

FINAL SETTLEMENT REPORT

OF THE PORTION OF THE

SHAHPUR DISTRICT

UNDER

FLUCTUATING ASSESSMENT

BY

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Settlement Officer.



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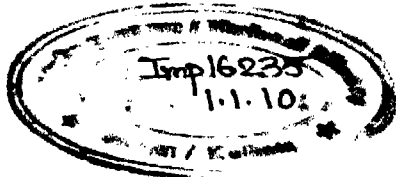


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Lahore, dated 25th August 1926.

**Orders of Government on the Final Settlement Report of the portion
of the Shahpur District under Fluctuating Assessment.**

1. The subject matter of the present report is the portion of the Shahpur District under fluctuating assessment comprising the bulk of the Jech Doab, excluding the Jhelum riverain but including a small riverain tract on the Chenab. The central portion is an expanse of high Bar land which till 30 years ago was for the most part Government waste and provided nothing beyond browsing for the ubiquitous camel and grazing after rain for the cattle of the villages on its borders. The soil, however, though in places strewn with sand hills, especially in what is now called the Sobhaga Circle in the extreme west, was for the most part good strong loam, and the construction of the Lower Jhelum Canal has converted it into a flourishing agricultural tract. Towards the north-west the ground slopes gradually towards the Jhelum; there is little appreciable alteration in soil conditions except in the Ara Circle of the Shahpur Tahsil where it becomes clayey and saline. On the south-east the Bar is bounded by a well defined bank or *nakka* below which the soil is more variable, and the old fashioned villages adjoining the river outside the irrigation boundary of the canal have suffered considerably from loss of tenants and contraction of river floods. With the exception of these Chenab villages agricultural conditions are everywhere much the same, depending entirely on irrigation from the canal. In the face of colonization operations little homogeneity in the agricultural population would be expected, but the clear cut distinctions which are such a marked feature of the Lower Chenab Colony are much less in evidence. There were a few scattered villages in the middle of the Bar even in pre-canal times, and the indigenous population was therefore not quite such a stranger to agriculture as in the wider wastes of Lyallpur and Jhang, and even immigrants have been drawn mainly from surrounding districts and are thus less alien to them and to each other, while horse-breeding conditions have provided a bond of union for the majority of colony grantees. For the purpose of settlement operations the area under fluctuating assessment in the Shahpur District is thus a much more convenient unit than its title indicates.

2. The fiscal history of the tract has been outlined in chapter II of the report. When canal irrigation was introduced during the currency of Sir James Wilson's assessment, proprietary estates were required to accept a fluctuating *nahri* assessment on matured areas as a condition of irrigation, and were allowed the option of substituting a fluctuating for a fixed assessment on other forms of cultivation also. In colony estates, land revenue rates were imposed under the conditions of grants. These rates were intentionally pitched low for the first few years. The standard *nahri* rate, which included land revenue, *malikana* and cesses, was Rs. 1-8-0 per acre, and the Colonization Officer had power to reduce this at his discretion to not less than 12 annas per acre. Owing to the Colonies Committee of 1907 and connected discussions on questions of colony administration this rough and ready assessment continued till 1912 when in the orders passed on Mr. Rudkin's Assessment Report a new assessment was sanctioned on the same lines as for the Lower Chenab Colony. Holding to holding *kharaba* was abolished except in special cases and new rates ranging from 12 annas to Rs. 3-8-0 were applied to sown areas. The rates varied from village to village, the difference being sometimes as small as 2 annas per acre, and in some cases there was a further differentiation by squares within villages. The system was in fact very like that introduced in the Jhang Branch Circle and Gugera Branch Circle I of the Lower Chenab Colony on which orders had just been passed. On the Lower Chenab, however, there was a definite division into 8 classes ranging

from 12 annas to Rs. 4, the intervals being never less than 4 annas and often as much as 12 annas, and differentiation within villages was commoner forming indeed perhaps the distinguishing feature of the settlement. Care was, however, taken to make the pitch of assessment very much the same on the two canals, and the subsequent adoption of a standard 50 per cent. higher on the Rakh Branch of the Lower Chenab Colony in 1913 soon showed that the assessment on the Lower Jhelum was a lenient one. No definite orders were passed as to the term of settlement, but as in the case of the Lower Chenab Colony the position was to be reviewed in 4 or 5 years time, the term being meanwhile fixed at ten years. It was not till it became clear that the opening of the Upper Jhelum Canal was no ground for postponing re-assessment that it was finally decided in 1920 that the assessment should expire with *rabi* 1922.

Sir James Wilson's assessment of the Chenab riverain villages expired in 1909 and a fluctuating assessment was introduced in 1910. No term was fixed, and it was not till 1922, that it was decided, more owing to the state of the records than because any increase in land revenue was expected, to reassess them in the course of the present settlement operations.

3. The development of the canal irrigated tract in the last decade has followed the same lines as on other perennial canals. The progressive stabilization of irrigation arrangements which enabled the system of holding to holding *kharaba* to be abandoned in 1912 has continued, and the distribution of supplies has become steadily more efficient and equitable. At the same time the process of saturation has enabled the soil to resist draught and closures much better than in early colony days, and a cusec of water is thus able to mature a far larger area than it could even ten years ago. Unfortunately also this same process has resulted in waterlogging in certain estates. These tendencies must have resulted, however, in a considerable increase of outturn over the canal as a whole and in levelling up the yields on different portions of it. On the Lower Jhelum Canal, careful consideration has had to be given to one factor which might have counteracted these beneficial tendencies. As a result of the opening of the Upper Jhelum Canal, the Lower Jhelum has had to some extent to share the winter supplies in the river with the canal of the Triple Project, and even at the time of the last assessment there was some apprehension that this might affect prejudicially the area that depended upon it for its prosperity. The figures supplied by Mr. Ram Chandra have shown that the contraction of supply has not in fact been as great as the cultivator feared. There has been a negligible reduction in the average supply utilized in the *Kharif* accompanied by a considerable increase in the area irrigated. In the *Rabi*, where the effect of the Triple Project and consequent rotational closures might be expected to be most pronounced, there has been an appreciable decrease in the average supply utilized, but a very much smaller decrease in the area irrigated. The fact appears to be that what *zamindars* call the "cooling of the soil" has enabled the crops to stand the extra closures which the opening of the Upper Jhelum Canal has necessitated, and has in fact counteracted the evil effect that it might otherwise have had. The cultivators are certainly no worse off than they were at the last settlement when they had more water and if they complain of the contraction of supplies they must remember that this is one of the things which quite apart from the Triple Canal Project would have been necessitated, as on other canals, by the steady rise in the sub-soil water table, and would have been amply justified by the soil's increasing power of retaining moisture.

4. Further proof that irrigation is not less efficient than 10 years ago is furnished by the general record of agricultural and economic progress contained in the report. There has been an increase in population of no less than 33 per cent., and in spite of this the holdings are still large and secure for individuals a high level of prosperity. A comparison of the *gazette* prices for the ten years before the last settlement with those of the ten years following it shows a rise of no less than 75 per cent., and even the low prices which have been approved for the purposes of the produce estimate show an increase of 47 per cent. This alone would justify a large increase in assessment. It has been accompanied by a gradual change in the outlook of the agricult-

turist who watches the changes in prices with close attention and is much better able than before to secure a good price for his produce. He has not, of course, the same commercial aptitude as a large proportion of the immigrant colonists on the Lower Chenab, but he has nevertheless made very considerable progress, and, if he does not often take his produce to the market himself, the growing practice of auctioning in the village indicates that he is fully alive to his commercial interests. This development is further illustrated by the growing popularity of cash rents, which here as elsewhere show a marked rise in the rate per acre. Agriculturally the greatest innovation has been the introduction of American cotton, which has resulted in considerable increased income to the cultivator. The Indian variety is never likely to be wholly abandoned, but this is true in other districts also and the fact that it has been largely displaced by the American variety shows that the soil and irrigation conditions are well suited to the cultivation of the more valuable species.

5. The prevalence of canal irrigation and the consequent simplicity of the issues involved in the assessment made it possible, as in the Lyallpur Settlement, to adopt a rather simpler procedure for settlement operations than in other districts, to dispense with some of the usual preliminary reports and thus to compress all necessary material into three assessment reports on the several tahsils irrigated by the canal. No special revision of records had to be undertaken except in the Chenab Riverain. In consequence of the comparative unimportance of *chahi* and *barani* cultivation no estimate of the landlords' proceeds from crops grown on such areas was made, nor indeed for any part of the Chenab Hethla Circle in which the proportion of canal irrigation is negligible. For *nahri* cultivation the usual produce estimates were prepared for each circle and the assumptions on which they have been based have been summarised in the settlement report. The outstanding feature of the calculations has been their extreme caution. It is only necessary to instance the outturns estimated in the two most prosperous circles, the Bhalwal Bar and the Sargodha Bar Utda, where Mr. Rudkin's assumption of $10\frac{1}{2}$ maunds per acre for wheat has been raised to only 11 maunds in the former and $11\frac{1}{2}$ maunds in the latter circle. In the Jhang Colony Settlement 12 maunds have been assumed. For *toria* Mr. Rudkin's assumption of 6 maunds in these circles has been retained in the Bhalwal Bar and raised to only $6\frac{1}{2}$ maunds (the figure assumed in the Jhang Colony) in the Sargodha Bar Utda, while his assumption of $4\frac{1}{2}$ maunds for cotton has been reduced to 4 maunds in the Sargodha Bar Utda and to $3\frac{1}{2}$ in the Bhalwal Bar (against $4\frac{1}{2}$ maunds in the Jhang Colony). The Financial Commissioner had considerable hesitation in accepting these very low rates of outturn but eventually approved them as certainly not exceeding and probably being much below the real normal outturn. The commutation prices adopted were also very low. At the same time when the assessment reports were written, it was particularly difficult to form any but the roughest idea of what normal prices might be during the currency of the forthcoming settlement. There had been a tendency for prices to rise for many years and towards the end of the War they had risen to a level at which they could not be expected to remain. Indeed, the price of wheat was at the moment showing signs of a slump and it was obviously unwise to assume a full figure. The prices actually adopted, however, have been shown during the last three years to have been extremely lenient. Cotton was priced at Rs. 7-8-0 per maund, maize at Rs. 2-4-0, *toria* at Rs. 4-6-0 and wheat at Rs. 3-4-0. These rates were considerably lower than those assumed in the Lyallpur Settlement and in some cases have been lower than those assumed for the portion of the Jhang District in the Lower Chenab Colony, where cotton for instance was valued at Rs. 9-6-0 per maund. In the case of fodder crops the leniency was still more marked. Though Rs. 5 per kanal was reported to be the usual rate in the Bar Circles and as much as Rs. 20 near towns, only Rs. 2 per kanal or Rs. 16 per acre was assumed, and for turnips, a favourite cold weather fodder crop, the rate assumed was only Rs. 10 per acre. These prices were accepted as more nearly representing the lowest limit below which future prices were not likely to fall than as the normal prices likely to be obtained. Further, generous deductions were made on account of menials' dues ranging from 12 to 17 per cent. and after adjustments on account of land revenue and water rates

the landlords net assets worked out at rates ranging from Rs. 6-4-10 in the Sobhaga Circle to Rs. 12-12-2 in the Bar Circles of the Sargodha Tahsil. That these figures are a very low estimate of the landlords receipts is corroborated by an examination of cash rents which ranged on the average from Rs. 6-11-10 in the backward Ara Circle to Rs. 14-0-8 in the Bhalwal Bar. These cash rents are very much lower than the cash rents obtained in the Lyallpur District. The difference is due not so much to superior yields or prices obtained on the Lower Chenab as to the greater business capacity of its proprietary body. Cash rents are, however, always open to the criticism that they are the outcome of high prices that may not last, and though in this case there is every reason to believe that they convey a low idea of landlords' average receipts, they were not used as a basis for assessment. Nevertheless they afford a valuable evidence that the results of the produce estimate were certainly not excessive.

6. There was no question of altering the fluctuating system of assessment of *nahri* cultivation which had amply justified itself by ten years' successful operation in this and other canal irrigated areas. The only questions for decision were the amount by which the existing assessment should be enhanced and the graduation of the new rates. For the Bhalwal Bar and Sargodha Bar Utlia Circles the Settlement Officer proposed to adopt the classification current in Lyallpur, omitting, however, the highest (Rs. 6) class, and to apply them so as to bring out an average incidence of Rs. 4-2-7 and Rs. 4-3-7 in the two Circles (rates appreciably lower than those sanctioned for average circles in the Lyallpur district). Proportionately lighter rates were recommended for the weaker circles. These proposals were in the main accepted with a slight reduction in the Bhera Bar to bring the assesment within the newly adopted one-third net assets standard. In view of the probable enhancement of occupiers' rates which was in contemplation at the time when orders were passed, it was decided to grant for 3 years a reduction in the rates, which was to become permanent if within that time occupiers' rates were raised. In the Bhalwal and Sargodha tahsils this concession amounted to 2 lakhs per annum and a subsequent reduction in the Shahpur tahsil on the same principle amounted to a further Rs. 15,000. This reduction was effected by altering the classified rates, which now rise at intervals sometimes of 4 and sometimes of 8 annas to a maximum (outside urban areas) of Rs. 5. As occupiers' rates have in fact been raised, these reduced revenue rates have become permanent. The tract was particularly fortunate in securing so material a reduction because the increase in occupiers' rates originally contemplated under the Schedule notified in April 1924 shortly after orders were passed on the Bhalwal and Sargodha Reports has since been considerably reduced. The incidence of the *nahri* revenue assessment is now as follows :—

					Rs.	A.	P.
Bhalwal	...	{	Bar Jhelum	...	3	10	2
			Chenab Utlia	...	1	9	2
			Bar Utlia	...	3	12	10
Sargodha	...	{	Bar Hetbha	...	2	5	6
			Sobhaga	...	1	7	3
			Ara	...	2	1	4
Shahpur	..	{	Jhelum	...	1	14	6

The weakest colony circle in the Lyallpur district (Jhang Branch Circle III) is paying Rs. 3-8-3, and the backward circle of Ravi Proprietary villages Rs. 3-4-6, so that the strongest circle in Shahpur has been leniently treated in being assessed only 4 annas hig. ex. For the portion of the Lower Chenab Colony in the Jhang district, where the soil is poorer and the standard of agriculture lower than in Lyallpur, the average rate sanctioned is Rs. 3-1-11 and the highest rate Rs. 5-8-0, which again indicates the moderation of the Shahpur Assessment. On the other hand, it must be remembered that a great part of the area under re-assessment is burdened with horse-breeding

conditions, and in other cases colonists still have to pay *malikana* at 6 annas per rupee. These two facts justify the wide difference between the rates sanctioned for the Lower Chenab and the Lower Jhelum Colonies. The total *nahri* demand for the circles for which produce estimates have been worked out amounts to 28 per cent. of the net assets.

7. There has been practically no alteration in the assessment of cultivation other than *nahri*, but some simplification in the classification of *sailab* cropping in the Chenab Hethla Circle. The total financial results are given in paragraph 43 of the Report where it is shown that the enhancement amounts to 28.4 per cent. of the average of the old assessment. As the rise in prices alone amounts to 47 per cent. it is clear that the new assessment is a very lenient one. Indeed but for the fact that re-assessment happened to synchronise with the revision of occupiers' rates, there would have been no justification for not taking the maximum enhancement of 33 per cent. contemplated by the Land Revenue Bill. This is the figure for *nahri* only.

8. In paragraph 43 Mr. Ram Chandra recommends that the term of the new settlement should run for all circles to *Kharif* 1945, so as to terminate with Mr. Leigh's assessment of the rest of the district. As, however, all 4 tahsils cannot be re-assessed at once there is no reason why their assessments should terminate at one time. The area has already had the ten years' assessment permitted by the Land Revenue Bill for tracts into which canal irrigation has been newly introduced and cannot now be given a term of less than 20 years. The light assessment indicates that this term should not be exceeded. The assessment is accordingly confirmed for 20 years in all circles, with effect from the date from which the new assessment was introduced in each.

9. In spite of the straightforward nature of colony assessments the detailed classification of villages and squares makes great demands on the time and patience of the assessing officer, and Mr. Ram Chandra deserves credit for the successful completion of an exacting settlement. The small number of objections to his village assessments testifies to the moderation of the demand and to the fairness with which it has been distributed. Mr. Ram Chandra's Final Settlement Report like his Assessment Reports is admirably brief and clear. The Governor in Council notes with pleasure the commendation, which he bestows on his Extra Assistant Settlement Officer and other members of his staff.

By order of the Governor in Council,

C. M. KING,

Financial Commissioner and Secretary to
Government, Punjab, Revenue Department.

FINAL SETTLEMENT REPORT

OF THE PORTION OF THE

SHAHPUR DISTRICT

UNDER

FLUCTUATING ASSESSMENT.

CHAPTER I.—GENERAL DESCRIPTION.

1. This report is concerned with that portion of the Shahpur district, which is under fluctuating assessment, the remainder having been assessed by Mr. Leigh in 1915-16. Of the four tahsils in the district, Khushab has not come at all under settlement; so that the tract comprises parts of Bhalwal and Shahpur tahsils and practically the whole of Sargodha tahsil. The orders on the forecast report contemplated a revision of assessment of the area within perennial irrigation limits only, but on a further report being submitted by me, the tract outside these limits in the south of the Bhalwal tahsil also came definitely under settlement. At the same time it is not correct to say that the whole of the area within perennial irrigation limits is included in this settlement, for several villages and portions of villages in the Shahpur tahsil, to which perennial irrigation was extended after Mr. Leigh's settlement, were ordered by the Financial Commissioner to be excluded, although their fixed assessment was liable to cancellation. The tract under settlement measures 1,078 226 acres and consists of 603 estates, of which a few are only partially included.

2 The greater part of the area dealt with in this report consists of the Bar upland, which is separated on one side from the Chenab valley by a well defined bank called the *nakka*, and on the other from the Jhelum valley by a similar, though less abrupt and gently sloping bank known as the *dunda*. Before the opening of the Lower Jhelum Canal this large stretch of Bar upland was lying uncultivated, covered from time immemorial with thick vegetation, which provided good grazing for camels and large herds of cattle kept by the inhabitants. In Government *rakhs* cultivation was carried on by *niatnaps*, who cultivated small patches of *barani* land near the proprietary villages, or by lessees of wells scattered about in different places. The Kirana Bar, which takes its name from the range of bare hills that rise abruptly from the plains and are conspicuous from miles afar, was well known for cattlebreeding and cattle lifting. With the advent of the canal, the face of the country changed.

The area under settlement in the Shahpur tahsil consists of two distinct parts, locally known as *Utar* and *hithar*. The former is the Bar upland, which originally presented a dreary appearance owing to uneven surface strewn with sandhills here and there, but which has now been broken and produces very good crops. The soil here is, in the village *parlance*, cool and is well suited for cotton and *toria*. The other portion, which is called the *Ara*, is intermediate between the Bar upland and the riverain proper. It is hard, clayey and saline and was cultivated with the aid of wells before the construction of the canals.

In Bhalwal tahsil below the *nakka* the soil is light and sandy, and the tract is crossed by an old river channel called the Budhi. A little further south there is a belt of good fertile soil, which produces excellent *chaki* crops and occasionally benefits from the Chenab floods. On the fringe of the river there is only the substratum of sand without much of an alluvial deposit.

In the Sargodha tahsil the *nakka* is not so defined as in Bhalwal. It cuts across a few villages in the south and then passes into the Jhang district. The eastern portion of the tahsil consists of good loam. The rest ranges from ordinary to bad.

3. The average rainfall in the district in a year varies from 12 to 14 inches, 9 inches of which falls in the summer months, viz., April to August. It would not be correct to say that for lands receiving canal irrigation rainfall is of no importance, as rain always plays a large part in the expansion and maturing of the cultivated area, especially during the season of shortage of canal water, and in villages with poor supply at the tail-end of distributaries.

4. At last settlement there were three assessment circles in the Bhalwal tahsil, viz., Jhelum, Bar and Chenab. The Chenab circle has now been divided into Chenab Utla and Chenab Hethla. The latter circle is made up of 26 villages wholly outside the irrigation limits of the Lower Jhelum Canal, and 15 others, which are partly inside these limits, but receive very little or practically no canal water supply. It is in a depressed condition owing to the erosion of the river and the scarcity of tenants, and is, in economic features, quite distinct from the rest of the original Chak Chenab. In the Sargodha tahsil, the south-western tongue comprising chaks 131 to 174 N. B. and characterised by poor soil, was separated from the Bar Hethla circle and formed into a separate assessment circle named Sobhaga.

The Shahpur tahsil continues to be divided into Jhelum and Ara circles as in Mr. Leigh's settlement.

The three tahsils under settlement are thus divided into the following assessment circles :—

Tahsil Bhalwal.—(1) Jhelum, (2) Bar, (3) Chenab Utla, (4) Chenab Hethla.

Tahsil Sargodha.—(1) Bar Utla, (2) Bar Hethla, (3) Sobhaga.

Tahsil Shahpur.—(1) Jhelum, (2) Ara.

5. Except in five villages, which have come under irrigation from the Upper Jhelum Canal since the last settlement, all irrigation is from the Lower Jhelum Canal. The irrigation boundary of the latter canal is defined on the north by an artificial line which follows more or less a natural drainage. But it is definite on the east as no irrigation is allowed on the left bank of the main canal and of the escape, or to the south of the marginal protective *lund*. Zamindars often talk with a deep sigh of the early canal days, when no restrictions were placed on the supply of water. Those days have indeed passed, never to return, but the soil is now saturated, and does not need so much water as before.

However, even now the area actually irrigated is almost everywhere far in excess of the *raqba mujawaza abpashi*, i. e., the permissible area. As a rule, the permissible area is 75 per cent. of the commanded area, the proportion of *kharif* to *rabi* being 1 to 2. The only exceptions are villages irrigated from the Khadar feeder in the Bhalwal tahsil and proprietary villages below the Dhaya in the Shahpur tahsil, for which the permissible percentage is 40. Under the remodelling scheme, it is the aim of the irrigation department to distribute water with as much fairness as possible, and to extend the benefits of irrigation to lands which have been deprived so far owing to an excessive allotment of water elsewhere. Grumbings about reduction in the size of outlets and tightening of water supply are therefore natural in villages, which have been generously treated in the past and which have come to mistake an old concession for a right.

Sahiwal and Gondal distributaries in the Shahpur tahsil, which were *kharif* channels before, have now been made perennial.

6. It is alleged that since the opening of the Upper Jhelum Canal in 1916-17, cultivation on the Lower Jhelum Canal has been prejudicially affected, both on account of diminished supplies, and closures in winter. The following table compares quinquennial averages for the whole of the Lower Jhelum Canal (including irrigation in Gujrat and Jhang districts):—

Year.	KHARIF.			RABI.			Total irrigated in both harvests, in acres.
	Average supply utilized in cusecs.	Area irrigated in acres.	Duty.	Average supply utilized in cusecs.	Area irrigated in acres.	Duty.	
Average 1911-12 to 1915-16	3,115	235,366	76	3,459	581,275	168	816,641
Average 1916-17 to 1920-21	2,941	256,108	97	2,910	541,522	183	797,630

This shows that there has been a diminution of water-supply, which is more marked in *rabi* than in *kh rif*, but it also shows that water is now more economically used, and that a cusec is made to go much further than before. The Lower Jhelum Canal was designed, to irrigate only 60,000 acres annually, viz., 220,000 in *kharif* and 440,000 in *rabi*. The irrigated area has never fallen short of this, although the water of the Jhelum river is now shared by both Lower and Upper Jhelum canals. Five canals, viz., Upper Jhelum, Lower Jhelum, Upper Chenab, Lower Chenab and Lower Bari Doab, now run in rotation, some getting full supply, some the balance, and some nothing. In summer when the rivers are full and the area under crops is not large, there is no difficulty about water, but in the cold weather, the rivers are low, and the demand for water is great owing to large *rabi* sowings. The rotational period is generally fixed at 12 days. Although the statistics do not show any appreciable contraction in the irrigated area, these closures sometimes delay sowings early in the season, and adversely affect the yield—when the crop cannot be irrigated at the exact time to the best advantage. The increase in the *kharif* area is due as much to high cotton prices, as to the necessity of restricting sowings in *rabi*.

7. Since the introduction of the canal irrigation there has been a steady and rapid rise in water level, which is exercising the minds of the people. The figures given in my assessment reports show that the average annual rise during the last 25 years is 1 to 2 feet. In the Bhalwal tahsil much damage has been done by waterlogging at the tail of Rattokala distributary and also near the Wan minor. The former now forms a lake where shooting excursions are common. As for the latter, the canal department has taken measures to drain off the water and arrest further damage. In the Shahpur tahsil the rise is much slower than Sargodha and Bhalwal, but even here the common belief is that the soil has become more sour and is developing *kallar*.

8. The Malkwal-Shorkot Road branch of the North Western Railway passes through the tract under assessment for a length of about 80 miles and provides direct communication with Karachi. On it are situated the principal centres of trade, viz., the markets of Phularwan, Bhalwal, Sargodha and Sillanwali. These market towns attract the exportable surplus from the neighbouring villages of Gujrat and Jhang districts. The market at Nikdur (which is named after Mr. Rudkin, read from right to left) has not proved a success.

Feeder roads join all the main villages with the railway line. The only metalled roads are Sargodha to Bhagtanwala 16 miles, Sargodha to Asianwali 7 miles, Sargodha to Shahpur 19 miles, Sargodha to Kot Chogatta 15 miles, and Bhalwal to Kot Moman 11 miles. Three miles of the road from Bhalwal towards Bhera, and four miles from Sillanwali towards Sahiwal are also metalled.

ed. Eight miles from Kot Chogatta to Sahiwal are also expected to be metalled in the near future. In a lony villages a road goes to every holding. The tract is fairly well provided with roads, but the want of a bridge over the Budhi is a serious handicap for the Chenab circles, which are far remote from any market.

Agricultural produce is generally sold by zamindars to the local shop-keeper, or to the peripatetic trader, and is brought to the market on camels by professional carriers. Bullock carts are also in evidence on some of the metalled roads leading to the market towns.

9. The population of the tract under settlement has risen by 33 per cent from 284,821 in 1911 to 382,48 in 1921.

Population. The increase is due to fresh allotments, increased cultivation and growing prosperity. It varies from circle to circle, being the largest in the Bhulwal and Jhelum circles where it reached the remarkable figure of 58.5 per cent. This is partly due to the presence in 1921 of outsiders, who had come with their cattle from famine stricken districts, where fodder was scarce, to their relatives and friends in canal-irrigated tracts. In Chenab circle, the population has decreased by 11 per cent, owing to the migration of tenants, who were tempted away by the attractions of canal colonies, and of owners, who had lost their lands by action of the river and had to go elsewhere for a livelihood. There is no undesirable congestion anywhere, and the pressure on soil is still very light.

10. It is not necessary to repeat here the detailed statistics, that have been given in the assessment reports, of the

Tribal distribution. various tribes holding land in each assessment circle. Each *tahsil* is peculiar in its tribal composition. The predominant tribe in the Bhulwal Bar are the Gondals, who originally owned one-half of the total proprietary area in this circle, but were obliged to sell large portions of land in years of famine, just before the opening of the canal. Next to them in importance are Hara's and Laks. They are all strong, healthy and well built, and still regard cattle lifting, which is a legacy of the old pastoral days, as an honourable pursuit, and take delight in it as a pleasant pastime. In the Chenab circles, Ranjajs are by far the most important tribe. They are divided into two sections, Jhol and Lamba, the former owning land near the *nakka*, and the latter further away from it. The Makhdums are a semi religious tribe possessing considerable areas here and in the Jhang district. Ranjajs and Makhdums owned private inundation canals which brought the water of the Chenab river to irrigate small areas in this tract, but which have now been silted up for many years. In the Sargodha *tahsil*, there are only a few villages held in proprietary rights. In the north, the principal owners are the Laks, who obtained notoriety during the war for forcible obstruction to recruiting. The *jangli* owners are Kaliars, Chadhars, Nissowanas and Bhattis, whose criminal predilections are a source of constant trouble to the administration, as they are all addicted to cattle lifting and receiving stolen cattle. Mekans own considerable areas in the Shahpur *tahsil* and in the adjoining villages of the Sargodha *tahsil*. They are of a more settled agricultural type. The Baloches own as much area as the Mekans in the Ara circle, and are historically more important, as the Baloch family of Sahiwal was the ruling family in this part prior to the Sikh occupation in 1809.

Among horse-breeding colonists the important tribes are Waraich, Chima and Bajwa of Sialkot, Gujrat and Gujranwala districts, Bhattis of Hafizabad *tahsil*, Awans of the Sun valley, and Janjua and other Rajputs of the Jhelum district. For wealth and success, the palm is held by the Sikh Jats, who are reputed for their industry, and who are fortunate to be allotted the most fertile portion of the colony near Bhagtanwala. Their grants are well developed, their houses are made of bricks and they are generally in affluent circumstances. The *panthi abadhars* who belong to miscellaneous tribes, such as Kaiyar, Mangla, Harya, Sanga, Sobhi, etc., have been the most unlucky as regards the quality of land allotted to them. They were allotted land largely in the Sobhaga circle and on the fringe of the

Jhang district. But they worked hard for their subsistence, and with toil and patience converted hillocks of sand, which appeared unculturable, into fertile land.

11. The permanently allotted area in the colony is 393,967 acres, of which 6,884 are held in proprietary rights, and 216,690 acres on horse-breeding conditions. Five *chaks* were sold by auction, and were bought mostly by Hindus. A few squares were subsequently sold in different villages by private treaty at the rate of Rs. 4,000 or more per square. Proprietary rights were also granted in small areas to old inhabitants as compensation for the land acquired from them, or for some other reasons.

The main characteristics of the horse-breeding grants are that the grantee has to keep an approved mare, which is to be covered by a stallion of the remount department, Government having the first refusal of the young stock for 18 months from the date of foaling, that the grant is subject to primogeniture, and that it cannot be alienated piece-meal or without the Collector's permission. Horse-breeding grants are of two kinds:—

- (1) Those held by peasant (*abadkar*) grantees, each grantee being ordinarily given 2 squares for one mare. The bulk of the allotments is of this kind, the total allotted area being 187,040 acres.
- (2) Those held by *sufaidposh* grantees, who are required to keep more than one mare, and are allotted 1½ squares per mare. The allotments of this kind cover an area of 29,650 acres. In this class are included six studfarm grantees, who have been given large areas of land to maintain private studs of their own.

The number of branded mares in the colony is 4,208, of which 3,545 are owned by *abadkar* grantees, 503 by *sufaidposh* grantees, and 160 by studfarm grantees. The studs are well kept. Specially worthy of mention is Agha Woosat Ali Khan's stud, of which Captain Hutton, District Remount Officer, says: "It is as well run as any stud I have seen in any part of the world". The *sufaidposh* grantee seldom resides in the colony, and is therefore unable to make satisfactory arrangements for the proper care of his stock, although there are a certain number of notable exceptions who take an intelligent interest in horse-breeding. The remount department finds the *abadkar* grantee the most satisfactory, as in the majority of cases his mare and young stock are well looked after. The Shahpuris are the best horse-breeders, while Gujratis and Hafizabadis are useless. The grantees from Jhelum and Sialkot are fair. The Sikh Jats are on the whole satisfactory, as they include many cavalry pensioners who make good horse-breeders. As a rule, grantees have never taken kindly to horse-breeding conditions, or to the rule of primogeniture. The average grantee is an agriculturist pure and simple, knows little about horses, and finds that the restrictions of the remount department are severe and irksome. He looks upon horse-breeding as a part of the rent payable by him to Government and takes interest therein lest his grant be resumed. Of the total area, 1,490 acres are held by *janglis*, who used to cultivate the waste Bar land on temporary cultivation or on a leasehold basis before the opening of the canal. Owing to the increase in population, their holdings have become small. About 150 squares in the Sobhaga circle were distributed during settlement to relieve the situation and augment the small holdings.

Several military and landed-gentry grantees, belonging to the northern districts of the Punjab, were anxious to have their grants transferred here from the Lower Bari Doab colony. They were first required to select land from unallotted *chaks* in the Sobhaga circle, but the offer did not at all prove attractive. Some of them came to look at the land, but after seeing it, they returned and were never heard of again. Most of them have now been accommodated in the defunct regimental studfarms surrendered by the Army Department, and in Bakh Dhreema, to which irrigation has recently been extended.

The civil grantees are conspicuous by their absence, but in several cases, the descendants of the original grantees have taken up permanent residence in the colony to stop speculation by their agents or tenants.

12. *Kharif* crops (counting *toria* as a *tabi* crop) on an average form 27 per cent. of the annual harvested area. The percentages of the important crops on the total

Crops.
harvested area are as follows:—

Wheat 43, cotton 12, *toria* 11, *bajra* 4, gram 3, maize 2, sugarcane 1, barley 1, *chari*, carrots, turnips and other fodder 19.

Wheat is by far the most important crop in all the circles. In Sargodha the seed shops and the seed depôts maintained by the agricultural department supply zamindars with good seed. For commercial purposes several varieties are sown, of which Punjab-11 and Punjab-8 A are the most prominent.

Cotton is the most important of *kharif* crops in all circles. The American variety 4-F has gained firm ground in the colony. But the indigenous variety is in no danger of extinction, as being easier to spin with the spinning wheel, it will continue to be grown for home consumption. Experiments have also been made with type 285 American and proved successful, but the agricultural department is not advertising it on a large scale owing to the possible difficulty of water supply at the proper time. In the Ara circle the soil is more suited to the *desi* variety than the American.

Toria has become very popular owing to recent high prices. It is an easy crop to grow, but does not flourish in the hard soil of the Ara circle or in the sandy soil of the Chenab Utla. Gram is sown mostly on poor lands, for instance, in the Chenab circles of Bhalwal, in the sandy soil of Sobhaga and in the drainages in the Ara circle. *Bajra* is still in favour with the old inhabitants of the district. It is often sown *rohit*, that is to say, the seed is sown and seedlings are afterwards transplanted. In the colony maize has not become popular, as it requires more labour. It is grown in Chenab Hethla circle on *chahi* land where the loam is of a better class. Sugarcane requires enormous labour and attention, of which only Sikh Jats and Sialkoti immigrants are capable. In the old proprietary villages it is almost negligible, except in the Chenab Hethla circle where the soil is specially suited for it. Fodder, including carrots and turnips, forms 19 per cent. of the harvested area. This is a necessary concomitant of horse-breeding conditions in the colony, and fondness for cattle in the proprietary estates.

13. The following table shows the state of cultivating possession in each tahsil:—

Tenancies and Rents.

(All figures are in acres.)

Tahsil.	Total cultivated area.	Cultivated by owners or grantees.	Cultivated by tenants free of rent or at a nominal rate.	CULTIVATED BY TENANTS PAYING RENT.				
				By occupancy tenants.	By tenants-at-will.			Total.
					At revenue rate with or without <i>malikana</i> .	Paying other cash rent.	Paying rents in kind.	
Sargodha ..	357,465	133,155	...	691	21,582	42,447	159,539	225,510
Bhalwal ..	261,487	62,649	37	2,532	12,310	22,295	131,563	175,901
Bhakpur ...	94,665	20,887	...	341	1,668	12,705	55,159	73,763
Total ...	713,607	216,691	37	3,564	25,506	59,247	346,261	471,378

Thus 33 per cent. is *khasakahi*, i.e., cultivated by owners or government grantees themselves. The area held by occupancy tenants is very small.

In colony villages in the early days partnership was very common in horse-breeding grants, as several grantees had brought with them their relatives for financial and physical help in buying the mare, breaking the land and building houses. The grant was, however, in the name of one person, and the partnership was not recognised officially. Partners are being gradually paid off, yet 6 per cent. of the total cultivated area in the colony is in their hands and is entered in revenue records as the cultivation of tenants-at-will paying rent at revenue rates with or without *mal kana*. In proprietary villages, cultivation of tenants-at-will at revenue rates is either cultivation by relatives, or is due to the non-observance by owners of *killa-bandi* as effected in revenue records.

Rents in kind are paid on 49 per cent. of the total cultivation and cash rents on 12 per cent. The usual rate of *batai* for canal-irrigated land is half produce with half straw, all government demand, including land revenue, occupiers' rates, cesses and *mal kana* being shared equally by the landlord and tenants. The owner is generally in a better position than at last settlement, and it may be expected that concession rates, wherever they exist, will soon disappear, and the rate of half *batai* with half of all government charges will become universal. In the Chenab Utlā circle, however, owing to the inferiority of soil, this rent is paid only on 31 per cent. of the total area held on kind rents. The owner always takes half produce and half *bhusa*, but the contribution payable by the tenant towards land revenue and water charges varies. I calculated in my assessment report, that this contribution on an average comes to Re. 1-2-10 per acre. For *chahi* cultivation in the Shahpur tahsil the rate is one-third without any share of fodder. The only other tract where well irrigation is of any importance is the Chenab Hethla circle of Bhalwal tahsil. Here the rent varies, according to the distance from the river or village site. Where land can easily be manured owing to the proximity of the village site, or where *chahi* irrigation is aided by river floods, half of the produce is taken by the landlord, otherwise one-third or two-fifths. *Barani* cultivation generally pays half as *batai* rent, although a part of the area pays only two-fifths. The ordinary rate of *batai* for *sailab* is one-half, but where soil is poor, only one-third of the produce is paid as rent by the tenant.

14. Cash rents are increasing in popularity. As they are an index of the productive capacity of land and are a guide for the valuation of the landlord's net profits, they formed the subject of a careful enquiry at village inspections. Special pains were taken to select the normal rents by eliminating abnormally high or exceptionally low rates. It was noticed that rents in colony villages were far in excess of those in the old proprietary estates. This difference is due to the colony grants being in a compact block and generally consisting of good land, as grantees have been given the privilege of exchanging inferior lands from time to time. Old proprietary holdings, on the other hand, generally consist of good and bad land alike, scattered in various places and situated on different water-courses. Naturally therefore there is not the same keenness on the part of tenants for land in old proprietary estates as for land in the colony. The difference is also attributable to the greater business capacity of the colonists. Proprietary and crown lands are interspersed in the three Bar circles. The average rent per cultivated acre in these circles for the years 1917-18 to 1920-21 comes to Rs. 9-14-6 for proprietary estates and Rs. 1-1-1 for crown villages, that is to say, cash rents in colony villages are 41 per cent. higher than those in old proprietary estates. Taking the circles as a whole the average of cash rents for the same years is as follows :—

Bhalwal Tahsil.—Bar circles, Rs. 10-14-3; Chenab Utlā, Rs. 8-8-10.

Sargodha Tahsil.—Bar Utlā, Rs. 14-0-8; Bar Hethla, Rs. 12-12-10; Sobhaga, Rs. 7.

Shahpur Tahsil.—Ara circle, Rs. 6-11-10.

15. The number of cattle increased between the years 1909 and 1914, but declined in 1920 owing to the prevalence of disease in 1918 and 1919. The decrease in the number of cows is noticeable all over the tract under settlement. The cow is

giving place in public favour to the milch buffalo, which does not require so much looking after and gives more and richer milk. In spite of the contraction of grazing grounds, the extreme fondness of the inhabitants for cattle continues unabated. They keep more animals than are really necessary, for they believe that the possession of a large number of cattle adds to their respectability. The increase in the number of horses is a sign of prosperity. The horse-breeding grantee takes no work from the brood mare, lest she should fall out of condition and he should incur the displeasure of the remount department.

There is a noticeable increase in the number of sheep and goats. They are kept by menials or wandering tribes. Apart from being a source of income on account of their wool, they are valued for their manure and are often herded in fallow fields.

16. The number of ploughs fluctuates with the number of cattle. They have increased since Mr. Rudkin's settlement owing to fresh allotments and more careful cultivation. Generally three ploughs are kept for every grant of two squares, but industrious zamindars, for example, Sikhs of the central Punjab, always keep four.

Carts have also increased, but the chief means of transport are still the donkey and the camel.

CHAPTER II.—FISCAL HISTORY.

17. The tract under assessment consists of old proprietary villages, as well as newly colonized land, and is not confined to the area within the perennial irrigation limits of the Lower Jhelum Canal. Its fiscal history is therefore naturally complicated. Before the advent of canal irrigation, the colony villages yielded practically no revenue to the State. The Bar was a stretch of waste land with a few scattered proprietary estates, some isolated leasehold wells, and stray *barani* cultivation in patches. *Turni* was also a source of income to the State. But really the fiscal history of the Bar begins with its colonization. The Sargodha tahsil was formed out of the old Bar circle of Shahpur district, and the Kirana-Bar and Jungle Sobhaga assessment circles transferred from the Jhang district soon after the opening of the Lower Jhelum Canal. From the fiscal point of view, it is now the most important part of the district, while the Chenab circles in Bhalwal tahsil and Ara circle in Shahpur have been relegated entirely to the back ground.

18. Before annexation, the Sikh rulers collected the revenue in kind or by appraisement of the standing crops either directly through the local *kardars* or by *jagirdars*. With the British occupation in 1849 the system was superseded by cash assessment made by Mr. Lewis Bowring in the Shahpur tahsil and in the Bar circle of Bhalwal, and by Mr. Cocks in the Chenab circle. These assessments based on Sikh returns were found too high and had to be reduced in 1852. The first regular assessment was carried out by Mr. Gore Ouseley in 1856-58 and the demand fixed by him was realized without difficulty. Mr. (afterwards Sir James) Wilson carried out the second regular settlement, and his assessment came into force for 20 years, from Kharif 1889 in the Chenab circle, from Rabi 1891 in the Bar and Jhelum circles of Bhalwal tahsil, and from Kharif 1892 in the Shahpur tahsil.

19. On the introduction of irrigation from the Lower Jhelum Canal, the all important question was the assessment of canal-irrigated crops. As regards State-owned areas, it was one of the conditions of the grant of land, that the tenant should pay all land revenue: assessment, owner's rates, occupier's rates, cesses or other charges imposed by competent authority under any law for the time being in force, and *malikana* at such rate or rates, as may from time to time be fixed by the Punjab Government. For proprietary estates, owners were required to accept fluctuating *na'ri* assessment as a condition of irrigation. Where owners agreed, fluctuating rates for orchard and *barani* cultivation within the

irrigation boundary were also immediately introduced without waiting for the termination of Mr. Wilson's settlement. The assessment arrangements for proprietary villages and crown estates were identical except that an additional charge of four annas per acre was levied as *malikana* from the colonists. It was remarked by Sir Charles Rivaz, then Lieutenant-Governor, that the sound thing was to begin with a lenient assessment of both land revenue and occupier's rates. He accepted the proposal that in the first instance land revenue, *malikana* and cesses on canal-irrigated crops, should be collected in the form of a consolidated rate of Re. 1-8-0 per acre, which could be reduced by the Colonization Officer where necessary, subject to a minimum of Re. 0-12-0 per acre. This consolidated rate was distributed in the proportion of 2/3rds land revenue, 1/6th *malikana* and 1/6th cesses in the case of crown lands, and 4/5ths land revenue and 1/5th cesses in the case of proprietary estates. In 1906, the consolidated rates were slightly reduced owing to the abolition of *tamine* and *patwar* cesses. The consolidated rates per acre for the different assessment circles are given in the table below :—

Tahsil.		NAHRU.		CHAHU AND BARANI.	
		Original.	After abolition of patwar and tamine cesses.	Original.	After abolition of patwar and tamine cesses.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
SARGODHA ..	(Southern portion of Bar Utla only).	1 8 0	1 6 5½	1 0 0	0 14 9½
	Remainder of the tahsil ...	1 2 0	1 0 10½	0 12 0	0 11 0½
	BAR CIRCLE.				
	(1) Crown villages ...	1 8 0	1 6 5½	} 1 0 0	0 14 9½
DHALWAL ...	(2) Proprietary estates ...	1 4 0	1 2 5½		
	CHENAB CIRCLE.				
	(1) Near the Nakka ...	1 0 0	0 14 9½	} 0 12 0	0 11 0½
	(2) Lower south of Nakka...	0 14 0	0 12 11½		
SHAMPUK ..	ARA AND JHELUM CIRCLES.				
	(1) Good or average land (about 80 per cent.) ...	1 0 0	0 14 9½	} 0 12 0	0 11 0½
	(2) Poor land ...	0 14 0	0 12 11½		

These summary rates were fractional, awkward and extremely light. They were not based on any estimate of government dues. Assessment proposals in accordance with the recognised half-net assets theory were submitted by Mr. (now His Excellency Sir Malcolm) Hailey, Colonization Officer, in March 1907, but were kept pending in expectation of the receipt of orders from the Government of India on the Colonies Committee's report. By the time these orders were received, the data which formed the basis of Mr. Hailey's proposed rates, had become out of date, and Government ordered in their letter No. 24151-S., dated the 21st September 1909, that his report should be treated as a forecast report, and that Mr. Rudkin should submit fresh proposals after recalculation of half-net assets.

20. Mr. Rudkin's was, what may be called, the first regular settlement of the colony. Its main principles were the retention of the fluctuating system of land revenue, the differentiation of *nahr* rates by villages and in some cases by individual squares, the adoption of uniform *chahi* and *tarani* rates through-

out an assessment circle and the abolition of holding-to-holding *kharaba*, except where the supply of water from the canal was unsatisfactory. The circle rates proposed by Mr. Rudkin and approved by Government were as follows:—

Taluk.	Assessment circle.	Nahri.	Jhalari.	Chahi.	Baragi.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Bhalwal	Bar	2 14 0	2 0 0	1 4 0	1 0 0
	Jhelum	2 4 0	1 6 0	1 4 0	1 0 0
	Chenab	1 6 0	1 0 0	1 4 0	1 0 0
Sargodha	Bar Ulla	3 0 0	2 0 0	1 4 0	1 0 0
	Bar Hethia (including Sobhaga).	1 14 0	1 6 0	1 4 0	1 0 0
Shahpur	Ara and Jhelum	1 8 0	1 4 0	1 2 0	0 12 0

The actual *nahri* rates imposed varied from twelve annas to Rs. 3-8-0 per acre. Within an assessment circle, the estates were classified according to the quality of their soil, other factors bearing on the revenue paying capacity also being taken into consideration. So sometimes differences of soil necessitated differentiation of rates within the estate itself. The total demand represented a very high percentage of increase, but Government held that there was no case for leniency on this ground, as the initial rates were purely empirical and concession rates. But in deference to the Financial Commissioner's views, it agreed to the reduction of acreage rates proposed by Mr. Rudkin by 4 annas in the Bhalwal Bar and Sargodha Bar Ulla circles, and defer the imposition of full rates for 4 years, *viz.*, till Rabi 1916.

21. *Malikana* was charged at 2 annas per allotted acre from horse-breeding grantees. As regards non-horse-breeding grantees, the orders of the Government were, that *malikana* was to be levied at 6 annas per rupee of land revenue, subject to a maximum of 12 annas per acre assessed to land revenue, but the orders were not correctly interpreted, and *malikana* was actually realized at the rate of 6 annas or 12 annas per acre according to as the land revenue was less than Rs. 2 per acre or Rs. 2 and over.

Cesses were sanctioned by Government at 13½ per cent. on the land revenue, *viz.*, *lambaradari* 5 per cent., and local rate 8½ per cent.

22. Before the introduction of Mr. Rudkin's assessment remissions were allowed on all crop failures, and holding-to-holding inspections had to be carried out, at least theoretically, for that purpose. But it was soon realized, that this system of a limited holding-to-holding *kharaba* provided a great temptation for corrupt underlings and defrauded the Government of its just dues. The question of its abolition or restriction was considered by a committee that met at Etherslie in Simla in July 1910. In accordance with the recommendations of that committee, the system was abolished from Rabi 1912, simultaneously with the announcement of Mr. Rudkin's assessment. Thus the *nahri* assessment was on sown areas practically everywhere. The system was, however, allowed to be retained as a special case in places, where civil and canal officers agreed that the water supply was unsatisfactory. At present it exists on about half a dozen outlets in the whole tract, and even here it is expected that with the improved methods of distribution of water it will soon disappear. Remissions in such cases are given by the *Zillidars*, whose decision is appealable to superior canal officers. It should not, however, be understood that in other areas when once the seed is sown, the cultivator becomes liable for payment of full Government demand. In the case of widespread calamities, such as hail, locusts, blight, etc., the Deputy Commissioner and the Executive Engineer agreeing with each other, are authorized to grant full or partial remissions on a liberal scale, or to refer the matter for sanction.

to Commissioner and Superintending Engineer, when the proposed remissions are in excess of their powers. In other cases of a special or isolated character, where there has been complete failure or destruction of a crop due to causes beyond the control of the cultivator, remissions can be obtained on presenting the claims to the Executive Engineer, Sub-Divisional Officer, or the Deputy Collector, within ten days of the occurrence of the calamity, and before the crop is cut. The rules are contained in Financial Commissioner's Standing Order No 61 and are printed *in extenso* for facility of reference in Appendix IV to this report. For *chahi* and *barani* cultivation the system of holding-to-holding *kharata* still survives and assessment is on matured areas.

23. The Eilerslie Committee of 1910 suggested that "in the case of villages in which irrigation arrangements are satisfactory, but in which the soil is such that, compared with an average village on the canal, the profits are extraordinarily low, a lower schedule of occupiers' rates should be introduced, because a differentiation in land revenue alone would not meet the case." This suggestion was accepted by Government, and a lower scale of occupiers' rates was adopted for inferior villages, such as those in the Sobhaga circle of Sargodha tahsil, in the Ara circle of Shahpur, or in the Chenab circle of Bhalwal irrigated from the Khadir feeder or the Khadir distributary. It may again be emphasised that, although the introduction of the lower schedule lightened to a certain extent the burden caused by the abolition of holding-to-holding *kharata*, it was based solely on inferiority of soil and had nothing to do with insufficiency of water supply. It coincided with the enhancement of land revenue, and was a welcome relief. The two schedules will be found in Appendix II.

24. The demand fixed by Mr. Wilson for villages between the Chenab river and the high bank of the Bar was paid without difficulty in the beginning, but with the opening of the Lower Chenab canal, river floods diminished and cultivation suffered by the migration of tenants and labourers to the new colony. A few years later the condition of some of the villages improved with the introduction of irrigation from the Lower Jhelum Canal, but, for villages that were not allowed the benefits of irrigation, the original fears of Mr. Thorburn as Commissioner as to whether the tract had not been overassessed, proved to be true. Suspensions and remissions became frequent, and it was realized that the system of fixed land revenue had failed. The introduction of a fluctuating assessment was ordered in Punjab Government letter No. 27 (Rev), dated the 23rd January 1909, and it was agreed that "the system should be extended to all villages and parts of villages outside the embankment, all land inside the embankment being left to be assessed in accordance with the orders which will be passed on the assessment report for the Jhelum canal area." Mr. Rudkin dealt with 51 whole estates, and those parts of 25 estates which lay outside irrigation limits. Of the former, 25 have been transferred to the Gujrat district, and of the latter 8 have come under irrigation from the Upper Jhelum Canal. Mr. Rudkin's proposals were sanctioned by the Financial Commissioner in his Senior Secretary's letter No. 731, dated the 12th August 1910, and took effect from Kharif 1910. Sailab crops were divided into three classes, *viz.* :—

• *Class I*.—Wheat, mixtures of wheat and barley, or of wheat and gram.

Class II.—Mash, jawar, chani, gram, matar, til, barley, maize, bajra; vegetables including carrots and turnips, rice, melons, rabi oil-seeds, mung, moth, spices, tobacco, cane, hemp.

Class III.—Masar and jau-masari, rawan, samuka and all other crops not included in classes I and II.

The rates differed from village to village in multiples of two annas, the average sanctioned rates being—

						Rs.	A.	P.
Chahi	...	...	...	...	...	1	8	0
Sailab I	...	...	...	...	...	1	8	0
Sailab II	...	...	...	...	...	1	0	0
Sailab III	...	...	...	...	...	0	8	0
Barani	...	...	...	...	...	1	0	0

25. No term of settlement was fixed at the time of passing orders either on the assessment of the tract within the perennial irrigation boundary, or on the area outside the irrigation limits. As regards the former, the settlement expired in Rabi 1922, under the orders contained in Punjab Government letter No. 15811-S. Rev., dated the 22nd June 1920. As regards the latter, after consideration of a preliminary report submitted by me, Government sanctioned its re-assessment in notification No. 26039, dated the 25th October 1922.

Term of Settlement

CHAPTER III. - REVISION OF THE RECORDS.

26. Special revision of records or remeasurement was not required in the canal irrigated tract, as *kallabandi* had been effected prior to last settlement, both in crown estates and on proprietary lands. But in the tract outside the irrigation limits, where old *kishtwar* maps of Mr. Wilson's settlement were in use, it was found that the maps had outgrown their utility. These maps were prepared in 1891-92. Since then the river has changed its course, and the boundaries of fields have had to be altered over and over again on account of changes in ownership and other rights, so much so, that in some villages it was found that the total number of fields was more than double the number at Mr. Wilson's settlement. A revision of the records of rights of the area outside irrigation limits in Chak Chenab of the Bhalwal tahsil was sanctioned by Government in notification No. 26040-R., dated the 25th October 1922. But it was soon found that there were some villages which were partly outside and partly inside irrigation limits, and that it was necessary to revise the records of rights of the whole areas of such villages. A supplementary notification No. 91851-5397, dated the 25th April 1923, was then issued specifying the names of such villages and allowing a special revision of their records of rights.

Introductory.

27. The records of rights are bound in one or more volumes of convenient size. Their contents are as follows:—

Standing Records of Rights.

- (1) Genealogical tree.
- (2) Preliminary proceedings containing the notifications which authorized the settlement operations.
- (3) Index of field numbers.
- (4) Alphabetical index of owners and tenants.
- (5) *Jamabandi*.
- (6) Mutation orders.
- (7) List of revenue assignments.
- (8) Statement of rights in wells.
- (9) Village administration paper (*Wajib ul-Arz*).
- (10) Order of the Settlement Collector announcing the new revenue rates.
- (11) Field map.

The pedigree table is ordinarily placed in a pocket of the bound volume, but when it is of a large size, it is kept in a separate envelope. The village administration paper has been revised and recast in the form prescribed by the existing rules.

28. Records of 43 villages were revised. Practically all were re-measured. The field maps were prepared on ordinary *musavis* containing 16 squares. The usual scale of 40 *karams* to an inch was adopted. The old maps were on the scale of 60 *karams* or 30 *karams* to an inch. In riverain villages remeasurement and record work could not keep pace together, as measurements had to be hurried and finished before the oncoming of floods, the record work being left over for completion at a later date. An index map showing the shape of the estate and its main features is attached to the mapping sheets, and all are kept together by means of a tag passed through eyelets in the right hand top corner.

Maps.

For measurement and record work, in addition to the permanent staff, 2 kanungos and 8 settlement patwaris were employed. The colouring was done in the *tahsil* by a special patwari candidate, who was selected on account of his neatness.

Two copies were made of the field maps on *musavis*, one for the *sadr* office, and the other for the *tahsil*. They are kept in iron cases with shelves specially made for the purpose. The patwari has only been given a tracing on cloth for the purpose of crop inspection. Copies of maps of villages which are irrigated from the canal, were furnished to the irrigation department at their request on cloth supplied by them.

29. The registers contained in the old village note-books were more or less of the standard form. The conditions of the colony being different from those of a settled district, it was noticed that the entries made by the patwaris were in several cases incorrect, and far from intelligent. Revised forms of registers were proposed by me, and sanctioned by the Financial Commissioner. Additions and alterations necessitated by the peculiar conditions of the colony were made in the standard forms; for instance in statement No. 5 a provision was made for the transfer of rights of Government grantees, who have not acquired proprietary rights. Similar provision was made in statements 6 and 7. The form of register No. 10, *viz.*, the assessment statement, which is added at the end in bilingual village note-books, was also revised to make it suitable for fluctuating assessment.

Pargana or abstract village note-books were compiled afresh. They consist of the following papers for each village :—

- (1) A small scale map.
- (2) A statement showing the main statistics which were collected for the selected years for the purpose of village inspection and assessment.
- (3) A revised form, as sanctioned by the Financial Commissioner, for the entry of chief statistics year by year in future.
- (4) Village inspection note.
- (5) Order announcing the new revenue rates.
- (6) Blank pages for notes by district officers.

The form mentioned at No. 3 above for recording the chief statistics during the currency of the present settlement, varies according as the village is a crown estate or held in proprietary rights. In the form for colony villages, the areas held by Government grantees under different classes of tenure, are to be entered in different columns, and it is so arranged that a mere glance at this statement would show the balance available for distribution. Columns have been provided in both forms for matured area under important crops, namely cotton, toria, wheat, and fodder including chari, oats, &c. The last named, though not an important crop in itself, has been added, as horse-breeding conditions are a peculiar feature of the Lower Jhelum colony.

30. Mutation registers were withdrawn from patwaris in those villages of the Bhalwal *tahsil*, where, owing to remeasurement, new settlement records had been prepared. But in villages where new standing records of rights were not made, the patwaris were allowed to retain the old mutation registers, as they were started only 12 years ago, and a large portion of them was blank. The Financial Commissioner ordered that a red line should be drawn to separate the entries of the old settlement from those of the new, and a fresh numbering started.

CHAPTER IV.—REVISION OF ASSESSMENT.

31. The forecast report was submitted by Mr. Jenkyns, Deputy Commissioner, Shahpur, in February 1921, and the Financial Commissioner's note thereon was submitted to Government in the following June. But as the question of allotment of funds for settlement operations had to come up before the Legislative Council, the final decision was delayed till November. I assumed charge as Settlement Officer, Sargodha, on the 21st November 1921. *Tahsildars*. *Naihs*.

Tahsildars, and Kanungos then gradually began to arrive, and it took more than a month to collect the full sanctioned staff. Khan Sahib Munshi Sher Ali Khan, who was selected by Government as Extra Assistant Settlement Officer, was not relieved of his duties as Revenue Assistant till the 18th December 1921.

Mr. Rudkin had dealt with the whole area in one assessment report, but the Financial Commissioner did not consider that course convenient on the present occasion, and ordered that a separate report should be submitted for each tahsil. It was intended that the assessment report of the Bhalwal tahsil should be sent up in the summer of 1922, and the reports of the Sargodha and Shahpur tahsils in the summer of 1923. But, owing to the late commencement of settlement operations, the outbreak of plague which interfered with village inspections, and the inclusion in settlement of the area outside the irrigation boundary, it was not found possible to adhere to this programme, and sanction was obtained (*vide* Punjab Government letter No. 3475-Rev., dated the 28th August 1922) to the submission of the assessment reports of Bhalwal and Sargodha tahsils in 1923, and the report of Shahpur tahsil in 1924.

32. The old method of fluctuating assessment was retained, and acreage rates were fixed according to classes of soil. In assessing *nahri* revenue rates, the usual considerations as to the quality of soil, the condition of water supply, the revenue paying capacity of the owners, etc., were taken into account. But the area of an estate is seldom homogeneous and sandy or saline patches are often found mixed with the best loam. It also sometimes happens, that water supply which plays an important part in determining the productive capacity of land, varies for different parts of a village. Again in some villages different classes of tenants were found mixed up, for instance horse-breeding grantees with an indivisible holding of 2 squares each were found cultivating side by side with *janglis* who had no more than 4 or 5 killas apiece. The fortuitous circumstance of their allotments of land being situated in the same village would not have justified their being assessed at a flat rate. Such conditions necessitated an *intra* village classification, and a square was taken as the unit for purpose of *nahri* assessment. To take a lower area as a unit would have savoured of the meticulous and would have been practically impossible. This system of differentiation of squares involved great labour and proved a delicate task. It was one of the heaviest items in my work as assessing officer. I had asked for permission to delegate the work of inspecting and assessing half of the villages to the Extra Assistant Settlement Officer, as was done in Lyallpur, but the permission was refused. Each village was thoroughly inspected, and the scheme of differentiation proposed by the owners was duly considered. In proprietary villages, specially in the Shahpur Ara circle, owners were not found keen on the differential system. They desired that the whole village should be assessed at a uniform rate, as differences were likely to create mutual jealousies. They also pleaded that as every owner held both good and bad land in a village he would find it more convenient to be assessed at an average rate rather than at different rates for different portions of his holding. But when the advantages of the system were explained to them, they realised that reduced revenue rates on inferior land would ease the burden of the tenants who contributed half the land revenue, and that it might thus be possible to find tenants even for poor land. The wishes of the owners were respected as far as possible, and the proposed differentiation was freely discussed with them after inspection of the village. Although the task of classification was arduous, the result gave general satisfaction, as is apparent from the small number of objections and appeals, which will be discussed later.

33. The orders on the forecast report declared the usual preliminary reports on classes of soil, assessment circles, commutation prices and cycle of years unnecessary. Land was classified according to the means of irrigation, and the following classes were adopted:—

Qabli.—Watered from wells.

Chahi-nahri.—Irrigated from wells as well as from canals.

Nahri.—Irrigated by flow from canals.

Jhalari.—Irrigated by lift from canals.

Sailab.—Land subject to inundation from the river.

Barani.—Land dependent on rainfall.

The harvests selected for the produce estimate were 1916-17 to 1920-21. The Upper Jhelum Canal had been opened before this quinquennium, and experience had been gained of the effect, if any, of the triple canal project on cultivation in the tract under report. The statistics for the selected cycle of years may therefore be taken to be representative of the future agricultural conditions, as far as can be foreseen at present.

34. In order to estimate the prices that may be expected to be realised by owners for their agricultural produce during the currency of the new settlement, all available data were examined. The matter was discussed at some length in my assessment report of the Bhalwal tahsil, to which I invite a reference whenever detailed information is required. Average gazette prices were collated, entries in circle note-books were examined, and enquiries were made in market towns and typical villages. All these statistics were compared, and allowance was made for the abnormally high prices that ruled during the War. There was a slump in the price of wheat, when the first assessment report was submitted and the trend of prices was generally uncertain. The scale adopted compares as follows with the rates of Mr. Rudkin's Settlement:—

Crop.	Price assumed by Mr. Rudkin.	Price assumed now.	Increase per cent.
	As per maund.	As. per maund.	
Bajra	28	36	29
Maize	24	36	50
Cotton	80	120	50
Wheat	86	52	44
Gram	28	36	29
Barley	22	34	55
Toria	52	70	35
Rice	24	45	87
Jwar	26	34	31

These prices were assumed for the whole district. As they were already on the low side, it was not considered necessary or desirable to assume special rates for tracts economically backward, or for those which were not conveniently situated as regards market towns. The prices proposed by me were accepted by the Financial Commissioner, "as being in the main correct, i.e., as representing something not exceeding the normal prices likely to prevail during the next 20 or 30 years."

35. The estimation of outturns that may be expected during a series of years in future is at best a speculative process, but an examination of the available material and a free discussion with the zamindars enabled me to arrive at a fairly accurate estimate. It was necessary to judge *nahri* yields only, as half-net assets for other classes of cultivation were not calculated. Crop experiments were conducted by members of the agricultural department under paragraph B of Financial Commissioner's Standing Order No. 9, and by the settlement staff after the commencement of settlement operations. No experiment was entrusted to an official below the rank of a Naib-Tahsildar, and the results were afterwards carefully scrutinized. These results for *Shangtha* and *Bhalwal* tahsils were further checked with figures, obtained through the courtesy of the Revenue Department, of the total yield of the

more important crops in the cavalry stud farms for the last four years. The rates of yield adopted at last settlement also served as a guide. In some cases Mr. Rudkin's yields were found too low and had to be raised. Only in the case of cotton I found it necessary to assume a lower outturn than Mr. Rudkin's. The outturns assumed in maunds per acre are given in the following table :—

Crop.	TAHSIL BHALWAL.		TAHSIL SARGODHA.			TAHSIL SHARFUR.
	Bar.	Chenab Utl.	Bar Utl.	Bar Hethia.	Sobhaga.	Ara.
Rice ...	...	...	...	...	...	12
Jwar ...	...	...	...	...	...	6
Rajra ...	7	5	7	6	5	6
Maise ...	9	7	9	8	6	6
Cotton ...	3½	2½	4	3	2	2½
Wheat ...	11	7	11½	9½	7	9
Gram... ..	8	6	8	7	6	6
Barley ...	10	6	10½	8½	6	9
Toria ...	6	4	6½	5	4	4

For carrots and turnips, fodder and other less important crops no outturns were assumed, but their value was estimated in rupees per acre as follows :—

Crop.	TAHSIL BHALWAL.		TAHSIL SARGODHA.			TAHSIL SHARFUR.
	Bar.	Chenab Utl.	Bar Utl.	Bar Hethia.	Sobhaga.	Ara.
1. Carrots and turnips ...	10	8	10	8	6	10
2. Fodder ...	16	12	16	12	8	12
3. Sugarcane ...	70	50	70	60	45	60
4. Other cereals and pulses ...	15	12	15	12	10	12
5. Oilseeds ...	15	12	15	12	10	12
6. Tobacco, gardens and vegetables.	40	30	40	30	20	30
7. Other miscellaneous food crops.	20	15	20	15	12	15
8. Other miscellaneous non-food crops.	30	20	30	20	15	20
9. Wheat and barley straw ...	4	Rs. A. P. 2 8 0	4	3	2	3

36. The menials, artizans and labourers receive, for their assistance, a share of the crop before it is divided between the landlord and the tenant on the threshing floor. Their remuneration is calculated differently in different villages, either as a definite portion of the produce, or at so many seers per plough, or so much per square, or so much per mare (meaning thereby a grant of 1½ or 2 squares per brood mare). In colony villages the grant of a square of Government land to menials tends to keep down their dues. Also owing to the growing business instinct, there is a tendency on the part of samindars to restrict these dues, where they have been unduly liberal. In proprietary estates, however, it is difficult for the owners to break from old traditions.

The old established custom continues, and menials are sometimes paid on a lavish scale, partly because more work is taken from them. The menials, who really help in agriculture on canal irrigated land, are the carpenter, the blacksmith, the reaper or the picker, the winnower, the carrier, and the weighman. Large owners in proprietary villages generally keep an accountant called *muhassali*, who is also paid a share of the produce. For the production of sugar, besides the wages of the menial who looks after the furnace, the hire or depreciation of the crushing mill has to be taken into account. Allowance is also to be made for peculation of tenants and miscellaneous charities, as all sorts of beggars and hangers-on collect at the time of distribution of the produce, when neither owners nor tenants grudge small doles. Payment is made out of the common heap to the barber, the shoe-maker and the washerman, but I have not considered them, as they have no direct connection with agriculture. After full consideration, I proposed the following deductions on account of menials' dues, which were accepted by the Financial Commissioner as fair :—

Bhalwal tahsil.—Bar circle, 12½ per cent. Chenab Utla circle, 14½ per cent.

Sargodha tahsil.—Bar Utla circle, 12 per cent. Bar Hethla circle, 14 per cent. Sobhaga circle, 15 per cent.

Shahpur tahsil.—Ara circle, 17 per cent.

37. The prevalent rates of *batai* rent for canal irrigated land in the tract under assessment have been described in paragraph 13.

Half Net Assets.

(a) From rents in kind.

Owing to the sharing of the Government demand between the landlord and the tenant an adjustment was found necessary in calculating half-net assets, as in theory water rates are payable by tenants, while land revenue, cesses and *malikana* are payable by owners. The amount paid as water rates by the landlord on behalf of the tenant was deducted; while the other charges theoretically payable by the landlord, but actually paid by the tenant, were added to the value of the produce that fell to the owner's share.

Half-net assets based on kind rents worked out as follows per sown acre :—

				Rs.	A.	P.
<i>Bhalwal tahsil</i> —						
Bar and Jhelum circles	...	...	...	6	2	2
Chenab Utla circle	...	...	...	3	1	4
<i>Sargodha tahsil</i> —						
Bar Utla circle	...	...	...	6	6	1
Bar Hethla circle	...	...	...	4	9	11
Sobhaga circle	...	...	...	3	2	5
<i>Shahpur tahsil</i> —						
Ara circle	...	...	...	4	5	7

No half-net asset estimate was prepared for Chenab Hethla circle.

Net assets were calculated from cash rents after adjustment on account of land revenue, etc., which according to the terms of the lease are invariably payable by the lessee. The estimate from cash rents was naturally higher than that based on kind rents, as cash rent figures related to years of high prices, which cannot be expected to continue during the currency of the settlement. It was therefore considered that the true half-net assets were somewhere in the neighbourhood of those based on kind rents.

38. The *nahri* rates imposed by Mr. Rudkin varied from 12 annas to Rs. 3-8-0, the difference between two consecutive classes being sometimes only 2 annas. The Financial Commissioner did not favour this minute system of differentiation

Nahri Revenue Rates.

and in his review of my assessment reports of Sargodha and Bhalwal tahsils remarked as follows :—

" It is comparatively easy to estimate differences in terms of half a rupee, but I do not think it is possible to have smaller differences than this with any certainty that the Settlement Officer is right in making the differentiation. I do not think for example, that a Settlement Officer can, in the time at his disposal, satisfactorily decide between two squares, the one of which he rates at Re. 1-12-0 per acre and the other at Rs. 2. Still less can he be certain that he is right when the difference is only that between Re. 1-14-0 and Rs. 2. For these reasons I would abandon the existing minute system of differentiation, and would classify squares by differences of 8 annas per acre." Thus the following rates per acre were sanctioned for *nahri* cultivation :—

				Rs.	A.	P.
Gardens in Sargodha City	...	...	...	10	0	0
Other lands in Sargodha city and Sargodha civil station	..	..	..	6	0	0
Class I	...	...	...	5	8	0
" II	...	...	...	5	0	0
" III	...	...	...	4	8	0
" IV	...	...	...	4	0	0
" V	...	...	...	3	8	0
" VI	...	...	...	3	0	0
" VII	...	...	...	2	8	0
" VIII	...	...	...	2	0	0
" IX	...	...	...	1	8	0
" X	...	...	...	1	0	0

When orders on the assessment reports of Sargodha and Bhalwal tahsils were passed, a revision of the schedules of occupiers' rates was under contemplation. As there was the possibility of a substantial increase in these rates, a temporary reduction was allowed in revenue rates on canal irrigated lands. Revenue rates of Rs. 4 per acre and upwards were to be reduced by 8 annas, and those from Re. 1-8-0 to Rs. 3-8-0 per acre by 4 annas, while no remission was allowed on squares classified to pay only Re. 1 per acre. The condition was, that if there was no rise in occupiers' rates within three years, these remissions would cease to have effect and the full rates would become operative, but, that if the occupiers' rates were raised, then the reduced rates would become permanent for the term of settlement. Another reason for this remission was that when I submitted my assessment reports of Sargodha and Bhalwal tahsils, I was under the impression that the share of net assets that Government could theoretically demand continued to be one-half, but the Financial Commissioner in his orders pointed out that the standard of assessment now adopted by Government is one-third and not one-half. Occupiers' rates were increased in the year 1924 and the remissions have now become permanent. Thus the *nahri* rates actually to be levied are as follows :—

				Rs.	A.	P.
Gardens in Sargodha City	...	...	...	9	8	0
Other land in Sargodha city and Sargodha civil station	...	...	...	5	8	0
Class I	...	...	...	5	0	0
" II	...	...	...	4	8	0
" III	...	...	...	4	0	0
" IV	...	...	...	3	8	0
" V	...	...	...	3	4	0
" VI	...	...	...	2	8	0
" VII	...	...	...	2	4	0
" VIII	...	...	...	1	12	0
" IX	...	...	...	1	4	0
" X	...	...	...	1	0	0

39. The classification finally adopted in the Bhalwal tahsil is as follows :—
Classification in Bhalwal Tahsil.

Class.	Rate of Land Revenue.	BAR AND JHELUM CIRCLES.		CHENAB UTLA CIRCLE.		CHENAB HETHLA CIRCLE.	
		Area sown.	Demand.	Area sown.	Demand.	Area.	Demand.
	Rs. A. P.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
I	5 0 0	1,793	8,990	...	...	...	...
II	4 8 0	20,195	90,878	...	...	...	...
III	4 0 0	89,870	3,58,680	...	...	...	...
IV	3 8 0	19,676	68,866	506	1,771	...	...
V	3 4 0	24,220	78,775	2,047	6,853	...	...
VI	2 12 0	19,691	54,150	...	...	...	...
VII	2 4 0	10,335	28,254	239	538	...	...
VIII	1 14 0	1,762	8,084	6,774	11,154	...	...
IX	1 4 0	2,129	2,661	15,016	18,770	181	226
X	1 0 0	...	...	1,485	1,485	...	...
Total ... ..	...	189,478	6,69,278	25,67	40,371	181	226
Average incidence	...	Rs. A. P. 3 10 2	...	Rs. A. P. 1 9 2	...	Rs. A. P. 1 4 0	...

In the Chenab Utla Circle as all rates proposed by me between Re. 1-8-0 and Rs. 2 were reduced by the Financial Commissioner to Re. 1-8-0 subject to a further reduction of four annas in consequence of the anticipated rise in occupiers' rates, and the Re. 1-4-0 rate was reduced to Re. 1, the assessment in practically all villages fell instead of being enhanced, except the area above the *wakka* which is more akin to the Bar circle.

Classification in Sargodha Tahsil.

40. The final figures for the Sargodha tahsil are as follows :—

Class.	Rate of Land Revenue.	BAR UTLA		BAR HETHLA.		SOBHAGA.	
		Area.	Demand.	Area.	Demand.	Area.	Demand.
	Rs. A. P.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
SPECIAL CLASSES.							
1. Gardens in Sargodha City.	9 8 0	...	...	164	1,558	...	...
2. Other lands in Sargodha City and Civil Station.	5 8 0	...	...	678	3,702	...	...
I	5 0 0	28,154	1,40,770	...	...	...	...
II	4 8 0	34,415	1,54,868	...	...	...	...
III	4 0 0	28,810	1,18,240	...	...	...	...
IV	3 8 0	29,877	1,04,570	...	...	...	...
V	3 4 0	22,167	72,010	12,890	41,892	...	...
VI	2 12 0	15,669	49,612	46,638	1,11,718	...	...
VII	2 4 0	9,201	20,702	42,894	96,489	4,198	9,446
VIII	1 12 0	9,019	5,268	24,016	42,026	7,162	12,584
IX	1 4 0	2,028	2,535	11,911	14,859	7,843	9,804
X	1 0 0	...	...	...	...	8,561	8,561
Total ... ..	...	178,030	6,57,580	188,160	8,12,869	37,764	40,845
Average incidence	...	Rs. A. P. 3 12 10	...	Rs. A. P. 2 5 6	...	Rs. A. P. 1 7 2	...

Classification in Shahpur Tahsil.

41. The following table shows the final classification in the Shahpur tahsil :—

Class.	Rate of Land Revenue.	ABA CIRCLE.		JHELUM CIRCLE.	
		Area sown.	Demand.	Area sown.	Demand.
	Rs. A. P.	Acres.	Rs.	Acres.	Rs.
VI	2 12 0	8,812	24,138	705	1,989
VII	2 4 0	80,428	68,452	...	...
VIII	1 12 0	10,154	17,770	2,688	6,445
IX	1 4 0	9,143	11,429	...	...
Total	...	58,532	1,21,884	4,393	8,384
Average incidence	...	Rs. A. P. 2 1 4		Rs. A. P. 1 14 6	

Other classes of irrigation.

42. Rates for cultivation other than *nahri* are as follows :—

<i>Chahi-nahri</i> ... ..	...	<i>Nahri</i> flow rates.
<i>Jhalari</i> ... ..	...	Half <i>nahri</i> flow rates subject to a minimum of Re. 1 per acre.
<i>Chahi</i> ... ..	...	Re. 1-4-0 per acre matured, except in the Chenab Hethla Circle where <i>chahi</i> land is very valuable. In this circle the old rates which varied from village to village, were left undisturbed, the average being Re. 1-8-0 per acre.
<i>Barani</i> ... ..	...	Re. 1 per acre matured.
<i>Sailab</i> ... ..	...	In Bhalwal tahsil there are 2 classes of <i>sailab</i> —

Class I.—Wheat and its mixtures with barley and gram. Rates differ from village to village ranging from Re. 1-4-0 to Re. 1-12-0, and averaging Re. 1-8-0 per acre matured.

Class II.—All other crops Re. 1 per acre matured.

In the Shahpur tahsil all *sailab* crops are to be assessed at Re. 1 per acre matured.

43. Applying the sanctioned rates to the acreage under different classes of land in various tahsils, the total new demand is calculated as follows :—

Tahsil.	Chahi.	Nahri.	Jhalari.	Sailab.	Barani.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bhalwal	15,717	7,39,875	1,096	9,984	10,775	7,67,997
Sargodha	664	10,10,204	84	...	2,582	10,13,534
Shahpur	7,749	1,80,368	107	87	511	1,88,671

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The following table compares the new demand with the average demand of five years 1916-17 to 1920-21 :—

Tahsil.				New demand.	Old demand.	Increase.	Percentage of increase.
				Rs.	Rs.	Rs.	
Bhalwal	...	...	...	7,67,397	6,09,507	1,57,890	25.9
Sargodha	...	...	...	10,13,534	7,77,473	2,36,061	30.4
Shahpur	...	...	...	1,98,671	1,07,899	90,772	28.8
Total				19,19,602	14,94,879	4,24,723	28.4

44. A vernacular abstract of the assessment report of each tahsil was circulated for the information of the persons concerned, as prescribed in the new paragraph 514-A of the Settlement Manual. Most of the objections related to specific villages, and were irrelevant, as the actual classification of villages and squares had not then been announced. The general questions of yields, prices and menials' dues, to which objection was taken in some of the petitions, had already been fully dealt with in the assessment reports. A representation signed by some of the leading land-owners of the district was presented to the Financial Commissioner in October 1923. Before the orders were passed, the Hon'ble Member for Revenue and the Financial Commissioner came to Sargodha, and in a public meeting held in the District Board hall listened to various speeches that were made to show that the canal had not brought prosperity to the tract and that the people could not bear the burden of an enhanced land revenue demand. The leniency of the assessment as sanctioned is clear from the figures given in the last paragraph. The total revenue of the tract under assessment has been increased only by 28 per cent. and the new assessment is well below the one-third net asset standard.

Forty-four applications from Sargodha tahsil and 31 from Bhalwal were presented to the Settlement Officer for reconsideration of the new revenue rates. Of these 5 were accepted in Sargodha and 2 in Bhalwal. As regards appeals to Commissioner, 9 were lodged from the Bhalwal tahsil, and 15 from Sargodha, all of which were rejected. From the Shahpur tahsil, 14 applications for revision were lodged before the Deputy Commissioner, after I had left the district; their result is yet unknown. Considering that the range of appeal had been greatly widened in consequence of the unit of assessment being a square instead of a village, the number of objections and appeals is extraordinarily small. This in itself is a proof, if proof were needed, of the leniency of the assessment, and a fair and just distribution of the demand.

45. Mr. Rudkin's settlement expired in Rabi 1922. Owing to delay in the commencement of settlement operations, the new rates did not come into force in Sargodha and Bhalwal tahsils till Kharif 1923, and in the Shahpur tahsil till Rabi 1925. Orders have to be passed by Government as to the period for which the present assessment is to continue. As no future developments are likely to take place, there seems no reason to fix the term of settlement at less than 20 years. There are several villages, a portion of which is subject to fluctuating rates, while the other portion pays a fixed demand. In the past, these portions have been assessed at different times by different Settlement Officers. This should be avoided, if possible. I therefore suggest that the term of the present settlement be extended to Kharif 1945, which is the date of expiry of Mr. Leigh's settlement of the remainder of these tahsils under fixed assessment. The whole of the three tahsils can then come under re-assessment at once.

CHAPTER V.—MISCELLANEOUS.

46. The enhanced occupiers' rates were notified in Punjab Government notification No. 481-R. I., dated the 7th April 1924. The old principle of differentiating water rates according to the quality of soil was abandoned, and uniform rates were prescribed for the whole tract irrigated by any canal. Representations against this enhancement were made from all over the province, and the matter formed the subject of discussion in the press and in the Legislative Council. The Local Government reconsidered its financial position and ultimately decided on the reduction of the enhanced scale of water rates. The concession enjoyed by the inferior tracts on the Lower Jhelum Canal in the matter of occupiers' rates was restored. Two schedules were introduced as before and notified in Punjab Government notification No. X-8-R. I., dated the 3rd October 1924, which has been reproduced as Appendix III to this report. The effect of the increased rates was worked out by me in case of the Ara circle, and it was found that the zamindars would have to pay 45·8 per cent. more in water rates than before. (See appendix to Financial Commissioner's orders on the assessment report of Shahpur tahsil.)

47. The assessing agency for all classes of cultivation within the irrigation boundary is the irrigation department, with the exception of a few villages and well defined blocks of land in the Bhalwal tahsil, to which irrigation has never been extended. Assessment on lands outside irrigation limits is done by the civil revenue staff. Rules, which have been approved by the Financial Commissioner, for the guidance of revenue officers for working fluctuating assessment will be found in Appendix V to this report.

48. Cesses at the close of settlement were Rs. 15·6·8 per cent. on land revenue, 5 per cent. being Lambardari fee and Rs. 10·6·8 local rate. But the local rate has now been raised to Rs. 12·8·0 per cent (*vide* Commissioner's notification No. 36-B-II-100, dated the 26th March 1925).

Malikana continues at 2 annas per allotted acre for horse-breeding grantees. For other grantees also my recommendation was that they should be treated leniently, as they were not allowed to acquire proprietary rights, and *malikana* was necessary only to emphasise the title of the Crown. But the maximum limit of 12 annas per acre proposed by me was not accepted. The sanctioned rate now is 6 annas per rupee of land revenue with no limit. Circumstances have changed since my reports were submitted. Non-horse-breeding grantees have been offered the option to purchase proprietary rights. If they do not take advantage of this opportunity, they will have only to blame themselves if they have to continue to pay *malikana*, which is certainly heavier than what they have been accustomed to during the last settlement, and yet much lower than the rates willingly paid for temporary cultivation even in the inferior portions of this colony.

49. The following officers received training in this settlement :—

Training of officers.

Assistant Commissioners	...	...	...	...	2
Munsif candidates	...	...	...	...	2
Tahsildar candidate	...	...	...	...	1
Zilladar candidates	...	...	...	...	2
Kanungo candidate	...	...	...	...	1

50. As the last edition of the gazetteer of the Shahpur district was prepared by Mr. Leigh only seven years ago, and no important changes have since occurred in the condition of the tract under assessment, which forms only a portion of the district, Government agreed to the postponement of the revision of the descriptive portion of the gazetteer till the next settlement.

51. It was anticipated in the orders on the forecast report, that the cost of the settlement would be Rs. 1,85,000 spread over some 2½ years. The cost of re-measurement of villages in the Chenab circle was not included in this estimate. Besides, for several reasons as already mentioned, the programme of operations laid down in the forecast had to be altered, and the period of settlement operations was extended up to the end of March 1925. Every possible endeavour was made to economise expenditure, and the staff was reduced as soon as it was found that it was no longer required. No Extra Assistant Settlement Officer was employed after the 13th March 1924. All field establishment had been reduced by the 31st July 1924, and the office establishment consisted only of a Naib-Tahsildar and a Kanungo. The actual cost of settlement was thus kept very low, and although the settlement operations were spread over 3 years and 4 months, the total cost was only Rs. 2,02,827, which will be covered twice over by one year's enhancement of revenue.

52. I was in charge of the settlement throughout from 21st November 1921 to the 5th April 1925. On two occasions I was appointed Deputy Commissioner, but as my own work as Settlement Officer was heavy, I had to ask to be relieved of the additional duties as soon as possible. In the summer of 1924 when my work was comparatively lighter, I acted as Director of Land Records, Punjab, for about 5 months in addition to my own duties. Khan Sahib Munshi Sher Ali Khan was Extra Assistant Settlement Officer for 2 years and 3 months. He has spent a considerable portion of his service in different settlements. His knowledge of measurement work was perfect, and he supervised the measurement work with zeal and industry. He was not directly concerned with assessment, but his village inspections helped me in my work of classification of squares. On being relieved, he was posted to the district again as Revenue Assistant, and has now been transferred to the North-West Frontier Province as Extra Assistant Settlement Officer, Peshawar. M. Muhammad Said, Tahsildar, impressed me with his ability and thoroughness. Among Naib-Tahsildars M. Alam Ali and Rai Sahib Faqir Chand deserve special mention. Qazi Taj-ud-Din did excellent work as my Reader for over 2½ years. Munshi Ghulam Rasul who had to work single handed as Head Clerk and Reader for the last 8 months, worked well and cheerfully.

53. The only point on which orders are required is the term of settlement (paragraph 45).

Orders required.

RAM CHANDRA,

The 21st October 1925.

Late Settlement Officer, Sargodha.

Glossary of vernacular terms.

<i>Vernacular.</i>	<i>English.</i>
<i>Abadkar</i>	Colonist ; peasant grantee.
<i>Abiana</i>	Water rates, occupiers' rates as levied by the Irrigation Department.
<i>Bajra</i>	Bulrush millet.
<i>Barani</i>	Soil dependent on rainfall for moisture.
<i>Batai</i>	Rent paid in kind.
<i>Bhusa</i>	Straw.
<i>Chahi</i>	Well irrigated.
<i>Chahi-nahri</i>	Irrigated both by well and canal.
<i>Chak</i>	Colony village.
<i>Chari</i>	<i>Jwar</i> grown close for fodder.
<i>Desi</i>	Indigenous.
<i>Dhaya</i>	River bank.
<i>Girdawari</i>	Crop inspection.
<i>Jangli</i>	Aboriginal inhabitants of the Bar.
<i>Jhalari</i>	Irrigated from a canal by lift.
<i>Jwar</i>	Great millet.
<i>Kallar</i>	Saltpetre.
<i>Kardar</i>	Agent.
<i>Kharaba</i>	Portion of crop which has failed to come to maturity.
<i>Kharif</i>	Autumn harvest.
<i>Khadkashi</i>	Cultivated by owners or Government tenants in person.
<i>Killa</i>	Area equal to 8 <i>kanals</i> 18 <i>marlas</i> ; one twenty-fifth of a square.
<i>Killabandi</i>	Survey by <i>killas</i> .
<i>Lambardar</i>	Village headman.
<i>Malikana</i>	Fee paid in recognition of proprietary title ; seigniorage.
<i>Mandi</i>	Market town.
<i>Maund</i>	A measure of weight equal to 82½ lbs.
<i>Nahri</i>	Irrigated from a canal by flow.
<i>Nakka</i>	Ridge separating Bar upland from Chenab riverain.
<i>Patwari</i>	Village accountant.
<i>Rabi</i>	Spring harvest.
<i>Rakh</i>	Forest.
<i>Raghu mujawasa abpashi</i>	The area permitted to be irrigated.
<i>Sailab</i>	Land irrigated by floods.
<i>Seer</i>	One-fortieth of a maund.
<i>Tahsil</i>	Revenue sub-division of a district.
<i>Toria</i>	An oilseed.
<i>Zamindar</i>	Agriculturist, landowner.

APPENDIX I.

Principal Gazette Notifications.

No.	Date.	Subject.
29942-B ...	30th November 1921.	Mr. Ram Chandra appointed Settlement Officer from 21st November 1921.
29027-B ...	21st November 1921	All the powers of a Collector under the Punjab Land Revenue Act (except those under Chapter VI) and the Punjab Tenancy Act conferred upon Mr. Ram Chandra with the further direction that Mr. Ram Chandra in exercise of these powers shall not be subject to the control of the Collector of the Shahpur District.
446 ...	7th January 1922	Khan Sahib Munshi Sher Ali Khan appointed Extra Assistant Settlement Officer, Sargodha, from 18th December 1921 (afternoon).
31910-A ...	18th December 1921	All the powers of a Collector under the Punjab Land Revenue Act (except those under Chapter VI) and the Punjab Tenancy Act conferred upon Khan Sahib Munshi Sher Ali Khan, to be exercised within the local limits of the Shahpur District, with the further direction that Khan Sahib Munshi Sher Ali Khan in exercise of these powers shall be subject to the control of the Collector of the Shahpur District.
5440 ...	18th February 1922	Under section 49 (1) of the Punjab Land Revenue Act, 1887, as amended by Punjab Act, II of 1912; it is notified that a general re-assessment is to be undertaken of the land revenue of the area within the perennial irrigation limits of the Lower Jhelum Canal in the Shahpur District.
8231 ...	18th March 1922...	Mr. Ram Chandra, M.B.E., Settlement Officer, Sargodha, invested with all the powers of a Collector under section 3 of the Colonization of Government Lands (Punjab) Act, 1912, to be exercised within the limits of the Shahpur District.
10964 ...	30th March 1922...	Under section 49 (1) of the Punjab Land Revenue Act, 1887, as amended by Punjab Act, II of 1912, it is notified that a re-assessment is to be undertaken of the land revenue of the area irrigated by the Upper Jhelum Canal in the Shahpur District.
26029 ...	25th October 1922	Under section 49 (1) of the Land Revenue Act, 1887, as amended by the Punjab Act, II of 1912, it is notified that a general re-assessment is to be undertaken of the land revenue of the area outside the irrigation limits of the Lower Jhelum Canal in Chak Chenab of the Bhalwal Tahsil in the Shahpur District.
26040 ...	Ditto ...	Under section 32 (2) of the Punjab Land Revenue Act, 1887, it is notified that the records-of-rights of the area outside the irrigation limits of the Lower Jhelum Canal in Chak Chenab of the Bhalwal Tahsil in the Shahpur District shall be specially revised.

APPENDIX I—CONCLUDED.

No.	Date.	Subject.																		
91-834-5397	25th April 1923 ...	<p>Under section 32 (2) of the Punjab Land Revenue Act, 1887, it is notified that a special revision shall be undertaken of the records-of-rights of the following villages in the Bhalwal Tahsil of the Shekhpur District lying partially within the irrigation limits of the Lower Jhelum Canal :—</p> <table border="0"> <tr> <td>1. Ram Rihan.</td> <td>10. Khamb Nas.</td> </tr> <tr> <td>2. Kotli Saiyadan.</td> <td>11. Khamb Konna.</td> </tr> <tr> <td>3. Miana Hazara.</td> <td>12. Dhuddian.</td> </tr> <tr> <td>4. Takht Hazara.</td> <td>13. Ram Diana.</td> </tr> <tr> <td>5. Nasirnur Khurd.</td> <td>14. Saiyad Nau.</td> </tr> <tr> <td>6. Badar.</td> <td>15. Chak Khana.</td> </tr> <tr> <td>7. Fattuwalla.</td> <td>16. Rihanwal.</td> </tr> <tr> <td>8. Mahiwal.</td> <td>17. Hayatpur.</td> </tr> <tr> <td>9. Midh Ranjha.</td> <td>18. Rattapur.</td> </tr> </table>	1. Ram Rihan.	10. Khamb Nas.	2. Kotli Saiyadan.	11. Khamb Konna.	3. Miana Hazara.	12. Dhuddian.	4. Takht Hazara.	13. Ram Diana.	5. Nasirnur Khurd.	14. Saiyad Nau.	6. Badar.	15. Chak Khana.	7. Fattuwalla.	16. Rihanwal.	8. Mahiwal.	17. Hayatpur.	9. Midh Ranjha.	18. Rattapur.
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7. Fattuwalla.	16. Rihanwal.																			
8. Mahiwal.	17. Hayatpur.																			
9. Midh Ranjha.	18. Rattapur.																			
14124	... 14th May 1924 ...	<p>Khan Sahib Munshi Sher Ali Khan relinquished charge of the office of the Extra Assistant Settlement Officer, Sargodha, on the 13th March 1924 (afternoon).</p>																		

APPENDIX II.

Schedules of occupiers' rates on the Lower Jhelum Canal in force till Rabi 1924 (inclusive).

Schedule A.--Applicable to all areas other than those subject to Schedule B.

Authority.	Class.	Nature of crops.	RATE PER ACRE.		Per.
			Flow.	Lift.	
Irrigation Branch notification No. 07-R. I., dated 28th May 1902.	I	Sugarcane, waternuts ...	10 0 0	5 0 0	Crop.
	II	Rice ...	6 4 0	3 2 0	Do.
	III	Orchards, gardens, tobacco, indigo, vegetable, drugs, poppy and melons.	5 0 0	2 8 0	Orchards and gardens per half year; the rest per crop.
Notification No. 02-R. I., dated 22nd May 1922.	IV	Cotton, fibre, dyes (other than indigo), oil-seeds, maize, <i>shafal</i> and all rabi crops (except gram and <i>masur</i>).	8 12 0	1 14 0	Crop.
Notification No. 89-R. I., dated 18th January 1920.	V	<i>Chari</i> , all other kharif crops, gram, <i>masur</i> and crop grown for fodder other than <i>shafal</i> .	2 8 0	1 4 0	Do.
	VI	Crops grown on the <i>masda</i> or moisture of a previous crop.	1 4 0	0 10 0	Do.
Notification No. 0110-R. I., dated 17th July 1919.	...	Watering for ploughing not followed by any crop in the same or succeeding harvest:—			
		(a) For any number of waterings between 1st May and 15th July.	0 8 0	0 4 0	Acre.
		(b) For any number of waterings after 15th July.	1 8 0	0 12 0	Do.
	VII	Single waterings before ploughing for Rabi followed by a Rabi crop to be applicable only to channels selected by the Local Government.	2 8 0	1 4 0	Crop.
	VIII	Grass, village plantations in solitary villages and District Board plantations in the colony:—			
Notifications No. 0121-R. I., dated 21st September 1908, No. 310-R. I., dated 19th December 1908, No. 885-R. I., dated 11th December 1907.		(d) For any number of waterings in the Kharif season.	1 4 0	0 10 0	Half year.
		(dd) For one watering in the Rabi season.	1 4 0	0 10 0	Do.
		(ddd) For two or more waterings in the Rabi season.	2 8 0	1 4 0	Do.
Notification No. D474-R. I., dated 2nd October 1922	IX	<i>Hemp</i> (can), indigo, guara and <i>Sesia</i> which have been ploughed in as green manure before 15th September.	0 8 0	0 4 0	Acre.
Notification No. 0043-R. I., dated 4th September 1922.	Special	(f) <i>Toria</i> and gram } sown together in the same field.	5 0 0	2 8 0	Crop.
		(ff) <i>Bag</i> and gram }			

Schedule B.—Applicable to the following areas :—

- (1) All villages or portions of villages in the Bhalwal tahsil irrigated from the Khadir Feeder or Khadir Distributary.
- (2) All villages in the Shahpur tahsil, except Sher Muhammadiyah and Wegowal, and except all villages or portions of villages irrigated from the Sahiwal Feeder including the Sahiwal Distributary and Gondal Distributary.
- (3) The following villages in the Sargodha tahsil :—
 Northern Branch Chaks Nos. 89, 93, 94, 95, 103, 104, 105, 108, 110, 112 and 115 to 174 inclusive.
 Southern Branch Chaks Nos. 60, 61, 63, 131, 133, 134, 135, 137 to 141 inclusive and Chak Jodh on the Khadir Distributary.

Authority.	Class.	Nature of crop.	RATE PER ACRE.		Fee.
			Flow.	Lift.	
Irrigation Branch notification No. 400-R. I., dated 30th March 1917.	I	Sugarcane and waternuts ...	Rs. A. P. 7 8 0	Rs. A. P. 3 12 0	Crop.
	II	Rice ...	4 0 0	3 0 0	Do.
	III	Orchards, gardens, indigo "vegetables, drugs and melons.	5 0 0	2 8 0	Orchards and gardens per half year; the rest per crop.
	IV	Wheat ...	3 4 0	1 10 0	Crop.
	V	Cotton and oilseeds ...	3 0 0	1 8 0	Do.
Notification No. 028-R. I., dated 23rd May 1922.	VI	Fibres other than cotton, dyas (other than indigo), maize, <i>shaft</i> and all Rabi crops other than wheat, gram and masur.	2 8 0	1 4 0	Do.
Notification No. 89-R. I., dated 16th January 1920.	VII	<i>Chari</i> and all other kharif crops, gram, masur and all crops grown for fodder (including turnips but excluding <i>shaft</i>).	2 0 0	1 0 0	Do.
Notification No. 0110-R. I., dated 12th July 1919.	VIII	Crops grown on <i>wadda</i> or moisture of a previous crop.	1 4 0	0 10 0	Each watering.
		Watering for ploughing not followed by any crop in the same or succeeding harvest :—			
		(a) For any number of waterings between 1st May and 15th July.	0 8 0	0 4 0	Per acre.
		(b) For any number of waterings after 15th July.	1 8 0	0 12 0	Ditto.
	IX	Single watering before ploughing for Rabi followed by a Rabi crop to be applicable only to channels selected by the Local Government.	2 8 0	1 4 0	Crop.
Notification No. 1474-R. I., dated 3rd October 1922.	X	Grass, village plantations in colony villages and District Board plantations in the colony :—			
		(i) For any number of waterings in the Kharif season.	1 4 0	0 10 0	Half year.
		(ii) For one watering in the Rabi season.	1 4 0	0 10 0	Ditto.
		(iii) For two or more waterings in the Rabi season.	2 8 0	1 4 0	Ditto.
Notification No. 0347-R. I., dated 4th September 1922.	XI	Hemp (seed), indigo, guara and <i>locha</i> which has been ploughed to as green manure before the 1st September.	0 8 0	0 4 0	Acres.
Notification No. 0347-R. I., dated 4th September 1922.	Special	(c) <i>Toria</i> and gram } sown together in the same field. (d) <i>Sag</i> and gram }	5 0 0	3 2 0	Crop.

V **APPENDIX III.**

Schedules of occupiers' rates on the Lower Jhelum Canal in force from Kharif 1924
(Notification No. X-8—R. I., dated the 3rd October 1924).

Schedule A—Applicable to all areas other than those subject to Schedule B.

Class.	Crops.	RATE PER ACRE.		Per.
		Flow.	Lift.	
		Rs. A. P.	Rs. A. P.	
I	Sugarcane (except on Kharif Channels)	12 0 0	6 0 0	Crop.
II	Sugarcane on Kharif Channels ...	16 0 0	5 0 0	Do.
III	Rice and waternuts ...	7 8 0	3 12 0	Do.
IV	Cotton, indigo and other dyes, tobacco, poppy, spices and drugs.	6 4 0	3 2 0	Do.
V	Gardens and orchards, and vegetables except turnips.	5 8 0	2 12 0	Gardens and orchards per half year; the rest per crop.
VI	Wheat, barley and oats (except on Kharif Channels).	5 4 0	2 10 0	Crop.
VII	Melons, maize, fibres (other than cotton) and all crops not otherwise specified.	4 8 0	2 4 0	Do.
VIII	Oilseeds (except Rabi oilseeds on Kharif Channels).	4 4 0	2 2 0	Do.
IX	Rabi oilseeds, wheat, barley and oats on Kharif Channels, field peas and beans.	3 12 0	1 14 0	Do.
X	Rajra, gram, masur and pulses ...	3 4 0	1 10 0	Do.
XI	Jowar, china, grass which has received two or more waterings and all fodder crops including turnips.	3 0 0	1 8 0	Do.
XII	(a) Watering for ploughing not followed by a crop in the same or succeeding harvest.	1 0 0	0 8 0	Grass per half year; the rest per crop.
	(b) Hemp, indigo and guara ploughed in as green manure before 15th September.	1 0 0	0 8 0	Acra.
	(c) Village and District Board plantations :—			
	(i) Any number of waterings in Kharif.	1 0 0	0 8 0	Do.
	(ii) One watering in Rabi ...	1 0 0	0 8 0	Half year.
	(iii) Two or more waterings in Rabi.	2 0 0	1 0 0	Do.
	(d) Grass—A single watering in Kharif or Rabi.	1 0 0	0 8 0	Do.
	Note.—Grass given two or more waterings falls under class XI.			

Schedule B.—Applicable to—

- (1) All villages or portions of villages in the Ehalwal tahsil irrigated from the Khadir Feeder or Khadir Distributary.
- (2) All villages in the Shahpur tahsil except Sher Muhammadwala and Wegowal and except all villages or portions of villages irrigated from the Sahiwal Feeder, including the Sahiwal Distributary and Gondal Distributary.
- (3) The following villages in the Sargodha tahsil :—
- Northern Branch, Chaks Nos. 82, 93, 94, 95, 103, 104, 105, 108, 110, 112 and 115 to 174 inclusive.
- Southern Branch, Chaks Nos. 60, 61, 63, 131, 132, 134, 135, 137 to 141 and Chak Jodh on the Khadir Distributary.

Class.	Crops.	RATE PER ACRE.		Ser.
		Flow.	Lift.	
		Rs. A. P.	Rs. A. P.	
I	Sugarcane (except on Kharif Channels)	9 8 0	4 12 0	Crop.
II	Sugarcane on Kharif Channels ...	7 8 0	3 12 0	Do.
III	Rice and waternuts ...	5 4 0	2 10 0	Do.
IV	Cotton, indigo and other dyes, tobacco, poppy, spices and drugs.	5 8 0	2 12 0	Do.
V	Gardens and orchards and vegetables except turnips.	5 8 0	2 12 0	Gardens and orchards per half year; the rest per crop.
VI	Wheat, barley and oats except on Kharif Channels.	4 12 0	2 6 0	Crop.
VII	Melons, maize, fibres (other than cotton) and all crops not otherwise specified.	3 4 0	1 10 0	Do.
VIII	Oilseeds (except Rabi oilseeds on Kharif Channels.)	3 8 0	1 12 0	Do.
IX	Rabi oilseeds, wheat, barley and oats on Kharif Channels, field peas and beans.	3 0 0	1 8 0	Do.
X	<i>ajra</i> , gram, <i>masur</i> and pulses ...	2 12 0	1 6 0	Do.
XI	<i>Jowar</i> , <i>china</i> , grass which has received two or more waterings, and all fodder crops including turnips.	2 8 0	1 4 0	Do.
XII	(a) Watering for ploughing not followed by a crop in the same or succeeding harvest.	1 0 0	0 6 0	Grass per half year; the rest per crop.
	(b) Hemp indigo and <i>gnara</i> ploughed in as green manure before 15th September.	1 0 0	0 8 0	Acce.
	(c) Village and District Board plantations :—			
	(i) Any number of waterings in Kharif.	1 0 0	0 8 0	Do.
	(ii) One watering in Rabi ...	1 0 0	0 8 0	Half year.
	(iii) Two or more waterings in Rabi.	2 0 0	1 0 0	Ditto.
	(d) Grass—A single watering in Kharif or Rabi.	1 0 0	0 8 0	Ditto.
	NOTE.—Grass given two or more waterings falls under Class XI.			

NOTE.—The rate for cotton, indigo and other dyes, tobacco, poppy, spices and drugs, in the Kharif of 1904, will be Rs. 5-8-0 in each of the above schedules instead of Rs. 5-4-0 and Rs. 5-8-0.

APPENDIX IV.

Rules regarding the remissions on failed crops (Financial Commissioner's Standing Order No. 61).

A.—Occupiers' rates and Land Revenue, when the Assessment of Fluctuating Land Revenue is carried out by the Irrigation Department.

1. Free grants of water-supply can be made by the Local Government alone.
2. Claims for remission of occupiers' rates fall under three heads :—
 - (a) They may be due to failure of the water-supply or to the action of the Irrigation Department.
 - (b) They may be due to causes beyond the control of either the Irrigation Department or the cultivator, e.g., hail, locusts, etc.
 - (c) They may be due solely to the default of the cultivators, as e.g., when he absconds or becomes bankrupt.

3. It is only under (c) in paragraph 2 above that the claims will be dealt with by the Collector, who will, when balances are found to be irrecoverable owing to want of security, absconding of defaulters or any other cause, report the matter to the Commissioner. The latter if he sees fit, will forward each case to the Financial Commissioner for such action as may be necessary under the orders of Government. All remissions made in consequence of such action shall be reported by the Collector to the Executive Engineer in Form VI and will be treated as a reduction of the demand, paragraph 40.

4. Objections to the demand on the score of—

- (a) failure of the water-supply, or the action of the Irrigation Department, e.g., incorrect measurement or classification, or
- (b) causes beyond the control of the Irrigation Department or the cultivator (e.g., failure of crops owing to locusts, hail, etc.).

should be addressed to the Canal Executive officer or to such of his subordinate officers as may be authorized to receive such objection. An objection of this kind may be addressed either to a Canal or a Revenue officer. If addressed to a Revenue officer subordinate to the Collector he shall forward it at once to the Collector, who, after recording such remarks as he may think necessary, will send it to the Canal Executive officer for disposal.

5. When a Lambardar or other person is responsible under sections 46 and 48 of Act VIII of 1873 for the payment of the occupiers' rates, objections to the demand may be lodged by such Lambardar or contractor, instead of by the cultivator, and refunds ordered in consequence of such objections shall be paid to such Lambardar or contractor on account of the cultivators concerned, as provided in rule 71 of the rules under the above Act.

Objections of the kind referred to in paragraph 4 are of five classes as follows :—

- (1).—Objections to demand on account of failure of crops in particular estates.

6. In cases of remissions for failed crops of occupiers' rates and of fluctuating *nañri* and *chaki-nañri* land revenue, also where the assessment of such land revenue is carried out by the Irrigation Department, the following instructions apply :—

- (1)—In case of some estates or defined parts of estates on the Lower Chenab, Lower Jhelum, Upper Chenab, Upper Jhelum and Lower Bari Doab Canals for which the Deputy Commissioner and Executive Engineer agree that the water-supply is precarious and unsatisfactory, the landlord without waiting for the presentation of a claim is required to grant remissions on the following scale :—

- (a) No remission shall be given—
 - (i) in respect of crops which have been cut or grazed prior to inspection
 - (ii) when a light rate is charged for crops grown on the *wadh* of a previous crop ;
 - (iii) when a special rate has been fixed on a *kharif* distributary for a first watering to start a *rahi* crop
 - (iv) when a crop is equal to or better than *an* eight-anna-one.
- (b) when a crop is equal to or better than a 4-anna-one, but worse than an 8-anna-one, half remission shall be granted.
- (c) when a crop is worse than a 4-anna-one, full remission shall be granted.

(d) in the case of mixed crops not specially classified the remission will be dealt with in accordance with rules 23 and 24, the rules reproduced below:—

Charge for mixed crop.—Mixed crops which have no specific name in the schedule of occupiers' rates shall be assessed at the highest rate leviable on any one of them.

Charge for crops grown separately in the same field.—Crops grown separately in the same field shall be treated as mixed crops unless the division between them has been clearly marked by a well defined ridge.

(2) Any cultivator not satisfied with remission granted by the zilladar may prefer an appeal within 10 days of the communication to him of the zilladar's order. No appeal shall be allowed in respect of a crop which has been cut or grazed.

(3) Appeals against the decisions of the zilladar may be presented to the Deputy Collector, Sub-Divisional Canal Officer or Divisional Canal Officer and should be promptly enquired into and decided. The decision given on appeal by the Divisional or Sub-Divisional Canal Officer or Deputy Collector, as the case may be, shall be final.

B.—In the case of estates not specified above, and excluding estates irrigated from the Upper Sutlej and Lower Sohag and Para Canals, the Shahpur Inundation Canals and the Ghaggar Inundation Canals for which special rules are in force, claims for remissions which may arise from failure or stoppage of supply or from other calamities of a special and isolated character shall be presented to the Divisional, Sub-Divisional Canal Officer or Deputy Collector before the crop is cut and within 10 days of the occurrence of the calamity. The unit of remission in such cases will be the field number. If the claim is admitted, the Divisional Canal Officer may remit to the limit of Rs. 100 in each individual case, provided that the aggregate remissions for any village do not exceed Rs. 1,000. If the Divisional Canal Officer considers that higher remissions should be granted than those above specified, the sanction of the Superintending Engineer shall be required. Pending the decision the collection shall be suspended.

Remissions are only admissible if there has been a complete failure or destruction of a crop due to causes beyond the control of the cultivator. If the failure is so nearly complete that the cultivator recovers nothing beyond the seed and the bare cost of cultivation, it shall be treated as complete.

C.—Remissions of fluctuating land revenue for failed crops on *nukri* and *chaki-nukri* and where the assessment of such land revenue is carried out by the Irrigation Department will be given according to the local rules in force as sanctioned at settlement or subsequently modified under due authority.

(II) *Objections to occupiers' rates preferred under rules 70 made under Act VIII of 1873, and based on alleged incorrectness of entries in Canal Khassas.*

7. Under this head are included all objections on the ground of wrong measurement or classification or that the land in question had not received canal water, or had been irrigated by lift and not by flow.

Incorrect entries.

(III) *Objections to special charges assessed under part V of the Rules made under Act VIII of 1873, or objections to demands based on a claim to special exemptions under part V of the said Rules.*

8. Under this head are included *inter alia* all objections to special charges for unauthorized irrigation or waste of water, and all claims to a reduction of the demand for irrigation effected from escapes.

Remission of special charges.

Objections of classes II and III may be presented to any subordinate Canal Officer authorized by the Divisional Canal Officer to receive them, but must be lodged 21 days of the date of delivery of the measurement *parcha* to the cultivator or to the *patwari* or *lambardars* of the village, as directed in paragraph 9, or if no such *parcha* has been delivered, within 10 days of the date on which he first became acquainted with the claim against him, and should be accompanied by the *parcha* or demand slip when one has been received. The objections must be investigated within 15 days of receipt and promptly decided, and orders will be passed by the Divisional Canal Officer, or by the Sub-Divisional Canal Officer, or Deputy Collector, when duly authorized in this behalf by the Divisional Canal Officer. Such orders will be communicated at once to the complainants, and will be subject to appeal to the Commissioner, except in the Canal Divisions noted in paragraph 26-A (3), note, and in the case of objections of Class III on the Sidhnai Canal, in which the appeal will lie to the Collector.

The Divisional Canal Officer may, from time to time, define by general order the kinds of objections under Classes II and III, upon which orders may be passed by the Sub-Divisional Canal Officer or Deputy Collector, or may require that such orders be sent to him for confirmation or modification before being communicated to the complainants.

(IV) Objections to demand on account of widespread recognised calamity.

9. In the case of a widespread recognised calamity affecting large areas where the

Remission of demand over wide areas. total remissions of occupiers' rates are not likely to amount to more than Rs. 25,000 in any Canal Division no further sanction is required where the Deputy Commissioner and Executive Engineer concerned are in agreement; where remissions are likely to exceed that sum or where the Deputy Commissioner and the Executive Engineer are not in agreement the case will be reported to the Superintending Engineer who has power, in consultation with the Commissioner, to sanction up to one lakh of rupees in any division. Proposals for remissions in excess of the sum agreed to by the Superintending Engineer and Commissioner and cases in which these officers are not in agreement will be reported to the Chief Engineer for decision by him in consultation with the Financial Commissioner. If it is believed that over considerable area an average crop in the particular season—

(a) is more than a 4 anna, but less than an 8 anna crop, half may be remitted,

(b) is less than a 4 anna crop, the whole may be remitted.

Notes—(a) Where there are two schedules of occupiers' rate on a canal, this implies that a normal or 16 anna crop in an estate subject to the lower schedule yields a smaller outturn than a normal crop in an estate subject to the higher schedule.

(b) A normal crop should be regarded as one giving a yield equal to that adopted by the Settlement Officer for that crop in framing his half-net assets estimate.

The above instructions also apply in the case of fluctuating land revenue when it is assessed on sown areas by the Irrigation Department.

(V) Objections to ordinary charges for canal water other than water-rates, e.g., charges under Canal Act, Rules 11, 12, 13 and 14, or to special charges under Canal Act, Rule 9.

10. Claims for remissions of ordinary charges, other than occupiers' rates, payable for the use of the canal water, shall be admitted only on

Claims—when to be admitted. proof of actual loss caused by the stoppage of supply, on proof of such loss, the whole or any portion of the charges may be remitted as hereinbefore provided.

11. If a claim for remission of ordinary charges other than occupiers' rates be rejected by the Divisional Canal Officer, the claimant may prefer an appeal to the Superintending Canal Officer.

Appeal.

APPENDIX V.

A.—Substantive rules for fluctuating assessment in Chenab Uthla and Hethla Circles of Bhalwal Tahsil.

I.—The assessment of all villages is entirely fluctuating with separate rate for *chaki*, *sailab* and *barani* crops.

II.—*Sailab* crops are divided into two classes :—

First class.—Wheat and its mixture with gram and barley.

Second class.—All other crops.

III.—The rate for *barani* and second class *sailab* crops is the same for all villages in both the Chenab circles. The rate for *chaki* crops is the same for all villages in Chenab Uthla Circle. The rates for *chaki* crops in Chenab Hethla Circle and for first class *sailab* in both circles differ from village to village.

IV.—The rates will be assessed on matured crops and for those cut for fodder. Totally failed crops will not be assessed and for partially failed crops, *kharaba* allowance will be made.

V.—No land will be assessed more than once in the same harvest. *Rabi* and extra *rabi* count as one harvest.

VI.—Crops irrigated from wells for which protective certificates have been or may be given, will be assessed according to the orders contained in the certificates.

VII.—*Chaki*, *sailab* and *abi* crops will be assessed at the *chaki* rate of the village.

Sailab.

VIII.—Cesses at the rate sanctioned for the time being will be charged in addition to the revenue.

B.—Rules of procedure for the guidance of Revenue Officers for working for fluctuating assessment in the Chenab Uthla and Hethla Circles of Bhalwal Tahsil.

1.—Duties of patwari.

1. During the cold weather the patwari will prepare a map and field book showing the position and area of all fields annually thrown by the river or brought under cultivation in the di-alluvial area.

2. Before crop inspection begins, the patwari will prepare and distribute *parokhas* in Form A filling in the heading only.

3. The patwari will, during his inspection, enter only the sown area in the *khasra girdawari*. Entries of *kharaba* will be made in the separate statement (Form B) and will be dealt with by the field kanungo under rule 21. This form will be treated as part of the *khasra girdawari*.

4. When a crop fails to germinate, or dries up, or is destroyed by calamity of season, it should be entered as *kharaba*. For partially failed crops, *kharaba* should be entered according to the following scale, taking 16 annas as the average—

Yield more than 12 annas	...	...	No deduction.
Yield more than 10 annas but not more than 12 annas.			Deduct $\frac{1}{4}$ of the sown area.
Yield more than 8 annas but not more than 10 annas.			Deduct $\frac{1}{2}$ of the sown area.
Yield more than 6 annas but not more than 8 annas.			Deduct $\frac{3}{4}$ of the sown area.
Yield more than 4 annas but not more than 6 annas.			Deduct $\frac{3}{4}$ of the sown area.
Yield more than 2 annas but not more than 4 annas.			Deduct $\frac{3}{4}$ of the sown area.
Yield not more than 2 annas		...	Deduct whole area sown.

A table showing average rates of yield is appended.

5. The word *kharaba* should be written against the area of all *kharaba* crops.

6. If any portion of a field was unassessed in the *rabi* on account of failure, and an extra *rabi* crop is matured on it, then such portion will be assessed on account of the latter crop.

7. When any field has two crops in the same harvest and the second crop is not assessed under substantive rule V, the area under the second crop should be entered in red ink. The crop abstract should contain a note to show the total area so entered and the amount of revenue which would have been chargeable if it had been assessed.

8. For fields in which a mixture of extra *rabi* and *kharif* crop is sown, the portion under extra *rabi* crop according to the proportion as standing, will be assessed in the *rabi* harvest. The remainder will be assessed in *kharif*, when the portion assessed in *rabi* will be entered as 'fallow.'

9. Gardens will be assessed in both harvests. Those which have not yet begun to bear fruit, will be entered as 'fallow.'

10. *Maina* and plots under seedlings, will be entered as fallow.

11. *Jwar* which fails in the ear should not be entered as *Jwar Khara* but as *Chari pukhta*.

12. Lands in possession of Government in any department, or in possession of the District Board, or other local body, will be assessed in the usual manner except when exempted from assessment by a special order.

13. At the end of each day's inspection, the patwari will fill up the *parchas* (Form A) of all fields inspected that day, whose owners produce them. Those who do not produce their *parchas* should be ordered to produce them before the field kanungo at his next inspection.

14. As soon as the Assistant Collector has completed his inspection of an estate or immediately after his tour in the case of villages not inspected by him, the patwari will complete the crop abstract (which should be carefully checked and signed by the field kanungo) and will submit it through the field kanungo to the tahsil together with Form B and a statement of demand in Form C. Each abstract should be sent when ready without waiting for the remaining abstracts of the circle. The *summars* of the *kharif* crops should reach the tahsil by the 15th November and those for the *rabi* by the 15th April and of the extra *rabi* by the 1st June.

15. On receipt of the Collector's orders, the demand will be distributed over holdings in Form D. When this has been checked by the field kanungo, the patwari will submit, through the field kanungo to the tahsil, a statement showing the total sum payable by each *Lambardar* under each head of revenue. Form D will be filed in the tahsil with the next *Jamabandi*.

16. Each shareholder will be individually responsible for the demand of all lands in his separate possession.

17. In joint holdings cultivated by shareholders or others as tenants under all the owners, the demand will be paid by all the co-sharers according to shares.

18. In holdings of tenants who pay rent at revenue rates, with or without *malikana*, the *malikana* if any, will be calculated at the rate recorded in the *Jamabandi* and the aggregate of revenue and *malikana* will be treated as rent and payable as such to the landlord.

19. After complying with rule 15, the patwari will give to each *Lambardar*, a *Dhat Bakh* in Form E.

B.—Duties of Field Kanungos.

20. The field kanungo will see that the patwari has complied with the rules given above as well as those contained in Standing Orders Nos. 16 and 22.

21. He will himself inspect all fields entered by the patwari in Form B and also all fields which the zamindars allege to contain unrecorded *khara*. In the latter case he will enter the fields in Form B though no *khara* is admissible, and will enter a cypher in column 4 of the statement.

22. He will then make the *khara* entries in *khara girdawari* or order the patwari to make them in his presence.

23. He will also check and sign *parchas* given to zamindars (Form A) making all entries in *parchas* produced before him under rule 13 and will see that they agree with the *khara girdawari* and with Form B.

24. He will initial all erasures, corrections and insertions in the *khara girdawari* and Forms A and B.

25. He will, on completing the inspection of an estate, enter at the foot of Form B the total area of *kharaba* allowed on each class of soil.

26. On receipt of the crop abstract and Form C he will at once check them and forward them after signature to the tahsil together with Form B.

27. He will also check Forms D and E and see that they bring out the sanctioned demand.

C.—Duties of Assistant Collector.

28. The Tahsildar or Naib-Tahsildar should inspect, at least, 50 per cent of the villages of each field kanungo and attest on the spot at least 25 per cent of the fields entered in Form B in each village inspected. He should also check some fields in which no *kharaba* is given and should initial the entries for these fields.

29. All objections raised should be disposed of by an inspection of the fields concerned.

30. The Assistant Collector will himself initial all entries in Form B which he has verified or caused to be made. He must also initial all corrections made by him or by his order in any statement and satisfy himself that all the corrections have been duly initialled by the field kanungo.

31. On receipt of Form C, he should have it checked in the tahsil and should then with his own hand enter the amount of land revenue realizable for the estate and forward it without delay to the Collector for orders determining the assessment.

32. He will satisfy himself that Forms D and E are being properly prepared and bring out the sanctioned demand.

D.—Duties of Office Kanungo and Revenue Accountant.

33. The office kanungo will check Form C with the crop abstract and Form E. When the Collector's orders have been received, the revenue accountant will incorporate the demand in the *Khatauni* and inform the patwari of the amount sanctioned returning to him Form B.

Table of average yields in maunds per acre applicable to both Chenab Ulla and Chenab Hehla circles.

Crop.	Chahi.	Sallab.	Barani.
Rice	15	12	...
Maize	10	7	5
Jwar	5	4	3
Bajra	6	5	4
Kangal, China, Swank, etc.	8	8	2
Moth, Mung, Mash, etc.	3	3	2
TH	2	2	2
Toria	4	3	2
Sugarcane (gur)	15	12	
Cotton	4	3	2
Wheat	10	7	4
Barley	10	7	4
Grass	6	6	6
Wheat and barley (mixed)	10	7	4
Wheat and gram (mixed)	8	6	4
Muttar, Masur, Linseed, Sarraf, Taramira, etc.	4	3	2

FORM A.—PAROHA ZAMINDARAN.

Village

Assessment Circle

Tahsil

Harvest.

Name of owner :				Name of cultivator :	
1	2	1	2	1	2
Field No.	Area assessed with class of soil.	Field No.	Area assessed with class of soil.	Field No.	Area assessed with class of soil.

FORM B.—LIST OF FIELDS CONTAINING FAILED CROPS.

Village :

Assessment Circle :

Tahsil :

Harvest. :

1	2	3	4	5	6	7
Field No.	Total area sown with crop in which the kharaba is included.	Kharaba in kanals proposed by patwari with name of crop.	KHARABA ALLOWED.			
			By field konungo.		By super or officer.	
			Area in kanals.	Initials.	Area in kanals.	Initials.

FORM C.—ABSTRACT OF FLUCTUATING REVENUE DEMAND.

Village :

Assessment Circle :

Tahsil :

Harvest :

		2	3	4	5	6	7	8	9	10	11	12
		Matured area in acres.	Revenue rate per acre.	Demand.	Cesses.	Total.	Detail.					
Detail.							Khalsa.	Assigned.	Zaildari Inam.	Safaidposhi Inam.		
Okahs including, chahi-sailab and abt.	1. At full rate--											
	(a) East of Band											
	(b) West of the Band.											
	2. At concession rate according to the terms of the protective certificates.											
Sailab	... Class I ...											
	Class II ...											
Barani	... ..										

Instructions.—Pies will not be entered: 6 pies or more will count as 1 anna, less than 6 pies will be ignored. Area will be entered in acres and fractions of an acre. Fractions of kanals will be ignored.

Harrest :

FORM E—*Dhal Bachh.*

Name of Lambard :

1	2	3	4	5	6	7
Serial No.	Name of Valgunar.	Number of holding.	DEMAND OF THE HARVEST.			REMARKS.
			Revenue.	Census.	Total.	

APPENDIX VI.

Total cost of Settlement from 21st November 1921 to 31st March 1925.

1	2	3	4
Minor Head.	Subordinate Head.	Primary units.	Total.
5—C—Survey and Settlement.	1. Other Headquarter establishment.		Rs.
		Pay of Settlement Officer (non-voted).	64,621
		Pay of Extra Assistant Settlement Officer.	14,512
		Pay of establishment ...	20,958
		Travelling allowance ...	13,405
		Other allowances and hono- raria.	248
	2. Survey and Settlement parties.	Pay of establishment ...	52,058
		Travelling allowance ...	9,464
		Other allowances and hono- raria.	5,710
		Supplies and services	487
		Contingencies (including country stationery).	21,091
		46—Stationery and print- ing.	283
		Total	2,02,827

APPENDIX VII.

Statement showing average outturn per acre in maunds or price per acre in rupees, for different classes of land (paragraph 554-A of the Settlement Manual).

1	2	3	4	5	6	7	8	9	10
	Crop.	Soil.	SARGODHA TAHSIL.			BHAKHWAL TAHSIL.			SHAMPUK TAHSIL.
			Bar Uta circle.	Bar He bla circle.	Sobhaga circle.	Bar and Jhelum circle.	Uta circle.	Behla circle.	Bar and Jhelum circle.
1	Rice	Nahri ...	Rs. 15	Rs. 12	Rs. 10	Rs. 15	Rs. 12	Rs. 12	Rs. 12
		Chahi ...	...	...	...	...	...	...	...
		Barani ...	...	...	...	...	...	...	...
		Sallab ...	...	...	...	...	...	...	...
2	Maize	Nahri ...	9	8	6	9	7	7	6
		Chahi ...	10	10	10	10	10	10	10
		Barani ...	8	8	..	8	8	8	..
		Sallab ...	..	...	...	...	7	7	..
3	Jowar	Nahri ...	Rs. 15	Rs. 12	Rs. 10	Rs. 15	Rs. 12	Rs. 12	6
		Chahi ...	7	7	7	7	5	5	7
		Barani ...	4	4	3	4	3	3	3
		Sallab ...	...	...	...	...	4	4	...
4	Bajra	Nahri ...	7	6	5	7	5	5	6
		Chahi ...	6	6	6	6	6	6	6
		Barani ...	5	5	4	5	4	4	4
		Sallab ...	...	...	...	...	5	5	...
5	Cotton	Nahri ...	4	3	2	3½	2½	2½	2½
		Chahi ...	5	5	4	5	4	4	4
		Barani ...	2	2	2	2	2	2	2
		Sallab ...	...	...	...	...	3	3	...
6	Sugarcane	Nahri ...	Rs. 70	Rs. 60	Rs. 45	Rs. 70	Rs. 50	Rs. 50	Rs. 50
		Chahi ...	...	...	..	...	15	15	...
		Barani ...	...	...	..	...	...	...	...
		Sallab ...	...	...	...	...	12	12	...
7	Wheat	Nahri ...	11½	9½	7	11	7	7	9
		Chahi ...	11	11	10	11	10	10	10
		Barani ...	5	5	4	5	4	4	5
		Sallab ...	...	...	...	...	7	7	...
8	Barley	Nahri ...	10½	8½	6	10	6	6	8
		Chahi ...	11	11	10	11	10	10	10
		Barani ...	5	5	4	5	4	4	5
		Sallab ...	...	...	...	...	7	7	...
9	Gram	Nahri ...	8	7	6	8	6	6	6
		Chahi ...	8	8	7	8	6	6	7
		Barani ...	5	5	5	5	5	5	5
		Sallab ...	...	...	...	...	6	6	...
10	Masoor	Nahri ...	Rs. 15	Rs. 12	Rs. 10	Rs. 15	Rs. 12	Rs. 12	Rs. 11
		Chahi ...	...	...	...	...	4	4	...
		Barani ...	...	...	...	...	2	2	...
		Sallab ...	...	...	...	...	6	6	...

Statement showing average outturn per acre in maunds or price per acre in rupees—conold.

1	2	3	4	5	6	7	8	9	10
No.	Crops.	Soil.	SARGODHA TANSIL.			BHALWAL TANSIL.			SARGODHA TANSIL.
			Bar Uda circle.	Bar Hehla circle.	Sobaga circle.	Bar and Jhelum circles.	Uda circle.	Chenab circle.	Bar and Jhelum circle.
11	Other cereals and pulses (Kharif or Rabi e.g., Chana, Kangni, Moong, Moth, Masb, &c.)	Nabri ...	Rs. 15	Rs. 12	Rs. 10	Rs. 15	Rs. 12	Rs. 12	Rs. 12
		Chahi ...	...	...	...	...	2	2	...
		Barani ...	...	...	...	...	2	2	...
		Sallab ...	...	...	...	...	2	2	...
12	Torla	Nabri ...	6½	5	4	6	4	4	...
		Chahi ...	...	...	...	...	4	4	...
		Barani ...	...	...	...	...	2	2	...
		Sallab ...	...	...	...	...	2	2	...
13	Other oilseeds (e.g., Tah, Taramira, Sarshat, Linseed, &c.)	Nabri ...	Rs. 15	Rs. 12	Rs. 10	Rs. 15	Rs. 12	Rs. 12	Rs. 12
		Chahi ...	...	...	...	...	2	2	...
		Barani ...	...	...	...	...	2	2	...
		Sallab ...	...	...	...	...	2	2	...
14	Tobacco, Gardens and Vegetables.	Nabri ...	Rs. 40	Rs. 30	Rs. 20	Rs. 40	Rs. 30	Rs. 30	Rs. 30
		Chahi ...	...	...	...	...	...	...	...
		Barani ...	...	...	...	...	...	...	...
		Sallab ...	...	...	...	...	...	...	...
15	Fodder (Kharif or Rabi).	Nabri ...	Rs. 16	Rs. 12	Rs. 8	Rs. 16	Rs. 12	Rs. 12	Rs. 12
		Chahi ...	Rs. 20	Rs. 16	Rs. 12	Rs. 20	Rs. 16	Rs. 16	Rs. 16
		Barani ...	...	...	...	...	...	...	...
		Sallab ...	...	...	...	...	...	...	...
16	Carrots and Turnips.	Nabri ...	Rs. 10	Rs. 8	Rs. 6	Rs. 10	Rs. 8	Rs. 8	Rs. 10
		Chahi ...	Rs. 10	Rs. 8	Rs. 6	Rs. 10	Rs. 8	Rs. 8	Rs. 10
		Barani ...	...	...	...	...	...	...	...
		Sallab ...	...	...	...	...	...	...	...
17	Miscellaneous fodder, e.g., Madhi, Hemp, etc.	Nabri ...	Rs. 30	Rs. 20	Rs. 15	Rs. 30	Rs. 20	Rs. 20	Rs. 20
		Chahi ...	...	...	...	...	...	...	...
		Barani ...	...	...	...	...	...	...	...
		Sallab ...	...	...	...	...	...	...	...
18	Wheat straw	Nabri ...	Rs. 4	Rs. 3	Rs. 2	Rs. 4	Rs. 2-8	Rs. 2-8	Rs. 3
		Chahi ...	Rs. 4	Rs. 3	Rs. 2	Rs. 4	Rs. 2-8	Rs. 2-8	Rs. 3
		Barani ...	...	...	...	...	...	...	...
		Sallab ...	...	...	...	...	...	...	...
19	Rough straw	Nabri ...	Rs. 4	Rs. 3	Rs. 2	Rs. 4	Rs. 2-8	Rs. 2-8	Rs. 3
		Chahi ...	Rs. 4	Rs. 3	Rs. 2	Rs. 4	Rs. 2-8	Rs. 2-8	Rs. 3
		Barani ...	...	...	...	...	...	...	...
		Sallab ...	...	...	...	...	...	...	...