubtedly correct, and that in Bárak a mistake, such as the best of men will sometimes fall into, had unaccountably been made. For arguments in favour of maintaining the Bárak system I need only refer to paragraphs 4 and 15 of Lieutenant-Colonel E. G. Wace's review of Mr. Tucker's Report, and to the marginal comments by Colonel W. G. Davies, the other Financial Commissioner, and the orders of the Lieutenant-Governor already quoted. From these various writings I draw the conclusion that, while it is right and proper to recognise the superior privileges of the Khan by the grant of an allowance called *talugdári*, the people should not be the poorer by reason of our recognition of those privileges. They did so suffer in the Khattak Settlement, but not in the earlier Bárak one. It may be said that this is rather splitting hairs, because, even if we adopt the Bárak method, it will be impossible to convince the *zamíndárs* that they are not being called upon to pay a higher revenue than they would in Kohat or Hangu. However the fact remains that it makes a difference of over $8\frac{1}{2}$ per cent. in what they have actually to pay. As far as the Khan is concerned we may rely on the great virtue of the word *talugdári* and on the impartible and inalienable nature of the due.

In the proposals which follow, I have therefore discussed simply the full assessment which should now be imposed. Out of the amount decided upon Rs. 90-10 per cent. ($14\frac{1}{2}$ annas in the rupee) will be styled land revenue, and Rs. 9-6 per cent. ($1\frac{1}{2}$ annas in the rupee) will be *talugdári*. The question of the differential treatment of Akor Khel lands does not arise. Their villages and

holdings will be assessed to the full amount they would pay if held by ordinary Khattaks. Their existing assignments will be held to include *taluqdāri*, and if the Khan wishes to resume the portion of the revenue due as such, he must, in view of the orders of Government on the subject, apply for sanction to do so.

It is now ten years since cash assessments, which have obtained from ancient times in the Bārak tappa, were introduced all through the Khattak Circles. There is therefore much less necessity now to consider villages in the latter which used to pay *bātai* as distinct from those which used to pay in cash. The distinction, and the difficulties it led to in assessment, occupied a great deal of space in the Assessment Report of 1894 and the orders thereon. But we are now able to push the ideal of equalising the burden of revenue payments much further than was possible at the first settlement. In this report I have therefore made no reference to formerly *bātai* paying villages as against old cash-paying ones. The past revenue history of each estate will be considered in fixing its assessment, but it is not necessary to enlarge this report with such details.

I trust that sanction will be accorded to the grant of frontier remissions in border villages on the principles approved of in the Kohāt and Hangu Tahsils. The point does not seem to have been even considered at the previous settlements of the Teri Tahsil. This was no doubt owing to the peculiar position of the Khan as, theoretically at any rate, responsible for the safety of his *ilāqua*, and as the eventual sufferer from the grant of such remissions. But though not put in so many words at the time, it is evident that the old nominal assessments of the Darra villages on the exposed Waziri border were really an application of the system of frontier remissions. Had the matter been thought of in this light the difficulties of the assessment problem, mentioned in paragraph 70 of the Assessment Report and paragraph 19 of the Government Review, would have been simplified. Moreover on general grounds it is difficult to see why, on the other side of the tahsil, the villages adjoining the Jowāki border, situated as they are far from the protection of the central power at Teri, should not require remissions which have been considered necessary in villages in the Kohāt Tahsil lying on both sides of the Khattak villages. Detailed proposals for remissions will be submitted for approval before being announced if the general principle be sanctioned. If it is thought necessary the opinion of the Khan, to whom I have not as yet mentioned it, on the suggestion will be submitted, though I imagine that his answer will be that if Government wishes to give remissions it should deduct them from the quit-rent. The general tenour of this report will at once suggest to the reader numerous arguments against any such fallacy.

62. The wells in Teri like those in the rest of the district are small and shallow. They are built of stone sunk in mud. There are no masonry wells in the tahsil belonging to zamíndárs. Government has sunk a few such wells at encamping grounds and rest-houses, but these are not included in the figures below. The zamíndāri well is generally from 20 to 30 feet deep, and contains some 3 to 5 feet of water. It is usually worked by a solitary buffalo who in a few hours exhausts the scanty supply of water. The best wells in the district are to be found in Lower Chauntra in the group of villages between Mitha Khel and Tappi. Here the old established wells are, for their size, excellent and paying concerns. Sheltered under large trees, with vines growing over the rough arbour constructed above the cylinder, they afford a most pleasing contrast to the general desolate appearance of even cultivated land in Teri. The owners do not, however, live at their wells, but in the villages close by, coming and going every day to their work. The small area of irrigable land belonging to the well-owner is in fact far too valuable to waste on dwelling places, and only a small shed to hold materials and *bhūsa*, and to give shelter from sun and rain when necessary, is built at the well.

Wells of this nature are called *katcha-pakka*. They now number 285, an increase of 50 since settlement. Besides these there are here and there a few purely *katcha* wells, *jhallārs* and *dhenklis*. There were 37 altogether of these at settlement, there are now 26. The cause of the decrease is satisfactory, viz., the conversion of several such *katcha* wells into *katcha-pakka* ones in the Nari-Chauntra Circle. There are now 11 wells of all varieties in the

tahsil, irrigating on the average exactly two acres of land. The area thus protected has risen since settlement from 473 acres to 627 acres.

The distribution of the wells is shown below :—

Assessment Circle.				Seni-Khwar- ram.	Darra.	Nari-Chauntra.	Thal.	Lawaghar.	Tahsil.			
At Settlement	{	Katcha-pakka wells	15	39	169	...	12	235
				Katcha wells, jhallárs, and dhenk- lis.	...	...	1	34	2	...	37
				Total	...	15	40	203	2	12	272	
1902-03	{	Katcha-pakka wells	34	49	188	4	10	285
				Katcha wells, jhallárs, and dhenk- lis.	9	1	8	3	5	26
				Total	...	43	50	196	7	15	311	
Average area irrigated (acres)				...	...	2'3	2'4	2'0	7	4	2'0

The wells in the Seni-Khwarram Circle are situated in the villages of Lachi Bála, Lachi Páyan, Manduri, Khaddar Khel and Gumbat. Only two villages in the Darra Circle, Teri itself with 27, and Dallan with 22, possess wells. In Nari-Chauntra, besides the main *cháhi* tract west of Dab, there are two or three wells in the Nari village of Panos, and in the extreme east of the circle in Dhand Idal Khel. The few wells in the Thal Circle are in Thatti Nasrati and Latambar, and those in the Lawaghar are confined to Saraj Khel.

The cost of sinking and fitting out a *katcha-pakka* well is estimated for the different circles to be : Seni-Khwarram Rs. 100 to Rs. 200 ; Darra Rs. 300 ; Nari-Chauntra Rs. 150 to Rs. 300 ; Thal Rs. 120, and Lawaghar Rs. 100 to Rs. 200. The main expense is in the wood-work. There is no decent wood sufficiently durable to make the wheels, &c., out of, and these have to be imported ready made from Ráwalpindi or Gujrát. The small *katcha* wells, &c., with their much weaker fittings made up locally, only cost from Rs. 20 for a *dhenkli* or *jhallár* to Rs. 50 for a well.

The reasons given and accepted by Government for assessing these small two or two and a half acre wells lightly in the Kohát and Hangu Tahsils apply with equal force in Teri. They need not be repeated here. It will be seen that my proposals will result roughly in an assessment of Rs. 6, Rs. 7 and Rs. 8, respectively, on an average Darra, Seni-Khwarram and Nari-Chauntra well. In Thal and Lawaghar wells can only have a nominal assessment.

It is also equally necessary to encourage the sinking of wells wherever practicable. In paragraph 14 of the orders on the Kohát-Hangu assessments the Chief Commissioner sanctioned the grant of protective leases to *katcha-pakka* wells for a term of twenty years. I recommend that these orders be extended to the Teri Tahsil.

Adopting Mr. Wilson's method of calculating the profits from well cultivation, we are now in a position to see what inducement the system of assessment and protection I am proposing holds out to a landlord to go to the expense of sinking a well. Taking the Nari-Chauntra Circle, a well which costs Rs. 300 is a good one and probably irrigates three acres of land. The gross produce of each acre of *cháhi* land is estimated to be Rs. 33-12. The landlord almost invariably works his own well, but if he let it out he would take half the produce as rent. His receipts therefore after sinking the well would be Rs. 50-10, from which we should deduct 5 per cent. on the capital cost to go towards replacing the buffalo when it is past work, and for repairs to the main

wood-work. The landlord's income from the three acres is therefore Rs. 35-10 per annum. At the proposed soil rate the revenue will be Rs. 12 and including cesses Rs. 14-10. The landlord's net profit is therefore Rs. 21. Now if the well had not been sunk the land would be classed as *bārāni*. The value of the gross produce on an acre of this soil is estimated at Rs. 4-13-9, which for our present purpose we may take as at least Rs. 5, as wells are not sunk in the poorer tracts. The rent on three acres would be Rs. 4-3, and the revenue Re. 1-9-6, or with cesses Re. 1-14-9, leaving the landlord a net profit of Rs. 2-4-3. As long as the well enjoys a protective lease the landlord enjoys a rental of Rs. 33-11-3, and his enhanced profit due to the well is Rs. 31-7. He therefore recovers his outlay in ten years. After the well is assessed at full *chāhi* rates the landlord's enhanced profit will be Rs. 18-11-9, or over 6 per cent. on his money. In Kohāt and Hangu the final return worked out to 7 per cent. The calculation shows that a protective lease for twenty years is not excessive if well sinking is to be properly encouraged.

Rules will be devised for the district as a whole for reducing the assessment on wells which fall permanently out of use—a principle which has already been accepted by Government.

Summary of statistics.

63. The chief statistics bearing on the assessment are now summarised for facility of reference.

Detail.	Seni-Khwar- ram.	Darra.	Nari-Chauntra.	Thal.	Lawaghar.	Tabsil.
Cultivation—						
Percentage of cultivated to total area ...	14·6	18·6	18·0	37·5	9·4	19·7
Do. of irrigated to cultivated area ...	1·1	2·2	1·4	...	2·1	1·0
Do. of average matured to cultivated area ...	63·2	71·1	74·3	67·5	69·1	68·8
Percentage of crops harvested last five years						
Chāhi ...	·5	·6	2·3	...	·2	·7
Chashmai dofasi ...	·4	...	·3	...	2·2	·3
ekfasli ...	·1	·1	·3	...	·8	·2
Soils ...						
Abi dofasi ...	1·2	2·2	...	...	...	·6
" ekfasli ...	·3	·5	...	...	...	·2
Bandiza ...	17·0	11·4	5·8	13·0	3·6	11·3
Dagoba ...	56·3	47·2	23·7	3·2	43·7	28·6
Bārāni ...	24·2	38·0	67·6	83·8	49·5	58·1
Kharif percentage of cropping ...	57·6	56·8	46·3	22·5	46·6	42·4
Maize ...	·5	3·2	...	1	·4	·7
Jowār ...	6·1	1·8	2·9	4·8	1·2	3·9
Bājra ...	47·0	42·0	33·3	12·1	34·7	30·6
Moth ...	·7	1·1	7·0	4·1	7·1	3·7
Mung ...	1·5	3·1	2·4	·5	2·8	1·7
Rabi percentage of cropping ...	42·4	43·2	53·7	77·5	53·4	57·6
Wheat ...	35·6	38·5	45·0	45·4	44·3	42·1
Barley ...	1·7	2·0	2·1	1·0	2·0	1·7
Gram ...	1·3	·5	5·3	30·7	5·9	12·2
Percentage of kharāba on sowings ...	27·5	22·8	27·5	26·1	28·8	26·3
Increase or decrease per cent. of irrigated area ...	-19·2	+8·5	+22·8	+150·0	+122·0	+9·6
Increase or decrease per cent. of unirrigated area ...	-13·5	-1	-5·5	+7·5	-2·6	-2·3
Increase or decrease per cent. of total cultivation ...	-13·6	...	-5·2	+7·5	-1·6	-2·2
Population, holdings, &c.—						
Population per square mile of area ...	64	72	62	82	41	63
Do. do. cultivation ...	366	388	347	220	419	319
Increase between 1891 and 1901 per cent. ...	+15	+6	+9	+22	+7	+12·3
Average cultivated area per holding, 1902-03 ... acres,	11·3	10·3	2·6	7·5	2·3	5·3
Average cultivated area per owner, 1902-03 ... "	8·7	9·8	3·3	8·0	3·2	6·0
Percentage of cultivation cultivated by owners ...	58·7	47·7	72·1	54·0	81·4	59·2
Percentage of cultivated area under mortgage ...	15·0	6·0	39·8	51·8	30·8	32·1
Percentage of cultivated area sold since Settlement ...	22·1	6·5	10·2	11·6	4·4	12·3
Percentage of cultivated area sold to money-lenders ...	2·5	·1	·8	·8	·2	1·0
Revenue.—						
Revenue assessed at Settlement (including <i>talugdāri</i>) ...	Rs. 24,261	19,622	24,868	15,220	2,862	86,833
Incidence on area then cultivated ...	0·8-1	0·9-3	0·9-2	0·4-0	0·4-6	0·7-1
Revenue demand 1902-03 (including <i>talugdāri</i>) ...	24,016	19,541	24,859	17,123	2,862	88,401
Incidence on area now cultivated ...	0·9-3	0·9-2	0·9-7	0·4-2	0·4-7	0·7-4
Do. average cropped area ...	0·14-7	0·13-0	0·12-11	0·6-2	0·6-7	0·10-8
Half net assets estimates ...	28,326	30,176	34,248	50,844	6,687	1,50,281

Proposed assessment
Seni-Khwarram Circle.

64. The half-net-assets of the Seni-Khwarram Circle and the resulting crop rates are:—

Soil.							Average area of crops in the last five years.	Half-net- assets estimate.	Half-net- assets crop rates.
							Acres.	Rs.	Rs. a. p.
Oháhi	...	...	...	...	...	...	138	445	3 3 7
Chashmai dofasli	...	...	...	...	...	...	104	355	3 6 7
„ ekfasli	...	...	...	...	...	...	32	98	3 1 0
Abi dofasli	...	...	...	...	...	...	325	927	2 13 8
„ ekfasli	...	...	...	...	...	...	67	163	2 6 11
Bandiza	...	...	...	...	...	...	4,454	6,018	1 5 7
Dagoba	...	...	...	...	...	...	14,797	15,303	1 0 7
Bárání	...	...	...	...	...	...	6,353	5,017	0 12 8
Total							26,270	28,326	1 1 3

The present assessment of the circle is Rs. 22,176 and the additional amount levied as *tabuqdári* is Rs. 1,840. The two demands together come to Rs. 24,016 and represent very nearly 85 per cent. of the half-net-assets as now ascertained.

In this circle only 1·1 per cent. of the cultivation and only 2·5 per cent. of the cropping is irrigated. About one-seventh of the total area is cultivated and of the cultivated area 63 per cent. brings a crop to maturity on the average every year. In this respect the circle is the poorest in the tahsil.

The kharif harvest is a good deal the larger of the two. *Bájra* occupies 47 per cent. of the cropping, the more valuable wheat occupying only 35·6 per cent. *Jowár* is the only other largely grown crop. The percentage of failed to sown area is 27·5; this probably varies from one-fourth in the west of the circle to one-third in the eastern portion.

Since settlement there has been a decrease of 19 per cent. in the irrigated cultivation, of 13·5 per cent. in the unirrigated, and of 13·6 per cent. in the total cultivated area. The area at present lying waste but fit for cultivation is a little larger than the area under the plough, but much of it is very poor and will never repay cultivation. While the soil in a portion of the circle is very fertile and produces good crops with ordinary rain, the southern and eastern parts have a thin light sandy soil and the cultivation is very scattered and broken.

The agricultural population has increased by 15 per cent. in the last ten years; the pressure on each cultivated square mile is 366. The land-owner's holdings are fairly large, averaging 8·7 acres. The percentage of the cultivation conducted by the owners themselves is 58·7. Of the cultivated area 15 per cent. is mortgaged, and more than one-fifth has changed hands by sale since settlement, i.e., in ten years, of which one-tenth has been acquired by money-lenders.

The average price of land in 1893-97 was only Rs. 12 per cultivated acre, and in 1898-03 it was only Rs. 16, which represents thirty-two years' purchase of the land revenue. These figures are startlingly small when compared with the corresponding ones for the other circles. The incidence of the revenue on the cultivated area at settlement was 8 annas 1 pie, it is now 9 annas 3 pies; the incidence on the average cropped area is 14 annas 7 pies, a higher figure than anywhere else in the tahsil.

All these statistics point one way, i.e., to over-assessment. The Seni-Khwarram Circle is undoubtedly very highly assessed at present, and if not over-assessed absolutely, is certainly very much so comparatively.

It is not so good a circle as either the Darra or the Nari-Chauntra and parts of it are not so good as the Thal. Considerable difficulty is experienced in collecting the land revenue, in some villages it being no easy matter to get men to retain their lambardārships. There are signs of greater indebtedness than in the rest of the tahsil, and land has sold more freely here than elsewhere. The people, it is true, earn Rs. 98,500 in Government service, and receive salt *ināms* worth Rs. 13,200, while their cattle are estimated to bring in Rs. 32,500, on which however they pay Rs. 1,500 as *tirni*, a demand which has only recently been effectively enforced. The existing assessment which absorbs 85 per cent. of the half-net-assets as now calculated, is actually $12\frac{1}{2}$ per cent. higher than the half-net-assets (Rs. 21,318) calculated at last settlement. In the adjoining Toi Circle of the Kohát Tahsil, where it must be remembered the people do not pay *tirni*, the new assessment just sanctioned is equal to 78 per cent. only of the half-net-assets estimate.

On the other hand the Seni-Khwarram villages have apparently been accustomed to a heavy assessment. It is useless to attempt to draw any comparison with the figures in paragraphs 41 to 56 of the Khattak Assessment Report, because there the Seni-Khwarram figures have been transposed by mistake, as noted in paragraph 4 of the Government Review. But the Khan's former demand was ten years ago put as high as Rs. 31,300, though I should prefer, on the strength of the figures quoted in paragraph 9 of this report, to put it at about Rs. 26,000. It is hardly necessary to remark that we have no means of knowing how much of this was successfully collected. Judging from the frequent changes of contractors, I should say there must have been a considerable deficit in all but extremely good years. It was recognised at last settlement that all inequalities could not be removed at once, and that, seeing how much was being done for the people in removing obnoxious burdens, it was not necessary to pitch the revenue as low as it would be in a *khālṣa* tahsil. In fact it was with the express intention that an early opportunity should be given for further reduction and equalization of land revenue, that so short a term was fixed for the settlement of the Seni-Khwarram and Darra Circles. Major Leigh proposed an assessment of Rs. 21,000 for Seni-Khwarram, which, with *taluqdāri* added, came practically to Rs. 23,000; owing to the orders of Government a sum of Rs. 1,400 was shifted from the Darra Circle to the Khwarram.

With the further information now available, I do not see how we can escape the conclusion that the Seni-Khwarram Circle as a whole is over-assessed, and that the imposition of an extra Rs. 1,400 on the poorest portion of it was a mistake. The statistics now gathered together only confirm the general impression of a burdensome assessment, which I got during the course of my village inspections in this circle. It is more difficult to say how far we should go in the way of reduction. In order to arrive at some idea of a fair revenue I have proceeded to frame my proposals for the Nari-Chauntra and Darra Circles first, and then deduced the following result for Seni-Khwarram. The scheme of assessment for all three circles should be judged as a whole. In Nari-Chauntra and Darra I am proposing assessments which take just under 80 per cent. of the half-net-assets—to be strictly accurate 79.4 per cent. and 79.5 per cent., respectively. The Seni-Khwarram Circle is not such a good one as these two, and on the other side of it we have the Toi Circle in Kohát assessed at 78 per cent. of the half-net-assets. We are not, therefore, justified in going above about 79 per cent. of the Seni-Khwarram half-net-assets. The revenue which I propose is, therefore, Rs. 22,400. This is a reduction of Rs. 1,600, or 6.6 per cent. on the present demand. It may be doubted whether this relief is adequate, but I think it will be found to be so, as the people, besides being accustomed to a fairly heavy revenue demand, can hardly be expecting a reduction as the result of the re-assessment. And moreover the village *jamas* will not be reduced throughout the circle; the revenue on some of the better

villages will be raised, leaving all the more to be granted in reductions to the poorer estates.

This sum I propose to distribute over the circle by means of the following rates:—

Soil.	Half-net-assets rates reduced by 20 per cent.	Proposed crop rates.	Resultant revenue.	Arithmetical soil rates.	Proposed soil rates.	Resultant revenue.	Existing soil rates.	Soil rates Toi Circle, Kobât Tahsil.
	Rs. a. p.	Rs. a. p.	Rs.	Rs. a. p.	Rs. a. p.	Rs.	Rs. a. p.	Rs. a. p.
Cháhi	2 9 3	2 8 0	345	3 7 2	3 0 0	300		3 0 0
Chashmai dofasli ...	2 11 8	3 0 0	312	4 15 3	4 8 0	283		6 12 0
Do. ekfasli	2 7 2	2 8 0	80	2 1 8	2 0 0	76	3 0 0	2 3 0
Abi dofasli	2 4 6	2 8 0	812	4 11 6	4 8 0	774		5 4 0
Do. ekfasli	1 15 2	2 0 0	134	1 15 1	2 0 0	138		1 14 0
Bandiza	1 1 3	1 1 0	4,732	0 13 9	0 14 0	4,817		1 0 0
Dagoba	0 13 3	0 13 0	12,022	0 7 10	0 8 0	12,263	0 7 0	0 8 0
Bárání	0 10 2	0 10 0	3,970	0 5 10	0 5 6	3,766		0 4 0
Total	0 13 10	0 13 8	22,407	0 8 8	0 8 8	22,417	0 9 3	1 10 9

The irrigated rates are somewhat higher, and the unirrigated ones appreciably lower, than those proposed for the Nari-Chauntra and Darra Circles, which is as it should be.

At the rate of $1\frac{1}{2}$ annas in the rupee sanctioned for *talúqdári*, the amount to be credited to the due will be Rs. 2,100, while the land revenue demand proper will be Rs. 20,300.

Proposed assessment,
Darra Circle.

65. The half-net-assets of the Darra Circle and the resulting crop rates are:—

Soil.	Average area of crops in the last five years.	Half-net-assets estimates.	Half-net-assets crop rates.
	Acres.	Rs.	Rs. a. p.
Cháhi	149	556	3 11 8
Chashmai	18	59	3 4 5
Abi dofasli	533	1,712	3 3 5
Do. ekfasli	111	308	2 12 5
Bandiza	2,762	5,159	1 13 11
Dagoba	11,398	14,072	1 3 9
Bárání	9,164	8,310	0 14 6
Total	24,135	30,176	1 4 0

The present assessment of the circle is Rs. 18,494 and in addition the Khan recovers Rs. 1,047 as *talúqdári*. The latter item would be about Rs. 1,730 if lands held by Akor Khels were not excluded from the calculation in the village papers. But taking it as it stands the amount recovered from the circle is Rs. 19,541, or nearly 65 per cent. of the half-net-assets as now ascertained.

In the Darra 2·2 per cent. of the cultivation, and 3·4 per cent. of the cropping, is irrigated. Each 100 acres of cultivated land produce on the average 71 acres of crops. Since settlement there has been an increase of 8·5 in the irrigated cultivation. The unirrigated cultivation and the total cultivated area of the circle are practically what they were at settlement.

The kharif harvest is the larger of the two, the crop most extensively cultivated being *bājra* which covers 42 per cent. of the average cropped area. Wheat is a good second with 38·5 per cent. of the cropping to its credit. Other crops grown to some extent are maize, *múng* and barley. The percentage which fails to reach maturity is 22·8 of the total area sown.

The cultivated area occupies 18·6 per cent. of the area of the circle, and another 11·4 per cent. is culturable waste. Some of this is worthless, but part of it will no doubt be brought under the plough in time. Of the cultivation 11 per cent. is classed as *bandiza* and 47 per cent. as *dagoba*, leaving 38 per cent. on land unassisted by drainage in any form. The rainfall of the circle is above the average; the *bandiza* lands are particularly good; taking it all-round the Darra Circle is agriculturally the most favourably situated tract in the tahsil.

The pressure of the population, which has increased by 6 per cent. in the last ten years, on the cultivated area is 388 to the square mile. The Lawaghar is the only circle which shows a higher figure than this. The average rent rate on unirrigated land is one-fourth of the produce. Each owner holds about 10 acres of land. The *khudkásht* area is only 47·7 of the whole. The large holdings of the members of the Khan's family in this circle explain both these figures.

There is little or no indebtedness in the circle. Only 6 per cent. of the cultivation is mortgaged, and another 6·5 per cent. has been sold since settlement. Money-lenders have acquired practically no land at all. At the same time the price of land has doubled in the last ten years, and stands now at Rs. 40 an acre, which is $2\frac{1}{2}$ times as much as cultivated land has been fetching in the Seni-Khwarram Circle. Though land sells for more in the Nari-Chauntra and Lawaghar Circles, the statistics for mortgages and sales in the Darra show the agriculturists to be in a stronger position than anywhere else in the district. It must be remembered, however, that it is only lately that the greater part of the circle became a safe field for the investment of capital, and that the large Akor Khel holdings are at present free from encumbrance.

The incidence of the present revenue is 9 annas 2 pies on the cultivated area, and 13 annas on the average cropped area. The land in the two valleys, the Mandu Darra and the Gurguri Darra, which compose the western half of the circle, is good. Where these two valleys join the cultivation is rather broken, as is the case in the small villages on the Lillán Toi; the eastern part of the circle is a fairly open plain with a light sandy soil. The present assessment is a light one; in fact it was purposely kept low as, previous to the settlement, more than half the area was situated in villages paying very light cash assessments.

It will at once be observed that in spite of the higher commutation prices now assumed, and also in spite of the fact that the *batái* rate of rent on unirrigated land has now been put at one-fourth instead of one-fifth, the half-net-assets estimate framed for this circle, Rs. 30,176, is practically the same as Major Leigh's estimate of Rs. 30,225. The main reason for this is that the cropped area was in 1893 estimated to be 33,000 acres, while it has now been taken as a little over 24,000 acres.

The half-net-assets of the circle being therefore Rs. 30,000, the only question to settle is how much nearer we should go to that sum now than was thought safe at last settlement. Were it not for the amount recovered from the people as *turni* (about Rs. 2,000), I should say that there is no reason why the assessment should not be pitched at least as high as in Shakardarra, with which the Darra Circle has many points of resemblance. The assessment sanctioned there works out to Re. 1-1-2 per cropped acre, but on the whole I think it will be fairer here to pitch the incidence at one rupee. This gives a revenue of Rs. 24,000, which I recommend for adoption. The increase on the present demand is Rs. 4,459, or 22·8 per cent. The assessment will account for 79·5 per cent. of the half-net-assets estimate.

Reducing the half-net-assets crop rates by one-fifth we get the following crops and soil rates for the circle :—

Soil.	Half-net-assets crop rates reduced by 20 per cent.	Proposed crop rates.	Resultant revenue.	Arithmetical soil rates.	Proposed soil rates.	Resultant revenue.	Existing soil rates.	Soil rates, Kuz Miranzai, Hangu Tahsil.
	Rs. a. p.	Rs. a. p.	Rs.	Rs. a. p.	Rs. a. p.	Rs.	Rs. a. p.	Rs. a. p.
Cháhi	2 15 9	2 0 0	298	2 7 4	2 8 0	302	2 8 0	3 0 0
Chashmai	2 9 11	2 8 0	45	3 12 0	3 0 0	36		3 12 0
Abi dofasli	2 9 2	2 8 0	1,332	2 14 9	2 10 0	1,197		6 12 0
Do. ekfasli	2 3 6	1 12 0	194	1 4 2	1 6 0	212		3 0 0
Bandiza	1 7 11	1 8 0	4,143	1 2 9	1 4 0	4,424	0 8 0	1 4 0
Dagoba	0 15 10	1 0 0	11,398	0 11 5	0 11 0	10,990		1 0 0
Bárání	0 11 7	0 11 6	6,587	0 7 8	0 8 0	6,842		0 8 0
Total	1 0 0	0 15 11	23,997	0 11 4	0 11 4	24,003	0 9 2	1 14 9

Out of the total revenue of Rs. 24,000, the sum of Rs. 21,750 will be assessed as land revenue proper and Rs. 2,250 as *talugdári*.

Proposed assessment,
Nari-Chauntra Circle.

66. The half-net-assets of the Nari-Chauntra Circle and the resulting crop rates are :—

Soil.	Average area of crops in the last five years.	Half-net-assets estimate.	Half-net-assets crop rates.
	Acres.	Rs.	Rs. a. p.
Cháhi	683	2,270	3 5 2
Chashmai dofasli	103	241	2 5 5
Do. ekfasli	99	242	2 7 1
Abi	14	26	1 13 8
Bandiza	1,778	3,040	1 11 4
Dagoba	7,320	8,922	1 3 6
Bárání	20,994	19,507	0 14 10
Total	30,991	34,248	1 1 8

The present assessment of the circle in land revenue proper is Rs. 22,737 and *talugdári* amounts to Rs. 2,122. The Settlement Officer and Government intended that the sum of these items, i.e., Rs. 24,859, should represent a full assessment at the time. This sum comes to a little over 72 per cent. of the half-net-assets, as now ascertained. At last settlement the half-net-assets estimate for the circle, excluding the two villages of Drish Khel and Shahidan Darga, was Rs. 25,905. These two estates pay Rs. 1,310. The assessment introduced eighteen years ago therefore took account of as much as 91 per cent. of the then theoretical full demand.

In Nari-Chauntra only 1·4 per cent. of the cultivation and 2·9 per cent. of the cropping is irrigated. Most of this is watered from wells, which are quite a feature in the Lower Chauntra system of agriculture. Not quite a fifth of the total area of the circle is cultivated, but three-fourths of the cultivated area brings a crop to maturity each year. The harvests are therefore more secure here than anywhere in the tahsil.

The *rabi* harvest is somewhat the larger of the two, occupying 53·7 per cent. of the cropping. Wheat (45 per cent. of the total cropping) and *bájra* (33·3 per cent.) are the principal crops. *Moth*, gram, *jowar*, *múng* and barley are also largely grown. The percentage of the area sown, which is recorded as failing to mature, is 27·5. This is probably a fairly true estimate.

Since settlement the small irrigated area has increased by nearly one-fourth. But the total cultivation has decreased by 5 per cent. The wells are built of stones sunk in mud and have increased in numbers from 169 to 183, chiefly through the conversion of *katcha* wells into *katcha-pakka*. The additional area fit for cultivation is only 7·7 per cent. of the total area of the circle. Further improvements must therefore be looked for in the increasing productiveness of the existing cultivation as wells, embankments and dams are made, rather than in the breaking up of fresh land for the plough.

The population is estimated to have increased by 15 per cent. in the last twenty years. There are now 347 persons living on each square mile of cultivated land. The average holding of a Nari-Chauntra zamindár is about 3 acres, a very small holding in an unirrigated tract, and a symptom of over-crowding. The proprietors are very largely self-cultivating: only a little over one-fourth of the cultivation being in the hands of tenants. Practically 40 per cent. of the cultivated area is mortgaged and 10 per cent. has been sold since settlement. Throughout the Bárak tappa the area under mortgage is extremely large. An explanation of this has already been attempted. Money-lenders, it is satisfactory to observe, have since settlement only acquired 0·8 per cent. of the cultivated area. It does not appear that the zamindárs with the exception of the Manzais (who occupy the poorer land on the south as well as the Lawaghar Circle) are involved in debt to any serious extent.

The average price of cultivated land at the commencement of the last settlement was Rs. 43 an acre; it is now Rs. 63. According to this criterion the land here is the most valuable in the tahsil. At present it sells for 115 times its land revenue. The incidence of the existing assessment is 9 annas and 7 pies per cultivated acre and 12 annas and 11 pies per cropped acre.

The Nari-Chauntra Circle is a valuable and, as such things go in Teri, a rich tract of country. But it is evident that it is already fairly fully assessed. It is occupied by a hard-working set of self-cultivating peasant proprietors. The average holding, even allowing for the fact that a number of zamindárs own land in more than one village, is almost certainly not larger than four acres. Outside the villages of Karak and Mitha Khel there is a striking absence of men whom one would call well-to-do. Though the half-net-assets estimate shows that the circle can pay a higher revenue than it does at present, it is not feasible to enhance the demand very much; besides their land revenue these Báraks pay about Rs. 2,500 in *tirai* and in Upper Chauntra an extra sum of Rs. 260 is paid to the Khan as *kulhari*. In view of all this, I think we must limit the assessment to at most 80 per cent. of the half-net-assets estimate, and I accordingly propose to fix the demand at Rs. 27,200. This represents 79·4 per cent. of the half-net-assets, and involves an increase of 9·4 per cent. on the present revenue.

The crop and soil rates by which I suggest that this revenue should be distributed are:—

Soil.	Half-net-assets crop rates reduced by 20 per cent.	Proposed crop rates.	Resultant revenue.	Arithmetical soil rates.	Proposed soil rates.	Resultant revenue.	Existing soil rates.	Soil rates, Toi Circle, Kohat Tahsil.
	Rs. a. p.	Rs. a. p.	Rs.	Rs. a. p.	Rs. a. p.	Rs.	Rs. a. p.	Rs. a. p.
Cháhi	2 10 6	2 12 0	1,878	4 12 1	4 0 0	1,580	2 14 6	3 0 0
Chashmai dofaali ...	1 13 11	2 8 0	257	4 3 5	3 0 0	183	2 1 3	6 12 0
Do. ekfaali ...	1 15 3	2 0 0	198	2 1 0	2 0 0	192	1 4 0	2 3 0
Abi	1 7 9	1 8 0	21	1 8 0	1 8 0	21	...	1 14 0
Bandiza	1 5 10	1 6 0	2,445	1 0 9	1 2 0	2,631	0 14 6	1 0 0
Dagoba	0 15 7	1 0 0	7,320	0 11 7	0 12 0	7,584	} 0 8 0	} 0 8 0
Baráni	0 11 10	0 11 6	15,090	0 8 6	0 8 6	15,020		
Total	0 14 2	0 14 0	27,209	0 10 6	0 10 6	27,220	0 9 7	1 10 9

Out of this total sum the land revenue assessment will be Rs. 24,650 and Rs. 2,550 will be levied as *talugdāri*.

Proposed assessment,
Thal Circle.

67. The half net assets of the Thal Circle and the resulting crop rates are:—

Soil.						Average area of crops in the last five years.	Half net assets estimate.	Half net assets crops rates.
						Acres.	Rs.	Rs. a. p.
Cháhi	...	...	...	...	...	7	18	2 9 1
Bandiza	...	...	...	...	...	5,755	10,836	1 14 2
Dagoba	...	...	...	...	...	1,426	1,743	1 3 6
Baráni	...	...	...	...	...	37,283	38,247	1 0 5
Total						44,471	50,844	1 2 3

The existing demand from the circle is Rs. 15,657 in land revenue proper, and Rs. 1,466 in *talugdāri*. It was intended that both these items should represent the full land revenue of the settlement, i.e., we have to compare our half net assets estimate with Rs. 17,123, and we find that the circle does not quite pay even 34 per cent. of what is now its full theoretical liability.

There is no irrigated area worth mentioning in this circle. As much as 37·5 per cent. of the total area is cultivated, a very large proportion for the Teri Tahsil. The area of crops matured is 67½ acres on each 100 acres of cultivation.

More than three-fourths of the crops are grown in the rabi harvest. Wheat (45·4 per cent.) is the principal crop grown, but here gram (30·7 per cent.) takes the place of *bājra*, which comes third with an acreage of 12·1 per cent. *Jowār* and *moth* are also grown to some extent. One-fourth of the sowings are recorded as failing each year. It is doubtful whether the allowance is sufficient and whether it should not be put at about one-third.

Since settlement there has been an increase of 7½ per cent. in the cultivated area, this being the only circle in the tahsil which shows an improvement in this respect. There is room for an expansion of cultivation up to another 10 per cent. of the total area. Most of this culturable land is of much the same quality as the land already under the plough, and part of it will doubtless be broken up as time goes on.

The population is estimated to have increased by 42 per cent. since 1881. But in spite of this the pressure is still less than anywhere else in the district, being only 220 persons per square mile of cultivation. The increase has been almost evenly distributed between the two decades. The land-owners have kept 54 per cent. of the cultivation in their own hands. Each owner holds between 7½ and 8 acres of cultivated land. A little more than half the cultivated area is under mortgage. There is nothing serious in this enormous proportion of nominal indebtedness, as the majority of the mortgages are only entered into to secure continued cultivation of the land and to club together scattered plots. About one-ninth of the cultivated area has been sold in the last 17 years, of which less than one-fourteenth has been sold to money-lenders.

The average price of land has risen during the period of the settlement from Rs. 22 to Rs. 35 per cultivated acre, and is now 178 times the revenue payable. The incidence of the revenue at settlement was as low as four annas a cultivated acre, and is now four annas and two pies. The slight increase is due to the enhancement which became due in 1891. Each acre of matured crops only pays six annas and two pies at present. This is lower than the incidence in the much poorer Lawaghar Circle and is less than half the amount paid by a cropped acre in the other circles.

Whichever way we look at it, the present assessment, which is 85·6 per cent. of Mr. Tucker's very moderate half net assets estimate of Rs. 20,000, is an extremely lenient one. The half net assets estimate now framed is two-and-a-half times as large, but we cannot enhance the revenue in the same proportion. The circle has improved very greatly since settlement, and some

further development may be expected. The population has not yet increased to its full limits and the holdings are of good size. There is no circle in the Kohát and Hangu Tahsils to compare the Thal with. The similar land adjoining it in the Bannu District was assessed so lightly and such a long time ago, that no useful comparison can be drawn from that side. The only question to settle is how far we can safely raise the assessment. Now it has to be borne in mind that the cultivation is precarious. After a good winter the whole of the Thal is a smiling corn field; after a bad one the greater part of it is a bare expanse of sand. In deciding upon a fixed revenue demand we must not go above the limit which the zamíndárs can reasonably be expected to pay in a bad year out of their extra profits from a good one.

On the whole, I do not think, we should do more than double the existing demand. The people will, I believe, be satisfied with this, and the Khan ought to be equally so. I have therefore to suggest that the circle be assessed at Rs. 34,400. This represents 67·7 per cent. of the half net assets, and is an increase of 101 per cent. on the present full revenue. Seeing how large the increase is, the Chief Commissioner may feel inclined to make the assessment a progressive one. Personally I do not think it is necessary to do so, and similarly I would deprecate any further enhancement either now or in future during the course of this settlement. As in the Kohát and Hangu Tahsils, I would ask for permission to defer a portion of the increased demand, say 4 to 6 annas in the rupee, for a period of three years, to allow the people to alter their expenditure in accordance with their new revenue liabilities.

The following rates proposed for sanction are got by reducing the half net assets crop rates by one-third and making a few minor adjustments, where called for:—

Soils.	Half net assets crop rates re- duced by one- third.	Proposed crop rates.	Resultant revenue.	Arithmetical soil rates.	Proposed soil rates.	Resultant revenue.	Existing soil rates.
	Rs. a. p.	Rs. a. p.	Rs.	Rs. a. p.	Rs. a. p.	Rs.	Rs. a. p.
Cháhi	1 11 5	1 12 0	12	2 6 5	2 0 0	10	2 18 0
Bandiza	1 4 2	1 8 0	8,632	1 1 7	1- 2 0	8,829	0 9 6
Dagoba	0 13 0	0 14 6	1,292	0 8 0	0 8 0	1,286	} 0 4 3
Bárání	0 11 0	0 10 6	24,467	0 7 1	0 7 0	24,259	
Total	0 12 3	0 12 4	34,403	0 8 4	0 8 4	34,384	0 4 2

Out of the total demand Rs. 3,225 will be assessed as *taluqdári* and Rs. 31,175 will be the land revenue demand proper.

Proposed assessment, Lawaghar Circle.

68. The half net assets of the Lawaghar Circle and the resulting crop rates are:—

Soil.	Average area of crops in the last five years.	Half net assets estimate.	Half net assets crop rates.
	Acres.	Rs.	Rs. a. p.
Cháhi	11	24	2 2 11
Chashmai dofasli	155	384	2 7 8
Do, ekfasli	53	106	2 0 0
Abi ekfasli	7	12	1 11 5
Bandiza	250	339	1 5 8
Dagoba	3,040	3,508	1 2 6
Bárání	3,445	2,314	0 10 9
Total	6,961	6,687	0 15 4

The full land revenue assessment of this circle, like the others in the Bārak tract, amounting to Rs. 2,862, consists of land revenue proper Rs. 2,615 and *talugdāri* Rs. 247. The circle is, therefore, assessed at present at about 43 per cent. only of what it could theoretically pay. Mr. Tucker's half net assets estimate was Rs. 3,100, of which he took 92 per cent. in his assessment.

In the Lawaghar the irrigated area forms 2·1 per cent. of the cultivation and produces 3·2 per cent. of the total area of crops. Less than one-tenth of the total area of the circle is cultivated. Each 100 acres of cultivation produce 69 acres of matured crops.

The kharif is slightly the larger harvest of the two, the proportion being much the same as in the Nari-Chauntra Circle. Wheat (44·3) and *bājra* (34·7) between them occupy 79 per cent. of the cropped area. A little *moth*, gram, *mung* and barley are also grown. The percentage of *kharāba* is 28·8, but I doubt whether the allowance should not be more liberal, and I am inclined to think that 35 per cent. would not be much, if at all, above the mark.

The area under cultivation is practically the same as at settlement, the decrease shown by the figures being less than 2 per cent. This decrease has taken place in the unirrigated area for the small irrigated area has more than doubled. An area equal to about one-third of the present cultivated area is classed as cultivable. Much of this is, however, to all intents and purposes perfectly useless. The large proportion of over 87 per cent. of the circle is comprised of unculturable hills and ravines. The soil is as a rule poor, sandy and bare. It is almost surprising to see agriculture maintained in the face of such physical difficulties as exist here.

The population is estimated to have increased by only about 4½ per cent. since 1881. Though the pressure on the total area is as low as 41 per square mile, on the cultivation it is naturally very high, in fact 419 persons per square mile. This over-crowding is reflected in the diminutive size of the zamindār's holdings, which average 3½ acres, a shade smaller even than the Nari-Chauntra holdings. The extremely large proportion of 81·4 per cent. of the cultivation is carried on by the owners themselves. The proportion of the cultivated area under mortgage is low for Bārak, being just over 30 per cent. Only 4·4 per cent. of the cultivation has been sold since settlement, and only one twenty-second part of this has passed into the hands of money-lenders.

The average price of land, which at settlement was Rs. 64 and is now Rs. 77 per cultivated acre, is much higher than anywhere else in the tahsil. Land now sells at 321 times its land revenue. These excessive prices are due to the dearth of land. The incidence of the revenue at settlement on the cultivation was as low as four annas six pies per acre; it is now four annas and seven pies. On the average cropped acre the incidence is six annas and seven pies.

The conclusion to be drawn from these facts is that this wretched out-of-the-way tract, occupied by an excessive number of poor self-cultivating peasants, must be treated very lightly in assessment. Besides their land revenue the people pay Rs. 800 in *tirni*, and Rs. 230 in *kulhāri*. The Lawaghar Circle is more or less akin to the Kohi Circle in Kohāt and to the poorer portions of Shakardarra. It should on the whole be treated more leniently than either of these circles, because most of its land lies in a narrow gorge, and is therefore very liable to destruction from floods. The *bunds* require frequent repairs. The more one sees of this part of this district, the more struck one is by its miserable appearance. Taking everything into consideration, I do not think we can possibly put the assessment higher than Rs. 4,000. This is only 60 per cent. of the half net assets estimate, but it represents an increase of almost 40 per cent. on the present full demand. Out of this amount, Rs. 3,625 will be assessed as simple land revenue, and Rs. 375 as *talugdāri*.

The crop and soil rates at which I propose to assess the circle are as follows :—

Soil.	Proposed crop rates.	Resultant revenue.	Arithmetical soil rates.	Proposed soil rates.	Resultant revenue.	Existing soil rates.	Soil rates, Kohi.	Soil rates, Shakar-darra.
	Rs. a. p.	Rs.	Rs. a. p.	Rs. a. p.	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Cháhi	2 0 0	22	3 10 8	2 0 0	12	1 10 6	4 0 0	2 0 0
Chashmai dofasli	2 4 0	349	2 13 0	2 12 0	341	1 4 0	4 0 0	4 0 0
Do. ekfasli	2 0 0	106	1 9 4	1 8 0	100	0 10 0	2 0 0	...
Abi ekfasli	1 0 0	7	1 6 5	1 0 0	5	...	...	...
Bandiza	1 0 0	250	0 12 6	0 12 0	240	0 7 6	0 12 0	1 12 0
Dagoba	0 11 6	2,185	0 7 11	0 8 0	2,204	} 0 3 9	{ 0 8 0	0 14 0
Bárání	0 5 0	1,077	0 3 5	0 3 6	1,100			
Total	0 9 2	3,996	0 6 5	0 6 5	4,002	0 4 7	0 7 0	0 10 0

69. The following two tables give for purposes of convenient comparison the crop and soil rates now proposed for sanction. The former are the more important, and will be chiefly relied upon in distributing the revenue over the villages.

CROP RATES :—

Soil.	Seni-Khwar-ram.	Darra.	Nari-Chauntra.	Thal.	Lawaghar.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Cháhi	2 8 0	2 0 0	2 12 0	1 12 0	2 0 0
Chashmai dofasli	3 0 0	} 2 8 0	2 8 0	...	2 4 0
Do. ekfasli	2 8 0		2 0 0	...	2 0 0
Abi dofasli	2 8 0	2 8 0	} 1 8 0	...	...
Do. ekfasli	2 0 0	1 12 0		...	1 0 0
Bandiza	1 1 0	1 8 0	1 6 0	1 8 0	1 0 0
Dagoba	0 13 0	1 0 0	1 0 0	0 14 6	0 11 6
Bárání	0 10 0	0 11 6	0 11 6	0 10 6	0 5 0
Average incidence	0 13 8	0 15 11	0 14 0	0 12 4	0 9 2
Resultant revenue	22,400 0 0	24,000 0 0	27,200 0 0	34,400 0 0	4,000 0 0

SOIL RATES.

Cháhi	3 0 0	2 8 0	4 0 0	2 0 0	2 0 0
Chashmai dofasli	4 8 0	} 3 0 0	3 0 0	...	2 12 0
Do. ekfasli	2 0 0		2 0 0	...	1 8 0
Abi dofasli	4 8 0	2 10 0	} 1 8 0	...	...
Do. ekfasli	2 0 0	1 6 0		...	1 0 0
Bandiza	0 14 0	1 4 0	1 2 0	1 2 0	0 12 0
Dagoba	0 8 0	0 11 0	0 12 0	0 8 0	0 8 0
Bárání	0 5 6	0 8 0	0 8 6	0 7 0	0 3 6
Average incidence	0 8 8	0 11 4	0 10 6	0 8 4	0 6 5
Resultant revenue	22,417 0 0	24,003 0 0	27,220 0 0	34,384 0 0	4,002 0 0

70. In the task of distributing the sanctioned circle assessments over the estates in the Kóhát and Hangu Tahsils, I found the fluctuating assessment crop rates worked out in paragraph 71 of the Assessment Report of the greatest use. They directed attention to differences in resources evidenced by the ability or inability of various estates to grow the more valuable crops—wheat, rice and maize. Similar rates have therefore been prepared for Teri, though I am afraid they will not be of so much assistance here, as the area occupied by maize, rice and garden produce is so extremely small. However the rates will distinguish automatically between the favourably situated wheat-growing villages and their less fortunate neighbours who have to be content with *bājra* for their main staple of production.

Owing to the insignificant area in the tahsil which is irrigated, it has not been thought necessary to prepare separate irrigated and unirrigated rates.

The statement on the succeeding page gives the rates for each crop, but to simplify the actual work of assessment, the crops, as in the rest of the district, have been divided into two classes :—

Class I.—Wheat, rice, maize, fruits, tobacco, vegetables and clover.

Class II.—Barley, gram, *sarshaf*, *jowár*, *bājra*, *kangni*, *moth*, *múng*, *til*, cotton and miscellaneous.

The following rates bring out the circle *jamos* proposed for sanction :—

Fluctuating assessment crop rates.

CROP.	SENI-KHWARRAM.			DARRA.			NARI-CHAUNTRA.			THAL.			LAWAGHAR.		
	Area.	Rate.	Revenue.	Area.	Rate.	Revenue.	Area.	Rate.	Revenue.	Area.	Rate.	Revenue.	Area.	Rate.	Revenue.
Acres.	Rs. a. p.	Rs.	Acres.	Rs. a. p.	Rs.	Acres.	Rs. a. p.	Rs.	Acres.	Rs. a. p.	Rs.	Acres.	Rs. a. p.	Rs.	
Class I ..	9,562	1 0 0	9,562	10,106	1 3 0	12,000	14,075	1 2 0	15,834	20,208	0 14 0	17,682	3,122	0 11 0	2,146
Class II ..	16,537	0 12 6	12,920	13,737	0 14 0	12,020	16,702	0 11 0	11,489	23,944	0 11 3	10,835	3,836	0 8 0	1,918
Total Revenue	...	...	22,482	...	...	24,020	...	...	27,317	...	...	34,517	...	...	4,064

Half net fluctuating crop rates,—Teri Tahsil.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Circle.	Detail.	Wheat.	Barley.	Gram.	Sarshaf.	Tobacco.	Rice.	Maize.	Jowár.	Bájr.	Kangni.	Moth.	Múng.	Til.	Cotton.	Fodder (rabi).	Fruits.	Vegetables.	Miscellaneous.
SENI-KHWARRAM	Cropped area ...	9,387	463	352	541	...	...	121	1,596	12,350	2	185	352	30	304	5	10	44	362
	Rate per acre ...	1-2-9	1-1-5	0-13-2	0-11-8	...	...	2-4-3	0-13-0	1-0-5	0-8-0	0-8-5	0-10-2	0-14-5	1-1-7	...	1-11-2	1-2-2	0-11-10
DARRA	Cropped area ...	9,307	479	124	205	...	11	764	434	10,146	392	270	748	197	447	...	2	22	295
	Rate per acre ...	1-6-5	1-3-10	1-0-5	1-1-6	...	2-7-3	1-12-1	0-14-5	1-1-9	0-13-0	0-11-11	0-11-1	0-15-8	1-3-11	...	2-0-0	1-3-8	0-11-7
NARI-CHAUNTRA	Cropped area ...	13,958	641	1,635	48	83	...	...	909	10,323	5	2,157	733	11	116	21	...	34	124
	Rate per acre ...	1-5-11	1-2-4	1-1-9	0-15-4	2-1-7	...	...	0-13-7	0-13-6	0-12-10	0-12-3	0-9-11	0-14-7	1-3-4	...	...	1-15-1	0-12-9
THAL	Cropped area ...	20,181	455	13,648	...	...	...	24	2,136	5,384	...	1,836	221	14	86	2	...	3	164
	Rate per acre ...	1-3-2	0-14-1	1-0-11	...	...	...	1-15-4	1-2-0	1-6-4	...	0-12-3	0-12-4	0-12-7	1-6-6	...	...	1-5-4	0-14-5
LAWAGHAR	Cropped area ...	3,085	139	413	13	...	...	30	87	2,407	11	499	190	1	18	1	2	5	58
	Rate per acre ...	1-1-10	0-13-4	0-15-0	0-12-4	...	...	2-4-9	0-13-3	0-14-7	0-11-8	0-5-2	0-6-6	0-8-0	0-14-3	...	1-8-0	1-0-0	0-10-9

PART VIII.

FINANCIAL RESULTS AND MISCELLANEOUS.

Results of the assessment.

71. The financial results of the proposed assessments are summarised in the following table:—

CIRCLE.	PRESENT JAMA.			PROPOSED JAMA.			INCREASE OR DECREASE.			Percentage of enhancement in full demand.
	Land revenue.	Taluqdári.	Total.	Land revenue.	Taluqdári.	Total.	Land revenue.	Taluqdári.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Seni-Khwarram ...	22,176	1,840	24,016	20,300	2,100	22,400	- 1,876	+ 260	- 1,616	- 6.6
Darra ...	18,494	1,047	19,541	21,750	2,250	24,000	+ 3,256	+ 1,203	+ 4,459	+ 22.8
Nari-Chauntra ...	22,737	2,122	24,859	24,650	2,550	27,200	+ 1,913	+ 428	+ 2,341	+ 9.4
Thal ...	15,657	1,466	17,123	31,175	3,225	34,400	+ 15,518	+ 1,759	+ 17,277	+ 100.9
Lawaghar ...	2,615	247	2,862	3,625	375	4,000	+ 1,010	+ 128	+ 1,138	+ 39.8
Tahsil ...	81,679	6,722	88,401	1,01,500	10,500	1,12,000	+ 19,821	+ 3,778	+ 23,599	+ 26.7

Thus the total land revenue demand, including land revenue proper and *taluqdári*, is raised from Rs. 88,400 to Rs. 1,12,000. The increase is Rs. 23,600. In the Forecast Report the Financial Commissioner anticipated that the new demand under land revenue proper would be Rs. 97,500, *viz.*, Rs. 50,500 in the Bárak Tappa and Rs. 47,000 in Seni-Khwarram and Darra. My proposals vary from this very greatly as far as the distribution is concerned, and the total increase brought out is Rs. 4,000 higher. It is not necessary to discuss in detail the reasons for the difference in distribution.

If the proposals are sanctioned the increase in the assessment will be nearly 27 per cent. This does not appear to be a heavy increase, but it takes account of 74.7 per cent. of the half net assets estimate. The revenue finally decided upon in the Kohát and Hangu Tahsils represented respectively 78 per cent. and 63, rising to 73 per cent. of the half net assets. Though the decision to put the revenue arrangements of the Teri Tahsil on a regular footing, relieved the Khattaks of a number of vexatious dues in consideration for which they might justly be called upon to pay to the Khan a slightly higher revenue than they would otherwise be assessed to, it is probable that this is more than counterbalanced by the greater stringency in collection and the practical abolition of the old means of evading payment. In any case it has to be remembered that the Khattaks pay *turni* which their Bangash neighbours escape.

It may be as well to note here that in making suggestions for the circle *jamas* I have attempted to so adjust matters as to simplify the calculation of the somewhat awkward fraction of $1\frac{1}{2}$ annas fixed for *taluqdári*. This explains the odd hundreds of rupees proposed in three of the circles, where *jamas* expressed in round thousands would appear at first sight more suitable. I hope that, if alterations are found to be desirable, it will be feasible to make them in such a way as to keep the accounts as free from complications as possible.

There are no water mills in the Teri Tahsil.

72. To frame an estimate of the effect of the re-assessment on the Khan's receipts from land revenue, we must for the present assume that the numerous assignments he makes, now amounting to over Rs. 17,000, will vary in the same proportion as the land revenue proper of the different circles. We must also deduct the amount of *taluqdári* due on the Akor Khel grants, because this sum will, as noted above, (paragraph 61) remain assigned to the grantees until Government passes orders to the reverse. The result of these separate calculations is given in the attached

statement. To facilitate comparison the existing net receipts of the Khan from land revenue and *taluqdāri* are quoted from paragraph 16 above. The Khattak Settlement Report in paragraph 48 professes to give an account of the Khan's net income, but for some inexplicable reason the amount of revenue assigned to Akor Khels was not deducted as of course it should have been.

Estimate of the Khan of Teri's receipts from land revenue and taluqdāri:—

CIRCLE.	LAND REVENUE PROPER.					TALUQDARI.				TOTAL RE-CEIPTS.	
	New assessment.	Estimated assignments.		Recoverable under new assessment.	Recoverable under present assessment.	Full new demand.	Proportion due on Akor Khel grants.	Recoverable in future.	Recoverable now.	Recoverable under new assessment.	At present recoverable.
		Akor Khel grants.	Ināms, muāfis, &c.								
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Seni-Khwarram	20,300	2,400	350	17,550	19,180	2,100	225	1,875	1,840	19,425	21,020
Darra	21,750	9,200	400	12,150	10,350	2,250	865	1,385	1,047	13,535	11,397
Nari-Chaunira	24,650	450	4,050	20,150	18,579	2,550	40	2,510	2,122	22,660	20,701
Thal	31,175	550	2,150	28,475	14,297	3,225	50	3,175	1,466	31,650	15,763
Lawaghar	3,625	..	700	2,925	2,115	375	...	375	247	3,300	2,362
Tahsil	1,01,500	12,600	7,650	81,250	64,521	10,500	1,180	9,320	6,722	90,570	71,243

According to this estimate, out of the total assessment of Rs. 1,12,000 the Khan will recover Rs. 81,250 in land revenue proper and Rs. 9,320 in *taluqdāri*, while the Akor Khel grants will absorb Rs. 13,780 and *ināms*, *birats* and petty *muāfis* will absorb Rs. 7,650. The increase in the net revenue recoverable by the Khan is Rs. 19,327. There will be some deduction from this on account of Frontier remissions, if the proposal to grant such remissions is sanctioned. On the other hand, if the Khan pursues his policy of resummptions of *ināms* and *birats*, the item deducted under that head will steadily decrease. I imagine that before the new settlement has run for many years, the Khan's net annual income from land revenue will be found to have increased by twenty thousand rupees.

73. It has already been stated at the commencement of this report that the lease of the Teri Tahsil for Rs. 20,000 per annum was, in 1858 after the mutiny, confirmed to the Khan (afterwards Nawāb Sir) Khwāja Muhammad Khan and his heirs in perpetuity. In consideration of his further services during the Kābul War the Government of India, by the orders contained in their Foreign Department letter No. 1230, dated 13th June 1881, remitted Rs. 2,000 per annum from the quit rent for the life of the Nawāb. After his death in November 1889 the full sum of Rs. 20,000 was paid by his successor. In 1895 Sir D. Fitzpatrick, in order to minimise the pecuniary loss to which the Khattak Settlement was putting the Khan in the way of reduction of assessment and increased cost of Revenue Establishment, obtained the sanction of the Government of India to the re-grant of the remission of Rs. 2,000 for the period of the new settlement. Both the Punjab Government letter No. 104, dated 28th January 1895, recommending, and the Foreign Department letter No. 1217 F, dated 30th March 1895, sanctioning this concession, stated most explicitly that it would cease with the termination of the settlement. The remission was given effect to from Kharif 1893, the harvest from which the new assessment came into force. The terms of the assessment and of the remission now lapse with the revenue instalment paid for Rabi 1904. Formal orders raising the sum payable by the Khan to Rs. 20,000 from Kharif 1904 are all that are necessary. The Khan has known all along that the remission was one for the term of settlement only.

74. The question of the total income of the Khan of Teri from his *Income of the Khan of Teri.* *riyāsat*, as he likes to call it, is one that is always cropping up, chiefly in connection with his indebtedness. The matter does not immediately concern the assessment, but it may perhaps be as well if I attempt to bring what information is available on the subject up to date. To do this I have taken the figures given in paragraph 48 of the Khattak Settlement Report as furnishing an estimate for the year 1895, and have framed a similar estimate for 1904-05, by adopting the results of the re-assessment and by altering the other statistics in accordance with the latest returns from the tahsil.

Income.							1895.	1904-05.
							Rs.	Rs.
Recoverable income from land revenue and <i>taluqdāri</i>							74,239	90,570
EXTRA CESSES.	{ <i>Tirni</i> realised from the Khattaks						4,400	8,000
	{ <i>Buhā</i> realised from residents of the tahsil						3,200	4,000
	{ <i>Kulhāri</i> realised from Khattaks						370	490
	{ <i>Tirni</i> realized from Waziris and other tribes... ..						500	500
The Khan's salt <i>inām</i>							4,764	10,000
Income from mutation fees							370	1,500
Proprietor's share of income from land attaching to the Khanship (Appendix G.) (not mentioned in 1895 Report.)							3,110	3,440*
Total							90,953	1,18,500
EXPENDITURE.								
Quit rent							18,000	20,000
Pay of Tahsil Establishment, including contingencies, &c.							5,646	6,700
Khan's Border Police (26 men or so) ... ..							...	1,800
Total							23,646	28,500
Net Income							67,307	90,000

* Estimated income.

We may take it that the Khan's income has risen by Rs. 22,500 during the last ten years, and will now be Rs. 90,000. The increase in the amount actually realized must be much greater, as it is only quite recently that a large proportion of the extra cesses has been effectively collected. The above estimate does not include the income from his private lands, at present assessed at Rs. 1,456, which as already noted the Khan has, nominally at least, made over to his son Abdul Hakim Khan. In any case, considering the style in which he lives, the Khan, who has for several years (the salt *inām* was raised in 1896) had an income of over £ 4,500, and who will now have an income of at least £ 6,000 per annum, should have no difficulty in living comfortably and maintaining properly the dignity of his position. This it is notorious, he does not at present attempt to do. He is becoming more and more penurious, he keeps no open house such as the Chief of the Khattaks should; even his poorer relations and the women of his household are, I believe, not maintained in befitting fashion. He is strongly suspected of evading his legitimate liabilities in order to hoard money for his son in whom he is absolutely bound up.

Under these circumstances it becomes a question whether, in the interests of the estate, part, at any rate, of the increase in the Khan's income should not be ear-marked by Government for the payment of his debts. When Nawáb Sir Khwaja Muhammad Khan died he left a burden of debt to his successors. But he was an open-handed and generous old chieftain. In 1896 these debts had amounted to about two lakhs. Khan Mahomed Zaffar Khan with his parsimony had made no attempt to reduce the amount. Arrangements were made by the Deputy Commissioner for the gradual reduction of this serious encumbrance, but by the time the liability was extinguished, the present Khan had run up a fresh set of debts which a year ago amounted to nearly one lakh and twenty thousand rupees. His allowance during the period when the two lakhs were being paid off (1896-1901) was not an extravagant one, and it was to be expected that fresh liabilities would be incurred. But there was very little excuse for the extent of these liabilities, and there is regrettably little certainty that the increase of Rs. 18,000 in income from land revenue will be taken advantage of by the Khan to reduce them systematically. An opportunity now presents itself for Government to step in, and without diminishing the Khan's existing resources, which are ample, to insist upon a certain sum being set apart yearly for the purpose of freeing the estate from debt. In the interests of a family which has served us well in the past, and which at the present time needs a strong guiding hand upon the reins if it is to be of similar service to us in the future, I trust that, thankless task though it be, some method will be devised of saving the old Nawáb's descendants from themselves and from the hoard of money-lenders now preying upon them.

When discussing the Khan's income we cannot leave out of consideration the amount of land revenue and dues, payment of which is in arrears. The Khattak Settlement was introduced from Kharif 1893. The following statistics of arrears still uncollected were prepared in the tahsil at the end of last January:—

		Rs. a. p.		Rs. a. p.
Balance still due out of demand for	1893-94	40 15 0	1898-99	172 5 0
Ditto	1894-95	152 7 9	1899-00	575 7 11
Ditto	1895-96	231 0 0	1900-01	1,337 1 0
Ditto	1896-97	342 13 9	1901-02	1,885 15 7
Ditto	1897-98	124 6 6	1902-03	2,885 13 6
		<hr/>		<hr/>
		891 11 0		6,856 11 0
		<hr/>		<hr/>

The total sum in arrears out of the land revenue demand for the last ten years is Rs. 7,748-6-0. The amount still due for the first five years is not serious. Rabi 1904 was an exceptionally good harvest. I would suggest that the Deputy Commissioner and I should be authorised to go through the accounts and decide what can be recovered and what should be written off as irrecoverable. It is probable that recovery of most of the arrears which are more than three years old will be found to be impossible. There is no object served in keeping such sums on the accounts. It will be much more satisfactory to start the villages on their new assessments with as clear a balance sheet as practicable.

Government seriously undertook the collection of *tirni* and *buhá* for the Khan in Kharif 1901. The demand for the two years which have elapsed since then and the arrears due in the end of January are shown in the margin. To have collected over 91 per cent. of the demand, after the people had been so long successfully defiant, reflects credit I think on the Tahsil authorities. The result is still more creditable when we consider that during these two years Rs. 5,353 were collected under these dues out of the arrears which had accumulated in the previous eight years. There are still nominally outstanding out of the demand for the years Kharif 1893 to Rabi 1901, *tirni* amounting to Rs. 16,822 and *buhá* Rs. 10,874. A separate report will be submitted about these arrears.

		Demand.	Arrears.
		Rs.	Rs. a. p.
Tirni	{	1901-02 8,994	128 10 3
	{	1902-03 6,735	791 0 9
Buhá	{	1901-02 7,342	232 12 6
	{	1902-03 6,222	1,437 0 9
Total	...	29,293	2,589 8 3

Much of the *buhá*, I am convinced, ought never to have been assessed at all. The Khan has been trying lately, through the agency of an individual called his *tirni* and *buhá* *girdáwar kánúngo*, to tax even zamindárs who helped out their agricultural profits by undertaking various occupations; but this has been put a stop to. In the matter of these extra cesses an endeavour will have to be made to start the new arrangements, dating from Kharíf 1901, with as clear an account as possible. Enough has now been done in the way of collecting arrears to show the people that they cannot escape payment of these just and legitimate demands.

75. The ordinary cesses are now-a-days levied in Teri exactly as they would be in a *khálsa* tahsil. Ever since the B́arak Settlement the cesses have been calculated on the full revenue payable by the Khattaks. The old road, school and post cesses amounting to Rs. 2-8-0 per cent. have all along been credited in full to Government; the lambardárs have of course received the cess of Rs. 5 per cent. levied for their remuneration; and the patwári cess of Rs. 6-4-0 per cent. has been credited to the Patwár Fund, all the patwári arrangements since their introduction having been managed by the Deputy Commissioner. But though the local rate of Rs. 8-5-4 per cent. was collected in full from the people, only the amount due on the B́arak half of the Nawáb's quit rent, *i. e.*, on Rs. 10,000, was credited to Government, the rest being left with the Nawáb to devote to local improvements. This arrangement was sanctioned only for the Nawáb's lifetime, and ceased with his death in 1889. Since that year the consolidated local rate (including road, school and post cesses) of Rs. 10-6-8 per cent. has been credited in full to Government.

At the Khattak Settlement the then existing arrangements in B́arak were applied to the rest of the tahsil.

The cesses now levied, and those recently sanctioned for the Kohát and Hangu Tahsils are:—

	Teri.	Kohát and Hangu.
	Rs. a. p.	Rs. a. p.
Local rate	10 6 8	10 6 8
Patwári cess	6 4 0	6 7 4
Lambardári pachotra	5 0 0	5 0 0
	<hr/> 21 10 8	<hr/> 21 14 0

I have now to propose that cesses be levied in Teri at the rate sanctioned for Kohát and Hangu, *viz.*, Rs. 21-14-0 per cent. or $3\frac{1}{2}$ annas per rupee of the land revenue. But, as heretofore, these cesses should be calculated only on the land revenue proper, *i. e.*, on Rs. 1,01,500 and not on the *talugdári*. This will serve to draw a distinction in the Khan's mind between the land revenue and the *talugdári*. The people on the other hand, who regard the *talugdári* at present as a cess payable to the Khan, would feel it to be a petty but vexatious exaction if Government in levying its cesses included *talugdári* in the revenue on which such cesses are due. The Government can well afford to and ought to avoid the appearance of thus levying cess upon cess.

76. It is only a natural consequence of the more backward state of the revenue administration in Teri to find that in the earlier days little or no attention was paid to this important subject. Until proper settlements were carried out advances could not be made owing to the absence of reliable information regarding the security offered. Even after the settlements there has been the quite legitimate feeling that the money available for loans should mainly go to the Kohát and Hangu Tahsils, where Government could expect some return from the improvements carried out with its money. An ideal Khan of Teri would set apart a sum, small though it might be, but still useful, for advances to improve the condition of his *riyásat*. The Khan, no doubt, does carry out a few small works such as water cuts and aqueducts and he and his ancestors have made advances to cultivators, but this has been in their own villages and

to their own tenants in the way that ordinary landlords assist their tenants. No duty as overlord and Chief of the tribe towards the general body of Khattak proprietors has been recognized. Such action is however hardly to be looked for under the present régime. There can be no doubt as to the effect it would have on the relations between the Khan and his tribesmen.

The amount advanced by Government to residents of the Teri Tahsil during the last twenty years has been:—

				Land Improve- ments Loans Act, XIX of 1883.	Agriculturists Loans Act, XII of 1884.
				Rs.	Rs.
Average 1882-83 to 1886-87	...	...	...	Nil.	Nil.
„ 1887-88 to 1891-92	...	...	...	1,224	118
„ 1892-93 to 1896-97	...	...	...	1,292	4,126
„ 1897-98 to 1901-02	...	...	...	821	1,982
Advanced in 1902-03	...	...	...	2,330	4,416

The largest sum advanced under Act XIX of 1883 was in 1888-89, when Rs. 4,190 were distributed. In 1896-97 after a very disastrous year Rs. 13,375 were distributed under Act XII of 1884, for the purchase of cattle and Rs. 2,950 for seed, or a total of Rs. 16,325. Otherwise advances have been small until the commencement of the new settlement operations.

During the last four years Lala Ganga Sahai, E. A. S. O., has devoted considerable energy and interest to this matter and an average amount of over Rs. 3,000 has been advanced to the people for the purchase of bullocks and seed. During 1901-02 Rs. 3,655, and during 1902-03 Rs. 2,330, have been lent under Act XIX of 1883.

A great deal of useful work can still be done in inducing the people to sink wells and make embankments. It is however unnecessary to say more on the subject here as the Chief Commissioner has already directed attention to the importance of allotting ample funds for *takdvi* loans, and the people are realising that a new spirit has been infused into the treatment of their applications.

77. The current assessment of the whole tahsil expired with Rabi 1901. Introduction and term of settlement. I had hopes of being able to furnish this report in time to allow of orders being issued for the introduction of the new assessment from Rabi 1904. But the report has taken longer to write and to pass through the Press than I anticipated and that is now impracticable.

The new assessment should come into force from Kharif 1904. The collection of arrears as indicated in paragraph 74 will be taken in hand vigorously owing to the good *rabi* harvest. If most of the outstandings are duly recovered, the delay in introducing the new *jamás* will be practically compensated for. The delay will have the advantage of giving us time to prepare the new *bachh* carefully and completely before the instalment falls due, and also the minor advantage of not complicating accounts as the introduction of a new distribution half-way through the year always does.

In Kohát and Hangu assessments have been announced for a term of twenty years. The same term should be adopted for Teri, where the assessment will commence and finish exactly a year behind the two other tahsils.

The revenue in Teri is at present payable in instalments on the following dates:—

Kharif demand	...	...	15th December and 15th January.
Rabi „	...	...	15th June and 15th July.

In Kohát and Hangu it has been decided to make the instalments payable on the 15th December and the 1st July. The Khattaks are even more backward than the inhabitants of those tahsils in paying their revenue. There is, therefore, still less reason for maintaining two dates for payment. When I announced that one date had been fixed for each harvest a few of the *lambaridárs* round Kohát complained that it would be impossible to find so much ready money at one time. As hardly any revenue at all was paid by the first of the two old dates for instalments, the argument had not much force,

and I have heard nothing more of it. The arrears in Teri run on for months. There is therefore all the more reason for fixing one date for each harvest and bringing it promptly to the notice of the revenue-payers that their revenue is due. I recommend that the same dates be adopted for payment of revenue throughout the district.

The promptitude with which revenue collections are made depends on the pátwarís giving complete and correct *bachh* papers to the lambardárs, under Rule 53 of the Land Revenue Act Rules, at the proper time. It should be laid down that pátwarís must make over the corrected *bachh* papers to the lambardárs by the 1st December and the 15th June. In the tahsil and village revenue accounts all sums paid in by the 1st January and the 15th July should be credited as having been paid by the due date, (Cols. 9 and 11 of the Jama Wasil Baki Statement). Otherwise practically all collections will always be shown in the accounts as being in arrears. These orders should apply to the whole district.

Matters for which orders
are asked for.

78. Orders are solicited on the following points:—

- (1). The system of assessment described in paragraphs 61 to 68.
- (2). The crop rates and the subsidiary soil rates proposed in paragraph 69.
- (3). The raising of the Khan's quit rent from Rs. 18,000 to Rs. 20,000 from Kharif 1904 (paragraph 73).
- (4). The cesses, and the system of levying them (paragraph 75).
- (5). The introduction and term of settlement, and the instalments (paragraph 77).

KOHAT:

June 1904.

C. A. BARRON, C. S.,

Settlement Officer, Kohát.

