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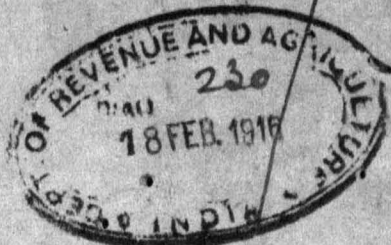
ASSESSMENT REPORT OF THE ZAFARWAL TAHSIL OF THE SIALKOT DISTRICT.

NO. 14

File No. 3.

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FROM

FINANCIAL COMMISSIONERS' OFFICE:

Dated Lahore, the 10th November 1915.

no 2
J. M. DUNNETT, Esquire, I.C.S.,

Junior Secretary to the Financial Commissioners,

Punjab,

To

THE HON'BLE MR. J. P. THOMPSON, I.C.S.

Revenue Secretary to Government, Punjab.

The Hon'ble Mr. A. H. Diack, C.V.O.

SIR,

I AM directed to forward a copy of the Assessment Report of the Zafarwal Tahsil of the Sialkot District by Mr. D. J. Boyd, I.C.S., Settlement Officer, together with the Commissioner of Lahore's review and the draft of the orders which the Financial Commissioner proposes, with the approval of Government, to pass thereon.

2. A copy of the correspondence on the commutation prices sanctioned for this settlement is enclosed.

I have, &c.,

J. M. DUNNETT,

Junior Secretary to the Financial Commissioners,

Punjab.



Orders of the Financial Commissioner on the Assessment Report of the Zafarwal Tahsil of the Sialkot District.

ZAFARWAL is a submontane tahsil occupying the north-east corner of the

Security of the tahsil.

Sialkot district and receiving a good rainfall in the cold weather as well as

in the summer. Even in years that spelt drought and famine elsewhere the reduced fall registered here has been such as elsewhere would have been esteemed good. Accordingly Statement VIII shows, what I observed also in individual villages, that it is only in such years (1899-1900 and 1907-08 for example) that the matured area shrinks below the normal and the shrinkage is never more than 50 per cent., while in the two most secure circles, the Dokandi and the Charwa, the shrinkage is generally less than 40 per cent. of the normal. The superiority of these two circles is also marked by the table on page 14 of the report which shows that they annually mature 97 per cent. of their cultivated area.

2. Remissions of land revenue were allowed only in 1896-97, and as they were considered unnecessary in

Working of the past settlement.

1899-1900 and 1907-08, which were much

worse years, they were probably uncalled for then. Suspensions were practically confined to these years and to 1901-02 and 1911-12, and then amounted to from 10 to 30 per cent. of the demand in all circles except the Dokandi

*Statement XIV and paragraph 12.

which is again marked by these statistics as the most secure.* The in-

ference from collections is that each circle has a light demand which has been realized with due elasticity.

3. With 80 per cent. of the total area under cultivation at last settle-

The tahsil is fully cultivated and is strong in its well irrigation.

ment and the Degh bed occupying about half the remainder there was little scope for increase of cultivation,

and it is not surprising that it has decreased by 3 per cent., the decrease being mainly in the Dokandi Circle and caused by the meanderings of the Degh.

†Statement II.

Wells have increased from 3,303 to 3,789† in the tahsil as a whole and have

decreased in the Darp Circle only (531 to 508), and so the Settlement Officer's conclusion may be accepted that except in the Darp the *chahi* area has certainly not diminished, and that the apparent decrease is due to the stricter classification now adopted. The small net decrease that has occurred must therefore have been mainly in *barani* land. Statement III shows that the high water mark in area irrigated from wells was reached in the famine year of 1899-1900 in practically all circles, and in the years of drought that followed it the area irrigated was as high as in the similar years preceding it, so that the tahsil would seem to be in at least as strong a position now as it was at the beginning of the term of settlement. The Charwa and the Jatatar are the well circles (and will in future be united into one) with nearly half their total area *chahi*, the reason being that the depth to water, though not enough to make well-sinking costly, is greater than in the other circles in which the natural moisture is near the surface and irrigation is consequently less required and is limited to 25 per cent. or less of the total area.

4. Population has declined in all circles owing partly to plague, but

Congestion of population relieved since last settlement.

mainly to migration to the Lyallpur district where natives of this tahsil now

hold nearly 40,000 acres or the equivalent of one-quarter of the total cultivated area of Zafarwal. This has relieved the congestion to some extent, but it is still excessive, though not to a greater degree than in the other tahsils. The average holding, $4\frac{1}{2}$ acres, is small, but, as the Settlement Officer remarks, the situation is improved since last settlement, and there are fewer mouths to feed from the $4\frac{1}{2}$ acres.

5. The above are the features distinctive of this tahsil. Its other features are common to the other tahsils of the district, and in particular there is, in spite of a fertile soil and good rainfall, a large area mortgaged. Although that is larger than in the other tahsils, it scarcely deserves the relative prominence given to it by the Commissioner in his review, for it is compensated by a smaller area transferred by sale. The figures are as follows :—

Circle.				Percentage sold since settlement.	Percentage under mortgage.
Dosahi	...	...	...	5	33
Dokandi	...	...	...	5	27
Charwa	...	...	...	4	22
Jatatar	...	...	...	4	27
Darp	...	...	...	2	29
DASKA.	Charkhari II	...	...	11	22
	" I	...	...	10	29
	Aik	...	...	9	23
	Bet Bela	...	...	10	18
PASRUR.	Kalar	...	...	4	20
	Dokandi	...	...	5	25
	Darp	...	...	3	28
	Pasrur	...	...	4	29
	Charkhari	...	...	6	26
SIALKOT.	Bharari	...	...	3	18
	Nianda	...	...	4	21
	Bet	...	...	5	21
	Bajwat	...	...	5	24
	Charkhari	...	...	8	25
RAYA.	Dokandi	...	...	7	21
	Darp	...	...	3	21
	Kalar	...	...	5	22
	Khadir	...	...	5	17

In a country of small holdings the population of which is not adventurous in seeking extraneous sources of income the money necessary to finance agriculture can be raised only by mortgaging, and the tenacity with which the owners have stuck to their land and refrained from selling it is creditable to them. It is not only in India that the small farmer has to borrow, and it is not altogether correct to say, as Mr. Maynard does, that the improvident have parted with their land to the provident. Nor is his pessimistic view of the possibility of ultimate redemption,* based

*Paragraph 2.

as it is on the 10 years which formed the first decade of the operation of the Land Alienation Act and which followed a cycle of lean years, altogether justified. The most potent of his criticisms is that the small proprietor does not benefit by the rise in prices to the same extent as the large land-owner. But this has been thoroughly realized by Government and is one of the reasons why in other tahsils such as Pasrur and Sialkot the revenue has been increased only 13 or 20 per cent. in the face of a 35 per cent. rise in prices. The principle that it is a share of the produce of the field that the State is entitled to must not be lost sight of. And it cannot be conceded that a community which has multiplied beyond the capacity of its land to maintain it and seeks no other means of livelihood is entitled to live tax free, or at a greatly reduced rate of taxation compared with that thought suitable for the more adventurous and thrifty peasants of other localities.

6. The produce estimate has been framed with the same care and on the same lines as in the other tahsils. The only difference of importance is in the yield assumed for *barani* wheat which is in no circle put less than 7 maunds, whereas in the two inferior circles of the Sialkot and Pasrur tahsils, the Bharari and the Pasrur, it was put as low as 4½ and 5 maunds, respectively. The yield however is not too high for this tahsil and is supported by the yields assumed in the other circles of the other tahsils and in Shakargarh. The Settlement Officer has framed estimates from cash rents and sale prices, but the areas on which these are based are too insignificant for them to be of use in checking the produce estimate. We are therefore dependent on the latter alone, but that is of the less importance in that, as has been said, it is on the same lines as those of the other tahsils which it has been possible to check by means of cash rent estimates and otherwise. Moreover, every circle has a counterpart in an adjacent tahsil which has been assessed at this settlement, and it is a simple matter to arrive at a demand of similar pitch. The data for the various circles and their counterparts are given in full in either the report or the Commissioner's review, and I will not go over the same ground here, but will merely collect in the following table those of them which seem to me of the most importance, with reference to the

modifications which the Commissioner has made in the proposals of the Settlement Officer :-

		Doshi.	DABP.				DOKANDI.			Charwa.	Jata'ar.	Bharari, Sialkot.	Fasrur.
			Zafarwal.	Pasrur.	Raya.	Shakargarh.	Zafarwal.	Pasrur.	Raya.				
DETAIL OF CROPS IN PERCENTAGES OF THE MATURED AREA.		Rice	3	5	3	2	1	4	21	4	3	3	3
		Maize	8	5	6	9	7	8	5	7	8	4	8
		Bajra	1	...	...	...	1	2	2	3	2	4	1
		Pulses	6	4	4	3	5	1	2	7	5	3	4
		Cane	4	5	7	5	5	2	2	4	4	1	2
		Cotton	3	2	3	...	3	3	2	3	3	2	2
		Chari, jowar	11	11	7	9	9	6	4	11	11	19	8
		Oilseeds	...	...	...	...	...	2	...	...	1	1	1
		Others	3	4	2	12	3	1	4	3	2	3	2
		Total kharif	39	36	30	41	34	29	38	42	39	40	31
		Wheat	40	43	41	39	46	47	41	37	40	37	43
		Barley	8	6	4	4	7	5	6	8	5	8	5
		Gram	2	2	4	2	2	2	2	1	3	7	4
		Wheat and barley	3	1	...	2	1	...	...	3	1	1	1
		Masur	3	4	7	9	3	8	...	1	4	3	9
		Oilseeds	2	1	2	...	1	5	...	1	1	1	3
		Tobacco	...	...	...	...	...	...	...	1	...	...	...
		Vegetables, etc.	...	1	1	...	1	1	...	...	1	...	1
		Fodder	3	5	6	4	4	3	5	5	6	3	3
		Others	...	1	...	12	1	...	7	...	...	...	...
		Total rabi	61	64	70	61	66	71	62	57	61	60	69
		Half asset rate per acre of crops	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
		Ditto ditto cultivation...	3 10 0	4 4 10	3 8 2	4 3 0	3 6 9	3 8 3	4 9 10	3 3 2	3 13 2	2 7 4	2 13 8
		Rates—	3 10 0	3 15 6	3 6 0	3 3 9	3 6 0	3 6 0	3 0 0	3 4 6	3 11 0	1 15 2	2 11 9
		Chabi	*2 12 0	*2 13 0	2 6 0	2 13 0	3 13 0	*2 8 0	2 4 0	*2 1 0	*2 6 0	1 13 0	2 0 0
		Abi	*1 10 0	*2 0 0	2 6 0	2 4 0	...	*1 12 0	2 1 0	*1 12 0	*1 14 0	1 9 0	1 14 0
		Sailab	*1 10 0	*2 0 0	1 12 0	2 4 0	2 8 0	*1 12 0	1 13 0	...	...	...	...
		Barani	*1 10 0	*2 0 0	1 12 0	2 0 0	2 0 10	*1 8 0	1 3 0	*1 8 0	*1 7 0	1 2 0	1 9 0

*Proposed by the Settlement Officer.

7. For the Dosahi Circle the Commissioner and the Settlement Officer propose the same demand, and I have no difficulty in accepting the moderate enhancement involved.

Assessment of the Dosahi Circle.

8. In the Dokandi Circle the Commissioner lays stress on the reduction in cultivation and a supposed decline in fertility, and he would reduce by one-half the Settlement Officer's proposed enhancement of Rs. 6,000. He considers the reduction to be due to land having gone out of cultivation owing to the provision of better land elsewhere, but the principal cause is really the erosion of good land by the Degh. I find nothing in the statistics to support the theory of a decline in fertility: the Dokandi is, as has been observed above, the most secure circle in the tahsil and the cropping indicates a high degree of fertility. The rise of 31 per cent. in wells means that a considerable portion of the new demand will be deferred under protective certificates, and the Commissioner's modification would probably result in even greater leniency than he contemplates. In reducing both the *sailab* and the *barani* soil rate he seems to have lost sight of Mr. Boyd's explanation that the rainfall being greater than in Pasrur and the floods less, a higher *barani* and a lower *sailab* rate than there are indicated. A comparison of the half-asset rates on crops and on cultivation shows that this is really the better circle of the two, and yet the new demand for the Pasrur Dokandi falls at Re. 1-13-7 on matured crops and absorbs 26½ per cent. of net assets, while Mr. Boyd's proposed demand for the Zafarwal Dokandi falls at only Re. 1-12-1 per acre matured and absorbs hardly 24 per cent. of net assets. The circle is a heterogeneous one, and in the face of these figures I find no difficulty in accepting Mr. Boyd's proposed demand of Rs. 41,000 which is the total of his village assessments, allowing relief to those villages that have decayed from abandonment by the Degh and suitable increases in those that have progressed.

Assessment of the Dokandi Circle.

9. In the Charwa Circle Mr. Maynard would reduce to Rs. 8,500 the enhancement of Rs. 12,500 proposed by the Settlement Officer because the circle is the least fertile in the tahsil and because he considers the proposals do not sufficiently recognize the weakness of the circle and do not bring the assessment sufficiently near that of the Bharari. As the above table shows there is not much difference in the fertility of the various circles of Zafarwal, the circle is considerably superior to the Bharari, and it is more secure, as has been observed above, than any other circle except the Dokandi. It is better than the Pasrur Circle, and yet Mr. Boyd's proposed *abi* and *barani* rates are lower than those sanctioned for the latter circle, while the incidence on matured crops of his demand is Re. 1-12-0 compared with Re. 1-11-6 in Pasrur. The Commissioner's proposals would lower the former figure. I examined Mr. Boyd's tentative assessments in a number of estates in this circle for which they gave an enhancement aggregating the percentage now proposed, and they seemed to me lenient rather than high. I approve his assessment and rates.

Assessment of the Charwa Circle.

10. All the facts cited by Mr. Maynard in respect of the Jatatar point to improvement, and yet he proposes to reduce by Rs. 3,000 the slight enhancement of 14 per cent. contemplated by the Settlement Officer, because he thinks the *barani* soil rate should be assimilated to those of the adjoining Bharari and Pasrur Circles. Such of the estates as resemble the estates of those circles will of course be assessed by the Settlement Officer at the same pitch as those, but the remainder of the circle and its general average are superior, and it is not at all inferior to the Dosahi, although the Settlement Officer's soil rates for that circle are higher. In comparing the incidence on matured crops it has to be remembered that the percentage irrigated is 44 in the Jatatar to 21 in the Pasrur and 15 in the Bharari. I accept the Settlement Officer's demand and rates.

Assessment of the Jatatar Circle.

11. The Commissioner's criticism of the proposals for the Darp Circle is directed to showing that it is little if at all superior to the Dosahi, and is inferior to the Darp Circles of Raya and Shakargarh. Mr. Maynard would

The assessment of the Darp Circle.

therefore make an arithmetical adjustment of the soil rates so as to make them intermediate between those of the latter circles on the one hand and those of the Dosahi and the Raya Darp on the other. If regard is had to arithmetical considerations, it will be seen from my table above that the Zafarwal should be assessed higher than the Raya Circle. It will also be seen from paragraph 33 of my review of the Raya report that I considered Mr. Boyd's assessment of the Raya Darp low and accepted it only because of the unevenness of the present assessment between villages. The rates proposed here for the most important soils, the *chahi* and *barani*, are the same as in the Raya Circle, and that is appropriate. That the Shakargarh *barani* rate is only 10 pies higher is due to the Gurdaspur Settlement being earlier and based on a lower scale of prices. From the village assessments which I checked I consider that there can be no difficulty in taking the small enhancement of 14 per cent. proposed by the Settlement Officer, giving as it does a demand which absorbs only 26 per cent. of the net assets, and I approve his assessment.

12. The result is that I accept the Settlement Officer's proposals throughout, as summarized in the table in paragraph 48. When I toured in the tahsil with him I thought indeed that more might be taken, but his figures show that the pitch proposed is the same as has been approved for the other tahsils.

Cesses.

13. No change is proposed in the cesses now levied.

Deferred assessments.

14. Deferred assessments may be allowed to the extent proposed in paragraph 52.

15. The period of the new settlement will be determined by the orders on the final Settlement Report, but I may note here that I agree with the Settlement Officer and the Commissioner that a 30 years' term will be suitable.

Term of settlement.

16. With effect from the introduction of the new demand the assessment circles should be reduced to the three contemplated in paragraph 6 of the report.

Re-arrangement of assessment circles.

17. The orders of Government can scarcely now be received in time for the introduction of the demand from the present kharif and it should, therefore, be announced to have effect from the rabi of 1916. But for the delay in printing to which the Commissioner draws attention in paragraph 36 of his review it might have been introduced from the kharif. The loss to Government from the delay can be guessed from the table in paragraph 48.

New demand to be introduced from the rabi of 1916.

18. Mr. Boyd has in his concise report (which is the last he has to submit) marshalled his facts and figures clearly and well. His village-to-village assessments, the test by which the people will judge his settlement, have been framed with the same care and judgment as in the other tahsils, and the resulting proposals appear to me to have stood the test of the thorough and drastic examination to which they have been subjected by Mr. Maynard in his able review.

A. H. DIACK,

Financial Commissioner, Punjab.

The 30th October 1915.

Commissioner's review of the Assessment report of Zaffarwal Tahsil.

1. The tract under assessment is much indebted, and the mortgaged area is 27 per cent. of the whole. At last settlement the figures of mortgage, in even thousands of acres, were 33, of which 17 were to agriculturists and 16 to money-lenders, the mortgage debt being 50 rupees per acre, equal to 37 years' purchase of the land revenue. At present, 41 are mortgaged, of which 27 to agriculturists and 14 to others, with a mortgage debt of 103 rupees per acre, which is presumably about 75 years' purchase of the land revenue. It is a mistake to lay too much stress on the distinction between agriculturists and others as mortgagees. There is this much of advantage in having an agriculturist as mortgagee that he is apparently ready to advance 103 rupees where a non-agriculturist will only advance 91. But, at best, the figures mean that a large number of the smaller or less provident men are under a load of debt to more provident neighbours.

Indebtedness.

2. Things reached their worst at the end of the quinquennial period 1899-1904, which included the great droughts of 1899-1900 and 1901-02. In the next ten years, despite the phenomenal failures of 1907-08, when 42 per cent. of the Kharif and 47 per cent. of the Rabi failed, there was a nett reduction in the mortgaged area of 2,200 acres. Now this is only 5 per cent. on the figures of 1903-04, and if we assume the continuance of redemption at the same relative rate, 13 or 14 per cent. of the cultivated area would still be under mortgage at the end of a century. There is an alleviation of the situation, but it is very slight.

Slow rate at which mortgage is being redeemed.

3. A land revenue which now averages, together with cesses, Re. 1-13-6 per cultivated acre—a sum which can be raised by selling a maund and five seers of maize or thirty-five seers of wheat—cannot be the cause of indebtedness.

Relations between land-revenue and indebtedness.

In so far as the indebtedness is due to carelessness and expensive social habits such as exist among the Rajputs, it would doubtless remain unchanged if there were no revenue at all to be paid. In so far as the excess of expenditure over income, chronic or occasional, is due to small holdings and the narrow margin on which the cultivator subsists, the land revenue is one of the items which contributes to the economic result of a deficit.

A commercial man, drawing up a balance sheet for the tahsil, might find satisfaction in the fact that while the outstanding mortgage debt is 42 lakhs the cultivated land of the tahsil has during the past ten years appreciated in value by 46 lakhs. But a man cannot turn into cash that which is the necessary instrument of his subsistence, nor benefit by the enhanced value of his neighbour's land, and the actual experience of the small holder struggling with debt must be that every additional rupee of expenditure makes his position a more difficult one: so that even the four annas three pies of additional incidence per acre, which is what Mr. Boyd's proposals virtually come to, is a matter for consideration. Another effect of indebtedness, which is to be taken into account, is the diminution of economic liberty to sell in the best market and at the best time: and this loss discounts the advantage of the rise in agricultural prices.

4. The figures in paragraph 23 of the Report do not precisely correspond with those in statement VI-B, and the average sale price of land in 1909-14 appears to have been 143, not 151. It was 73 in 1886-1891, and on this basis we should arrive at the conclusion that the value of land had doubled in the period of settlement. The corresponding mortgage figures are 49 at the early period and 121 at the later. This gives a much larger rise, and, as Mr. Boyd observes, the mortgage figures are for an area much larger and therefore more representative.

Sale price of land.

...

5. Close examination of the figures in Statement VI-B justifies, however, the scepticism with which

Figures of last settlement doubtful.

Mr. Boyd approaches the sale and mortgage money statistics of last settlement. If the sale money was 73 and the mortgage money 49 in 1886-1891, it is rather surprising to find the corresponding figures 112 and 80 in the next quinquennium. From 1894-99 to 1909-14 the rise is only from 112 to 143 and from 80 to 121, respectively, i. e., 28 and 51 per cent.

6. So much importance is attached to a rise in the value of land as a

Suggested method of arriving at actual rise in price of land.

justification of the enhancement of land revenue that this matter calls for close examination. It is true that by 1894-1899 emigration to the Lower Chenab Colony was in full swing and the demand for money on the part of emigrant cultivators largely increased. It does not seem likely that this circumstance would raise prices. On the contrary—by all theories—the tendency should have been in the opposite direction. I see no escape from the conclusion that the figures of prices at last Settlement are unreliable, and that the real rise is more likely to be some figure to be arrived at by considering the rate of increase between 1894-99 and 1913-14, e. g., say 64 per cent. if we follow Mr. Boyd in regarding mortgage figures as more reliable than those of sale.

7. A feature of the figures of statement VI-B is the very marked contrast between the rates paid on redemption and the rates received on mortgage.

Alternative method of estimating rise in price of land.

The former average only a little more than two-thirds of the latter.

The explanation doubtless is that the earlier mortgages which are now being redeemed were for smaller sums than the mortgages now being contracted. Unless we are to assume that these mortgages which are being redeemed, are on the average less than 20 years old (and some of them at all events are no doubt a good deal older) the contrast between the average redemption payment and the average mortgage money in the last quinquennium should furnish us with a very good criterion of the maximum rise in the value of land during the term of Settlement. On this calculation, the difference is between 79 and 121, i. e., a rise of 53 per cent.

8. If, as seems to me probable on a review of all these considerations,

Rise in price of land less than in more accessible tracts.

the rise in the value of land in the Zaffarwal tahsil during the period of Settlement be not more than approximately 60 per cent., it is markedly less than the rise in other parts of the Punjab with whose assessment I have had to deal, and there is some cause, very probably the remoteness of the tract and the badness of the communications, which prevents it from sharing to the full in the advantages enjoyed by the rest of the Punjab.

9. It is a singular commentary upon the importance of sale and

Price of land largely dependent upon keenness of demand due to congestion.

mortgage value as a guide to assessment that land in the Dokandi circle (which is by no means the second best circle in the tahsil) is more valuable than that in any circle except the Darp. The reason is unquestionably to be sought in the pressure of population, which is a good deal more in the Dokandi than in any other circle (736 per square mile of cultivation) : and the inference is that the price of land depends, not so much upon the profits to be obtained from it as upon the keenness of the local demand for that which is to five men out of six, the sole instrument of subsistence. I infer that the argument from an apparent rise in land value must not be pressed too far in a congested tract of small holdings, particularly if the situation be remote and the population unenterprising and unfitted to turn elsewhere than to the land for a livelihood.

10. Stress is laid in this as in other assessment reports on the large

Grants of colony land and diminution in the congestion of population.

number of squares (1,376) in the Canal Colonies which the people have received. No doubt these grants are a very important economic fact. They more than explain the decrease of 3 per cent. in

the cultivated area and they are, as it were, the obverse side of that fall in population which is the most striking feature in the statistics. But the assumption that the fortunate emigrants, who have their own revenue and water rates to pay and their own emigration debts to discharge, do much to help those who are left behind is one which appears to me to ignore the facts of human nature. Before I could believe in this, I should want to see the figures for money order payments at the Post Offices of the tahsil. Where the Zaffarwal Tahsil has gained, and the gain is a very real one, is in the diminution of the congestion of its own population by 18 per cent.

11. Even after this great diminution, there is in the Zaffarwal Tahsil Average area from which the revenue-payer meets his expenses. precisely one human being to be fed for every acre cultivated. If we assume with Mr. Thorburn that 30 per cent. of the population consists of kamins and town population (a large proportion for so exclusively rural a tract) and take a normal family as consisting of 5 persons, it would seem that every adult male cultivator has on the average $6\frac{1}{2}$ acres from which to feed himself, his children and dependents. Almost exactly half of the area being cultivated by owners, every second average cultivator has, in addition to the above, half the produce of about three-fifths of the $6\frac{1}{2}$ acres cultivated by some one else with chakota, cash, or revenue rate rents on the rest of it. It is out of this second average cultivator who tills $6\frac{1}{2}$ acres and gets half the produce of part of another $6\frac{1}{2}$ that the revenue of 13 acres is to be got. In raising it by 4 as. 3 pies per acre we ask him to find (with cesses) Rs. 27-6-9, where he has hitherto been finding Rs. 23-15-6.

12. In justification of this extra demand of $3\frac{1}{2}$ rupees per annum (the price of 65 seers of wheat) we have the Reasons for enhancement of land revenue. facts that the 13 acres would have been only just over 11 acres before the congestion was relieved that the prices of such produce as the landowner is able to sell have risen by 35 per cent. when he has transported them by pack animal over poor roads to the nearest market, which may be anything up to 30 miles away: and that when he does want to raise money on his land he can get fully half as much again as he formerly got.

13. There is not much more than this to be set down on the credit side of the account. But bringing together the figures in paragraph 66 of Captain Dunlop Smith's report with those in paragraph 15 of Mr. Boyd's, I find the following increase in the number of wells fit for use:—

Number of wells fit for use.

Circle.	At first settlement.	At second settlement.	At settlement of 1892.	Now.
Dogahi ...	188	190	217	356
Dokandi ...	352	431	449	588
Charwa ...	562	722	937	1,350
Jatatar ...	780	850	1,059	1,350
Darp ...	499	458	525	633
Tahsil ...	2,331	2,651	3,187	4,277

Figures of areas irrigated vary with methods of compilation, but these figures of wells fit for use furnish solid ground for satisfaction. They differ widely from the statistics in Statement No. III of wells actually working, because the use to which wells are put in a tract with good rainfall is largely that of an insurance against drought. The general inference is a steady and considerable improvement in the security of cultivation, in the 32 per cent. of the Zaffarwal Tahsil which receives well irrigation.

14. I cannot reconcile Mr. Boyd's figures of depth to water in paragraph 16 of his report with those in paragraph 67 of Captain Dunlop Smith's. The depth in 1892 and now contrasts thus:—

Circle.	In 1892.	Now.
Dosahi	14	11
Dokandi	12	10
Charwa	21	17
Jatatar	19	23
Darp	18	14

In the case of the Jatatar I suspect a misprint in the figures for 1892. Otherwise there is an improvement in the water level everywhere except in the Dokandi.

15. In other respects things remain very much as they were with a slight upward rather than with a downward tendency. The proportion of valuable crops (wheat, rice, maize, sugarcane and cotton) has risen, from 57.1 to 59.4 per cent. of the whole. The area under fodder crops is half as much again as it was, though the aggregate number of cattle has not risen. This looks like more and better stall feeding with a view to the production of *ghi*. At last Settlement Mr. Thorburn noted the importation of *ghi* from Jammu. Cow buffaloes have greatly increased, and outlay on this article of import has probably diminished. *Batai* rents which are now taken on nearly one-third of the whole area are virtually stationary. The proportion of land held by tenants paying revenue rates has very slightly increased. Cash rents appear to have risen by 28 per cent. (a proportion significantly less than the supposed rise in prices), but they are taken on only 2.7 per cent. of the whole area. Communications are as poor as they have always been, but will shortly be improved by the completion of the Sialkot-Narowal Railway. The population is of neither the most energetic nor of the most frugal classes; congestion is still great, indebtedness is serious and mortgages are being redeemed at so slow a rate that they are virtually stationary.

16. In conditions such as these the safety of the assessment is dependent largely upon the assumption that there is no deterioration which statistics do not disclose. Much was said at last Settlement of the deterioration of the fertility of Zaffarwal, owing to over-cropping and the washing away of the rich surface soil due to deforestation in Jammu and consequent rushes of flood water. It is presumably supposed that any mischief of these kinds should be revealed by the figures of cropping and by the precautions taken to obtain correct estimates of yield. I do not think that either the statistics of failure of crop or the estimates of yield are obtained in such a manner as to justify such a belief: and it will not be wise as a permanent policy to continue to push up the assessments of these thickly populated and closely cultivated tracts, as prices rise, without more complete and systematic enquiry on these points. In this connection I draw attention to the remarks in paragraph 30 of this review on the failure of statistics to illustrate differences in the fertility of adjoining tracts. Land prices doubtless afford an index: but I have given some reasons for discounting the inferences to be drawn even from these.

17. The following shows the incidence of the demand on matured area in different adjoining circles as compared with the incidence of the demand proposed by Mr. Boyd :—

Circle.		Incidence per acre matured.		
		Rs.	A.	P.
Sialkot Tahsil	Charkhari	2	4	2
	Bajwat	1	11	6
	Bet	1	14	3
	Nianda	2	1	4
	Bharari (which adjoins the Charwa and Jatatar of Zaffarwal)	1	6	0
Pasrur Tahsil	Kalar	1	12	10
	Dokandi (which continues the Dokandi of Zaffarwal)	1	13	7
	Darp (which adjoins Darp of Zaffarwal and Raya)	2	1	3
	Pasrur (which adjoins the Jatatar of Zaffarwal)	1	11	6
	Charkhari (adjoins a corner of the Jatatar of Zaffarwal)	1	14	0
Raya Tahsil	Darp	2	7	3
	Kalar	1	14	6
	Dokandi	2	4	3
Gujrat Tahsil	Jatatar	1	11	11
	Nahri	1	10	0
	Bulandi	1	4	11
Zaffarwal Tahsil (assessment proposed by Mr. Boyd)	Dosahi	1	13	3
	Dokandi	1	12	1
	Charwa	1	12	0
	Jatatar	1	14	1
	Darp	2	3	7

18. Owing to the predominance of barani soils, the barani rates are of particular importance. Mr. Boyd's proposals compare with barani rates sanctioned for other neighbouring tahsils as follows :—

Tahsil.	Circle.	Position.	Rate.
			Rs. A. P.
SHAKARGARH	Bharari	Adjoining Dosahi	1 3 11
	Darp	Adjoining Darp of Zaffarwal	2 0 10
	Kalar		0 14 0
	Dokandi	Adjoining Dokandi of Zaffarwal	1 3 0
PASRUR	Darp	Adjoining Darp of Zaffarwal	1 12 0
	Pasrur	Adjoining the Jatatar of Zaffarwal.	1 9 0
SIALKOT	Charkhari	Adjoining Jatatar of Zaffarwal	1 0 0
	Bharari	Adjoining Jatatar and Charwa of Zaffarwal.	1 2 0
	Nianda		1 12 0
	Bet		1 13 0
RAYA	Bajwat		1 10 0
	Charkhari		1 12 0
	Darp		2 0 0
	Kalar		1 0 0
GUJRAT	Khadir		1 7 0
	Dokandi		1 8 0
	Hithar		1 10 0
	Jatatar		1 8 0
ZAFFARWAL	Nahri		1 0 0
	Bulandi		1 3 0
	Dosahi	Vide Shakargarh Bharari	1 10 0
	Dokandi	Vide Dokandi of Pasrur	1 8 0
	Charwa	Vide Bharari of Sialkot	1 8 0
	Jatatar	Vide Pasrur Circle of Pasrur and Bharari of Sialkot.	1 7 0
	Darp	Vide Darp of Shakargarh, Pasrur and Raya.	2 0 2

(crop failure heavy).

Approximate rates.

Gujrat, and particularly the Bulandi circle of it, which adjoins the hills, appears to have been more lightly assessed than the Sialkot tahsils. This point apart, the barani rates proposed for the Dokandi and Charwa of Zaffarwal seem *prima facie* high.

DOSAHİ CIRCLE.

19. The rise in the value of land in the Dosahi calculated on the plan already suggested would appear to be 42 per cent., though sale prices show no rise at all in the last 15 years. The pressure of population is below and the size of holdings slightly above the average for the tahsil. The amount of mortgage is more (being one-third of the cultivated area). Rajputs with extravagant habits predominate. Communications are particularly bad, with the nearest market 30 miles off and the Degh to be crossed. The soil is fairly fertile, though much of it is sandy, and the percentage of failure is 15 per cent. against 14, the average for the tahsil. In fertility it is slightly inferior to the Darp, in rainfall slightly superior. The great increase in the number of wells (64 per cent.) is an indication of improved and more careful cultivation. The proposed assessment, taking 51 per cent. of half-net assets and giving an enhancement of 21 per cent. is suitable.

DOKANDI CIRCLE.

20. The rise in the value of land in the Dokandi calculated on the same plan is 83 per cent. (though in 15 years sale prices have only risen by 18 per cent.). I have already drawn attention to the absolute highness of land prices in this circle, and suggested congestion as the explanation. If we exclude the 3,633 persons who inhabit the township of Zaffarwal, the pressure of the rural population on the soil is just over 1 per acre cultivated. There is, however, a marked improvement in this respect, the diminution since last settlement owing in part to the new lands granted in Colony areas being 27 per cent., and there will be some further improvement as grantees from the Degh area have been largely selected for land on the Lower Bari Doab Canal. The fall in the cultivation by 8 per cent. is merely the rise in the margin of cultivation due to the provision of better land elsewhere. Nevertheless, it involves a reduction of the local assets on which the assessment is to be imposed, and taken by itself makes for the reduction of the demand. 27 per cent. of the land is under mortgage. Mr. Boyd considers that there is a distinct decline of fertility. It is at all events evident that the Degh is less beneficial than lower down on its course, the stones and heavier particles of sand being deposited before the deposit of silt commences. There is a rise of 31 per cent. in the number of wells, which is a good sign. The depth to water has increased from 12 to 14 feet, and this is a substantial disadvantage with cattle growing more and more expensive.

21. Mr. Boyd proposes to take 48 per cent. of half-net assets giving an enhancement of 17.1 per cent. Considering that we have—in all respects but two, *viz.*, the diminution of congestion and the rise of agricultural prices—either deterioration or stationary conditions, I think this is too much.

22. The following compares the sanctioned and proposed rates in the three Dokandi or Degh basin circles and in the Maidani Circle of Jammu which I understand is also traversed by the Degh:—

	Raya.	Pasrur (east of Raya Branch).	Zaffarwal (proposed).	Maidani circle of Jammu.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Chahi	2 4 0	2 4 0	2 8 0	5 0 0
Abi	1 10 0	"	1 12 0	5 0 0
Sailab	2 8 0	1 13 0	1 12 0	3 0 0
Barani	1 8 0	1 3 0	1 3 0	2 3 10
All round rate on matured area ...	2 4 3	1 13 7	1 12 1	...

23. If I understand Mr. Boyd correctly, the rates given for the Maidani Circle of the Kashmir State are not the actual existing rates, as a reduction of 13·5 per cent. has been given since they were fixed. There is also a suggestion that some malikana is included in them, and the circle is a better one than the circle under assessment. There remains, however, a very striking difference in the pitch of assessment. This is due to a fundamental difference of Revenue policy, making comparison of rates impossible or infructuous. The traditional Kashmir policy is expressed in the precept* of King Lalitaditya:—
 * Rajatarangini Sten's translation, volume IV, pages 347-352.
 "Every care should be taken that there should not be left with the villagers more food supply than required for one year's consumption. . . . Because, if they should keep more wealth, they would become . . . strong enough to neglect the commands of the king". In other words, the Kashmir theory of revenue however much modified by recent practice, is that it is the nett assets while the British theory is that it does not exceed half of them.

24. Paragraph 60 of the Raya report shows that the produce estimate Commissioner's proposals for assessment of the rates there gave only Re. 1-5-0 as the barani rate for the Dokandi, and that the cash rent rates which were responsible for the higher figure adopted were taken mainly in the northern half of the circle where "the soil consists of a rich cool silt frequently renewed". There is little or none of this rich cool silt in Zaffarwal, though the rainfall is doubtless a better one. The proposed barani rate appears to me unduly high by comparison with Pasrur, though the percentage of failure is 14 there as against 12 in Zaffarwal, and I propose to reduce it to Re. 1-5-0. The differences in the value of the Degh in the two tahsils are not sufficiently emphasized by a difference of 1 anna in the sailab rate, and I would reduce this from Re. 1-12-0 to Re. 1-10-0. The result is an assessment of Rs. 38,000 round, being an enhancement of 8½ per cent., and taking 44 per cent. of the estimated half net-assets: a very low proportion, but not too low in an indebted tract of very small holdings, where a decline of fertility is alleged by the Settlement Officer. The incidence on matured area will be Re. 1-10-0 per acre.

CHARWA CIRCLE.

25. In the Charwa Circle the rise in the value of land estimated on mortgage money as before is 57 per cent. (though the rise in sale prices is only 16½ per cent. in 15 years). 21 per cent. of the cultivated area is mortgaged: a proportion high absolutely, but low by comparison with the rest of the tahsil. Despite a fall of 14 per cent. in population, the incidence is just over 1 per acre of cultivation: so that holdings are virtually as small as in the Dokandi. The distance to water appears to have diminished by 4 feet, and there is a rise of 44 per cent. in the number of wells, though well sinking is said to be difficult in half the circle. As a whole the circle is the least fertile part of the tahsil, but it is more fertile than the adjoining Bharari of Sialkot. The percentage of failure is 13 against 21, the percentage of cultivated area annually matured is 97 against 85, the depth to water is only 17 feet against 23 in the Bharari. But the Bharari, though nearer to urban temptations has less land under mortgage, and a higher price for land, and it has only 575 persons per square mile as against 642 in the Charwa.

26. Mr. Boyd proposes to take 52·6 per cent. of the half net-assets, involving a rise of 20·4 per cent. The all-round rate on matured area will be Re 1-12-0 as against Rs. 1-6-0 in the Bharari. The proposals do not appear to me to give sufficient recognition to the weakness of the Charwa, or to bring its treatment sufficiently near to that accorded to the Bharari. I propose Re. 1 5-0 as the barani rate (instead of Mr. Boyd's Re. 1-8-0) against Re. 1-2-0 in the Bharari: and Rs. 2 as the chahi rate (instead of Mr. Boyd's Re. 2-1-0) against Re. 1-13-0 in the Bharari. This gives an assessment of 68,500, being a rise of 13 per cent. and absorbing 49 per cent. of the half net assets. The all-round incidence on matured area will be Re. 1-10-8.

JATATAR CIRCLE.

27. The Jatatar adjoins on one side the Bharari of Sialkot (which 30 of its estates closely resemble) and on another the Pasrur Circle of Pasrur. It is proposed to assess it substantially more highly than either, with an incidence per acre matured of Re. 1-14-1 against Re. 1-6-0 and Re. 1-11-6; respectively, and more highly than the Dosahi (incidence Re. 1-13-3) which has hitherto been classed as a better circle. The explanation appears to be that this assessment involves a rise of only 13·8 per cent. and Mr. Boyd did not think he would be justified in taking less.

Mr. Boyd's proposals for Jatatar Circle.

28. The value of land, calculated on mortgage figures, as above, has risen by 58 per cent. The pressure of population though still great (614 per square mile cultivated) has diminished by 17 per cent. and is less than in any other circle, and the average holding (arrived at by the somewhat unsatisfactory method of dividing cultivated area by the recorded number of owners) is 5·4 acres against 4·5 the average for the tahsil. 27 per cent of the land is under mortgage. There is little to distinguish the circle from the Charwa, but (except in the 30 estates adjoining the Bharari of Sialkot) its wells are better. It also resembles in many respects the Pasrur circle of Pasrur, but is said to be better irrigated. Eight villages get irrigation for their rice from local drainages. The rise in the number of wells is not so marked as in the Charwa, amounting to only 28 per cent. The depth to water according to recorded figures (which I suspect to be wrong) has diminished from 33 to 23 feet. This is greater than in any other circle of the District, but I understand that the supply is more reliable. Its recorded percentage of failure is 13, equal to that of the Charwa, and less than in any other Circle except the Dokandi.

Conditions in the Jatatar Circle.

29. The proposed rate of Rs. 2-6-0 is doubtless justified for the Chahi land, but I propose to reduce the barani rate of Re. 1-7-0 to Re. 1-5-0 as in the Dokandi and Charwa. This will give an assessment of Rs. 75,000 round being a rise of 9 per cent, and taking 48 per cent of half net assets, and having an incidence of Re. 1-12-10 per acre matured.

Proposed assessment in Jatatar Circle.

DARP CIRCLE.

30. The Darp Circle does not very closely resemble the similarly named circles of Raya and Pasrur which it adjoins, and it is inferior to the former. It is like the Dosahi, except that Jats predominate largely over Rajputs. Jats hold 80 per cent. of the cultivated areas in the Darp. Rajputs hold 84 per cent. of it in the Dosahi. Wells in the Darp have increased only by 20 per cent. against 69 per cent. in the Dosahi: yet well irrigation covers 25 per cent. of the cultivated area in the Darp against 16 per cent. in the Dosahi. In both circles the depth to water has diminished, but it is 14 in the Darp against 11 in the Dosahi, and Mr. Boyd says well sinking is more difficult in the former. Mr. Boyd describes the Darp as more fertile than the Dosahi. Captain Dunlop Smith said something very similar in paragraph 12 of his report, but if there is a real difference of fertility, the statistics only show how difficult it is to exhibit such differences by means of figures. There is a surprisingly close correspondence in the proportion of crops, though there is a little more rice and fodder in the Darp, and a little more maize in the Dosahi. The assumed yields for wheat (which is the most important crop in both) correspond very closely. The yield for rice is larger in the Darp, that for maize larger in the Dosahi. The percentage of failure is 16 in the Darp against 15 in the Dosahi, and the percentage of cultivated area annually harvested is identical in both. One can not help suspecting that the impression of superior fertility is in part produced by the superior quality of the agricultural population. Mr. Boyd's calculations give a rise of 39 per cent. in cash rents in the Dosahi against 13 in the Darp. The number of cattle in the Darp has diminished by 7 per cent. while it has increased by 9 per cent. in the Dosahi, and the increase in cow buffaloes, though considerable in both circles, is far less in the former than in the latter.

Conditions in the Darp Circle.

31. The rise in the value of land in the Darp, calculated on the basis of mortgage money as before is 75 per cent. and sale prices show a rise of 76 per cent. in 15 years. The consideration money on existing mortgages averages Rs. 125 per acre against Rs. 95 in the Dosahi. The nest of Sahukars in the heart of the Darp Circle (paragraph 22 of Mr. Boyd's report) and the greater pressure of the population on the soil (659 against 562 per square mile cultivated) will go some way towards accounting for higher prices. If we discount the Dokandi figures by the town population of Zaffarwal, the pressure of population is actually greater in the Darp than in any other circle: though holdings gauged by the process of dividing cultivated area by number of owners, are not quite so small as in the Dokandi. No less than 29 per cent. of the cultivated land is under mortgage and that at a markedly high rate per acre.

32. The Darp, though it suffers for its name, is doubtless better than the Dosahi, if only by reason of its superior type of population. It is certainly inferior to the Darp circles of Shakargarh and Raya, but may naturally be supposed to get a trifle more rain than the latter. The Barani rate ought, it appears to me to be intermediate between that for Shakargarh and Raya (Rs. 2-0-10 and Rs. 2) and that for Pasrur (Rs. 1-12-0). I propose to put it at Rs. 1-14-0 instead of Rs. 2. The chahi rate has been put at Rs. 2-13-0 as in Raya. It should be Rs. 2-12-0 I think. This will give an assessment of Rs. 55,500, being an enhancement of nearly 9 per cent. and absorbing nearly 53 per cent. of the half net assets, with an incidence of Rs. 2-1-11 per acre matured.

33. The following exhibits the result of the proposals as modified by me:—

		Dosahi.	Dokandi.	Charwa.	Jatatar.	Darp.	Total.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Proposed rates	Chahi ...	2 12 0	2 8 0	2 0 0	2 6 0	2 12 0	...
	Abi ...	1 10 0	1 12 0	1 12 0	1 14 0	2 0 0	...
	Sailab ...	1 10 0	1 10 0	...	...	2 0 0	...
	Barani ...	1 10 0	1 5 0	1 5 0	1 5 0	1 14 0	...
Resulting assessment ...		36,518	38,000	68,500	75,000	55,500	273,518
Incidence on average matured area.		1 13 3	1 10 0	1 10 8	1 12 10	2 1 11	1 12 8
Percentage of half net assets ...		51	44	49	48	53	49
Percentage of enhancement ...		21	8½	13	9	9	11½

34. A thirty years' term of settlement, as proposed by the Settlement Officer, is appropriate to a tract which—
Term of settlement and other matters. but for the impending development of communications by the Sialkot-Narowal Railway—has reached stationary conditions. I concur in the proposals in paragraphs 52 and 53 of the report.

35. Here and there are illogicalities in Mr. Boyd's report, as, for instance, when he puts forward the present low pitch of the revenue as one of the reasons for enhancement, and then cites the changes since settlement (which have produced the lowness of the present pitch) as additional reasons. He has acquired an excellent knowledge of the tract, and has made moderate and judicious proposals, though I have suggested a lower scale of enhancement in consideration of the smallness of holdings, the indebtedness of the people and the badness of communications—all three of them influences tending to prevent the full advantage of the rise in prices from reaching the cultivator.

36. The report is dated July 5th. The first copy in print reached my office on September 23rd. The Punjab Government Press, that chartered libertine, deals with such things very much as it pleases.

LAHORE:

The 1st October 1915.

H. J. MAYNARD,

Commissioner, Lahore Division.

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ASSESSMENT REPORT

OF THE

ZAFARWAL TAHSIL.

CHAPTER I.—Physical Features.

1. The Zafarwal tahsil forms a rough oblong lying in the north-east corner of the district. It is bounded on the north by the Jammu State and the Sialkot tahsil, on the east by the Shakargarh tahsil, on the south by Raya and Pasrur, and on the west by the Sialkot tahsil. Its mean length and breadth are about 21 and 14 miles respectively, and its area 306 square miles according to the new measurements. The tahsil is divided into 534 estates, with an average area of little over half a square mile.

General description.

2. The Jammu Foothills are only some 20 miles from the border but the tahsil consists of a level plain, broken only by the Degh and Sabzkot *nalas* and three or four unimportant storm channels. Except in the immediate vicinity of these *nalas* there are no signs of the denudation described in the last Assessment Report. The soil is generally of moderate fertility and real *kallar* is practically nowhere to be found.

Natural features.

The most prominent natural feature is the Degh. It enters the tahsil from the Jammu State at the village of Lehri and flows slightly west of south down to the Pasrur border at Dhapai. At Sanial the present channel separates off from the old Degh which is now dry and consists of a wide stretch of sandy waste sparsely covered with coarse grass yielding a little grazing. The new Degh passes down to Bagal where it again breaks into two channels of which the western is now the more active. These two channels join again at Hanjli and meet the old Degh at Shazada near the Pasrur border. Shortly before it enters the Pasrur tahsil the Degh again splits into two branches at Jaistiwala Uncha. In this tahsil the torrent resembles the *chos* of the Siwaliks, pursuing a capricious course and blighting the land over which it passes with a deposit of unculturable sand. Throughout the year a certain amount of water is to be found in the main channel but not sufficient to be of any use for purposes of irrigation. After rain has fallen in the hills it becomes a turgid flood whose course cannot be foretold and the habitations of villages on the bank are always in danger and are frequently ruined. Throughout the greater part of its course in this tahsil the Degh deposits rounded stones and coarse sand. Towards the south, however, several villages such as Chahur receive a fertilizing silt which greatly benefits the crops. Attempts have been made to curb the stream by the construction of a *band* from Kot Wirk to Bubak and also by the erection of a barrier of stakes at Kotli Chahur. Both efforts have been successful and they might well be imitated at other spots but the people themselves have not sufficient enterprise to undertake even small protective works and further action must depend on the District Board.

The Degh.

The Sabzkot *nala* enters the tahsil from Jammu at Gandial and joins the old Degh at Dullam. There is always a certain amount of water in this stream and several villages irrigate from it by means of *jhallars* and earthen dams. At Garhi Mahe there is now a masonry dam from which water-courses take off for the irrigation of Sabzkot, Raipur, Chak Bagga and Kadirabad.

The Sabzkot *nala*.

The *Lundah nala* is purely a drainage channel which is formed in Raipur and flows south-west to the Pasrur tahsik. It is of little or no use in Zafarwal but deserves mention as it supplies the *Satrah band* system in Pasrur.

The *Gadgor nala* is also a drainage channel rising in Charwa and flowing south-west. It feeds the reservoir formed by the *Khurpa band* and also the neighbouring *chhambh* at Manjke which irrigates five villages in this tahsil and seven in Pasrur.

The other *nalas* are of little importance and have been sufficiently described in the last Assessment Report.

3. The vegetation is remarkable neither for its volume nor for its variety. Pressure of population prevents any cultivable land from remaining uncultivated and it is only in the sandy bed of the old Degh and the Government *rakh* Chenaki that any large green spaces are to be found. Even there little grows but coarse grass or *kana* reeds. Timber is not plentiful neither is it exactly scarce except in the western villages. The *kikar*, *shisham*, *phullaft*, *ber* and mulberry are the commonest trees, but an occasional clump of mangoes is met with, specially in the Dokandi. Persian lilacs are grown near wells and homesteads and most estates have a *pipal* or banyan tree by the village meeting-place. Occasionally a sacred grove with thick undergrowth of *bhekar* is preserved inviolate by the Hindu Rajputs in the east and clumps of *shishams* flourish by the banks of the Degh. On the whole there is sufficient timber for the agricultural needs of the tract but none to spare. For fuel reliance is placed mainly upon cow-dung. The wild leek flourishes throughout the tahsil as most of the soil is a light *maira*, congenial to the weed.

4. In the matter of rainfall the Zafarwal tahsil is well-favoured. The average fall of the years 1893-94 to 1913-14 was 33.76 inches. This figure may be a little exaggerated, however, as the gauge was till recently situated in a spot where it was subject to the pranks of school boys. Mr. Prinsep put the rainfall at 29 inches and Captain Dunlop Smith at 32.3 inches. In Shakargarh to the east it is 34.65 inches and in Sialkot to the west it is 29.11 inches. So I fancy that 32 to 33 inches is a fair estimate. There is no evidence of the diminished fall of which the people so often complain. Three quarters of the rain is received in the four months from May to September. The latter month seldom passes without some fall, its average being 4.07 inches. This is an important matter from the point of view of the spring sowings and the maturing of the rice crop.

5. The tahsil was divided into five assessment circles at the First Regular Settlement and the division has held good till now. Under the orders conveyed in letter No. 66 S., dated 4th June 1915, from the Junior Secretary to the Financial Commissioners the same arrangement is being maintained but I have been directed to consider in this report the feasibility of reducing the number of circles and will do so after describing them.

(a) The Dosahi circle occupies the north-east of the tahsil. Its prevailing soil is a light loam evidently alluvial and generally fertile but somewhat sandy in many estates. Wherever a hollow is met with the soil changes into a light-coloured *rohi* which is not so fertile as the *rohi* of Raya and Daska. The rainfall is good and water is near the surface. Wells are not needed as a rule. Dhenklis are frequently found near the village habitation where Arains grow vegetables and in the rice lands unlined wells are sunk whenever the season requires it.

(b) The Dokandi is a long, narrow circle stretching across the tahsil from north to south separating the Dosahi and Darp circles from the Charwa and Jatatar. It embraces all the villages on both banks of the Degh. The soil in the northern villages is generally light and sandy. In the south it is firmer and consists of fertile silt. Water is close to the surface and wells are not required. The circle does best in a year of moderate rainfall. In the past year the soil was too saturated to yield good crops. This circle is naturally inferior to the similar circles of Pasrur and Raya which are fertilized by silt while in Zafarwal the Degh deposits consist mainly of sand.

(c) The Charwa circle takes its name from a village situated at the junction of the roads to Jammu, Zafarwal, Pasrur and Sialkot. It runs along the Jammu border on the north-west of the tahsil. On the north its soil consists of light *maira* which is fertile towards the east but too sandy on the west. Towards the south it stiffens and in the south-west there are extensive reaches of *rohi* rice land. The western half of the circle adjoins the Bharari of the Sialkot tahsil and resembles it in soil and in the difficulty which is experienced in sinking wells. These are generally found in groups of three or more in the few places where water has been found.

(d) The Jatatar circle takes its name from the number of Jat estates contained in it. There is little to distinguish it from the Charwa except that the wells in this circle are better than in the other. In the south-west however there is a group of some 30 estates which are as poor as any in the district. They are Bharari in character with a dry, infertile soil. In this corner it is difficult to sink wells and water is scarce. The Khurpa band and the Manjke *chhambh*, however, supply irrigation for the rice fields of eight villages.

(e) The Darp circle lies to the south of the Dosahi and only differs from it in being more fertile. The number of estates having a really Darp character is comparatively few. They are situated mainly in the west of the circle and have the distinctive light, fertile Darp soil which is so retentive of moisture and in which valuable crops like sugarcane can be grown without irrigation. In the south-east of the tract there are considerable stretches of light-coloured clayey soil which requires irrigation, but there are no bands such as are frequently found in the *kalar* of Raya and wells are scarce and unsatisfactory. This circle is inferior to the Darp of Raya.

6. Apart from convenience in handling the figures there is no reason for not reducing the number of circles to three by combining the Dosahi with the Darp and the Charwa with the Jatatar. The soil and rainfall of the Dosahi and Darp are fairly similar: so is their cropping except that in the Dosahi more maize and less rice is grown than in the Darp: they are the least irrigated circles of the tahsil but well-cultivation is of considerably greater importance and well-sinking is more difficult in the Darp. The proportion of the cultivated area annually harvested is identical in the two circles and the percentage of crop failure practically the same. They are both heavily mortgaged. The main differences between them are that the Darp is more fertile and has a much stronger proprietary body. Its land is much more valuable and its population much denser. These differences are hardly sufficient to justify their retention as separate circles. At the time of writing the assessment paragraphs of this report I had no intention of amalgamating the circles but yet I found it advisable to lessen the existing differences in the pitch of their assessment. It would have been difficult to apply one set of rates at this settlement but the way has been smoothed for a uniform assessment at next revision of the revenue, especially as it should then be possible to raise the *barani* rate of the Dosahi considerably more than that of the Darp, for the former has the better rainfall and its soil is well suited to *barani* cultivation.

In rainfall and soils there is little to choose between the Charwa and Jatatar. There are more fertile villages in the latter than in the former, but on the other hand the general level of the Jatatar is lowered greatly by the group of Bharari villages in the south-west. The differences in cropping are not great. The proportion of cultivated and irrigated areas is similar and the percentage of crop failure identical. The Jatatar has the larger holdings but the density of population is much the same in the two circles. There is less mortgage in the Charwa but on the other hand its land is less valuable. Here again the assessments which I have proposed will make it easier at next Settlement to apply a single set of rates throughout the two circles. I would therefore recommend that the number of circles be reduced to three by combining the Darp with the Dosahi and the Charwa with the Jatatar from the date of the introduction of the new demand.

7. Under the orders communicated in letter No. 5354, dated 23rd

Classification of soil.

July 1912, from the Junior Secretary to Financial Commissioners the classification of soils adopted for purposes of assessment is that prescribed in

Appendix VII, paragraph 1 (14), of the Settlement Manual.

8. The Zafarwal tahsil is not well off in the matter of communications. At present it has neither rail-

Communications and markets.

way nor metalled road. The number

of unmetalled roads is sufficient but the Degh with its three branches is interposed between the head-quarters of the tahsil and district and after rain has fallen the communications of half the tract are entirely closed. The Narowal-Sialkot Railway will pass through the western part of the tahsil with a station at Chawinda. This will give considerable relief but the tract across the Degh will not be benefitted.

Sialkot is the only market for this tahsil and for part of Shakargarh. On the road from Zafarwal to Sialkot strings of bullocks and donkeys are constantly to be met under the charge of Telis or Kumhars bringing grain to the Sialkot market and taking back salt and oil to the villages.

There are no towns in the tahsil. Zafarwal itself is merely a rural township of 3,633 inhabitants which owes such importance as it has to its situation at the cross roads from Sialkot to Pathankot and from Narowal to Jammu.

CHAPTER II.—Fiscal History.

9. The fiscal history of the tahsil is given in considerable detail in the last Assessment Report and a brief summary will suffice here.

Early fiscal history.

Previous to annexation the revenue was generally collected by division or appraisement of the produce. An attempt by General Avitabile to levy a cash assessment was not successful. After annexation a summary assessment was made on the basis of the value of the grain collected by the Sikhs in the previous three years with a deduction of 10 per cent by way of precaution. Owing to the fall in prices that followed on the establishment of British rule the Summary Settlement broke down and the First Regular Settlement was soon undertaken. It was completed by Mr. Prinsep in 1856 though the report was not submitted till the end of 1863. Reductions were made in this Settlement almost as soon as it had been announced and further reductions were made at Mr. Prinsep's Second Regular Settlement in 1865 which left the assessment about 9 per cent. less than that of the Summary Settlement.

10. The Third Regular Settlement was made by Captain Dunlop-Smith

The Third Regular Settlement.

very much on the lines now prevailing. As in the case of the other tan-

sils the produce estimate was prepared for a representative holding of 100 acres and the resulting soil rates were combined with those derived from cash and lump grain rents in the proportion in which each form of rent was actually taken. In dealing with cash rents no attempt was made to eliminate abnormal rates but as the final assessment was based mainly

on general considerations this omission did not really affect the result. The report was criticised by Government on account of the treatment of cash rents and also because the prices assumed were too low. In a supplementary letter Captain Dunlop-Smith made an endeavour to test the reliability of his cash rent statistics as a guide to assessment. Further, in order to meet objections as to the divergence between the theoretical demand resulting from his produce estimate and the demand actually proposed by him he made considerable deductions from the former on account of crops consumed as fodder and because of the tendency of patwaries to underestimate the area that fails to mature. As a matter of fact in this tahsil landlords take their full share of fodder crops as a rule although concessions are occasionally made in favour of a tenant who has cultivated a large area. With regard to failure of the harvest patwaries' estimates are still a little too cautious but on the whole the crop returns are sufficiently reliable for purposes of assessment. The village inspection work was done very carefully at last Settlement and Captain Dunlop-Smith generally formed a sound judgment of what each village could pay but fairness in the distribution of the demand was frequently unattainable owing to the fiscal history of the village and there is some inequality at the present moment. The assessment was applied to the areas of 1890-91 although the new areas must have been known when the revenue was announced. The demand sanctioned by Government was Rs. 2,41,000 and was considered by the Lieutenant-Governor "as high an assessment as would seem safe." The demand actually imposed was more than Rs. 5,000 above this sum and it cannot be said that the pitch of the assessment was unduly low at the time.

11. The results of the various Settlements are given in the following table:—

Circle.	Summary Settlement.	First Regular Settlement.	Second Regular Settlement.	Third Regular Settlement.
	Rs.	Rs.	Rs.	Rs.
Dosahi	29,416	28,797	27,173	30,248
Dokandi	43,186	46,576	38,064	36,229
Charwa	45,554	46,748	46,792	60,229
Jatatar	59,182	55,789	53,776	68,590
Darp	53,075	48,576	44,263	51,072
Tahsil	2,30,413	2,26,486	2,10,068	2,46,368

12. The Third Regular Settlement came into operation in *kharif* 1893 and expired in *rabi* 1913. Variations in the demand during the period of Settlement are due to the action of the Degh, to the expiry of protective leases and to the falling in of wells. The Degh has caused a fall of over Rs. 1,200 in the annual demand. Otherwise the revenue of each circle stands to-day practically as it was originally announced. The working of the expiring Settlement is illustrated thus:—

Circle.	PERCENTAGE OF TOTAL DEMAND OF 20 YEARS.	
	Suspended.	Remitted.
Dosahi	2.5	.18
Dokandi	1.6	.02
Charwa	2.4	.07
Jatatar	3.6	.13
Darp	3.8	.01
Tahsil	2.9	.08

As 66 per cent. of the cultivated area is unirrigated the assessment has certainly not worked badly.

CHAPTER III.—General statistics.

13. Statement No. II shows the area of the tahsil in 1892-93 when the survey of last settlement had been practically completed and the area as ascertained after the present remeasurement. The statistics relating to two Government estates have been excluded from consideration. The principal changes are shown in the following table :—

Circle.	Detail.	Total area.	Culti- vated area.	Chahi.	Abi.	Sailab.	Barani.
Dosahi	Total + or — ..	—226	—1,030	—572	—99	—4	—355
	Per cent. + or — ..	—9	—4.9	—14.2	—64.3	—22.2	—22.1
Dokandi	Total + or — ..	—164	—1,889	—1,171	+132	+397	—1,247
	Per cent. + or — ..	—4	—7.7	—77.5	+30.1	+7.9	—10.1
Charwa	Total + or — ..	—465	—83	—207	—310	..	+434
	Per cent. + or — ..	—9	—2	—1.2	—42.1	..	+1.7
Jatatar	Total + or — ..	—375	—1,229	—1,159	—153	..	+83
	Per cent. + or — ..	—7	—2.8	—6.1	—17	..	+3
Darp	Total + or — ..	—414	—998	—1,863	—33	+14	+884
	Per cent. + or — ..	—1.2	—3.6	—21.9	—9.6	+1,400	+4.8
Total tahsil	Total + or — ..	—1,644	—5,229	—4,972	—463	+407	—201
	Per cent. + or — ..	—8	—3.3	—9	—18	+8.1	—2

The new measurements are almost entirely responsible for the fall in the total area but a few acres have been transferred to the Jammu State as the result of the delimitation of the boundary which occurred during this Settlement. After allowing for differences of measurement there has been a decrease of about 3 per cent. in the cultivated area. In the Charwa circle the decrease is nominal. Elsewhere it is material, especially in the Dokandi where the Degh is to a great extent responsible. Plague, emigration, the acquisition of land for a new railway, the confiscation of chief headmen's *muafi* plots, the minute partition of joint holdings, and to a small extent, the approach of a new Settlement are the causes of the fall in cultivation. In a congested tahsil like this it would hardly have been expected that loss of population would have any effect on cultivation but the high wages prevailing in the Canal Colonies and in the cities during recent years have proved a greater attraction than the profits of agriculture. The habit of seeking employment in the large towns is stronger in this tahsil than in any other part of the district except the Bharari of Sialkot. In the Jatatar circle 111 acres of cultivated land have been acquired for the Narowal-Sialkot Railway. In many villages the plots of common land, which formerly were granted to chief headmen and have again reverted to the village, have fallen waste as they are no man's property.

The decrease in cultivation has apparently been most serious in the *chahi* area but this is not really so. At last Settlement all land that ever got well water from any source was classed as *chahi* and in Captain Dunlop-Smith's village notes the warning frequently occurs that the well-irrigated area is greatly exaggerated. In this Settlement some subordinates have taken too narrow a view of the definition of *chahi* and have only classed land as well irrigated if it regularly receives water from a well belonging to the owner of the land. If the classification of last Settlement had been followed the new

figures would have shown an increase of 4,047 acres or over 7 per cent. but the Dokandi and Darp circles do not share in this increase. As the number of wells in these circles also has increased greatly it would appear that the exaggeration of the well area at last Settlement was not confined to the inclusion of what is known as *musta'ar chahi*, and I very much doubt the reality of any fall in well irrigation even in these circles.

The *abi* and *sailab* areas are insignificant. The former will be considerably increased by the Sabzkot *band* which was recently erected and another important work at Chawinda is now under consideration.

Sailab cultivation is practically confined to the Dokandi circle where the wandering habits of the Degh have caused some increase in the flooded area.

14. The following table tends to show that the Charwa is the only circle where no deterioration has occurred but as already explained the decline in irrigation is only a matter of classification :—

Circle.	Year.	Percentage of total area cultivated.	Percentage of total cultivated area irrigated.
Dosahi	1892-93	84	20
	1913-14	81	17
Dokandi	1892-93	61	29
	1913-14	57	27
Charwa	1892-93	87	41
	1913-14	88	41
Jatatar	1892-93	87	45
	1913-14	85	44
Darp	1892-93	81	32
	1913-14	79	26
Tahsil	1892-93	80	36
	1913-14	78	34

All circles are fairly fully cultivated except the Dokandi where the beds of the Degh occupy a large area. The two western circles have nearly half their area protected by irrigation but elsewhere protection is hardly wanted as the annual rainfall has only three times been less than 20 inches since last Settlement.

15. The following statement gives the information with regard to the number of wells which is required in the Settlement Manual:—

	2	3	4	5	6	7
Detail.	Dosahi.	Dokandi.	Charwa.	Jatatar.	Darp.	Tahsil.
New wells and old wells which have been made fit for use.	235	302	662	640	331	2,170
Wells which have fallen or become otherwise unfit for use.	96	163	249	349	223	1,080
Increase	139	139	413	291	108	1,090

Bad seasons have given a fillip to well sinking and the number made in 1899-1900 was three times the annual average since last Settlement.

16. The efficiency of wells at last Settlement and now is compared in the annexed table:—

Detail	DOSAHL.		DOKANDI.		CHARWA.		JATATAR.		DARP.	
	At Settlement.	Now.	At Settlement.	Now.	At Settlement.	Now.	At Settlement.	Now.	At Settlement.	Now.
1. Average depth to water, feet	11	11	15	14	17	17	22	23	14	14
2. Depth of water per well in use, feet	8	7	7	8	6	6	6	6	8	8
3. Recorded <i>chahi</i> area per well in use, acres.	17	10	10	12	17	14	17	14	16	13
4. Area actually irrigated per well in use, acres	11	9	13	10	16	13	17	15	13	13
5. Area matured per well in use, acres	10	9	12	10	15	13	16	14	12	13

In the Dokandi the water level has risen and the amount of water in each well has increased; in the Jatatar there has been a fall of one foot in the water level; otherwise there is no change. The contraction in the *chahi* area has already been discussed. The deduction to be drawn from the other statistics is that crops are more thoroughly irrigated now than at last Settlement. Everywhere water is fairly near the surface and the cost of well irrigation is moderate. But wells are generally unsatisfactory. It is difficult to find a water bearing stratum and well sinking is frequently hindered by the presence of *jill*, a fine clay that constantly falls in as the well is being excavated. For these reasons the wells are generally found in groups of three to eight where a favourable spot has been discovered. The water-supply is quickly exhausted and few wells in this tahsil can be worked steadily day and night as in the Charkhri circles. They are mainly a supplement to the rainfall and the irrigated area and number of wells in use vary greatly from year to year according to the season.

17. Changes in the number of cattle are shown in the form of percentages in the following statement:—

Cattle.	Circles.	Bulls and bullocks.	Cows.	Male buffaloes.	Cow buffaloes.	Young stock.	Total cattle
Dosahi	-18	-2	-1	+84	+37	+9
Dokandi	-34	+9	-19	+41	+10	-3
Charwa	-26	-18	-22	+67	+109	+7
Jatatar	-29	-21	-53	+53	+45	-7
Darp	-43	-18	-13	+56	+46	-7
Tahsil	-31	-11	-27	+57	+46	-1

In all circles the returns show a decrease in the number of bullocks and male buffaloes which are the principal well and plough cattle. The number of cows also has decreased everywhere except in the Dokandi while cow buffaloes and young stock show a great increase throughout the tahsil. The decreases suddenly came to light in the cattle census of 1898-99 and were accompanied by a correspondingly sudden increase in the number of young stock which leaves little doubt that much of the decrease is a matter of classification. At the same time a certain amount of it is undoubtedly real. There has been a tendency throughout the province to substitute cow buffaloes for cows because of the greater profits to be got from the milk and *ghi* of the buffalo and because she can be used for draught on wells and with ploughs. This diminution in the number of cows necessarily causes a decline in the number of bullocks and the decline has been intensified in this district by the exodus to the Canal Colonies. That emigration is partly responsible for the decrease is proved by the fact that the number of ploughs has varied roughly with the number of plough cattle. The colonist takes his farm implements and stock with him when he goes to his new home. The census of 1913-14 showed a recovery under every head and in every circle except the Jatatar where there was a fall in the number of cows and male buffaloes. The total number of cattle of all kinds is now very little less than it was 20 years ago and while deterioration in this respect must be acknowledged it is a matter for congratulation that the loss of cattle has not been greater in view of the amount of emigration that has occurred. In this tahsil cattle are generally stall fed, but a good deal of rough grazing is available in the villages bordering on the old Degh. As a rule cattle are imported but many good animals are bred in the tahsil and the District Board is taking steps to encourage breeding.

18. The keeping of sheep and goats yields a small income to both *zamindars* and *kamins*. Sheep have declined in popularity but there has been a great increase in the number of goats and on the whole flocks have grown since last Settlement.

The horses of this tract are of poor quality. Their numbers have increased steadily except for a set back in the quinquennium following 1898-99 when the abnormal number of bad seasons put a check on prosperity.

There are few carts in the tahsil which has no metalled roads and most of the carrying is done by bullocks and donkeys. The latter have increased somewhat in numbers.

Carts.

19. Throughout the tahsil there has been a steady fall in population since 1891. In the first decennium it was due mainly to emigration to the Canal Colonies, in the second to plague. The decrease has been heaviest in the Dokandi which could best afford to lose men. In the following statement the results are summarized:—

Circle.	Increase or decrease per cent.	NUMBER OF PERSONS PER SQUARE MILE OF CULTIVATION.	
		1891.	1911.
Dosahi	—15	661	562
Dokandi	—27	926	736
Charwa	—14	784	642
Jatatar	—17	747	614
Darp	—17	794	659
Tahsil	—18	776	641

The loss of population has not been an unmixed evil as the pressure on the soil was excessive at last Settlement but the tahsil is still congested, especially in the Dokandi circle. The opening up of the Lower Bari Doab colony will help to relieve the congestion in this circle as many grantees have been selected from the villages affected by the Degh.

20. The average cultivated area per owner at last Settlement and now is shown in the following table:—

Circle.	At settlement.	Now.
Dosahi	5.8	5.1
Dokandi	4.8	3.6
Charwa	5.0	4.4
Jatatar	6.7	5.4
Darp	4.5	4.1
Tahsil	5.2	4.5

Holdings are smaller in Zafarwal than in any other tahsil and its soil is less fertile. In 60 per cent. of the estates there are only 5 acres or less of

cultivated land for every owner. But the size of holdings should be considered in conjunction with the pressure of population on the soil and in paragraph 19 it has been shown that owing to a reduction of 18 per cent. in the population there has been a material decrease of pressure. The fact that there are fewer mouths to feed seems of more importance than the fact that the number of owners has multiplied for the surplus produce must now be greater than before and therefore the people have more chance of benefitting by a rise in prices. It must also be remembered that owing to Mr. Prinsep's policy of multiplying estates, many *zamindars* hold land in several estates and the number of owners is fictitiously increased in consequence. Small holdings are not always accompanied by distress and during my inspection of villages I frequently found that the small holder under the spur of necessity was increasing his income by leasing the fields of more fortunate neighbours and was adding to his patrimony by acquiring land as purchaser or mortgagee. But we should be careful not to tax thrift and due consideration must be paid to the size of holdings when determining the assessment.

21. The proprietary body of the Zafarwal tahsil is the least efficient of the whole district. Jats are the prevailing tribe, possessing 48 per cent.

Tribal distribution.

of the cultivated area. Most of the Darp and Jatatar circles and half of the Dokandi belongs to them. The principal clans are the 'Bajwa,' 'Kahlon,' and 'Deo' who are all fair cultivators but not in the same class as the Chimas and Sahis of Daska. Nearly three-fourths of the Jats of this tahsil are Mussalman.

The Rajput tribe comes next in importance, holding 37 per cent. of the cultivated land. They are found mainly in the north-east of the tahsil in the Charwa, Dokandi and Dosahr circles where the rainfall is plentiful and well-cultivation can be dispensed with. The great majority are Muhammadan Salehrias who are generally indifferent cultivators but cannot be described as lazy because they freely leave their villages to seek employment as labourers in the big cities of the Province. They furnish many recruits to the army and have joined in considerable numbers during the present war. The Bhatti clan, who are all Mussalmans, are the best cultivators among the Rajputs of the tahsil. Next in number come the Manhas who are generally Hindus. They are a proud clan, inferior as agriculturists and overburdened by the cost of marriage and other ceremonies. They have received a blow in recent years from a movement which started in this tahsil for the breaking down of caste distinctions among Rajputs. The inferior castes are adopting the practice of *dokra natta* or reciprocity in the giving of brides and the Manhas find it increasingly difficult and expensive to secure a wife. He has to pay both to his high caste son-in-law in the hills and to his independent father-in-law in the plains and is ground between the upper and the nether mill-stone. Small wonder is it that mortgages are heavy in Manhas villages. The Manhas are Dogras and supply a few recruits to the army.

Awans possess the north-west corner of the Charwa on the borders of the Sialkot Bharari. They are fairly industrious but not such skilful cultivators as the Jats. They own 4 per cent. of the total cultivated area. Arains hold 314 acres only and the tahsil is the poorer by their absence. Other agriculturists are not of sufficient importance in this tahsil to deserve detailed notice. Less than 6 per cent. of the land is in the hands of persons of non-agricultural tribes. Tenants are generally *zamindars* with small holdings or else village menials. There is, however, a fair sprinkling of Arains among the tenantry but not nearly so many as in Sialkot, Raya or even Pasrur.

22. Information with regard to alienations is contained in statements VI A and VI B. The former has been specially prepared for the purposes of

Alienations—

(a) Indebtedness.

this report and all resales due to pre-emption claims have been excluded.

The price entered in such cases is that determined by the Court. A summary of the results is appended :—

Assessment circle.	PERCENTAGE OF THE CULTIVATED AREA.											
	Sold since settlement.						Now under mortgage.					
	To zamindars.	Price per acre.	To others.	Price per acre.	Total.	Price per acre.	To zamindars.	Consideration per acre.	To others.	Consideration per acre.	Total.	Consideration per acre.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Dosahi	4	87	1	117	5	93	18	111	15	77	33	95
Dokandi	3	138	2	130	5	135	18	125	9	101	27	117
Charwa	3	102	1	100	4	102	17	88	5	84	22	87
Jatala	3	135	1	146	4	137	19	99	8	89	27	96
Darp	1	171	1	152	2	164	19	135	10	108	29	126
Tahsil	3	120	1	131	4	124	18	108	9	91	27	103

The last Assessment Report does not give statistics of the area sold during the Second Regular settlement but if we may judge by the figures for the quinquennium ending 1890-91 it was certainly not less than 4 per cent. and a much larger proportion was sold to non-agriculturists than during the expiring settlement. The area sold in Zafarwal is proportionately less than in any of the other tahsils and as three-quarters of it went to *zamindars* there is nothing alarming in the figures, especially in view of the fact that an appreciable proportion of the sales has been due to the desire of sonless proprietors to defeat the claims of collateral heirs.

On the other hand Zafarwal is much the most heavily mortgaged tahsil in the district and 6 per cent. of the cultivated area has come under mortgage during the last Settlement. The tide turned about the middle of the period, however, and in the last ten years the area redeemed has exceeded the area that has been mortgaged by over 2,200 acres. Another cause for congratulation is the fact that the area pledged to non-agriculturists has decreased in all circles. The most unsatisfactory feature of the statistics is the continued increase of the mortgage debt in spite of redemptions which are often effected without any repayment, thanks to the rise in the value of the land. The mortgage debt is now over two-and-a-half times as much as at last Settlement but, as a set off, the mortgage value of land has increased in nearly the same proportion. Still to pay off the debt entirely it would be necessary to sell 10,000 acres more than were required to redeem the debt existing twenty years ago and this, I think, is the measure of the gravity of the position.

In the Dosahi where Rajputs predominate a third of the cultivated area is under mortgage. It is notorious that members of this tribe will pile up mortgages readily but are loath to sell outright. The Darp also is heavily encumbered as lenders are glad to invest in fertile land and a nest of *sahukars* in the heart of the circle provides a fatal facility for obtaining credit. Its comparative infertility has protected the Charwa. In all circles the smallness of holdings has a great deal to do with indebtedness. This and the feckless disposition of the people have more to do with the increase in mortgages than has the burden of the land revenue.

Among the causes of alienations it is only necessary to refer to the cost of social ceremonies among the Rajputs and to the practice which prevails

among emigrants of mortgaging their land on departure from the village in order to preserve a clear title in their absence or else in order to raise the capital necessary for a start in the Canal Colonies.

23. The attempt to ascertain the rise in the value of land since last settlement is hampered by the fact that the statistics recorded in the last report appear unreliable. I give them for what they are worth.—

Alienations—
(b) Rise in the value of land.

1	2	3	4	5	6	7
Circle.	SALE PRICE.			MORTGAGE PRICE.		
	1886-87 to 1890-91.	1909-10 to 1913-14.	Rise per cent.	1886-87 to 1890-91.	1909-10 to 1913-14.	Rise per cent.
Dosahi	44	143	225	45	114	153
Dokandi	100	143	43	50	137	174
Charwa	42	134	219	44	100	127
Jatatar	77	148	51	49	116	137
Darp	92	227	147	57	149	161
Tahsil	73	151	107	49	121	147

In arriving at the results in column 3 all obviously abnormal transactions have been eliminated. The course of sale prices has been erratic throughout the settlement while that of mortgage prices grows a steady increase. The volume of sales is too small to ensure that exceptional cases shall balance one another but mortgage prices are based on transactions affecting an area nearly eight times as large as that sold in the same period. Consequently I would accept the increase in mortgage rates as the truer guide to the rise in the value of land and would say that land was two-and-a-half times as valuable now as when the last Settlement was made. This conclusion is based on the assumption that the figures given in the last report are correct. I confess that a reference to statement No. VI B makes one sceptical of their accuracy as it shows an enormous rise in the first quinquennium of the new Settlement and a comparatively small increase thereafter. Materials do not exist for correcting the prices given in the last report and all that can be said is that there has been a great enhancement in the value of land in all circles.

24. Applying the test laid down in paragraph 381 B of the Settlement Manual it would appear that in the last five years a purchaser who expected 4 per cent. on his investment in land reckoned that the assessment absorbed only the following proportions of the net profits in the various circles:—

	Per cent.
Dosahi	20
Dokandi	23
Charwa	22
Jatatar	20
Darp	17
Tahsil	20

25. There are no miscellaneous sources of income to be found in the tahsil. The Awans, Salehrias and Jats migrate annually to seek labour in Amritsar, Lahore or the Canal Colonies. This is an indication of the

Miscellaneous sources of income.

congestion prevailing in the tahsil for it is not well provided with communications and people would not readily leave their homes for daily labour if there were sufficient land to yield a fair living.

Military service is popular among the Salehrias, Jat Sikhs and to some extent among the Dogra Rajputs. Rs. 18,682 is paid annually in Military pensions through the Post Office. During my village inspections I found that even sepoy and sowars, to say nothing of the higher ranks, were able to save enough money to redeem their ancestral acres. 1,376 squares in the various Canal Colonies have been allotted to this tahsil and the possession of this land has been a great source of strength to the people. There is general complaint, however, that the lucky grantees do nothing to help their friends who have been left behind. As the distribution of squares has been uneven it is worth while to give details by circles :—

						Squares.
Dosahi	...	...	...	...	...	91
Dokandi	...	...	...	...	...	779
Charwa	...	...	...	...	...	60
Jatatar	...	...	...	...	...	122
Darp	...	...	...	...	...	324

In addition to the grantees scores of *zamindars* have gone to the colonies as tenants.

CHAPTER IV.—Crops.

26. The character of the harvests in the Zafarwal tahsil since last Settlement is shown in Statement No. VIII from which the following results are culled :—

Assessment Circle.	PERCENTAGE OF FAILED TO SOWN AREA.			Percentage of cultivated area annually sown.	Percentage of cultivated area annually harvested.
	Kharif.	Rabi.	Total.		
Dosahi	15	15	15	109	92
Dokandi	14	11	12	110	97
Charwa	13	12	13	111	97
Jatatar	13	13	13	107	93
Darp	17	15	16	109	92
Tahsil	14	13	14	109	94

With the exception of Raya this is the least secure tahsil in the district because it is the least protected by irrigation. Raya is better protected but has a poorer rainfall. The good rainfall of Zafarwal and the comparative absence of irrigation explain the fact that there is little difference in the security of the two harvests although the spring harvest generally receives more irrigation than the autumn. For an unirrigated tract I do not think that the fluctuations in the sown and matured areas are great provided we eliminate very exceptional years like 1899-1900, 1900-01, 1907-08 and 1911-12 and these exceptional years nearly counterbalance one another. Looking at the percentage of the cultivated area annually sown and harvested the tahsil would appear to be fairly fertile as the figures are more favourable than in the case of Pasrur and Raya. The fact that for every 100 acres classed as cultivated 94 on the average yield a crop proves that we are dealing with fairly stable agricultural conditions.

The matured area assumed for the purposes of this report is 5,588 acres or 4 per cent. less than that on which Captain Dunlop-Smith based his assessment. For the various circles the decrease is :—

	Per cent.
Dosahi	5
Dokandi	9
Charwa	8
Jatatar	2
Darp	1

The causes of this decrease are the same as those mentioned in paragraph 13 where the decline in cultivation is discussed. There is no reason to suppose that the harvested area of the tahsil will remain permanently at its present low level.

27. The composition of the cropping is shown in Statement No. XI.

Changes in cropping.

Zafarwal is a backward and conservative tahsil and there has been comparatively little alteration in the cropping. *Kharif* crops form 2 per cent. less of the total harvest and *rabi* crops 2 per cent. more than at last settlement. The only changes of any magnitude are the increased cultivation of wheat and fodder crops and the decreased cultivation of rice. In the Darp there has also been a serious shrinkage in the area under sugarcane, the characteristic staple of the tract. The rise in the price of wheat accounts for its increased popularity. In the case of fodder crops the explanation given to me is that the price of *bhusa* has risen and it pays the *zamindars* to sell it and increase the area under fodder. As there are now fewer cattle than at last Settlement and therefore less demand for fodder I think we must accept this explanation and credit the tahsil with some income from sale of straw. Rice cultivation is precarious as it is the first crop to suffer from a poor monsoon. It has therefore been sacrificed in favour of wheat. The Darp villagers say that the damage done by white-ants has discouraged cane cultivation but this is an old complaint and I think that the profitableness of wheat and the trouble and expense of growing sugarcane explain the change. Other less important features of the cropping are the increased cultivation of *bajra* and spring oilseeds and the decreased growth of *masar* (which is a delicate crop) and of autumn oilseeds. Cotton occupies a slightly less important position than formerly. On the whole the cropping is of a fairly high order and the proportion of the harvest composed of the valuable crops, rice, maize, sugarcane, cotton and wheat, has risen in all circles but the Darp as the following statement shows :—

Detail.	PROPORTION OF VALUABLE CROPS.					
	Dosahi.	Dokandi.	Charwa.	Jatatar.	Darp.	Tahsil.
At settlement ..	55.7	56.3	58.8	58.8	61.5	57.1
Now ..	59.4	62.8	56.7	59.0	60.9	59.4

28. The character of the agriculture in this tahsil is somewhat slipshod as is natural from the composition of the proprietary body and of the

The character of the cultivation.

tenantry who are mainly village menials. Ample rainfall and the absence of irrigation do not make for strenuous tillage. The wild leek flourishes in the light soils which prevail and it is only among the Awan villages on the north-west that I observed any general efforts to remove it. It must be admitted, however, that the cultivation in Jat villages is generally fairly careful. The

only unusual feature in the agriculture is the fact that manure is fairly freely and successfully used on *barani* lands. This application of manure to unirrigated land is rendered possible by the rainfall. In drier tracts it is apt to be injurious unless thoroughly decomposed.

CHAPTER V.—Tenancies and Rents.

29. In the Zafarwal tahsil owners cultivate 49 per cent. of the land, a considerably larger proportion than in the other tahsils. This is a symptom of its backwardness as with the spread of education and the growth of luxury—though the word is scarcely applicable to the peasants of this district—there is a tendency to leave cultivation more and more in the hands of tenants. Even here landlords cultivate 5 per cent. less than at last settlement. The only other change in cultivating occupancy is that the proportion of land held at revenue rates has increased by 2 per cent. This is due to plague which has left widows and minors in possession of a large area, generally held by relations, who pay the revenue and support the nominal owner.

30. The prevalence of the various forms of rent is illustrated in the following statement:—

Circle.	Year.	PERCENTAGE OF CULTIVATED AREA CULTIVATED BY TENANTS-AT-WILL PAYING			
		<i>Batai.</i>	<i>Chakota.</i>	Cash.	Total.
Dosahi	1892-93 ..	39.2	4	2.8	42.4
	1913-14 ..	41.6	1.3	2.7	45.6
Dokandi	1892-93 ..	27.8	2.6	4.4	34.8
	1913-14 ..	32.9	3.3	3.5	39.8
Charwa	1892-93 ..	17.2	1.5	5.3	24.0
	1913-14 ..	25.0	1.2	2.4	28.6
Jatatar	1892-93 ..	27.8	2.4	3.9	34.1
	1913-14 ..	32.7	3.1	2.1	37.9
Darp	1892-93 ..	25.7	2.5	6.7	34.9
	1913-14 ..	32.4	3.0	3.4	38.8
Tahsil	1892-93 ..	26.1	1.9	4.7	32.7
	1913-14 ..	31.7	2.3	2.7	36.7

The increase in the area paying *batai* and *chakota* rents is due to the desire of the landlord to secure the benefit of the rise in prices. For the same reason cash rents have declined in popularity. It is true that the *chakota* rents shown in Statement No. VII C are in many cases less than the cash rents entered in Statement VII B, but that only means that the commutation prices assumed are much below present rates.

31. *Zabti* rents are now practically confined to the Dosahi circle but till recently they were taken on an appreciable area in the Dokandi also. I suspect that they are really more prevalent than our records show as *pat-waries* are apt to class them as cash rents. The common rates are:—

			Rs.	A.	P.	
Sugarcane	...	...	10	0	0	per acre.
Tobacco	...	...	10	0	0	"
Cotton	}	...	5	0	0	"
Chari		...	5	0	0	"
Vegetables		...	5	0	0	"
Hemp	...	...	3	12	0	"

The rates are survivals but when compared with those deduced from the produce estimate, *e.g.* Rs. 28 per acre of *chahi* sugarcane, they indicate that the latter should be received with caution.

The total area on which *zabti* rents are taken is so small that it is not worth while to employ them at all in the produce estimate.

32. In Statement No. VII-A I have compared the *batai* rents taken in 1892-93 and 1913-14. In the Dosahi and Dokandi where the rate was 50 per cent. at last settlement there has been no change. In the Charwa and Jatatar it has risen from 48 to 49 per cent. and in the Darp from 49 to 50 per cent. There has therefore been an improvement in the landlord's position in the three latter circles. In the others the rates are the maxima. In no other tahsil except Sialkot does the landlord take so high a proportion of the produce. In Zafarwal the competition for the land is greater than in the other tahsils and cultivation is cheaper because so much of it is unirrigated. These considerations and not the fertility of the soil explain the readiness of the tenant to pay a high proportion of the produce.

33. *Chakota* rents are taken on too small an area to form any reliable guide for assessment purposes. They consist generally of a fixed amount of grain but sometimes the land revenue or a fixed sum of cash paid in *kharij* is taken in addition. Compared with the rates given in paragraph 51 of the last report the alteration per cent. in this form of rent has been—

Dosahi ..	...	...	...	...	+153
Dokandi ..	...	...	...	...	+32
Charwa ...	...	...	...	...	-17
Jatatar ..	...	...	...	...	+1
Darp ..	...	...	...	...	+11
Tahsil ..	...	...	...	...	+8

As the areas concerned, especially in the case of the Dosahi circle, are so small it was hardly to be expected that consistent results would be obtained but it is a little surprising that in spite of the great rise in prices the rise in rents should only be 8 per cent. and that there should actually be a fall in the case of the Charwa Circle. I do not feel any confidence in the figures given in the last report and the village note-books do not provide any means of correcting them.

34. Cash rents are taken by persons who, owing to absence or other incapacity, are unable to make the most out of their land. They are also taken from distant and inferior fields or from common land. The rates taken by mortgagees sometimes include interest and have been excluded along with other abnormal rates from Statement No. VII B which is designed to show competition cash rents. The area on which these are taken is so small that they do not provide a reliable guide to the letting value of the land. Owing to the faulty method adopted by Captain Dunlop-Smith in deducing average rates I have had to fall back on the statistics given in the village note-books for 1892-93 and 1913-14 in order to ascertain the rise in cash rents since last Settlement. The results are:—

	Rise per cent.				
Dosahi	89
Dokandi	37
Charwa	27
Jatatar	3
Darp	13
Tahsil	28

Of the total area paying cash rents the proportion that is irrigated is now greater than in 1892-93 and therefore the rise shown above is slightly exaggerated. Probably a rise of about 25 per cent. for the tahsil as a whole can be assumed to be correct but the areas concerned are so small that the results for circles are unreliable.

CHAPTER VI.—Half net-assets Estimate.

35. In accordance with the orders conveyed in letter No. 6148, dated 4th September 1914, from the Junior Secretary to the Financial Commissioners, the produce estimate has been based on the returns of the years 1908-09 to 1913-14 with the omission of the abnormal year 1911-12. The rainfall of the period was nearly 5 inches above the average but if "bumper and lean years are eliminated the average yielded by the selected years agrees very fairly with the harvested areas of the remaining years"—to quote from the Financial Commissioners' letter.

The character of the selected harvests is as follows :—

Year.		Kharif.		Rabi.
1908-09	.. ..	Good	..	Below average.
1909-10	.. ..	Average	..	Good.
1910-11	.. ..	Average	..	Good.
1912-13	.. ..	Poor	..	Poor.
1913-14	.. ..	Above average	..	Good.

The year 1912-13 is instructive for the rainfall was a little above average but both harvests were spoiled because there was no rain in September or October. In 1913-14 the fall was just average but owing to its favourable distribution both harvests did well.

The average area of crops on which the produce estimate is based is shown in Statement No. IX.

36. Crop experiments have been conducted in seven harvests but those of 1915 were not available in time for use in this report. The results are given in Statement No. XII and for purposes of comparison the yields assumed in neighbouring tahsils also have been shown. The outturns adopted by Captain Dunlop-Smith at last settlement were accepted by the Commissioner and Financial Commissioners as reasonable. As a rule I have maintained these outturns. Any important variations proposed are commented on below :—

Rice.—As the rohi lands of this tahsil are of moderate fertility only and inferior kinds of rice are grown to a great extent I hesitate to assume a yield higher than that justified by the results of crop experiments. Accordingly the yield of *chahi* rice has been reduced from 15 to 13 maunds for the Dosahi circle and from 13 to 12½ maunds for the Charwa. A good deal of *barani* rice is grown in the Charwa. The yield assumed at last settlement seems too low and I have raised it from 6 to 8 maunds.

Maize.—The yield of *chahi* maize has been raised in the Dosahi and Dokandi in view of the results of crop experiments and of the outturn assumed in neighbouring circles. In the Dokandi the yields of all classes have been raised. There is no reason why *barani* maize in the Jatatar should have a heavier yield than in the Dokandi or Charwa and I have reduced the estimate accordingly.

Sugarcane.—I have raised the yield of *chahi* cane in the Dosahi and Dokandi and reduced it in the case of the *barani* crop in the Darp where the Raya estimate has been adopted. The Dokandi *barani* outturn has been raised and the Jatatar slightly reduced. For the Dokandi I think the yield assumed still too low but I cannot well go above the estimate recently approved for the neighbouring circle in Pasrur.

Cotton.—The yield assumed last settlement for the Dokandi seems too low. There is no reason why the *barani* yield should be higher in the Jatatar than in the Charwa. In the Darp and Dosahi *zabti* is frequently taken at Rs. 5 per acre only for this crop.

For other *kharif* crops I have been guided mainly by the yields assumed in neighbouring circles, allowing for differences in fertility.

Wheat.—Three main kinds are grown—*nikki*, *moni* (beardless) and *vadanak* in the order of their popularity. I doubt if *vadanak* occupies as much as a fourth of the total crop. It is found on the best lands. I think that Captain Dunlop-Smith underestimated the outturns of *barani* wheat and have raised them everywhere except in the Jatatar.

Barley—is not so carefully cultivated as wheat and I have maintained the lenient estimate assumed at last settlement except for *barani* soils in the Charwa where 6 maunds seems to me none too high.

Gram and masar.—In the harvest which I observed most closely in this tahsil the gram and to a less extent the *masar* were ruined by excessive rainfall and the data available for framing an estimate are meagre. There is not so much difference between the *chahi* and *barani* crops as Captain Dunlop-Smith assumed and I have altered the yield accordingly.

No estimates were framed for other crops at last Settlement.

37. In the following table are compared the commutation prices adopted at last Settlement and those sanctioned in Financial Commissioners' letter No. 7676, dated 1st November 1912 :—

Crops.	At last Settlement.	Now.	Rise per cent.
Wheat	25	34	36
Barley	15	22	47
Gram	20	28	40
Masar	...	26	...
Toria	...	57	...
Rice	21	34	62
Maize	20	27	35
Gur	43	53	23
Cotton	49	80	63
Bajra	...	25	...
Moth	...	30	...
Mung and mash	...	36	...
Jawar	18	...	...
Tobacco	...	70	...

The effective rise in prices has been calculated on the basis of the prices published in the Gazette during the 10 years preceding 1893-94 and 1913-14 respectively. The calculation is as follows :—

1	2	3	4	5	6	7
Crops.	Percentage on total area of crop.	Yield per acre in maunds.	Total yield in maunds.	Rise of price per cent.	Multiple of columns 4 and 5.	General rise.
Rice	4	16	64	39	2,496	...
Maize	7	8	56	30	1,680	...
Gur	5	17	85	39	3,315	...
Cotton	3	4	12	49	588	...
Wheat	41	9	369	31	11,439	...
Barley	7	7	49	52	2,548	...
Gram	2	6	12	48	576	...
Total	69	...	647	35½	22,642	35

The rise is the same as that ascertained for the Pasrur and Sialkot Tahsils.

38. At last settlement a deduction of 16 to 18 per cent. on irrigated land and 10 to 14 per cent. on unirrigated was taken on account of menials' dues but allowance was made for the share of the barber, washerman and others who are not strictly speaking agricultural servants, and of the claims for the *athri chuhra* who is seldom employed by tenants. The rates paid in this tahsil are practically the same as in the Sialkot tahsil and need not be repeated. Reapers, however, only get half a sheaf per diem in Zafarwal while they take a whole sheaf in Sialkot. In the latter tahsil deductions of 16 per cent. on irrigated soils and 12 per cent. on unirrigated were adopted for the dues of reapers and menials. Here the holdings are smaller and reapers take less so that 15 per cent. on *chahi* land and 11 per cent. on other soils should be a sufficient allowance. As in the other tahsils I will assume for sake of convenience that the deductions are made at a uniform rate from all crops although in reality wheat, maize and sugarcane pay more than other staples. Menials' dues are always paid before division of the produce. The net share of the crop taken by landlords is shown in Statement No. VII A.

Artisans' and menials' dues.

39. In the Dosahi, Charwa and Jatatar circles as a rule no share of straw is taken by the landlord. In the Dokandi and Darp, after allowing for villages in which the straw belongs entirely to the tenants, the landlord's share comes to one-fourth and one-third respectively. The straw of wheat, barley, *masar*, *moth*, and *mash* is divided. As in the Sialkot report I assume the outturn of the straw of wheat and barley to be one and half times that of the gram though I am now inclined to think that it is nearer twice as much. The straw of *masar* weighs one-and-a-half times as much as the grain; that of *moth* and *mash* the same as the grain. The price assumed is three maunds to the rupee but this is a distinctly cautious estimate.

The landlord's share of straw

40. I have now explained the steps by which the produce estimate of the half net-assets has been framed. The results are shown in Statement No. XIII A. The estimates based on *chakota* and cash rents are shown in Statement Nos. XIII C and XIII B respectively. In the case of these two estimates a deduction of one per cent. has been made for rents that are not realized either because the landlord remits them in a bad season or because a tenant occasionally bolts without paying. The estimate based on sale prices is framed on the lines indicated in paragraph 381-B of the Settlement Manual. In the following statement these four estimates are compared:—

Half net assets.	Dosahi.	Dokandi.	Charwa.	Jatatar.	Darp.	Tahsil.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
By kind rents	72,446	89,305	1,40,359	1,58,536	1,12,535	5,73,181
By <i>chakota</i> rents	72,699	92,439	1,38,661	1,57,542	1,04,452	5,65,793
By cash rents	54,320	83,180	94,630	1,05,659	91,711	4,29,500
By sale prices	72,554	81,976	1,42,990	1,59,895	1,45,677	6,03,092
Estimated true half net-assets	72,500	85,500	1,38,000	1,57,000	1,05,000	5,58,000

At last Settlement the produce estimate of half net-assets was put at Rs. 3,20,000 by the Lieutenant-Governor. My estimate exceeds this by much more than the rise in prices would warrant. But I have made none of the deductions for fodder, &c. which were, I think wrongly, allowed at last settlement; I have credited landlords with their due share of straw; menials' dues have been deducted at a lower rate; outturns have been raised in many cases and there has been a slight increase in the proportion of the produce taken by the landlord.

For the reasons given in paragraph 34 the cash rent estimate is abnormally low in all circles and as cash rents are taken on a very small area little weight can be attached to them. *Chakota* rents are generally fairly full but they have been commuted at lenient rates. In the Dosahi, Charwa and Jatatar circles three of the estimates agree extraordinarily well, considering the number of independent assumptions that enter into them and in the Dokandi

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there is no remarkable discrepancy. In the Darp circle I consider that the sale price of land is exaggerated in the transactions of the last five years.

CHAPTER VII.—Assessment.

41.

Considerations affecting the assessment.

	Dosahi.	Dokandi.	Charwa.	Jatatar.	Darp.	Tahsil.
Percentage of total area cultivated ..	81	57	88	85	79	78
Increase or decrease per cent. in cultivated area since last settlement.	-4.0	-7.6	-2	-2.8	-3.7	-3.3
Percentage of cultivated area irrigated ..	17	27	41	44	26	34
Increase in the total number of wells ..	139	139	413	291	108	1,090
Percentage of cultivated area annually harvested.	92	97	97	93	92	94
Percentage of crop failure ..	15	12	13	13	16	14
Percentage of valuable crops, viz., rice, maize, sugarcane, cotton, wheat, to total harvest.	59	63	57	59	61	59
Population per square mile of cultivation. ..	562	736	642	614	659	641
Average cultivated area per owner (acres) ..	5.1	3.6	4.4	5.4	4.1	4.5
Percentage of cultivated area sold since Settlement.	5	5	4	4	2	4
Average price per acre 1909-10 to 1913-14, Rs.	143	143	134	148	227	151
Percentage of cultivated area now under mortgage.	33	27	22	27	29	27
Average consideration per acre, Rs. ..	95	117	87	96	126	103
Present assessment, Rs. ..	30,244	35,005	60,222	68,547	51,006	2,45,024
Estimated half net-assets, Rs. ..	72,500	85,500	1,38,000	1,57,000	1,05,000	5,58,000

The principal arguments in favour of raising the revenue are its present low pitch, the rise of 35 per cent. in the price of produce, the great enhancement in the value of land, the increase in the number of wells, improvement in composition of the cropping and the relief of pressure on the soil. Further, the new railway will improve communications and the Punjab Alienation Act has strengthened the position of the *zamindar*. On the other hand there has been a fall of 3 per cent. in the cultivated area, a decline in the number of cattle, a reduction in the amount of cultivated land per owner, a considerable increase in the area under mortgage and a heavy increase in the mortgage debt. Unfortunately the Zafarwal tahsil has barely been touched by the co-operative credit movement up till now.

42. In the Dosahi circle the cultivated area has fallen by nearly 5 per cent.; holdings average 5 acres only; a third of the cultivated land is under

Assessment of the Dosahi.

mortgage and the mortgage debt has been nearly trebled since last Settlement; the proprietary body is weak; the nearest market is about 30 miles off and communications, always poor, are interrupted when the Degh is in flood: finally, although the available statistics show a great rise in the value of land since the last assessment was made no rise at all is apparent between the first and last quinquennia of the expiring settlement. On the other hand the soil is fairly fertile though much of it is sandy; 139 wells have been added to the number existing at last Settlement; the cropping has improved and congestion has been relieved.

In view of the heavy mortgages especially I would limit the enhancement to 21 per cent. and propose an assessment of Rs. 36,500 which is less than 51 per cent. of the half net-assets. This means abandoning nearly half of Government's dues but there has been little progress and much deterioration since last settlement and the rise in prices of 35 per cent. is really the only good reason for raising the revenue. This rise is to be partly discounted by the rise in the standard of living and in the cost of cultivation.

The proposed assessment gives an incidence of Re. 1-13-1 per acre cultivated and Re. 1-13-3 per acre matured. The rates I would recommend and those sanctioned for neighbouring circles are shown below :—

Soil	Area in acres	RATE IN SHAKARGARH.		Existing rates	Proposed	Resulting assessment.
		Bharari	Darp			
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.
Chahi	3,455	4 0 0	3 13 0	2 0 0	2 12 0	9,501
Abi	55	..	..	..	1 10 0	27,017
Sailab	14	2 4 0	2 8 0	..	1 10 0	
Barani	16,557	average) 1 3 11	(average) 2 0 10	1 6 0	1 10 0	
Total,	20,081	..	..	..	..	36,518

Abi and sailab soils differ little from barani in this circle and their area is insignificant so I have clubbed them with barani for purposes of assessment. Water is near the surface and wells are easily made. Most villages have some good land round the homestead devoted to the growth of vegetables. In the circumstances a fairly full chahi rate is indicated. In the Shakargarh Bharari the chahi consists to a great extent of market garden land so the rate is very high. The Shakargarh Darp (which includes the old Dosahi circle) is considerably superior to the Zafarwal Dosahi.

43. Since last settlement cultivation has declined by nearly 8 per cent.

Assessment of the Dokandi.

in the Dokandi but the revenue has only been reduced by 3.4 per cent.: the sailab area has nominally increased by 8 per cent. but this is probably in the main a matter of classification; 139 wells have been added; crop failure is less than in any other circle and the composition of the cropping is very good; holdings are minute, less than 4 acres per owner, and the pressure on the soil is very heavy; it is exaggerated however by the inclusion of the semi-urban population of Zafarwal: 27 per cent. of the land is under mortgage and the mortgage-debt has more than doubled; several estates have suffered seriously from deposits of sand; none has improved and there has been a distinct decline in fertility. The circle has been strengthened, however, by the grant of 779 squares in the Canal Colonies.

My rough village assessments, which were made mainly with regard to the incidence of revenue on the harvested area, totalled Rs. 40,745. I would not take more than Re. 41,000, which is barely 48 per cent. of the half net assets and falls at the rate of Rs. 1-13-0 per acre cultivated and Rs. 1-12-1 per acre matured. The enhancement is 17.1 per cent.

The rates I propose are compared below with those of neighbouring circles :—

Soil	Area	Rates in Maidani circle of Samba (Jammu State).	Dokandi of Pasrur.	Existing rates.	Proposed rates.	Resulting assessment.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Chahi	5,534	5 0 0	2 4 0	2 3 0	2 8 0	13,835
Abi	570	5 0 0	2 1 0	..	1 12 0	993
Sailab	5,400	3 0 0	1 13 0	1 3 0	1 12 0	9,450
Barani	11,039	2 3 10	1 3 0	1 3 0	1 8 0	16,558
Total	22,543	..	..	..	..	40,841

Abi lands are not better than *sailab* and there is no need to differentiate the rates. In this circle while the rainfall is greater, the value of floods is less than in Pasrur, so a higher *barani* and a lower *sailab* rate are required. The Pasrur Dokandi is superior to that of Zafarwal in fertility, freedom from damage by the Degh and tribal composition. Holdings there are nearly twice as large and the mortgaged area is less. In view of these considerations I do not think my proposals unduly lenient. I have not seen the Maidani circle of Samba where the revenue has just been reduced by 13.5 per cent. but the Settlement Commissioner of Kashmir says that "it is certainly a better circle than the Zafarwal circle adjoining" and many of the revenue payers are State tenants as the State owns 21 per cent. of the cultivated land. It is right therefore that the Zafarwal rates should be considerably lower.

44. In the Charwa there has been little change in the cultivated or irrigated areas; 413 wells have been added since settlement; crop failure is not excessive; there is less land under mortgage than in any other circle and it is nearest to the market of Sialkot. On the other hand it adjoins the Bharari tract and is the least fertile part of the tahsil except for a group of villages in the west of the Jatatar; well-sinking is difficult in about half the circle and water can only be found in particular spots; holdings average less than $4\frac{1}{2}$ acres and the mortgage debt has almost trebled.

The circle is superior to the Bharari except with regard to the size of holdings, pressure of population, area under mortgage and strange to say—the sale and mortgage prices of land which are comparatively high in the Bharari owing to its proximity to Sialkot.

My proposals are embodied in the following table:—

Soil.	Area in acres.	Sialkot Bharari rates.	Existing rates.	Proposed rates.	Resulting assessment.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.
<i>Chahi</i> ..	16,878	1 13 0	1 12 0	2 1 0	34,398
<i>Abi</i> ..	426	1 9 0	..	1 12 0	746
<i>Barani</i> ..	25,015	1 2 0	1 4 0	1 8 0	37,522
Total ..	42,119	..	..	..	72,666

I would take Rs. 72,500, a rise of 20.4 per cent., giving an incidence of Rs. 1-11-6 per acre cultivated and Rs. 1-12-0 per acre matured. Having regard to the infertility of a considerable proportion of the circle an incidence of Re. 1-12-0 per acre of crops is quite enough. The assessment absorbs only 52.6 per cent. of the half net-assets.

45. In the Jatatar circle nearly 3 per cent. of the cultivated land has become waste but 291 wells have been added; the water level is lower than in any other circle and in the villages on the south-west water can scarcely be found; holdings average $5\frac{1}{2}$ acres only; 27 per cent. of the land is under mortgage and the mortgage debt is nearly $2\frac{1}{2}$ times as large as at last settlement. The circle adjoins the Bharari of Sialkot on the west and has some 30 estates of distinctly Bharari character which bring down the average leve considerably. On the south it adjoins the Pasrur circle which it

resembles in many ways but the Jatatar is better irrigated. Sale and mortgage-prices, however, are a good deal higher in the Pasrur circle than in the Jatatar. A comparison of the rates in this and adjoining circles is made below :—

Soil.	Area in acres.	RATES IN		Existing.	Proposed.	Resulting assessment.
		Bharari of Sialkot.	Pasrur circle.			
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.
Chahi	17,808	1 13 0	2 0 0	2 4 0	2 6 0	42,294
Abi	745	1 9 0	1 14 0	..	1 14 0	1,396
Barani	23,887	1 2 0	1 9 0	1 2 0	1 7 0	34,338
Total	42,440	..	..	..	..	78,028

My rough village assessments amounted to Rs. 77,210 and I would not recommend an assessment of more than Rs. 78,090 which is just under 50 per cent. of the half net-assets. It gives a rise of 13·8 per cent. and falls at the rate of Re. 1-13-5 per acre of cultivation and Re. 1-14-1 per acre harvested. The incidence on crops in the Pasrur circle is Re. 1-11-6 so that I do not think my proposals unduly lenient.

46. The Darp circle is unfortunate in being so described as there are comparatively few really Darp villages in it. The circle has lost 3·7 per cent. of its cultivated area since last settlement but 108 wells have been added; water is not always easily found and well-sinking is apt to be an uncertain and expensive business. The harvest is the most insecure of the tahsil; holdings average 4 acres only; 29 per cent. of the cultivated land is under mortgage and the mortgage-debt has nearly trebled since last settlement. On the other hand the proprietary body is strong; the land is valuable and it is the most fertile circle of the tahsil. Compared with the Darp of Raya and Shakargarh it is inferior but is probably better than the Pasrur circle of the same name and land is certainly more valuable here.

The rates sanctioned for these circles and my proposals are compared below :—

Soil	Area in acres.	RATES SANCTIONED FOR DARP OF			Existing rates.	Proposed.	Resulting assessment.
		Shakargarh.	Raya.	Pasrur.			
		Rs.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.
Chahi	6,657	3 13 0	2 13 0	2 6 0	2 6 0	2 13 0	18,723
Abi	310	..	2 4 0	2 6 0	..	2 0 0	39,626
Sailab	14	2 8 0	2 4 0	1 12 0	..	2 0 0	
Barani	19,489	(average) 2 0 10	2 0 0	1 12 0	1 10 0	2 0 0	
Total	26,470	..	..	..	..	..	58,349

The *abi* and *sailab* areas differ little from the *barani*. The rates used are the same as those sanctioned for Raya except in the case of *abi* soils of which there is only an insignificant area.

Cash rents in the Zafarwal circle are not lower than in Raya but the area on which the former are taken is too small to make the comparison a fair test. The value of land also appears to be higher in the Zafarwal Darp but I think there cannot be any doubt but that the Raya circle is much the more fertile. However, the rise which I propose is small. I would take Rs. 58,250, giving a rise of 14·2 per cent. and absorbing 55·5 per cent. of the half net-assets. The incidence per acre cultivated will be Rs. 2-3-3 and per acre matured Rs. 2-3-7. In Raya the assessment falls at the rate of Rs. 2-7-5 per acre of the harvested area. The difference is due to the better rainfall of the Zafarwal circle and this to a great extent compensates for its inferior fertility.

CHAPTER VIII.—Financial Results and Miscellaneous.

47. Cesses consist of the local rate and lambardar's *pachotra*. The former amounts to Rs. 10-6-8 per cent. on the land revenue and the latter to Rs. 5 per cent. Together they involve an addition of Rs. 15-6-8 per cent. on the assessment. In several villages a cess of 1 per cent. is also levied for the remuneration of the chief headman but this impost ceases as existing incumbents die. At last settlement a zaildar's cess and a patwar cess were taken in addition and the total amounted to about 21 per cent. of the revenue.

48. The financial results of my proposals are summarised in the following table:—

Financial results.

1	2	3	4	5	6	7
Assessment circle.	Detail.	At introduction of expiring Settlement, 1894-95.	1913-14.	Proposed.	Rise per cent. (columns 3 and 5).	Rise per cent. (columns 4 and 5).
		Rs.	Rs.	Rs.		
Dosahi	Demand ..	30,087	30,244	36,500	21	21
	Cesses ..	6,519	4,663	5,627	..	..
	Total ..	36,606	34,907	42,127	15	21
Dokandi	Demand ..	35,658	35,005	41,000	15	17
	Cesses ..	7,726	5,397	6,321	..	..
	Total ..	43,384	40,402	47,321	9	17
Charwa	Demand ..	59,767	60,222	72,500	21	20
	Cesses ..	12,949	9,284	11,177	..	..
	Total ..	72,716	69,506	83,677	15	20
Jatatar	Demand ..	68,121	68,547	78,000	15	14
	Cesses ..	14,759	10,568	12,025	..	..
	Total ..	82,880	79,115	90,025	9	14
Darp ..	Demand ..	50,523	51,006	58,250	15	14
	Cesses ..	10,947	7,863	8,980	..	..
	Total ..	61,470	58,869	67,230	9	14
Total tahsil ..	Demand ..	2,44,156	2,45,024	2,86,250	17	17
	Cesses ..	52,900	37,775	44,130	..	..
	Total ..	2,97,056	2,82,799	3,30,380	11	17

49. A separate report will shortly be submitted with regard to the instalments by which the revenue should be paid.
Revenue instalments.

50. Wells are not expensive to build in this tahsil except in the sense that more than one try is sometimes necessary before success is attained. The period of 20 years is sufficient for protective leases in the case of new wells.
Protective leases

51. There is little room for development in Zafarwal and there is no prospect of canal irrigation or other considerable improvement in the means of agriculture. Thirty years is a suitable period for the new settlement.
Period of new Settlements.

52. In villages where the enhancement will be over 33 per cent. I recommend that the amount exceeding that percentage should be deferred for five years and that any enhancement exceeding 66 per cent. should be deferred for 10 years.
Progressive assessments.

53. The term of the present assessment expired with *rabi* 1913. The new demand can be introduced as soon as orders have been passed on this report.
Introduction of new demands.

54. Orders are required —

- (a) The arrangement of assessment circles (paragraph 6). h21
- (b) On the proposed assessments (paragraphs 42 to 46). h239-43
- (c) On the period of settlement (paragraph 51). h44
- (d) On the proposals for progressive assessments (paragraph 52). h44
- (e) On the date of introduction of the new demand (paragraph 53). h44

D. J. BOYD,

Settlement Officer.

The 5th July 1915.

GLOSSARY OF VERNACULAR TERMS USED IN THE ASSESSMENT REPORT
OF THE ZAFARWAL TAHSIL OF THE SIALKOT DISTRICT.

Vernacular words.	Meanings and explanation.
Abi	Land irrigated from tanks, ponds, dams or marshes.
Athri-chuhra	A sweeper who is the whole time agricultural servant of a <i>zamindar</i> .
Bachh	Distribution of revenue.
Bhekar	A coarse shrub.
Bajra	Bulrush millet.
Band	An embankment.
Barani	Dependent on rainfall.
Batai	Rent paid by division of produce.
Ber	A tree (plum).
Bhusa	Straw.
Chahi	Irrigated by wells.
Chakota	Lump grain rent, or rent consisting of a fixed amount of grain in the <i>rabi</i> and a fixed amount of cash in the <i>kharif</i> harvest.
Chhambh	A hollow in which drainage water is collected.
Cho	Hill torrent.
Chuhra	Sweeper.
Dhenkli	A lever for drawing water from a water-hole.
Dohra Natta	Reciprocal marriage.
Ghi	Clarified butter.
Gur	Raw sugar.
Jhallar	Irrigation wheel.
Jill	Fine clay.
Jinswar	Abstract of crop returns.
Jowar	Great millet (<i>Sorghum vulgare</i>).
Kallar	Impregnated with salts.
Kamin	A village menial.
Kana	A kind of reed.
Kharaba	Crop failure.
Kharif	Autumn harvest.
Kikar	An acacia tree (<i>Acacia Arabica</i>).
Kumhar	A potter.
Lambardar	A village headman.
Maidani	Plain (name of an assessment circle in Sambha Tahsil).
Maira	Light loam.
Mash	A pulse (<i>Phaseolus radiatus</i>).
Masar	A lentil (<i>Ervum lens</i>).
Maund	A measure of weight equal to about 80 lbs.
Muafi	Assignment of land revenue.
Moni	Beardless wheat.
Moth	A pulse (<i>Phaseolus aconitifolius</i>).
Mung	A pulse (<i>Phaseolus mungo</i>).
Musta'az	Borrowed.
Nala	A ditch, drain or ravine.
Nikki	A kind of wheat (small).
Pachotra	Lambardar's fee.
Phulai	A tree (<i>Acacia modesta</i>).