

FINAL REPORT
OF THE
REVISION OF THE SETTLEMENT
OF THE
RAWALPINDI DISTRICT
IN THE
PUNJAB

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FINAL REPORT
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CHAPTER I.—GENERAL DESCRIPTION OF THE DISTRICT.

1. The present report relates only to the Rawalpindi district, but in addition to the four tahsils which now compose that district, two tahsils, *Introductory.* Fattehjang and Pindigheb, which now form part of the Attock district, were in the charge of the Settlement Officer of Rawalpindi. The new Attock district was formed in April 1904, and after that date the Rawalpindi Settlement extended over two districts. Under the orders of Government a separate Settlement Report has been prepared for the whole of the Attock district as now constituted. The Attock tahsil which also formed part of the old Rawalpindi district was settled as part of the Hazara Settlement, as it had been attached to the Hazara district for a few years and was transferred back again to Rawalpindi when the North-West Frontier Province was formed in October 1901.

2. The Rawalpindi district is in the extreme north of the Punjab Province. *General description.* It is bordered throughout its eastern boundary by the Jhelum river which separates it from the dominions of the Maharaja of Jammu and Kashmir and from the Poonch State. The north apex of the district rests on the Jhelum river where the Kashmir and Poonch States and the Hazara district of the North-West Frontier Province meet, and thence the district runs south with the Attock district on the west and the Jhelum river on the east. The base rests on the Jhelum district. Before April 1904 the district was very large and comprised seven tahsils. In that month three tahsils were cut off and included in the Attock district, and the district now has an area of 2,043 square miles comprised in four tahsils, *viz.*, Murree, Kahuta, Rawalpindi and Gujar Khan. The district as a whole consists of three distinct parts with different physical features and characteristics, which can be best described as montane, sub-montane and plain.

3. The montane tract includes the whole of the Murree tahsil, and the north part of the Kahuta tahsil. *Montane tract.* The mountain system, which seems so difficult to a casual observer, is in reality both simple and regular. It consists of three almost parallel spurs, which start at the apex of the district and run south away from the Kashmir Himalayas of which they are a part. The most westerly spur, known as the Murree spur, is the largest and overlooks the Hazara district, reaching its highest point at the Murree Civil Station, 7,467 feet above the sea. This ridge runs down towards Rawalpindi Cantonment and the cart road winds into Kashmir along its sides. Further to the east is the Patriata spur, which rises to its highest point, 7,212 feet, opposite the Murree Civil Station. The whole of these two spurs are included in the Murree tahsil. Further, again to the east and overhanging the Jhelum river is the Kotli spur, which runs through the Murree tahsil into the Kahuta tahsil on the south and culminates

in the precipitous square mountain of Narar, 6,090 feet high, which frowns down on the Kahuta plain and is the most inaccessible spot in the whole district. These three spurs with their intervening valleys and occasional connecting ridges make up the mountainous part of the district, most of which clothed with thick forest, mostly fir, pine and oak, while the villages nestle on the hillsides and in the valleys below, with cultivation stretching along the valleys and scattered in patches on the steep hillsides among the intervening forests. Much of this country is very beautiful with green glades, thick foliage, rushing streams, steep hillsides, and changing colours, all invigorated by the sharp, keen mountain air.

4. The sub-montane tract consists of the east and centre of the Kahuta tahsil and the greater part of the Rawalpindi tahsil, which lies north of the Soan river. Near the Jhelum river this tract is rough and precipitous with steep sandstone hills and rugged ravines. Towards Rawalpindi the rough hills sink into the plain, but the whole tract has a more copious rainfall, a thicker vegetation, and a sterner aspect than the plains which lie to the south. The variations in fertility are greater than anywhere else in the district, for on the west are the rich level plains round Rawalpindi, while the shallow, pebbly soil of much of the Kahuta tahsil is the worst land in the district.

5. The whole of the Gujar Khan tahsil, the south and west of the Rawalpindi tahsil and the south-west of the Kahuta tahsil form part of the great Pothwar plain which stretches across the Jhelum district southwards to the Jhelum river. This is a land of small holdings, peasant tribes, and close careful agriculture. Only in its general aspects is it a plain, for it is scarred and net worked with furrows and ravines, so that almost every village is separated from the next by a depression and deep water-courses cut up the country in all directions. Sandstone rocks crop out here and there while the soil varies in startling alternations according as the under-lying strata dip down or rise to the surface. The rainfall diminishes as we go to the south and west, and the country gets drier and more arid in appearance.

6. In the Preliminary Report of this settlement submitted in September 1903, I proposed to keep unaltered the assessment circles of the former settlement, and this proposal was sanctioned in the Financial Commissioner's letter No. 106, dated 7th January 1904. According to those orders the assessment circles were as follows:—

<i>Tahsil.</i>		<i>Assessment Circle.</i>
Gujar Khan	... ..	Gujar Khan.
Rawalpindi	... ..	{ Kandhi Soan.
		{ Kharora.
Kahuta	... ..	{ Pahar.
		{ Kahra.
		{ Kallar-Kahuta.
Murree	... ..	Murree.

Some of these assessment circles were very large, and so many internal differences in agricultural conditions and in assessment came to light in the actual work of village inspection, that it became necessary to discuss them in separate tracts in the Assessment reports. In consequence of the Government orders on the Gujar Khan Assessment Report, that tahsil was split up into three assessment circles. Subsequently in each assessment report I proposed to make more assessment circles and the proposals were in each case sanctioned. The

assessment circles as now constituted in each tahsil with the number of estates and forests in each circle are shown below—

Tahsil.	Old Assessment Circle.	New Assessment Circle.	NUMBER OF	
			Estates.	Forests.
Gujar Khan ...	Gujar Khan ...	{ Pothwar ...	279	...
		{ Jatli ...	82	...
		{ Khuddar ...	22	1
		Total of Tahsil ...	383	1
Rawalpindi ...	{ Kharora ...	Kharora ...	80	1
		{ Kandhi Soan ...	210	11
		{ Pothwar ...	159	2
		Total of Tahsil ...	449	14
Kahuta ...	{ Pahar ...	Pahar ...	34	24
		Kahru ...	66	19
		{ Kandhi ...	73	5
		{ Pothwar ...	67	2
		Total of Tahsil ...	240	50
Murree ...	Murree ...	{ Murree ...	69	34
		{ Kotli ...	33	20
		Total of Tahsil ...	102	54
		Total of Rawalpindi district	1,174	119

Thus there are now twelve assessment circles in the district in place of the seven of last settlement. Effect was given to the new assessment circles in the new record-of-rights and in the new village and circle note-books. No use was made of them for the purposes of the actual assessment. It will be seen that in every tahsil the number of assessment circles has been increased after the assessment was made, the alteration being made in the interests of the future revenue administration of the district and in the interests of the re-assessment in progress. The considerations which induced me to propose new assessment circles were so subtle and so dependent on an intimate knowledge of every village that the radical differences between the various tracts, now formed into separate circles, were not known to me and could not possibly have been known to me when the preliminary report was first submitted. Looking back on the work which has been finished, I am glad that the circles were not changed before the assessment reports were submitted, for the foundation of all modern assessment is the cropping statistics collected in the

years before the settlement begins and the regrouping of all these statistics would have taken so much time and given so much trouble that delay in the submission of proposals would necessarily have arisen. Moreover the labour of writing assessment reports is directly proportional to the number of assessment circles dealt with, and the work could not have been turned out so fast as it was if it had been necessary to digest and condense large masses of statistics. In a district of this kind where the assessment rests on an individual knowledge of each village and where the variations in fertility between one village and another in the same circle often exceed one hundred per cent., no general considerations can be of much more than subordinate value to the assessing officer. In a district like Rawalpindi where the tenures, methods of agriculture and rent rates are almost constant, while the cropping and the yields vary violently between one village and the next, it may be said that, within broad limitations the division into assessment circles is of more value to superior officers who have to criticise assessment proposals than to the officer who is responsible for making the village assessments and for submitting proposals. Of the twelve assessment circles, three, *viz.*, the Murree and Kotli circles of Murree and the Pahar circle of Kahuta are montane; three are sub-montane, *viz.*, the Kahru and Kandhi circles of Kahuta and the Kandhi Soan circle of Rawalpindi, the other six circles belong to the plain tract.

7. The Jhelum river forms the eastern boundary of the whole district,

Rivers and irrigation.

but it runs as a deep, swift and dangerous torrent between steep precipitous banks and rocky hills. It is of no use for irrigation, is not navigable and roars down its stony bed towards the plains without concern of the agricultural life of the district. Very little drainage finds its way into the Jhelum, for the district slopes to the south-west towards the Indus river. The principal river in the district is the Soan, which takes its rise in the Murree hills just below Murree. It runs down between the Murree and Patriata spurs and enters the Rawalpindi tahsil by a rocky crest, crowned by the old Gakhar fort of Pharwala. Thence it crosses the Rawalpindi tahsil in a curve to the west and south and leaves Rawalpindi to enter the Attock district on its way down to the Indus. The Ling from Narar, the Kurang from Murree and the Leh from the hills north of Rawalpindi all meet it near the great bridge of the Grand Trunk Road. The Soan is always fordable, except after rain, but is broad and swift, full of shifting quicksands, always treacherous and dangerous. Its course lies always through rocky hills and pebble ridges on either side, but in the Rawalpindi tahsil there is an alluvial bed, sometimes but a few feet wide, sometimes more than a mile across. The soil is sandy and stony and the river is uncertain and destructive, but along either bank are clumps of rich wells, which draw their moisture from the river and which have made the Soan valley celebrated in the country side for its fertility. Next to the Soan in importance is the Kashi, which rises in the low hills of Kahuta and draining the eastern half of the Gujar Khan tahsil runs down to its home in the Jhelum river forming during the last part of its length the southern boundary between the Rawalpindi and Jhelum districts. In the whole district this is the only stream of any size which drains into the Jhelum river, all others going westward to meet the Soan and afterwards the Indus. There are a multitude of other torrents, of which the principal are the three tributaries of the Soan enumerated above. Most of them are dry in the cold weather, or carry but a trickle of water, becoming roaring torrents after rain. All alike lie too far low below their banks for flow irrigation to be possible, and are of use only because of the subsoil water with which they charge the adjoining lands. The lands which lie above their banks are too high to be affected, but here and there the banks widen and the torrents bend leaving little patches of alluvial soil where wells are sunk and garden crops are grown. The best wells are on the Leh near Rawalpindi city. Most of these draw water from the stream itself by underground channels, and with the help of the city maulure are extraordinarily fertile and command very high rents. In the whole district there are very few wells sunk on the level plain, unaided by subsoil drainage from adjacent torrents. Besides the wells there is a little abi cultivation scattered about the district, merely under the hills, where little hill springs flow out from the rocks on to patches of ground below, or in the mountains where water springs are abundant and are led down the mountain slopes to rice fields in the valleys.

The only true canal irrigation is in the extreme north of the Rawalpindi tahsil, where channels cut from the Haro river irrigate four villages. This system of irrigation is described more particularly in the assessment report of the Rawalpindi tahsil.

8. There are four rain-gauge stations, one at the head-quarters of each of the four tahsils. The gauges at Murree and at Rawalpindi are under the direct charge of the Meteorological Department and are distant a few miles from the tahsil offices; the other two are in the offices of their respective tahsils.

The average rainfall according to the figures supplied by the Meteorological Department is shown below—

Tahsil.							Six months April to September.	Six months October to March.	Whole year.
Rawalpindi	...	...	...	...	...	...	24½	9	33½
Gujar Khan	...	...	...	...	...	...	21½	7½	29
Kahuta	...	...	...	...	...	...	31½	9½	41½
Murree	...	...	...	...	...	...	41½	16½	58

The rainfall progressively decreases from the north of the district as we go south and west. In Murree and Kahuta the rainfall is abundant, and though there are good seasons and bad seasons yet the crops never entirely fail. In the other two tahsils the rainfall is ample in ordinary years for successful cropping on unirrigated land, and is indeed, on the average of years, about the same as the rainfall in London, but everything depends on the distribution.

September is the critical month, for then the summer crops are ripened and the ground moistened for the autumn sowings, and the rains in September often fail. The cold weather rains are always anxiously awaited, and do not come with the same regularity as the summer monsoon rains. The climate of the district is on the whole extremely healthy. The cold weather lasts for seven months and even in the plains the cold during the early winter rains is bitter. The high hills are for several weeks, sometimes for several months, under snow in winter; even in the plains snow has been known to fall. During March and April hailstorms are common and often do great injury, not only to crops, but to man and beast. In the hot weather the heat, though great, is never excessive and is much less trying than in the Punjab plains. Sometimes there is a good deal of fever in October and November, but generally the people are healthy and strong and the climate is not trying to either natives or Englishmen.

9. The main line of the North-Western Railway runs through the centre of the Gujar Khan and Rawalpindi tahsils. The Grand Trunk Road follows the same course and is nowhere far from the railway. The only other metalled roads are the military roads which connect the Rawalpindi forts, and the Kashmir cart road which traverses the Murree tahsil from south to north. Unmetalled roads are numerous, but inferior. On the road from Chakwal in Jhelum to Mandra in the Gujar Khan tahsil tongas run with the mail, but with this exception there are no unmetalled roads fit for wheeled traffic. Internal communications between villages are generally very bad indeed, for the whole country is scarred with ravines which are always difficult to pass. The Murree hills are well served by military and forest roads, but in the north and east of Kahuta there are but few paths, and it is difficult to get about even on foot. In this part there are several villages which no revenue officer ever visits except at settlement. The principal markets are Rawalpindi and Gujar

Khan. The Rawalpindi market is a large one, but exists almost entirely for the needs of the large city and cantonment, being a market of import rather than of export. The Gujar Khan market is of considerable local importance and serves not only the south of the Rawalpindi district but also parts of the adjoining districts of Jhelum and Attock. It was once head-quarters of a considerable foreign export trade, but now the centre of the Punjab wheat trade has moved south to the canal colonies, and Gujar Khan is only a local mart. There are a considerable number of small local markets, prices vary little throughout the district and there is no part of the district where opportunities of trade are lost or prices affected by want of market facilities.

Cultivation and holdings.

10. The principal statistics on cultivation are collected below by tahsils—

		TAHSIL.			
		Rawalpindi.	Gujar Khan.	Kahuta.	Murree.
Percentage of cultivated area.	{ Irrigated ...	2	3	1	5
	{ Unirrigated ...	98	99.7	99	95
Percentage of annual harvested area under	{ Wheat ...	39	30	36	16
	{ Bajra ...	25	23	28	5
	{ Maize ...	4	1	10	55
	{ Rabi crops ...	51	50	42	18
	{ Kharif crops ...	49	50	58	82

The irrigated area is nowhere of any general importance. Four villages in the north of Rawalpindi are irrigated by cuts from the Haro river, while in the hills and close under the hills little springs are directed on to the fields and enable rice and other crops to be grown. With this exception all the irrigated area is attached to wells situated along the beds of the torrents which intersect the district. The area attached to each well is always very small, seldom more than 3 or 4 acres, but the land is often very valuable and sometimes is a source of great profit. Some of the Rawalpindi wells pay cash rents of upwards of Rs. 150 per acre.

The crops grown on the wells and abi lands are always of a market garden character, cultivated with infinite care and great quantities of manure. These lands are very much subdivided and are generally in the hands of Malliar tenants, who are here the market gardening class. On unirrigated soils the general mode of cultivation is that a rabi crop, generally wheat, is taken first, and a kharif crop, generally barley, is sown without further cultivation in the stalks of the wheat. On manured land the rule is different, for here a kharif crop is taken every year and a rabi crop is sown about every other year after the kharif crop has been cut. Inferior land or heavily embanked land may grow only rabi crops. In a good plain village the average annual area under rabi and kharif crops is about equal, and as a general rule the closer the equality the better the village. An excess in rabi cropping indicates that there is much newly broken or embanked land which cannot be cultivated in the kharif, while an excess of kharif indicates poor manured land which cannot bear much rabi cropping after the kharif crop is off the ground. In the hills and in submontane tracts the above rates do not apply, for as we get nearer the hills and find an increasing rainfall and shallow soil, the kharif becomes of more and more importance until maize pushes wheat from the front place and bajra is not grown at all. In the assessment reports a more detailed description has been given of the mode of cultivation in each tahsil.

Holdings.

The average cultivated area owned by each proprietor is shown below in acres.

Rawalpindi.	Gujar Khan.	Kahuta.	Murree.
4.1	4.4	3.3	2.6

The above figures indicate, as is indeed the case, that the proprietary body are self-cultivating peasants. In the north and west of the Rawalpindi tahsil there are some large landowners, but the mass of the proprietary body are peasants, cultivating their own land and eking out their narrow subsistence by service in the army, miscellaneous labour and by petty trade in agricultural products—

11. In the following table are collected for convenience of reference some of the leading statistics by tahsils and for the whole district:—

Detail.	District.	Rawalpindi.	Gujar Khan.	Kahuta.	Murree.
Total square miles	2,043	769	569	451	254
Cultivated square miles	936	379	342	154	61
Percentage cultivated area to total area.	46	49	60	34	24
Irrigated area in square miles ...	12	7	1	1	3
Number of villages	1,174	449	383	240	102
Total population	558,699	261,101	150,566	74,729	52,303
Urban population	89,532	87,688	...	...	1,844
Total population per square mile of total area.	274	340	265	210	206
Final Fixed Land Revenue 1907 ...	Rs. 6,75,400	Rs. 2,82,400	Rs. 2,56,000	Rs. 1,12,500	Rs. 24,500

The district is a small one, very rugged and mountainous, with a hard working thrifty peasant population of soldierly Muhammadan tribes. More than half the land is unculturable forest, ravine and rock and the pressure on the soil is considerable. The rainfall is ample and cultivation is almost entirely dependent on rain; the climate is good, markets for all produce excellent and the communications as good as can be expected in so difficult a country. Sources of income other than agriculture are abundant and labour is in great demand and is well paid. Holdings are small and the proprietary body is almost entirely self-cultivating. There is a good deal of debt, but transfers are largely among agricultural tribes, and the people are in their way generally prosperous, and some of them are inclined to be turbulent. The value of land is continually rising, and so also is the standard of comfort among the people.

CHAPTER II.—PAST POLITICAL AND FISCAL HISTORY.

12. Before the Moghal Empire had established itself all over the Punjab, the greater part of what is now known as the Rawalpindi district was under the sway of various local Gakhar chieftains. They were crushed by the Moghal Emperors, who gave the country the first settled government which it had ever known. When bigotry, jealousy and incompetence caused the break-up of the Moghal Empire, the sceptre of Government

Political History.

The decrease in the demand after the last settlement is almost entirely due to land having been taken up for public purposes, especially for the Kashmir road, for the re-alignment of the North-Western Railway and for extensions of the Rawalpindi Cantoument.

14. The expired settlement worked on the whole easily and well, and the assessments were distributed over the villages with much skill and local knowledge. In some parts of the district, especially in Murree and in the Khuddar circle of Gujar Khan the pitch of the assessment left much to be desired, but on the whole the work was good and deserved to be successful and this in spite of the fact that Mr. Steedman had to leave the work unfinished and Mr. Robertson had to complete it with the help of the very inadequate materials which his predecessor had been able to leave behind. In parts of the district, and especially in the Kharora circle of Rawalpindi and in the Jatli circle of Gujar Khan suspensions have been frequent during the black years between 1896 and 1902, but in those years in a purely unirrigated tract no fixed revenue could have been collected without distress. The total amount of suspensions given is shown below by Tahsils :—

	Rs.									
Murree
Kahuta	11,764
Rawalpindi...	28,352
Gujar Khan	1,44,850
Total	1,84,966

From time to time revenue has been remitted in all tahsils on account of injury by hail, and indeed throughout the district, and especially in the subordinate parts, destructive hail-storms are common in the critical weeks when the wheat is ripening in the ear.

CHAPTER III.—THE REVISION OF THE RECORD OF RIGHTS.

15. The term of the second settlement of Rawalpindi expired in Kharif 1905, and I joined the district to begin the new settlement on 12th October 1902, and held charge throughout the settlement of the four tahsils of Rawalpindi and of the Fattehjang and Pindigheb tahsils of Attock. Previous to April 1904, all six tahsils, with the Attock tahsil, formed the District of Rawalpindi. Fakir Sayyad Iftikhar-ud-din, who joined the settlement as Extra Assistant Settlement Officer, had been attached to the district staff for a year before the settlement began. He prepared the Forecast Report under the orders of the Deputy Commissioner, and had a detailed jamabandi prepared for every village in the six tahsils which were coming under settlement. Three Settlement Naib Tahsildars were attached to the district in the hot weather of 1901 to assist in the disposal of mutation cases and to supervise the preparation of the jamabandis. Some 40,000 mutations were attested in the year before the settlement began and the detailed jamabandis prepared formed the basis of the work of the Revision of the Record of Rights which was carried out in the settlement.

16. At the first Regular Settlement the whole district was measured on the plane table system, with the exception of the Murree tahsil, where only the cultivation was measured. In the second settlement the whole district was re-measured and the forests demarcated and settled. In remeasurement the village boundaries and the internal areas were measured separately. The boundaries only were first measured with the plane table and the boundary maps (thak-bast maps) are filed in the office. The patwaries were then given a pencil sketch of the external boundaries, and were set to work to map in the fields and other internal details. They did not always, nor even generally, succeed in making the internal measurements agree entirely with the external

boundaries, and the line of the external boundary was often altered in consequence. The resulting error is seldom very large and was an almost necessary consequence of mapping the external boundaries separately from the fields. The fault was in the system rather than in the men, and the system has long ago been abandoned in favour of the more accurate methods of modern settlements. In the present settlement the orders were that the district should not be re-measured, but that existing maps should be corrected. The system of correction was new and was based on brief and very able instructions drawn up by Mr. James Wilson, who was then Settlement Commissioner for the guidance of the Settlement Officer of Hazara. The new system was first brought into operation by Mr. Butler, Assistant Settlement Officer of Hazara, in the re-settlement of the Attock tahsil, who began work in May 1902. I had the advantage of seeing the work which Mr. Butler had done before beginning work myself, and then had to teach my own establishment before work could begin in the field. The principle to be followed is that the standard of accuracy in measurements achieved at the last settlement is to be the aim of the new survey. Extreme accuracy of survey, though a desirable aim, is not a necessity to the people or to the administration, for it has but little effect in diminishing litigation and preventing disputes. A bad survey is perhaps as fruitful a source of litigation as can be found, but when the survey is once roughly correct, so as to command the confidence of the courts and of the people, there is small advantage in raising the standard of accuracy to a point which will sustain academic examination, without regard to the fact that the additional accuracy is obtained at a cost, to the State and to the people, far exceeding the advantages achieved. All that the people and the courts want are sketch maps, approximately true to scale with all field boundaries and all distances correctly marked, so as to be fully illustrative of the land registers, which must themselves be as accurate as thorough supervision and unsleeping vigilance can make them. The fact that the maps of last settlement had stood the test of twenty years use was sufficient to attest their practical accuracy. In the new survey the method followed was briefly, as follows. The Kanungo, or in the early days the Naib-Tahsildar, took the patwari's copy of the old map on to the spot, and by chaining or pacing fields in various directions, or by measuring diagonals and their cuttings, tested the accuracy of the old map. The patwari, themselves, most of whom had used the maps for years before settlements knew in nearly all cases the defects or accuracy of the existing maps and their opinions were always given due weight. The maps of some villages were known to be wrong, most of them were known to be quite right. Very many of the patwaris were still in charge of the circles which they had themselves surveyed at last settlement. Some had been present, either measuring or assisting, when the maps of the first Regular Settlement were prepared. In addition to checking the map, a tracing on tissue paper was made of the whole boundary and this was compared with the similar tracings of adjoining villages, the tracings being placed on the top of one another. Complete agreement in the boundary tracings was seldom found. At last settlement the boundaries of adjacent villages were not properly checked with one another, so that a very small mistake in mapping will make mapped boundaries overlap, although the internal measurements on both sides are almost entirely accurate and quite sufficiently accurate for all practical purposes. The overlapping of boundaries seemed at first a serious difficulty, and a reference was made to Mr. Wilson, the Settlement Commissioner. He was of opinion that the overlapping did not ordinarily matter, and the work went on with the result that Mr. Wilson's opinion was entirely justified. The overlapping would in some cases seem serious to an officer who did not understand the maps or the standard of accuracy which we had set ourselves, but there is no real difficulty. The correct boundaries are always marked on the spot and on the maps of adjacent villages and accurate thak-bast maps of last settlement exist, and no boundary disputes of any kind have been left undecided, so that to reject the map on the ground of technical inaccuracies of mapping only would have been both pedantic and wasteful. The question of the boundary mapping was raised again at a latter stage of the work, when comparison was made with the forest boundaries; this will be dealt with at

another part of this report. After the map had been checked on the spot, and the boundaries traced and compared, a report was made to the Tahsildar who either ordered that correction should begin or reported to the Settlement Officer for orders. At the beginning of the settlement, reports were very frequent, but as time went on and all the officials acquired experience and confidence the number of reports diminished. Entire re-measurement was only undertaken by the direct orders of the Settlement Officer. Entire re-measurement was very seldom necessary, and was never necessary for any cause which had not arisen since last settlement. River action, change of boundaries, or wholesale alteration of fields and cultivation were the principal causes. Sometimes re-measurement could be avoided by re-measuring on the same system blocks or portions of a village, which had been wrongly measured, and fitting them into the new map. Entire re-measurement when made was always on the square system and the most fruitful cause of re-measurement was provided by the orders of the Settlement Commissioner that all officials attached to the settlement for training of the rank of Naib-Tahsildar and above, should be taught measurements on the square system, and in order to provide them with work and at the same time employ them usefully, a certain number of villages had to be re-measured on the square system in each plain tahsil.

When it had been decided that the previous map of a village could be corrected, the patwari began work with his own copy of the map of the last settlement. With this he went from field to field, checking every distance marked on the map. By the rules the patwari was allowed to pace distances which he found correct, and was directed only to use the chain where corrections proved necessary, but in practice they all preferred to use the chain throughout. All corrections made were made in pencil on the old map. The papers are, of course, written up in the usual manner, as the measurements progress. The kanungo on his visits checks the patwari's work and then inks in the pencil drawing, the field boundaries and the distances being altered in red ink and the field numbers in mauve ink. When the whole map was completed and all corrections inked in, the measurements were complete. The corrected map was then copied twice, one copy being filed at head-quarters and one copy being given to the patwari. The old map which had been corrected on the spot is also filed at head-quarters for future reference, if necessary. It will thus be seen that the map filed at head-quarters, which is the new survey map, is itself a copy of the map which was actually made on the spot, and is fraught with all the possibilities of error inseparable from map-copying by hand, with whatever care the work may be done and checked. In the actual work of measurement the standard of accuracy aimed at in the measurements of last settlement is definitely accepted as our own standard of accuracy and no variations from the methods then followed are allowed except for reasons of overwhelming strength. In several matters, *e.g.*, in the size of fields, in the method of measuring river boundaries, and in the practice of surveying large villages in separate blocks, the maps of which are sometimes difficult to fit into one another, we have followed the previous system much more closely than we should have done had we been free to follow our own inclinations, without an expenditure of time and labour which seemed disproportionate to the value of the gain to be achieved.

The method of correction of the maps in force necessitates the use of the patwari's copy of the map of last settlement. When the work began it was found that in many cases the patwaris, from one cause or another, had no copy of the field map, but had only their cloth maps which are of no use at all for measurements. In such cases copies of the field maps had to be made at sadr and supplied to the patwaris. These were never very satisfactory, for if the map was supplied on tracing paper, the paper got torn, while if supplied on wax cloth paper, pencil marks cannot easily be made on it, and the map itself is destroyed by moisture or even by careless use. Copying on to thick mapping paper is a heavy task and introduces a new element of error with the map before measurement on the spot begins. There was

trouble of a different kind when the patwari's copy of the old map had been coloured at last settlement, for on such maps, in the parts where the colours were deep, it was found to be difficult to delineate the fields which had been broken up for cultivation from waste, and especially land retrieved from viviers and ravines. When it was decided for any reason that a village must be re-measured, the re-measurements were always done on the square system. The total number of villages in each tahsil which were so re-measured is shown below—

Rawalpindi	...	...	...	...	...	...	17
Gujar Khan	...	...	...	...	...	...	10
Kahuta	...	...	...	...	...	...	1
Murree	...	...	...	...	...	...	...
Total							28

The number of villages in which re-measurement took place because the former maps were not capable of correction, was not more than eight. As the establishment acquired experience it was discovered that almost any map could be corrected.

The universal scale of survey at last settlement was 30 karms per inch or 32 inches per mile: a karm = $5\frac{1}{2}$ feet, same as an English pole, so that the ghumaon of eight kanals is the same as an English acre. At the beginning of the settlement a few villages which were measured on the square system were measured on the usual scale of 40 karms per inch (24 inches per mile), but on the fact being pointed out to the Settlement Commissioner he directed that the district scale of 30 karms per inch should also be maintained when villages were re-measured. After receipt of these orders, all villages were measured on the general scale of 30 karms to the inch. There are seven villages in Gujar Khan and two in Rawalpindi, which were measured on a scale of 40 karms per inch, for all other villages in the district the scale of survey has been 30 karms to the inch.

17. The new system of correction of maps, instead of re-measurement, which is universally known as the tarmim system, was introduced in order to save the time and expense involved in elaborate re-measurements every twenty years. The general opinion of officers, who have experience of both the new and the old systems is that about one-third of the actual time of measurement is saved. It must be remembered that the paper work is in no way diminished by the comparative rapidity with which the survey can be done. The genealogical tables and the khataunis have to be properly written up and attested by the supervising staff before the patwaris can begin work and every entry in the khataunis and allied papers must be made as each field is measured, just as if new measurements were in progress. The amount of paper work which the patwaris themselves and still more the supervising staff can get through in a given time is limited, so that there is always a more than ordinary danger of the paper work getting behind and with the patwaris themselves and still more with their supervising officers. The correctness of the land registers is of even more importance than the correctness of the maps, for approximate correctness is sufficient for the map, while no standard of accuracy is too high for the registers. The constant tendency to scamp the registers and push on the measurements which is the besetting sin of all settlement officials, is certainly increased in the tarmim system and the need of unsleeping vigilance is doubled. A stronger supervising staff is needed than under the old system and a closer control by superior officers.

One of the difficulties of the tarmim system is the difficulty of taking out areas. We had to follow the system of last settlement and the area was calculated as the multiple of the mean of opposite sides. This is a very rough method and tends to exaggerate areas fully 5 per cent., while in the case of individual fields the error is sometimes much greater. The error is quite sufficient to cause sometimes a noticeable inequality of assessment. As the new

maps are not strictly true to scale, it was not possible to take out areas by the new method of triangles and perpendiculars, which method is only possible when distances can correctly be read off the map with the scale.

A serious defect in the new maps is that both the maps filed at head-quarters and that given to the patwari are copies of the map prepared on the field. Moreover, the patwari's map on which the work of correction is done is itself a copy of the actual measurement map preserved at head-quarters. A map can only be copied with accuracy by tracing and there is no kind of tracing paper, least of all wax-cloth, which is fit to be the material of maps kept for permanent record. This necessitates tracing with carbon paper, and it was found possible to make both copies at the same time. The carbon tracings have to be inked in by hand and all detail of numbers, measurements, &c., added by hand. The chance of error is considerable and so many mistakes are found in checking, which was done and re-done with all care, that it is impossible not to feel confident that mistakes must have remained behind which have escaped the checking. Officers who have occasion to use the maps, and who suspect mistakes in copying, should remember that the original maps as corrected on the spot have been preserved in the head-quarter office files, and that the original field book, in which all distances are entered, are in the sadr office and copies have been supplied to the patwaris. It may often happen that the field book will explain difficulties which may appear in the map itself.

Under the tarmim system fields which have not been altered, are left unaltered in the map and the old area is entered without alteration or explanation in the field book and other registers. As a result the measurement of waste areas is apt to be scamped, and where mistakes were made at last settlement they are apt to escape recognition and correction. Many mistakes of this kind were found when the surveyed boundaries of forests by the village and forest maps were checked. No new mistakes are introduced in this way, but the mistakes of last settlement have not always been detected.

Allowing for the disadvantages of the new system which have been pointed out above, there is no doubt that the advantages are very real, so much so that the new system must command acceptance wherever the existing maps are good enough to be corrected.

Allowing for the fact that the saving in time is only a saving of survey time, it may be estimated that in an ordinary settlement about six months is saved in time and in consequence expense to Government and trouble to the people by the adoption of the new system of tarmim.

It is to be hoped that the introduction of the tarmim system is not the last word to be said in the way of reducing the duration and expense of settlements. Where the existing maps are so good that they could be corrected, they are generally good enough to leave uncorrected. In the modern state of annual revenue records, it ought to be possible to re-assess a district without re-measuring all villages or doing more than preparing under close supervision a new and elaborate jamabandi with new classification of soils. In this way the duration of settlements could be diminished by one-third and the expense halved at one blow. If assessment reports submitted to superior authority were curtailed, without any diminution of village inspection and village notes, a further large decrease in time and expense could be made with some advantage to the State and enormous advantage to the people. I am forced to the opinion that the curtailment of work here suggested would be well worth trying.

18. The classification of soils sanctioned by the Financial Commissioner in his orders on the Preliminary Report, and the definition of each class is as follows :—

Chahi.—All land irrigated by wells.

Nahri.—Land irrigated by canals.

Abi.—Land irrigated by springs, or otherwise than by wells or canals.

Sailab.—Land flooded by streams or which by the proximity of water are naturally moist.

Lipara.—Lands adjoining a village site and enriched by the drainage of the village site, or by the habits of the people, or land which is habitually manured, and is of excellent quality. Such land is generally double-cropped.

Las.—Land lying in a depression and receiving drainage from other lands, or lands in which embankments have been built to retain drainage. Such land is always of excellent quality.

Maira.—Ordinary barani lands not included in any of the above classes.

Rakar.—Barani lands which are so stony, or sloping, or unfertile that they cannot be classed as maira.

With some slight differences of definition the above was the classification of soils used at last settlement, except that *abi* and *nahri* were lumped together, and it has been now used for the Record of Rights of this settlement. In the annual crop returns the classes of soils used were *chahi*, *nahri* (including *abi*), *sailab* and *barani*. Thus separate cropping figures for the various classes of unirrigated soils, other than *sailab*, were not available from the village note books, and for the purposes of assessment some excerpition was necessary. The question of the classification of soils has been discussed at length in the Assessment Reports, and in the orders on the reports. It was found that *las* and *sailab* are of no use as classes of *barani* soils for the purposes of assessment. True *sailab* hardly exists at all in the district. *Las* means embanked land, but in a rugged district of this kind where so many of the fields are dug laboriously out of the earthy sides of ravines, most lands are more or less embanked, and when the embankment is large and the field distinctively *las*, the ever present danger of the bank being washed away, and the labour of repair, more than counterbalance the increase in fertility. The banks are made, because without them the fields would not be culturable, but the fields so wrested from ravines are seldom so valuable as the level *maira* lands in the plains above. Although lands are classed as *las* in almost every village not in the hills, yet it is very seldom indeed that the people ascribe a value to *las* above that of *maira*, or allow a higher or different rate from *maira* to be put on *las* in the internal distribution of the revenue. In the actual work of assessment *sailab*, *las* and *maira* have everywhere been lumped together under a single assessment rate.

The difficulty of the classification of soils is one of the greatest difficulties of the survey and is the one about which the people complain most loudly. The people are so accustomed to associate settlements with corruption and oppression that they always charge the subordinate staff with corruption in classification, with whatever care the work may in fact be done. In this settlement the class in which any soil was recorded at last settlement might only be changed with the consent of the Naib-Tahsildars. In practice, one knows that the Naib-Tahsildars do not inspect all the fields, and some of them were consistently careless, but nevertheless the measuring establishment were under a close check in classifying the soils. In spite of this complaints of wrong classification and corrupt classification always went on and could not be stopped. Of course complaints of corruption raise no initial presumption that any corruption has taken place, they are only the zamindars' mode of expressing dissatisfaction at any decision which affects him and are considered an easy and formal way of attracting attention. Nevertheless, any kind of classification of soils in which the line of demarcation between separate classes is not clearly marked, is *prima facie* faulty and is on the one hand a direct incentive to corruption by corrupt officials and to the people generally, and on the other hand a burden and a trial to the honest officials, whose number is fortunately always increasing. The most difficult classification in this settlement was the classification of *lipara*. The sanctioned definition is perfectly correct, but is not sufficient for confident classification. The real difference between manured

and unmanured barani soils has been pointed out in the Assessment Reports, and is to be found in the mode of cropping. In nearly the whole district a kharif crop, generally bajra or maize, is grown every year in manured soil and is followed whenever possible by a rabi crop, usually wheat or barley, sown in the stalks of the harvest kharif crop. On unmanured soils the course of cropping is a rabi crop followed by a kharif crop and then a year's fallow. If this rule be followed nearly all the manured fields can be picked out with confidence from the crop register. This rule of cropping is not followed in most of the Jatli circle of Gujar Khan, nor in the montane tract, but with these exceptions, it is a universal and well-recognised rule. This rule was not used in the classification of lipara, for there is no indication of it in the reports of last settlement, and by the time that I had discovered it in the course of village inspections, the measurements had been finished. At the next settlement of the district, the addition of this rule to the sanctioned definition of lipara will very greatly facilitate the work of classification.

It has been mentioned above that in the crop returns prepared before settlement, all classes of barani soil except sailab were lumped together without distinction. In the crop returns which will be prepared after settlement, the Settlement Commissioner has by letter No. 2830 of 7th August 1906 directed that the following classes of cultivated soils shall be separately shown:—

Chahi.

Nahri.

Abi.

Lipara.

Other barani.

Nahri cultivation is found only in four villages on the banks of the Haro river in the extreme north of Rawalpindi. Sailab and las have entirely disappeared, and they are of no use for assessment purposes, and might well be lumped up with maira at the next Revision of the Record of Rights. Lipara cropping differs so widely from other barani cropping that it is very necessary to keep the cropping figures separate. Many of the mistakes of the past in definition, classification and assessment would have been avoided had separate cropping figures been available before. Rakar has been lumped in with barani, because the method of cropping is the same and because the differences between rakar and maira are so marked that neither classification nor assessment presents any serious difficulty. Moreover, it must be remembered that every addition to the classes of soils in the crop returns adds materially to the work of the patwaris after settlement. In the Provincial Returns all barani soils will be lumped together. As a general rule in these modern days of revenue statistics, when we assess on materials collected between settlements much more than on materials collected during settlement, there is a great advantage in having the same classes of soils in the crops before settlement as will be used in the Record of Rights prepared at settlement. The adoption of classes of soils for which separate cropping figures do not exist is nearly always a mistake, and the mistake is the greater when the new classes adopted, do not command the confidence of the people, and are not accepted by them for the purposes of the internal distribution of the village assessments. It may be presumed that at the next settlement of the district, the classes of soils now shown in the crop returns will be all that will be found necessary for the Record of Rights and for assessment, with the exception that rakar must be kept as a separate class. Uncultivated soils are classified as usual into banjar jadid, banjar kadim and ghair mumkin.

Standing Record of Rights.

19. The standing Record of Rights consists of the following papers:—

(1) Preliminary proceedings.

(2) Genealogical tree of owners and of occupancy tenants (shajra nashb).

- (3) Index of field numbers.
- (4) Alphabetical index of owners and of tenants.
- (5) Jamabandi (Land Register).
- (6) Statement of assigned land revenue.
- (7) Statement of rights in wells.
- (8) Statement of rights in water mills.
- (9) Order of the Collector determining the assessment.
- (10) Order of the Collector distributing the assessment over holdings.
- (11) Village administration paper (Wajib-ul-arz).
- (12) Index of mutation sheets.
- (13) Mutation sheets.
- (14) Field map.

In the genealogical tree a single owner appears as a rule only once, notes being attached showing persons, if any, from whom he has acquired land, or to whom he has transferred land. With this exception, the order of the owners in the genealogical tree of owners and in the jamabandi agree. The order in the genealogical tree of occupancy tenants is the order of relationship, and cannot therefore agree with the order in the jamabandi, which is alphabetical in each ownership holding.

There are no orders prescribing an index of field numbers and of owners and tenants, but such indices are prepared during measurement, and are so useful that their addition to the jamabandi seemed desirable.

All the jamabandis throughout the district are prepared for the year 1905-1906. They were all actually filed at head-quarters during 1907 after completion of the record and the entry of the new revenue. In most cases mutations are entered up to 15th June 1906, but a few jamabandis were completed before that date and a few mutations have been entered after 15th June 1906. The dates on which measurements began and were ended, the date of the Tahsildar's final attestation and the last date up to which mutations have been incorporated are all entered carefully in each jamabandi, so that there can, at no time, be any doubt as to the date of the completion of the record.

A detailed abstract of the mode of distribution is entered, so that reference to the original bachh file will seldom be necessary.

This is a simple paper, prepared mainly on the lines of the administration paper of last settlement, but with much superfluous matter cut out in accordance with the instructions contained in paras. 295, 296 and Appendix VIII of the Settlement Manual. These documents were mostly attested by the Extra Assistant Settlement Officer, but a large number were done by Mr. Dunnett, Assistant Settlement Officer. The original files of inquiry are placed with the measurement files in the record room.

Two copies of the original corrected map were made, one being filed at head-quarters and the other given to the patwari for record. Much of the copying was done at head-quarters by a special staff which was trained for the purpose, but they proved insufficient to do the whole of the copying and at

the end of the third year the head-quarters staff was broken up and distributed among tahsils, where the work was completed by the patwaris under the control of the Tahsildars. A large number of skilled map copyists were trained at head-quarters and they were afterwards of great use in leavening the lump of the patwari staff. Where villages were re-measured, the original maps were, of course, filed in the record room.

English mapping sheets were hardly used at all, as the paper and the cloth backing are both so inferior. An attempt was made to revive the old paper-making industry of Sialkot, which had died out since English mapping sheets had come into use for square measurements. The paper got from Sialkot was in every way superior to the English paper, but not on the whole so good as the paper that used to be supplied to old settlements. The factories, however, gave a great deal of trouble and are, in fact, incapable of supplying good mapping sheets in large quantities, mainly from want of efficient supervision and from want of capital. In spite of all these petty troubles we got enough paper to complete the mapping work, but the prospect of successfully superceding the imported paper in other settlements by the use of the much better country paper does not now seem very bright.

The copying was done entirely with the help of carbon paper and both copies were prepared in the rough at the same time. The sheets were backed with cloth by our own staff after the carbon tracings had been taken. The Sialkot sheets fully backed cost about half as much as the English sheets and are much more durable both as to paper and backing.

The maps when completed were stored in iron cases, which were made by the Indo-European Trading Company of Rawalpindi from my own design. These cases are much better than the tin boxes which used to be obtained from Multan, and have been supplied to several settlements. The patwaris have been given large tin cylinders for the safe custody of their copies of the new village maps.

No index maps have been prepared, for such maps can only be accurately prepared when villages are re-measured, and now were prepared at last settlement.

The record of rights has been bound up in volumes. One copy is kept in book shelves at head-quarters and one copy has been given to the patwaris for record.

20. A statement of rights in fruit-trees was prepared for all villages in the Murree Tahsil and in the Pabar circle of Kahuta. This was done at last settlement, and was therefore revised again at this settlement and is bound up with the standing record of rights.

The measurement khataunis and connected papers are put into one file. This file also includes the actual map which was corrected on the spot and a copy of which is now the village map. The original field book has also been preserved and a copy has been given to the patwari. The object of giving a copy to the patwari is that the lengths of all field boundaries, diagonals and perpendiculars are detailed in the field book, which is much more complete than the field book prepared at square measurements. The map is a copy and mistakes may have escaped detection, so that the field book may prove a very useful guide and assistance in case of doubt. In some cases it may also be necessary to consult the field book of last settlement which is preserved at head-quarters.

21. New village bilingual note-books have been prepared from kharif 1906, from which harvest the new assessments came into force in all tahsils except Gujar Khan. Space has been provided for 20 years' entries and the entries of the new settlement have been excerpted from the new record of rights and written up. Circle and tahsil note-books have also been prepared in the same form.

Abstract note-books had been prepared and written up before settlement in the usual form. They were kept at tahsils and were of no use to any one. No notes had ever been written in them. New abstract notebooks have now been prepared in a special bi-lingual form which has received the sanction of the Settlement Commissioner. The form is printed in Appendix I. The settlement entry has been written up in the settlement office.

All my village notes have been typed out and bound up with the statements, together with a few blank sheets for remarks to be entered from time to time by the district officer. These books are to be kept at head-quarters and the statistics written up each year from materials supplied from the tahsils. I would particularly invite the attention of district officers to these books, for in the village notes will be found a good deal of useful information about every village in the district and as the notes are type-written, and the books provided with complete village indices, there should be no difficulty in finding any information which may be required and in reading it when found. The books should always be kept at head-quarters and should on no account be sent to the tahsils to be written up.

CHAPTER IV.—THE REVISION OF THE ASSESSMENT.

22. The orders sanctioning the re-settlement of the Rawalpindi district were conveyed in the Government of India's letter No. 1385—321-2, dated 3rd September 1902, to the Punjab Government. The latter by Punjab Gazette Notifications Nos. 247 and 248 dated 29th September 1902 ordered re-assessment and a revision of the record of rights.

A Forecast Report, written by Fakir Sayyad Iftikhar-ud-din, then Revenue Assistant and afterwards Extra Assistant Settlement Officer, had previously been submitted through the Deputy Commissioner of the District in April 1902. In that report the probable new assessment was estimated as follows :—

						Rs.
Rawalpindi	...	...	...	...	...	2,78,000
Gujar Khan	...	...	...	...	...	2,78,000
Kahuta	...	...	...	...	...	1,27,000
Murree	...	...	...	...	...	25,000
Total district						7,08,000

The Preliminary Report of Prices and Assessment Circles was submitted in September 1903 and orders were received in January 1904.

Three Assessment Reports, all written by me, were submitted for the four tahsils of the district, the dates of submission being as noted below :—

Gujar Khan	...	...	...	...	September 1904.
Rawalpindi	...	...	...	...	July 1905.
Kahuta	...	...	...	...	} August 1905.
Murree	...	...	...	...

The above are the dates on which the reports were sent to the Press, but much delay occurred in getting the reports through the Press. The orders of Government on each of the reports were passed as follows :—

Gujar Khan	...	...	...	...	September 1905.
Rawalpindi	...	...	...	...	August 1906.
Kahuta	...	...	...	...	} October 1906.
Murree	...	...	...	...

The Forecast and Preliminary Reports and the Assessment Reports are all in print and have been bound up in volumes for the use of the district officers,

The orders on the Assessment Reports were received in time to announce, distribute and collect the new assessments of Gujar Khan in Kharif 1905 and in the other tahsils in Kharif 1906. As the term of the last settlement expired in Rabi 1904, there was no delay in announcing the new revenue in Gujar Khan and in the other tahsils the old revenue was collected for one year more than the sanctioned term of settlement.

23. The question of the prices to be adopted for the purpose of the assessment proposals was referred for orders in the Preliminary Report.

Prices.

The sanctioned prices are, as follows, all prices being given in annas per maund :—

Kharif.	Prices in annas per maund.	Rabi.	Prices in annas per maund.
Maize	23	Wheat	30
Jowar	20	Barley	18
Bajra	24	Gram	25
Moth	22	Taramira	31
Mung	30	Sarshaf	40
Mash	36		
Cotton	64		

These prices were used in the produce estimates of all tahsils. In addition to the above, a price of 21 annas per maund for unhusked rice was assumed in the Murree-Kabuta Assessment Report. For the miscellaneous crops not detailed above, cash values varying with the class of land were assumed in the several assessment reports, to which reference must be made for full details.

24. The theoretical assessment is worked out on the assumption that the Government is entitled to take as revenue one-half of the net receipts

Basis of assessment.

of the landlord. Rent rates are a share of the gross produce, with or without deduction of common expenses. The gross produce is obtained by multiplying the average harvested area under each crop by the average yield of each crop for each class of soil. The cash value is then determined by applying the standard prices. Certain deductions are then made for common expenses of owner and cultivator and the balance divided by the prevailing rent rates is the net profit of the owner. This divided by two is the half net asset, the theoretical Government revenue, or the maximum which Government has limited itself to collect as revenue from the landowner. I now proceed to describe, in somewhat more detail, the process of the calculation.

25. The average harvested area taken from the annual crop returns, for the Gujar Khan Tahsil, is the average of the areas recorded as

Average harvested area.

matured for the seven years 1896-97 to 1902-03. In the other tahsils the average taken was for the eight years 1896-97 to 1903-04. It was pointed out in the Gujar Khan Assessment Report that the accepted method of calculating the average gross produce by multiplying the average matured area by the average yields is arithematically incorrect in that the calculation embodies the assumption that matured areas and yields vary independently of one another. This assumption is, in fact, not correct, for the yields per acre are greatest when the matured area is greatest, i.e., in the most favourable years. The effect of the accepted mode of calculation, which indeed is the

only mode available, is to greatly underestimate the real average gross produce. If the period selected contained a series of normal years, the difference would not be considerable, but where, as in this case, the character of the individual harvests varied violently within the selected period, the difference would be large.

In the Gujar Khan Tahsil the average matured area of the seven years selected was rather below a normal average, and in the other tahsils was about normal.

26. A large number of crop experiments were made during the course of settlement operations, the results of which were tabulated in the Assessment Reports. In addition to these I was allowed to inspect the accounts of several large land-owners in each tahsil, except Murree, and the results are also shown in the Assessment Reports. The yields assumed in adjoining tahsils and assessment circles at recent settlements, and those assumed at the last settlement of Rawalpindi, were also available for comparison. This material together with the information which can be acquired by constant enquiry and constant appraisal enabled me to form conclusions as to the average yield of the principal staples. It is unnecessary to tabulate here the yields assumed by me, all of which were accepted in the orders passed on the Assessment Reports, and for detailed information I would refer to the produce estimates attached to each Assessment Report.

For the minor crops, for most of which there are no separate details in the crop returns, cash values were assumed for each class of soil. These also will be found in the produce estimates. The value of the gross produce is arrived at by combining the average matured area, the assumed yields and the assumed prices.

27. In calculating the profits of the land-owner allowance has to be made for the crops cut, and the straw allowed for the consumption of the cultivator's cattle. The general rule is that the owner takes no share of straw, and that of crops grown for fodder he takes a share only of what is left over after the cultivator has fed his cattle. In the Rawalpindi Tahsil, especially north of the Soan, the owner takes also a share of straw.

In the Gujar Khan Tahsil I deducted from the gross produce all fodder crops and one-half of the jowar, sarshaf and taramira. In Murree and Kahuta I deducted all the rabi fodder crops and one-half of the taramira and sarshaf. In the above tahsils all the straw was deducted. In Rawalpindi the deductions were much smaller. I assumed that the owner took 40 per cent. of the stalks of jowar, charri and maize and 30 per cent. of the straw of wheat and moth. All the sarson was deducted and the straw of all crops, other than those mentioned above.

28. Throughout the district the owner of a well is responsible for the up-keep of the woodwork, and sometimes has to help in the supply of manure. In the assessment reports the owners have been allowed a deduction on this account, the deduction being a percentage of the gross produce and deducted from the owners' share. The percentage of the gross produce so deducted for well lands in each Tahsil as calculated in the Assessment Reports is as follows :—

Gujar Khan	...	...	...	...	6 per cent.
Rawalpindi	...	...	...	...	6 "
Kahuta	...	...	...	...	3 "

There are no well lands in Murree, but in that tahsil a deduction of 10 per cent. of the gross produce of all potatoe cultivation was made on account of the cost of cultivation. The owner pays his share of this corresponding to his share of the whole crop on division.

Allowance had also to be made on all soils for payments made to the village menials. The manner of the payment varies throughout the district. The general rule is that some payment of unthreshed grain is made from the common heap before division of the produce, and that the threshed grain payments are made by the cultivator only. This, however, is by no means always the case and in some parts of the Rawalpindi tahsil all payments are made from the common heap. In the estimate of the owner's share of produce, allowance has been made in each tahsil as though the whole expenses came from common heap. This is a somewhat liberal but not too liberal allowance, when the multitudinous claims on the common heap are considered.

The allowance made for menials' payments in each tahsil is as follows :—

Gujar Khan	...	...	...	...	8 per cent.
Rawalpindi	...	...	...	...	10 „
Kahuta	...	...	...	...	7 „
Murree	...	...	...	...	5 „

The agricultural servants for whom allowances are made are the carpenter, the blacksmith, the potter (on well lands only), the sweeper and the harvesters. Allowance of 1 per cent. for charity and of 1 per cent. for petty menials are also included. The cost of harvesting is much higher in Rawalpindi than in other tahsils.

29. In the following table is shown the percentage of the cultivated area, in each tahsil, cultivated by owners themselves, and by tenants-at-will paying kind rents and cash rents :—

					PERCENTAGE OF CULTIVATED AREA IN POSSESSION OF		
					Owners.	Tenants-at-will paying	
						Kind.	Cash.
Rawalpindi	...	...	...	58	27	1
Gujar Khan	...	...	...	71	17	1
Kahuta ...	...	...	...	65	15	2
Murree ...	...	...	...	56	10	10

The balance is made up of land in the possession of occupany tenants. Except in the hills cash rents are very uncommon and give no assistance whatever in the framing of an estimate of the landowner's assets. They were found, however; of much use in fixing the cash values of certain soils and especially in distributing the internal assessment of villages. In the Murree tahsil the area under cash rents is equal to that under kind rents and for that tahsil an estimate of the half nett assets by cash rents amounting to Rs. 40,272 was worked out in the assessment report.

Except in Murree and the hill parts of Kahuta, where cash rents are still of some, though diminishing importance, kind rents are universal throughout the district. Except in the hills and in the villages of Rawalpindi lying under the hills, there is but little variation throughout the district in the share of the gross produce which is taken by the owner as rent. In the whole of the tahsils of Rawalpindi and Gujar Khan the rent rate on all soils has been taken at one half of the gross produce after making deductions for owner's expenses,

menials' dues and fodder. In Murree and Kahuta the rent rate is not so uniform and diminishes in the hills. In the Kandhi and Pothwar circles the rent rate is everywhere one-half. In the Kahru circle it is one-third on rakar land and one-half elsewhere. In the Pahar circle of Kahuta and throughout Murree it is one-half on manured soil and one-third on other soils. Full details of the calculations are given in the Assessment Reports.

30. The mode of calculation of the half nett assets has been described in paragraphs 23 to 28 above, and the detailed calculations are given in the Statements appended to the Assessment Reports. The estimated half nett assets, based on kind rents, for each tahsil, is as follows :—

					Rs.
Rawalpindi	...	...	...	...	4,92,191
Gujar Khan	...	...	...	...	3,18,987
Kahuta	...	...	...	...	1,81,388
Murree	...	...	...	...	93,071
Total of district					10,85,637

A half nett asset estimate by cash rents was worked out for the Murree tahsil only. It amounted to Rs. 40,272, or considerably less than half the estimate based on kind rents.

Assessments proposed and sanctioned, Rawalpindi, tahsil.

31. The assessment proposals and orders are summarized in the table below :—

1	2	3	4	5	6
Circle.	Assessment last settlement.	Assessment proposed.	Assessment sanctioned in assessment report.	Demand sanctioned on detailed village assessment statement.	Percentage of increase 5 on 2.
	Rs.	Rs.	Rs.	Rs.	
Khartora	35,773	47,000	47,000	47,450	33
Kandhi Soan	1,13,817	2,15,000	2,35,000	1,58,850	40
Pothwar	62,254			76,100	22
Total tahsil	2,14,844	2,62,000	2,82,000	2,82,400	31

The old Kandhi Soan assessment circle was cut up into two circles in consequence of the orders passed on proposals made in the report.

It will be seen that in the Kandhi Soan and Pothwar circles, my proposed assessment was raised by Rs. 20,000, or 9 per cent. This increase was very large and caused much discontent, as nearly the whole of it fell on the Kandhi Soan circle. The assessments themselves are not heavy and the circle is very prosperous, but the *per saltum* increase taken is much larger than is the custom in a tract of peasant proprietors and small holdings. I do not doubt that collections will be made easily, but a feeling of soreness and irritation will remain.

The circle rates of last settlement and the circle rates now sanctioned are tabulated below, the rates being per acre cultivated :—

Classes of soils.				LAST SETTLEMENT.		NOW SANCTIONED.		
				Kharora.	Kandhi Soan.	Kharora.	Kandhi Soan.	Pothwar.
				Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. p.	Rs. a. p.
Chahi	...	...	...	4 0 0	5 0 0	5 0 0	8 0 0	6 0 0
Nahri	...	...	...	...	2 0 0	...	2 6 0	...
Abi	...	...	...	3 0 0	3 0 0	5 0 0	5 0 0	5 0 0
Lipara	...	...	...	1 8 0	2 0 0	1 8 0	2 8 0	2 3 0
Las	...	...	...	1 4 0	1 8 0	0 12 0	1 4 0	1 2 6
Sailab	...	...	...	1 4 0	1 8 0	0 12 0	1 4 0	1 2 6
Maira	...	...	...	0 10 0	0 15 0	0 12 0	1 4 0	1 2 6
Rakar	...	...	...	0 4 0	0 6 0	0 4 0	0 7 0	0 6 0

After receipt of orders on the assessment report separate rates were proposed by me for the Kandhi Soan and Pothwar circles, and the rates shown in the table above were sanctioned by the Financial Commissioner in his letter No. 1016 of 17th February 1907 to the Settlement Commissioner.

Two appeals were sanctioned in this tahsil by the Settlement Commissioner and a reduction of Rs. 50 each was made in the demand announced for the Kharora and Kandhi Soan circles, being a total decrease of Rs. 100 for the whole tahsil. The table in this paragraph shows the final demand after decision of the appeals.

Assessments proposed and sanctioned, Gujar Khan tahsil.

32. The statistics by assessment circles are given below :—

Circle.			last Assessment, settlement.	pro- posed.	Assessment sanc- tioned on assess- ment report.	Assessment sanc- tioned on detailed village assessment statement.	Percentage of in- crease 5 on 2.
			Rs.	Rs.	Rs.	Rs.	
Pothwar	...	...	1,56,410	...	...	1,81,670	16
Jatli	...	...	58,300	...	...	66,450	14
Khuddar	...	...	7,710	...	...	7,880	2
Total tahsil	...	...	2,22,420	2,58,000	2,58,000	2,56,000	15

The assessments proposed by me were accepted by Government, but I was directed to assess below the sanctioned figures, and reduced Rs. 2,000 in consequence of these orders. The separate assessment circles were made in consequence of the orders in the assessment report and no proposals as regards their separate assessment were submitted until the detailed village assessment statement was sent for the orders of the Financial Commissioner. The Gujar Khan tahsil has been lightly assessed, and indeed deserved consideration on account of the smallness of the peasant holdings and the industry and sturdy character of the people.

The sanctioned circle rates, which were sanctioned for the whole tahsil as a single assessment circle are as follows :—

Classes of soil.					Last settlement.	Now sanctioned.
					Rs. a. p.	Rs. a. p.
Chahi	...	...	...	...	4 0 0	5 8 0
Lipara	...	...	...	...	2 0 0	2 1 0
Sailab	...	...	...	...	1 5 0	1 2 0
Las	...	...	...	...	1 5 0	1 2 0
Maira	...	...	...	...	1 0 0	1 2 0
Rakar	...	...	...	...	0 6 0	0 7 0

No circle rates for the separate assessment circles were proposed, nor have any been sanctioned.

Assessments proposed and sanctioned, Kahuta tahsil.

33. The statistics by assessment circles are given below :—

Circles.				Assessment, last settlement.	Assessment proposed.	Assessment sanctioned on assessment report.	Assessment sanctioned on detailed village assessment statement.	Percentage of increase on 2.
				Rs.	Rs.	Rs.	Rs.	
Pahar	...	...	...	4,590	5,700	5,700	5,700	24
Kabru	...	...	...	18,150	21,000	21,000	20,500	13
Kandhi	...	...	...	24,105	83,300	86,315	28,800	20
Pothwar	...	...	...	48,500			57,500	19
Total tahsil				95,345	1,10,000	1,13,015	1,12,500	18

It will be seen that my proposals were accepted save that an increase of Rs. 3,000 was ordered to be taken in the Kandhi and Pothwar circles. The increase taken is not excessive, but the assessment of these two circles is now not light.

The circle rates sanctioned are as follows :—

Classes of soil.				LAST SETTLEMENT.			NOW SANCTIONED.		
				Pahar.	Kabru.	Kallar Kahuta.	Pahar.	Kabru.	Kandhi and Pothwar.
				Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Chahi	...	...	...	...	4 0 0	5 0 0	...	5 0 0	5 8 0
Abi	...	...	...	1 8 0	4 0 0	5 0 0	0 12 0	4 0 0	4 0 0
Lipara	...	...	...	1 4 0	2 0 0	2 0 0	1 2 0	2 2 0	2 4 0
Sailab	...	...	...	...	...	1 8 0	...	0 13 0	1 3 0
Las	...	...	...	1 8 0	1 8 0	1 8 0	...	0 13 0	1 3 0
Maira	...	...	...	0 6 0	0 12 0	1 0 0	0 6 0	0 13 0	1 3 0
Rakar	...	...	...	0 3 0	0 6 0	0 6 0	0 3 0	0 4 0	0 6 0

The rates sanctioned in the Kandhi and Pothwar circles were sanctioned on the proposal of the Financial Commissioner in his review of the assessment report. The rates proposed by me were Rs. 2-3-0 for lipara and Re. 1-2-0 for maira, but each of these rates was raised by one anna. The old Kallar Kahuta circle was split up into the two circles, Kandhi and Pothwar, as the result of proposals made by me in the assessment report, and separate rates were not proposed nor sanctioned for those two circles.

Assessments proposed and sanctioned—Murree Tahsil.

34. The proposed and sanctioned assessments are shown below :—

1	2	3	4	5	6
Circle.	Assessment, last settlement.	Assessment proposed.	Assessment sanctioned on assessment report.	Assessment sanctioned on detailed village assessment statement.	Percentage of increase 5 on 2.
	Rs.	Rs.	Rs.	Rs.	
Murree	7,920	...	...	16,290	106
Kotli	5,520	...	...	8,210	49
Total tahsil ...	13,492	24,500	25,000	24,500	81

The tahsil was split into two assessment circles after assessment proposals had been submitted, so that separate assessments were not proposed nor sanctioned for the separate circles. The new demand in the Murree circle includes a new assessment of Rs. 500 on the private houses and estates of the Murree civil station. This will be collected once a year, with the summer instalment, by the Municipal Committee of Murree, who will themselves keep the lambardari percentage and the local rate, paying only Rs. 500 nett into the Government treasury.

The new circle soil rates are shown below for the whole tahsil. Separate rates were not proposed and have not been sanctioned for the two present circles :—

	Last Settlement.	Now sanctioned.
	Rs. a. p.	Rs. a. p.
Abi	1 0 0	0 12 0
Lipara	1 0 0	1 2 0
Maira	0 6 0	0 6 0
Rakar	0 3 0	0 3 0

The increase in the assessment in this tahsil is high, but the tahsil is still very lightly assessed. Government in passing orders on the assessment proposals, ordered that the new assessments should be announced for ten years only.

It is doubtful whether it will be worth while to try and raise the revenue after ten years, as the amount at stake is so small, but that question will come up for consideration when the term of the present settlement expires. *Prima facie*, it would not be fair to make a proportional increase all over the tahsil, for the Kotli circle is already assessed relatively higher than the Murree circle.

35. The relation of the new demands to the half-nett assets based on kind rents is set out in the following statement :—

1					2	3	4
Tahsil.					New demand.	Demand by half-nett assets.	Percentage of 2 to 3.
					Rs.	Rs.	Rs.
Rawalpindi	...	...	...	...	2,82,400	4,92,191	57
Gujar Khan	...	...	...	...	2,56,000	3,18,987	80
Kahuta	...	...	...	...	1,12,500	1,81,388	62
Murree	...	...	...	...	24,500	93,071	26
Total district					6,75,400	10,85,637	62

Thus the lowest proportion of the half-nett assets is taken in Murree and the highest in Gujar Khan. Judged by ordinary statistical standards of assessment the new demands are not heavy and are highest in the two tahsils, Rawalpindi and Murree, in which the largest increase has been taken. The pitch of the new assessments is certainly not so high as in the adjoining districts of Jhelum and Hazara. The new demand in the Murree tahsil amounts to 61 per cent. of the half-nett assets estimate based on cash rents.

CHAPTER V.—DISTRIBUTION OF THE REVENUE OVER HOLDINGS.

36. The village inspections are the most important of the multifarious duties laid on a Settlement Officer. At village inspections he acquires the knowledge of the circumstances of every village which alone enables him to judge of the working of the last settlement, and to form his conclusions as to what increase can be taken or what relief must be given. The labour is terrible, especially in Rawalpindi, where the internal communications are so bad and the villages are so numerous and of such varying degrees of fertility. At the end of the long morning ride, the notes of each day have to be written up, for if they fall into arrears they are apt to accumulate so fast as to block all programmes of work, while they are always best written when the recollection is fresh. In addition to all this, the work of supervision has to be carried on, judicial cases tried and petitions heard and decided. In the work of village inspections the Settlement Officer must do everything himself and can get no assistance from any one. He has hundreds of subordinates of various ranks, but the work of assessment must be done from beginning to end by himself alone. Village inspections were completed by me in each tahsil, as follows :—

Gujar Khan	...	...	...	November 1903 to February 1904.
Rawalpindi	...	...	...	October 1904 to April 1905.
Kahuta	...	...	...	April 1904, January and February 1905.
Murree	...	...	...	March, May and June 1905.

All the village inspections of each tahsil were completed and the proposed demand distributed over every village before the assessment report of the tahsil was sent in. Moreover the mode of internal distribution of last settlement was considered and the future mode discussed in many villages at the time of village inspection, so that the mode of bachh which would be ordered, had evolved itself long before the new demands were announced. The assessment of wells could only be done at village inspection and I nearly always had notes of the future well assessment rates which were of the greatest value to me both in assessing and in distributing the new village demands.

37. After the measurements of each tahsil were completed, the Naib Tahsildars prepared bachh files for each village. In these files the statements of the owners as to the new mode of bachh were recorded. The Naib Tahsildar also recorded his opinion. The Tahsildar noted on all files, but he was not called on to make personal enquiries or to report except where the people had not been unanimous before the Naib Tahsildar. These files were not sent to me, but were kept back until the new demands were announced. Where, however, there were serious disputes and the village inspection was not yet done, the file was sent to me to be taken up in the village when I visited it. Where different parts of the same village had been assessed in the last settlement at different rates, on account of difference in the soils, or where any such claim to differential assessment was now made, I was always informed before village inspection so that I might inspect the land and decide the point myself. In this way, I was informed of all the difficult cases and had enquired into and formed an opinion upon them before the new demands were announced.

When orders had been received and the demands were ready to be announced, general notice was given and the villagers were called up in groups to my camp as I toured round the tahsil. I announced all the new demands myself and personally signed the notice of the new demand and gave it to the lambardars. I then took up the bachh file, enquired the wishes of the owners and passed orders then and there in English in my own handwriting, announcing the orders to the people. Disputes were numerous enough, but it was very seldom that my orders were not at once accepted with acclamation. Indeed in most cases of dispute I was able to make the people come to an agreement in my presence, sometimes by personal argument, and sometimes by putting them back for a while and sending some worthy elders to help them to a decision. Where family feeling or racial ill-will lent zest to the dispute, there was no hope of agreement and I had to decide myself. All disputes were decided on the spot, none were left over or adjourned or referred to any one for report. There were hardly any appeals and none were successful.

In a few cases, I announced separately the demands on the different tarafs or sub-divisions of a village at the same time as I announced the total demand on the village. This was only done when irreconcilable disputes about the distribution over tarafs were known to exist, and this having been done there was nothing left to dispute about.

In very many cases pattidari villages, which are still held on ancestral shares, elected to pay their revenue by a rate on possession. In most such villages possessorship has ceased to correspond with ancestral shares, but as the waste is still held in common the tenure is still pattidari. This innovation was very popular and will result in doing away with many inequalities of distribution of revenue. It was explained to the people and in many cases expressly noted in the orders, that the village waste when divided will still be divided on ancestral shares and that the fact that the revenue is now paid on possession will in no way affect the rights of the owner as regards their shares in the village.

As a general rule the owners were very good and extremely anxious not to dispute with one another. All innovations and all alterations of the mode of bachh of last settlement were looked at askance, and all they asked for was some simple method of distribution which they could themselves understand.

All the work was done in the open air in public, near their own homes and with their neighbours looking on, and under such circumstances zamindars generally tell the truth and will not dispute except with their declared enemies, with whom they always dispute on principle, and such disputes they do not expect to be taken very seriously. All the quiet and peaceable villages especially in Gujar Khan, declared for an all-round rate on all unirrigated cultivation without distinction of recorded soil classes. By this means they eliminate the influence of the Settlement subordinate and disregard the soil classification which they all view with so much distrust. This is a rough and ready mode of distribution which is sometimes regarded as careless, and to which I was at one time much opposed. As time went on, however, I discovered how much the people liked it and village inspections showed me that its advantages were very often much greater than its disadvantages, so that I generally advised people who wanted to alter the prevailing method to leave it alone, especially when complaints were made of the way in which the soil classification had been done.

As soon as I had announced the new assessments and passed orders as to the mode of *bachh* the files were given to the Tahsildar, who was always present, to begin the work of the *bachh* at once. If in the actual work of *bachh*, it appeared that the mode sanctioned was in any way faulty, I was always ready to re-consider my order and often did re-consider and alter it on representations being made to me by the people or by the officials. A copy of the final *bachh* was given to the *lambardars* and a copy to the *patwari*, while the original files when all completed, were brought up before me, sanctioned, signed and committed to the record room. A detailed note describing the mode of distribution is entered in the record of rights-of-each village. In the following statement are given details of the mode of *bachh* in each of the four tahsils :—

TAHSIL.	Total number of villages	PATTIDARI AND ZAMINDARI.		BHAICHARA.		
		Held on shares.	Revenue distributed on shares.	Total number.	Separate soil rate.	All-over barani soil rate.
Rawalpindi	449	179	84	270	132	233
Gujar Khan	383	80	31	303	72	280
Kahuta	240	23	12	217	185	43
Murree	102	16	5	86	50	47
Total district	1,174	298	132	876	439	603

In the above statement the statistics of villages in which the revenue was distributed by separate soil rates or by an all-over barani rate include those villages held on shares of which the revenue was distributed on possession. The statement shows to what an extent distribution on ancestral shares has broken down in this settlement. At last settlement the revenue was distributed on shares over all villages which are held on shares. It also shows how much more popular an all-round barani rate is than any other mode of distribution. Indeed it is nearly always a bad day for a village, indicating internal feuds or the presence of strangers and large alienations, when it has to give up its all-round barani rate for separate rates on soils.

38. In each of the assessment reports reference was made to the Miscellaneous matters connected with the internal remissions which would be given to distribution, Roadside trees, lands affected by the shade and growth of roadside trees. The damage done by trees to the growth of crops on the lands adjoining them had long been the subject of land complaints,

At this time the inamdars, then known as inamkhors had no circles of villages to superintend and no definite duties to perform. The system did not work well, and Mr. Wilson, when Deputy Commissioner in 1897, devised circles of villages for each inamdar and assigned to them all the duties of an inamdar within their circles. This was the first time that any leading zemindar had been put in control of villages other than his own, and the step then taken was a necessary preliminary to the introduction of the zaildari system and a most useful test of the possibilities of its working successfully. Mr. Wilson's system was a great improvement on previous systems and naturally led up to the more advanced proposals submitted in this settlement. In August 1905 I proposed the introduction of the zaildari system. The proposals were sanctioned and the papers are all in print. Under the new system three grades of zaildars are introduced in each tahsil, with, except in Murree, the same number of inamdars. The number and grading of the zaildars is shown below.

Tahsil.	ZAILDARS.				INAMDARS.
	1st grade.	2nd grade.	3rd grade.	Total.	Total.
Rawalpindi	4	9	4	17	17
Gujar Khan	3	8	4	15	15
Kahuta	3	5	3	11	11
Murree	1	2	2	5	10
Total district	11	24	13	48	53

In Rawalpindi and in Gujar Khan the pay of the zaildars is 1st grade, Rs. 200, 2nd grade, Rs. 150 and 3rd grade, Rs. 100. In Kahuta the pay is: 1st grade, Rs. 150, 2nd grade, Rs. 125 and 3rd grade, Rs. 100 and in Murree, 1st grade, Rs. 120, 2nd grade, Rs. 100 and 3rd grade Rs. 80 except in Murree, all the inams are of the fixed value of Rs. 50 per annum. In Murree 3 Inams are of the value of Rs. 60 per annum and remaining seven are of Rs. 40 per annum. All the zaildars have separate circles, and there is one inam permanently attached to each zail, but the inamdar has no circle. In Murree, however, there is an exception. The five zails in Murree have fixed boundaries and a fixed number of inams have been allotted to each zail, with the exception that one small zail has no inam. The inamdars in Murree may be given circles by the Deputy Commissioner, and will ordinarily be given such circles, but the circles must be within the limits of the zail to which the inam is permanently attached. Appointments of zaildars and inamdars were made by the Deputy Commissioner after the proposals had received the sanction of Government.

The sum of Rs. 500 per annum was sanctioned for the grant of compensation inams to former inamdars who suffered under the new scheme. This grant is for the term of the new settlement only, and will gradually diminish as the grants fall in by the decease or promotion of existing grantees. A list of these compensation inams with the rules governing them is given in Appendix II.

Zaildari books have been prepared. My own notes on each zail have been typed and bound into volumes with the prescribed statistics. The books are confidential and have been made over to the personal charge of the Deputy Commissioner.

40. Before the settlement began there were 183 patwaris on the district staff. During measurements the increase in field numbers and in recorded holdings made it necessary to submit proposals for an increase in

the establishment. By orders contained in Financial Commissioner's letter No. 3684 of 9th June 1905 sanction was accorded to the proposals and the number of patwaris was raised from 183 to 217. The patwaris are divided into three grades, the pay of the first grade being Rs. 14 per mensem, of the second grade Rs. 12 per mensem, and of the third grade Rs. 10 per mensem. The number in each grade is, as follows:—

1st grade.	2nd grade.	3rd grade.
54	109	54

In addition to the above there are 14 assistant patwaris on Rs. 8 per mensem instead of 13 assistant patwaris on Rs. 7 per mensem under the former scale. The pay of the patwaris was unaltered, but the number was increased and the grading re-arranged. Under the old scale there were 73 first grade patwaris, but under the new scale this number was decreased to 54. The number of each grade is fixed in each tahsil separately, and as vacancies occur in the first grade they will be absorbed until the number of first grade appointments in each tahsil is reduced to the sanctioned scale. The total number of first grade appointments has already in the course of settlement been reduced from 73 to 64. This matter will need the careful attention of the Deputy Commissioner, for no new first grade appointments may be made in any tahsil, until reductions have reached the sanctioned scale of that tahsil.

The number of patwaris and assistant patwaris in each tahsil is as follows:—

	Patwaris.	Assistant patwaris.
Rawalpindi	76	5
Gujar Khan	74	4
Kahuta	43	3
Murree	24	2

The assistant patwaris have all definite duties assigned to them in helping with large circles, except that in each tahsil one assistant patwari has been given in excess, save in Rawalpindi where there are two. The excess assistant patwaris are meant to help from time to time at the tahsil head-quarters, and at the district kanungo's office, as they may be required. It is to be hoped that the assistant patwaris will be kept to their specified duties, and that their employment on extraneous duties will not be allowed.

In addition to the scale of pay laid down above, every circle in Murree and five of the hill circles in Kahuta have a hill allowance of Rs. 2 per mensem attached to them. The assistant patwaris in Murree have also an hill allowance of Re. 1 per mensem. These allowances are attached to the circles, and are not personal allowance to patwaris. This matter also requires attention for in the past it has occasionally happened that patwaris transferred to the plains have retained the hill allowances which they enjoyed when in charge of hill circles. All such cases were put right by me in the beginning of the settlement.

The patwaris whom we found at the beginning of settlement were generally satisfactory, and were certainly more useful than the Settlement patwaris employed from time to time. In all 19 were dismissed and 14 discharged with

gratuities. The new men appointed were all picked men who had done well during the settlement. There is no difficulty whatever in getting a good supply of candidates in Rawalpindi, and at ordinary times it would be possible, and even advisable, to accept no candidates who had not passed the Middle School examination. In the hills it is very difficult to get a good class of candidates, and in spite of every effort to fill the hill circles with hill men, I could not get the men for though candidates of good zemindari family present themselves in large numbers, yet it is seldom indeed that they will go through the drudgery of learning their work. During settlement the patwaris, as a class, deserve more sympathy than they get. They work always under pressure and seldom get any holiday, every one abuses them and their superiors drive them and complain of them and punish them. They are not so universally corrupt as is generally believed and are certainly not so corrupt as the people among whom they live. The standard of efficiency and honesty is always rising as the standard of education rises and as the influence of superior officers improves. Without the patwaris no Settlement Officer could get through his work, and if they are not all that he could wish, yet they are much better than they are generally reported, and if they are not so good as they should be some measure of blame must fall on the officer who controls and influences them and under whose orders so many of them have been trained.

The increase in the number of patwaris necessitated a strengthening of the field kanungo agency. Before settlement began there were nine kanungos, but as the result of the Settlement Officer's representations the number was increased to twelve. The distribution is as follows :—

Rawalpindi	...	...	...	...	...	...	...	...	4
Gujar Khan	...	...	...	...	...	...	...	...	4
Kahuta	...	...	...	...	...	...	...	...	2
Murree	...	...	...	...	...	...	...	...	2

All the field kanungos on the district staff are good, being distinctly above the average of the settlement kanungos among whom they worked and from whom some of them were selected. In addition to the field kanungos there are four tahsil kanungos, one in each tahsil.

In the head-quarters office there is a district kanungo, an assistant district kanungo and one muharrir. There is now so much English work in the office, that it will be well to confine these appointments so far as possible to men who can read and write English. The head-quarters office has been left in a thoroughly efficient state.

41. The assignments of land revenue in the district are not important, nor large. The total assignments from the new demand are shown below.

								Rs.
Rawalpindi	...	...	...	...	...	...	...	16,074
Gujar Khan	...	...	...	...	...	...	...	1,560
Kahuta	...	...	...	...	...	...	...	4,420
Murree	...	...	...	...	...	...	...	875
Total district								22,929

This includes a large grant from certain villages of the Rawalpindi tahsil to the descendants of Sardar Nihal Singh, Chhachi, who rendered great services at annexation or during the mutiny, but the family have no hereditary or landed connection with the district. There are many grants, large and small, to religious institutions and a number of small grants to leading Gakkar or hill chiefs. At last settlement the muafi registers were carefully prepared after much research, and are very seldom wrong or incomplete.

The state of the files in the District Office was, however, very bad. I have devoted a good deal of attention to the muafi work. Files have been prepared in vernacular and every file was attested by me personally after enquiry on the spot and examination of the existing records. A separate English file has been prepared for every grant and, where necessary, typed copies of all orders and papers, which were necessary for its completion, have been placed on each file. All the files have been numbered and arranged with cross references from the new registers. The registers have been prepared afresh with elaborate care. A genealogical tree is entered in the register showing the descent from the original grantees and the shares, while different coloured inks have been used to direct attention to the orders governing the succession. In some cases I have myself recorded notes indicating difficulties and suggesting the course of future successions. All matters requiring the orders of the Financial Commissioner and of Government have been referred for orders and the orders have been received and incorporated in the registers. Complete translations of the English registers have been supplied to the tahsils.

There are now no difficult cases left, and no serious difficulties should arise in the future. It is, however, very desirable that the Deputy Commissioner should consult the new registers and the new English files before deciding cases of succession which may come before him. There have been many mistakes in the past, most of which could have been avoided had the English registers been consulted.

Proposals for the realisation of the part cost of settlement operations from assignees of land revenue have been forwarded to Government for orders.

42. The deferred assessments on account of protective leases of wells in the first year of the new settlement are as follows:—

Protective leases.

							Rs.
Rawalpindi	...	...	...	...	...	...	2,352
Gujar Khan	...	...	...	...	...	...	480
Kahuta	...	...	...	...	...	...	28
Murree	...	...	...	...	...	...	...
Total district ...							2,860

Well leases were given under the rules laid down in paragraph 502 of the Settlement Manual, as amended by Correction Slip No. 14. The masonry jhalars near Rawalpindi were, with the sanction of Government accorded in the orders on the Rawalpindi Assessment Report, treated as wells and given remissions for the full period of 20 years.

Under the Financial Commissioner's Circular letter No. 5870, dated 30th September 1904, remissions will now be given for wells which fall out of use. No special rules have been proposed for this district and the ordinary provincial rules will apply. It is to be hoped that the Deputy Commissioner will see that these rules are worked, so that they may not fall into disuse as has sometimes been the case in other districts.

43. In the last settlement there were no rules for the remission of assessment on lands washed away or injured by the action of torrents. Some damage is done by the many torrents which traverse the district, but appreciable damage to unirrigated lands is done only by the Soan torrent in the Rawalpindi tahsil. Wells are apt to be injured everywhere, but when a well is washed away its assessment can now be remitted, under the rules for the remission of assessment on wells (paragraph 41) and no special rules are needed. I therefore recommended special rules for

Alluvion and diluvion.

the remission of assessment only on lands which may be destroyed by river action in villages bordering on the Soan torrent in the Rawalpindi tahsil. These rules were sanctioned by Government letter No. 58 (Revenue), dated 19th February 1907, and all the papers are in print. The rules are printed in Appendix III.

It will be noticed that measurements will ordinarily be made in each village only when the village comes under quadrennial attestation, and will not be made every year. The procedure rules are those sanctioned for the Rawalpindi Division in the Financial Commissioner's letter No. 4372, dated 9th August 1895. It may be noted that the meaning of Rule II is that new land will be classed as chahi, lipara, las, sailab, maira or rakar as the case may be, and will then pay the assessments on that class of land according to the rate in the village bachh. Bad land will of course be classed in a low class and will pay the corresponding assessment, unless it is too bad to pay any assessment.

44. The number of mutations in each tahsil up to the end of September 1907—
Mutations and partitions.

Rawalpindi	...	...	...	...	...	66,212
Gujar Khan	...	...	...	...	...	73,960
Kahuta	...	...	...	...	...	45,078
Murree	...	...	...	...	...	22,166
Total district						207,416

It must be remembered that these are only four of the six tahsils under the Rawalpindi Settlement.

45. The existing dates for the payment of the two half-yearly instalments of land revenue have been left unaltered, in accordance with the wishes of the people. The dates are—
Instalments and cesses.

	Kharif.	Rabi.
Tahsil Murree	1st December.	1st August.
Pahar Kahuta	Do.	Do.
Rest of Kahuta	15th January.	15th July.
Rawalpindi		
Gujar Khan		

The kharif date is earlier in the hills because the maize ripens earlier than the crops of the plains and because the January snow necessitates an earlier date. Similarly the wheat harvest is later in the hills than in the plains and the revenue is therefore paid later.

In the last settlement the hill tracts paid one-third of their revenue with the rabi instalment, and the remaining two-thirds in the kharif. This was fair for little rabi is grown in the hills, but it was not popular with the people. They dislike fractions and, owing to the movements of troops and the facilities of markets, have more money in the summer than in the winter. For both these reasons they wished to pay their revenue in equal instalments and this was arranged when the new revenue was announced. All the villages throughout the district will now pay their revenue in two equal half-yearly instalments. To this rule there are two exceptions. The revenue assessed on the Murree Civil Station and on the Murree Brewery estate, both in the Murree tahsil, will, for the convenience of the owners, be entirely paid with the rabi instalment each year.

The cesses will now be—

	Rs.	a.	p.	
Lambardari	5 0 0 per cent.
Local rate	8 5 4 ditto.

The patwar cess has been remitted. In the Murree Civil Station the local rate is taken by the Municipal Committee.

46. During the course of the settlement the Municipal Committee of Murree represented to Government that the roads and maps of the estates in the civil station were very incomplete and unsatisfactory, and asked that a survey might be ordered. The Settlement Officer received orders to do the work and a special staff was given to him for the purpose. The work began in May 1904 and was ended in October 1904. In that time every estate was demarcated on the ground and surrounded with stone pillars, registers were prepared and maps brought up to date, or prepared afresh where incomplete. The original records have been made over to the Municipal Committee, while wax-cloth tracings of the maps have been deposited for safety in the district kanungo's office. All the papers are printed and copies have been placed in the district and municipal offices (Punjab Government Proceedings, Revenue and Agriculture, March 1905).

47. The assessment of water-mills was the subject of a separate report. The orders of Government, conveyed in letter No. 233, dated 3rd October 1906, from the Under-Secretary to the Senior Secretary to the Financial Commissioner, were that there should be no separate assessment on water-mills, but that when the income derived by the landowners is considerable it was to be taken into consideration in fixing the assessment of the estate. Power has, however, been expressly reserved under rule 219 (1) of the Land Revenue Act to make a special assessment at any time.

Some of the water-mills near Rawalpindi itself are very valuable, but they are generally in the possession of occupancy tenants or of traders who are not landowners of the estates in which the mills are situate. In the course of the internal distribution of the village demands, assessments were imposed on the water-mills of the following villages, and were distributed over the individual mills by my own personal order :—

Tahsil.						Village.					Amount.
											Rs.
Rawalpindi	...	...	...	...	...	Kotha Kalan	...	...	...	...	100
Ditto	...	...	...	...	...	Tarlai Khurd	...	...	...	...	50
Ditto	...	...	...	...	...	Kural	...	...	...	...	80
Kahuta	...	...	...	...	...	Luni	...	...	...	...	15
						Total district					245

48. Questions in connection with Government forests received a great deal of attention during the settlement. The more important papers are in print and have been bound up in a volume of miscellaneous printed papers of the Rawalpindi Settlement. In this report only a very brief abstract can be given of the history of the forests and of their treatment. A volume of selected papers relating to the Rawalpindi forests, compiled in the Financial Commissioner's office in 1892, will be found to be very complete.

In the present Rawalpindi district the forests divide themselves into two groups.

I.—The Murree and Kahuta forests.

II.—Forests in the Rawalpindi and Gujar Khan tahsils.

The history of the two groups of forests is separate and their administration is separate.

The Murree and Kahuta forests were the subject of a forest settlement in the course of the second Regular Settlement. The settlement was made by Mr. Robertson and all the papers are in print. A list of the forests with the corrected area will be found attached to my report above referred to. This settlement was not revised during the present land revenue settlement and any alterations and additions now made in the records of the settlement were made only to bring the records into agreement with one another and to correct the mistakes and inaccuracies found in the mapping of private lands situated inside the Government forests.

At the forest settlement after the demarcation of the forest boundaries there remained upwards of 900 plots of land inside the forest pillars but remaining the property of zamindars. These plots of land, known as chaks, were measured at last settlement but were not demarcated on the ground and the records of measurement and ownership were very scanty and indeed often conflicting. They have now all been re-measured, and demarcated with pillars on the ground. A separate map of each plot, with a memorandum of enquiry has been prepared, and all are bound up in volumes according to the forests in which the chaks are situated. In case of future disputes it will be found that a very full record and description of each individual chak now exists, which should be sufficient to enable any question of boundaries to be at once decided. Loose stone pillars have been built at every salient point and efforts should be made to keep these in repair.

The second and next most fruitful cause of trouble was that the boundaries of the forests entered on the village maps seldom agreed with the pillars on the ground or with the forest survey maps. The pillars on the ground are nearly always correct, except occasionally when new pillars were found to have been put up at the wrong place. The survey maps are excellent. The village maps had been prepared before the forests were demarcated, and the new boundaries were seldom correctly entered on the maps. The village maps have now been corrected to make them agree with the pillars which mark Government possession and right.

The demarcation of the chaks rendered necessary revised records of rights for the forests, for the new areas of the chaks and their present proprietorship had to be entered afresh. The statements of rights as entered in village and forest records had also to be compared, and where there was a difference, as there often was, the entry was made to agree with the gazetted rights. All the new forest records have been bound in volumes by forests.

There was no revision of the forest settlement but a few petty alterations of boundary and rights in individual cases were proposed for the consideration of Government. These were sanctioned and have been carried into effect.

It was pointed out in the course of the settlement that the rights of people, recorded as right-holders, to cut wood for agricultural purposes in protected forest, are more extensive and more liberal than the rights which they are allowed to exercise. The promises given at settlement have in fact not been in all respects fulfilled to the zamindars. The matter is still under consideration and procedure rules are being drafted by the Forest Department to give effect to the rights granted in the Forest Settlement. Descriptive notes on each and every forest with maps have been prepared and these have all been bound up into volumes by tahsils and left for the use of District officers.

There has been no forest settlement of these forests. They were demarcated originally by Lala Hukam Chand, Extra Assistant Commissioner, Rawalpindi and Gujar Khan forests, in 1864-65 and were reported on by Colonel Wace in 1874-75 when he was Settlement Officer of Jhelum. All are either reserved or unclassified forests, and a list is attached to the report referred to above. The Margalla reserve is the only large and important forest. In most of these forests, even though classed as reserve forests, the zamindars have been given very extensive rights,

extending even to the right of goat grazing. All the boundaries have been checked, village maps corrected and chaks, where they existed, demarcated. A record of right for each forest has been prepared, and English inspection notes with maps have been bound up into a volume and placed in the English office, these forests give no trouble to the District administration.

49. The Government title to own trees of spontaneous growth on private lands is based on rules sanctioned by the Government of India in 1855. Government owned trees on private land. The rules are well known and have been the subject of much correspondence, so that it is necessary to quote them in detail here.

The Government title to all trees of spontaneous growth is recorded in the administration paper of every village in the Murree tahsil and in the Pahar and Kahru assessment circles of the Kahuta tahsil. In no other parts of the district has the title of Government been affirmed by entry in any village administration paper.

The control over unclassed forest, village waste and private lands in the Murree and Kahuta tahsils are at present regulated by the rules published in *Punjab Gazette* Notification No. 66 of 9th February 1903. These rules relate only to the control of timber cutting and the breaking up of land for cultivation, they extend to the whole of the Murree and Kahuta tahsils, although the Government title to own trees on private lands is not asserted in the village administration papers of the Kandhi and Pothwar assessment circles (previously known as the Kaliar-Kahuta assessment circle) of the Kahuta tahsil. The operation of the rules in the Kandhi and Pothwar has now been suspended by orders of Government, and my own proposals for revising the rules are still under the consideration of Government. (Orders have since been received.)

The rules for the control of timber cutting on private lands in the Rawalpindi tahsil are contained in *Punjab Government Gazette* Notification No. 20, dated 24th January 1907. They extend only to 33 villages in the Rawalpindi tahsil, and do not extend to the Gujar Khan tahsil at all.

50. The period of the expired settlement was 20 years, so that ordinarily orders would be expected sanctioning the new settlement for a similar period. In the orders on the Assessment Report of the Murree and Kahuta tahsils, the Local Government has ordered that the new assessments in the Murree tahsil should be announced for ten years only and this has been done. Final orders have to be passed on this report. The whole question of the length of the term of settlement has recently been before the Government of India and it was then decided that the term of a new settlement shall ordinarily be the same as the period of an expired settlement. However I would still ask for consideration of my proposal for a longer term of settlement.

Briefly I am of opinion that settlements give so much trouble to the people, are so great an expense to them and have so disturbing an effect upon them that the term of a Settlement should be made longer. There must come a time when constant increases of revenue, however justifiable on statistical grounds, will become an economic impossibility in view of the continued subdivision of the soil and of the gradual disappearance alike of the leisured agricultural classes, and of the original peasant proprietary body. There must be some point where enhanced revenue demands must stop, and it is better to postpone than to hasten our arrival at that point.

In the Murree tahsil the orders imiting the period of settlement to ten years have been received with a good deal of dismay. The revenue in the whole tahsil was increased by more than 80 per cent. and the people who have just endured one settlement are now told that they are to expect another settlement in ten years' time. In the rich part of the Rawalpindi tahsil the revenue has been doubled in many villages, and though the demand is still low yet the *per saltum* increase has been very large and must be felt by the proprietary body. I propose that the new assessments be sanctioned for a period of 30 years. Should it be thought necessary to have a different term for the Murree tahsil, then I would propose that the new assessments in Murree be sanctioned for 15 years. Though the assessments in part of that tahsil are very light compared with

the assessments in Hazara adjoining, yet the total demand is so small that it will probably not be found worth while to undertake re-assessment before the whole district comes under settlement.

51. Appendix IV gives details of the cost of settlement operations for the whole Rawalpindi settlement, including the two tahsils of Fattehjang and

Cost of re-assessment operations.

Pindigheb. The total cost was Rs. 6,20,035, as against an estimated cost of Rs. 5,12,012. The estimated duration of the settlement was four years, but it actually lasted five years. The difference from the estimate is due in the main to the salary of Gazetted Officers and Tahsildars being greater than anticipated.

The cost of settlement operations will be recouped in about four years.

52. In considering the work of the officers who served with me, I refer to the whole staff of the entire settlement, including those who worked

Notice of officers.

from time to time in the two tahsils of the Attock District.

Mr. A. M. Stow was Assistant Settlement Officer from November 1904 to October 1905 and twice officiated for me. He gave me much assistance in the Pindigheb tahsil. Mr. J. M. Dunnett joined the settlement in March 1906 and continued till September 1907, winding up the work after I was invalided home in April 1907. He wrote the Gazetteers of the districts of Rawalpindi and Attock and the new volumes of the Customary Law of both districts.

Fakir Sayad Iftikhar-ud-din was my Assistant from the beginning of the settlement to the spring of 1906, and had been Revenue Assistant in the district for a year before the settlement began. I owe much to his loyalty, energy, ability and integrity. He has a peculiar power of influencing subordinates for good and for shaping unpromising materials. His birth position, tact and great abilities have made him one of the leading Mussalmans of the Punjab and we were singularly fortunate in securing his services. He left the settlement to be Revenue Minister to the Tonk State and is now British Agent in Kabul.

He was succeeded as Extra Assistant Settlement Officer by Munshi Sant Singh, who began the settlement as settlement Tahsildar of Rawalpindi. He is an officer of great industry and is straightforward, intelligent and very loyal to his officers. Himself a zamindar of good family, he understands zamindars and has much influence with them.

Of the Tahsildars, Sheikh Shabab-ud-din in Gujar Khan, who held charge throughout the settlement, was easily the best. Of the others Munshi Devi Singh in Fattehjang distinguished himself by his exceptional powers of organization, and Munshi Ram Labhaya in Murree by his unceasing industry and energy. Munshi Ganda Ram as Naib Tahsildar, Extra Tahsildar and later as Tahsildar in Pindigheb did much good, thorough and honest work. Of the Naib Tahsildars, Sheikh Shah Nawaz Khan is a man of much ability and of good education. Mr. Mohan Lal is a man of the strictest integrity, who leavens the whole staff among whom he works, Munshi Ram Singh is intelligent and experienced beyond the ordinary, Munshi Sirdar Khan can do any work in field or office, while Mr. Thakur Das is the most promising and efficient candidate I have ever trained and he should go far. A word of special acknowledgment is due to Sheikh Hussain Bakhsh, Tahsildar of Pindigheb, and to Munshi Nihal Singh, District Kanungo of Attock, who died in the course of the settlement and who were both among our best officers. We were especially fortunate in our candidates and trained some of our best officers and I trust and hope that the future will show that the Rawalpindi Settlement has turned out good officials, who will be a credit to their training, to themselves and to the Government whom they serve. Lastly I wish to acknowledge the services of the host of subordinates of whose individual services no particular acknowledgment can be made. The scores of kanungos and hundreds of patwaris who bear the brunt of the thankless drudgery of settlement alone make the work possible, and now that the work is completed I wish to render my thanks to them for the labour and industry with which they helped the work to completion.

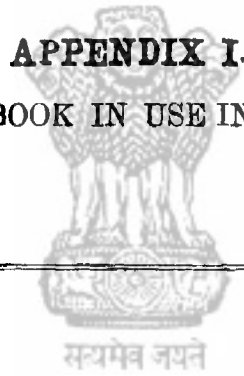
Conclusion.

53. Orders are required only as regards the term of the new settlement, Section 50 above.

A. J. W. KITCHIN,

Settlement Officer.

APPENDIX I.
FORM OF PARGANNA BOOK IN USE IN RAWALPINDI DISTRICT.



VILLAGE.

قام موضع

No.

نمبر ۷۵۱ بسم

TAHSIL

تحصيل

ASSESSMENT

گشت‌خیزش

1	2	3	4	5	6	7	8	9	10	11	
Year.	سال	Number of wells in use, تعداد چاهات جاری	Cultivated area of the year. رقبہ مزرعہ سال			Kharif Harvest. فصل خریف		Rabi Harvest.			
			Irrigated. آبیاری	Unirrigated. غیر آبیاری	Total. میزان	Area of crop. رقبہ زیر اجناس		Revenuo. مطالبہ		Area of crop. رقبہ زیر اجناس	
						Sown. زمنہ کاشت شدہ	Matured. زمنہ پختہ شدہ	Harvest demand. مطالبہ فعل	Rate per acre matured. پرتہ فی ایکڑ پختہ شدہ	Sown. زمنہ کاشت شدہ	Matured. زمنہ پختہ شدہ
Settlement Entry 10 years' average 1896-97 to 1905-06. اندراج بندوبست اوسط دس سالہ											
	۱۸۹۶	۱۹۰۵									
	۱۸۹۷	۱۹۰۶									
1906-07	...										
1907-08	...										
1908-09	...										
1909-10	...										
1910-11	...										
Average 5 years اوسط پانچ سال											
1911-12	...										
1912-13	...										
1913-14	...										
1914-15	...										
1915-16	...										
Average 5 years اوسط پانچ سال											
Average 10 years اوسط دس سال											
1916-17	...										
1917-18	...										
1918-19	...										
1919-20	...										
1920-21	...										
Average 5 years اوسط پانچ سال											
1921-22	...										
1922-23	...										
1923-24	...										
1924-25	...										
1925-26	...										
Average 5 years اوسط پانچ سال											
Average 10 years اوسط دس سال											

APPENDIX II.

List of compensation inams.

The following compensation inams have been sanctioned by Financial Commissioner's letter No. 2045, dated 27th March 1907, to Commissioner, Rawalpindi. They are awarded as annual compensation to former inamdars who have lost their inams under the new arrangements, or in some cases to existing inamdars whose former inams have been reduced. They are strictly personal and will be resumed on the death of the grantee or on his dismissal, or on the grantee being appointed to a zail or a permanent inam. When the grantee is already an inamdar, the personal inam will be resumed if he is ever appointed zaildar. All the grants now made will, if not previously resumed, be reconsidered at next Settlement.

The compensation inams will be enjoyed with effect from Kharif 1906, and the holders of these inams will be liable to perform the duties of an inamdar. They will have no separate circles.

COMPENSATION INAMS.

TAHSIL RAWALPINDI.

					Rs.
1.	Saif Ali Shah of Shah Alladitta	...	...	...	30
2.	Allahdad Khan, Malot	...	...	...	50
3.	Hayat Khan, Gakhar Sonal	...	...	...	30
4.	Nadir Ali, Mankiala	...	...	...	30

(in addition to inam Rs. 50).

TAHSIL GUJAR KHAN.

1.	Muhammad Hussain, Miana Potha	...	...	...	50
2.	Lal Khan, Jatli	...	...	...	30
3.	Shahbaz Khan, Data Bhat	35
4.	Hira Singh, Dora Budhal	25

(in addition to inam Rs. 50).

5.	Jafar Khan, Sukho	25
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(in addition to inam Rs. 50).

TAHSIL MURREE.

1.	Ali Mardan Khan, Nand Kot	25
2.	Muhammad Khan, Musiari	25
3.	Hayat Ullah Khan, Charihan	...	...	...	35
4.	Karim Haider Shah, Tret	...	...	...	35
5.	Zaman Ali, Karor	...	...	...	20

TAHSIL KAHOTA.

1.	Hashmat Ali Khan, Lehri Mussalmanan	25
2.	Dilawar Khan, Nara	30

(in addition to inam Rs. 50).

Total	500	per annum.
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A. J. W. KITCHIN,
Settlement Officer.

APPENDIX III.

Alluvion and deluvion rules.

Rules of assessment applicable to estates bordering on the Soan torrents in the Rawalpindi tahsil No. 72.

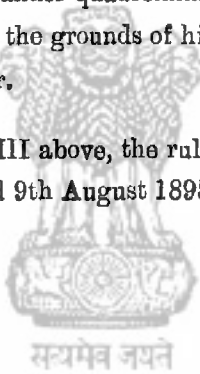
I. When by the action of the Soan torrents land assessed as cultivated is carried away or rendered unfit for cultivation, the assessment shall be remitted.

II. Land which was unassessed at settlement, or the assessment of which has since been remitted under rule I, shall, if it becomes culturable owing to the action of the Soan torrent, ordinarily be assessed at the full village rate of land of the class to which it belongs, but it may be assessed at the rate of other or lower classes if it is of inferior quality. If it is too inferior to bear the full assessment of any class, it will be left unassessed until it becomes fit for assessment. No assessment will be imposed on land which has not actually been cultivated.

III. Remeasurements for the purpose of ascertaining whether assessments should be remitted or imposed under rules I and II will ordinarily be made in an estate only in the cold weather preceding the quadrennial attestation of the jamabandi.

But if the Tahsildar is of opinion that measurements for this purpose should be undertaken in any estates not coming under quadrennial attestation, he will send to the Collector a list of such estates explaining the grounds of his proposal. The Collector will return the list with his order to the Tahsildar.

Except as provided in rule III above, the rules for procedure issued with Financial Commissioner's letter No. 4372, dated 9th August 1895, will be followed.



APPENDIX IV.

Scheme of suspensions for the Rawalpindi District and for Tahsils Fattahjang and Pindigheb in the Attock District.

A new form of *pargana* note-book has been sanctioned by the Settlement Commissioner, of which a copy is among the appendices to the Final Settlement Report. The Settlement officers' assessment notes have been copied into the *pargana* note-books, and they will be kept at head-quarters in the charge of the District Kanungo for the use of the Deputy Commissioner. The first entry, *viz.*, the settlement entry, is the foundation of the scheme of suspensions. This has been prepared from the crop returns of the ten years ending with 1905-06. Columns 9 and 10 show the rate of incidence of the new demand for both *kharif* and *rabi* crops to the total annual matured area of 10 years. The proportion of the *kharif* and *rabi* crops on the total annual matured area varies so widely in individual villages that it appeared essential that different crop rates for the *kharif* and *rabi* harvests should be worked out.

2. In addition to the *pargana* books registers have been prepared for each of the assessment circles classed in paragraph 3 below as insecure, showing every village under four classes with a very brief note, in most cases a single line, descriptive of the circumstances of the proprietary body. Every village has been classified into four classes, distinguished by the letters A, B, C, D, the meaning of the four classes being, as follows:—

- (a) Village secure, suspensions ordinarily never needed.
- (b) Suspensions ordinarily only needed after a series of bad seasons.
- (c) Suspensions needed only after bad harvests.
- (d) Village insecure, suspensions needed after a single bad harvest.

3. Of the six tahsils comprised in the Rawalpindi Settlement the following are classed as insecure:—

District.					Tahsil.					Circle.
Rawalpindi	...	...	...	...	Rawalpindi	...	...	...	...	Kharora.
					Gujar Khan	...	...	...	...	Jatli.
Attock	...	...	...	...	Fattahjang	...	...	...	...	Whole tahsil.
					Pindigheb	...	...	...	...	Ditto.

The Tahsildar should prepare for every village in each of these circles a suspension statement in the ordinary Form B every harvest, unless in a good year he has previously obtained the Deputy Commissioner's sanction not to prepare it. In circles classified as secure the suspension statement should not be prepared unless the Deputy Commissioner has expressly ordered its preparation. This statement will be in the ordinary Form B, but in column 3 of that form the Tahsildar will enter the class of the village A, B, C, or D, while in column 4 will be shown the normal rate of incidence of the harvest taken from the *pargana* note-book or from the new suspension register. In column 7 will be shown the danger rate of the harvest taken from the latter register. Where the incidence of the revenue per acre of matured crop is higher than the danger rate, there will be *prima facie* a case for suspensions, but everything depends on the class of the village and the character of previous harvests. All rates of incidence are in annas per acre cropped, pies are excluded, the nearest anna being shown. This should always be the rule in preparing suspension statements, six pies being treated as one anna.

The patwari should note in the remarks, column of the *jinswar* statement in the village note-book, the incidence of the demand on the matured area, and the state of the fodder-supply and of the cattle.

4. In Statement B are given the danger rates which have been fixed for the assessment circles which are classed as insecure. In no assessment circle are there more than three classes of danger rates, while in several circles the number is reduced to two. Separate rates for the *kharif* and *rabi* harvests are essential. To adopt the same rates for both harvests would make the scheme of suspensions more than useless; it would make it misleading and dangerous.

5. There are certain general considerations of regarding suspensions and realizations suspended revenue which it is desirable to mention, and in this particular acknowledgment is due to Mr. Talbot's Jhelum suspension scheme.

- (1) The *kharif* is the cattle crop and the *rabi* in the peoples' crop, except where maize is grown. Suspensions are not necessary for a poor *kharif* following a fair *rabi*, where there is moisture for *rabi*.
- (2) A failure of the *rabi* crop, will always necessitate suspensions in all "D" villages and in most "C" villages.
- (3) Suspensions should generally be of the whole, or one half. They should always be of a definite fraction of the demand. In the Rawalpindi District suspen-

sions should not be given too freely, save in a series of bad seasons. The Fattch-jang and Pindigheb suspensions should always be given freely and collected promptly.

- (4) Suspended revenue should be realized in fractions of the current demand and generally less than 4 annas per rupee should not be taken. In the Rawalpindi District it will ordinarily be unwise to collect more than eight annas per rupee of the demand, for holdings are small. In Fattchjang and Pindigheb there need be no hesitation about collecting double the harvest demand in a good *rabi* harvest. It would seldom be wise to take more.
 - (5) It will very seldom be wise to collect arrears with the kharif demand, except in maize-growing villages, which very seldom need suspensions. In the Rawalpindi District when there has been a series of bad harvests, it is ordinarily better to let the people have the first good crop to recover their food stocks. In Fattchjang and Pindigheb where suspension must always be frequent, it is generally best to collect freely in the first good *rabi*, for the revenue demand is very light when the crop is good, and good crops are so infrequent that if one is allowed to pass without collection, the arrears may remain altogether uncollected.
 - (6) The people should be consulted freely as to when suspensions are needed and as to how collections can be made. Except in the Nala circle of Fattchjang and in the Kharora circle of Rawalpindi and in Khattar villages, generally the people are good revenue payers and do not try to escape their obligations.
6. Tahsil maps with all estates classed as insecure coloured in red have been placed in the Deputy Commissioner's Office.



A. J. W. KITCHIN,
Settlement Officer,
Rawalpindi.

APPENDIX V.

Showing cost of re-assessment operations during the Settlement up to 31st December 1907.

Major head of service.	Budget headings.	Annual expenditure sanctioned by Settlement Schedule.	Budget sanctioned for current financial year.	Actual expenditure from 1st October 1902 to 31st December 1907.	REMARKS.
Land Revenue Settlement, Imperial Service.	Salary and Settlement allowances of Gazetted Officers ...			Rs. A. P. 1,52,573 15 1	
	A.—OFFICE ESTABLISHMENT.				
	1. Office establishment of Assistant Settlement Officers ...				
	2. Office establishment on fixed pay, including English writing allowance of Office Kanungos.				
	3. Office Kanungos			31,275 14 3	
	4. Menial establishment			23,797 2 2	
	Total Office Establishment ...			55,073 0 5	
	B.—FIELD ESTABLISHMENT.				
	5. Settlement Tahsildars			51,910 0 4	
	6. Settlement Naib Tahsildars			55,815 11 4	
	8. Field Kanungos			82,808 15 7	
	9. Field allowances of Field Kanungos			13,075 0 0	
	Total Field Establishment ...			2,03,609 11 3	
	10. Temporary Establishment including cost of chainmen ...			97,375 10 0	
	Total pay of Establishment ...			3,56,058 5 8	
	Travelling allowance of Officers			9,779 13 0	
	Ditto of Establishment including Naib Tahsildars and Tahsildars.			28,341 15 6	
	Contingent expenditure, except Stationery and Lithography			67,844 7 11	
	Stationery			2,673 10 5	
	Lithography			2,763 1 6	
	Total Contingent Expenditure ...			73,281 3 10	
	Grand Total ...			6,20,035 5 1	
	Add—				
	Expended on these operations in previous years ...				
	Total expenditure on these operations to date ...			6,20,035 5 1*	

* Note.—This total includes the following sums spent from 1st October 1907 to 31st December 1907 :—

Contingencies' (costs, &c., of	Pay of Naib Tahsildar	T. A. of Naib Tahsildar	Pay of 2 peons	Total
Parcha Bahis	Rs. 100.	Rs. 80.	Rs. 88.	2,160-4-1.
1,994-4-1	October and November 1907.	October and November 1907.	October, November and December 1907.	

APPENDIX VI.

Gazette Notification relating to re-assessment operations.

Gazette Notification dated 27th September 1902.

No. 247.—Notification.—Under Section 49 (1) of the Punjab Land Revenue Act, 1887, it is hereby notified, with the sanction of the Governor-General in Council, that a general re-assessment of the land revenue of the Rawalpindi District (excluding the area included within the limits of the Attock Tahsil) is about to be undertaken.

GAZETTE NOTIFICATION.

The 29th September 1902.

No. 248.—Notification.—Whereas it appears to the Hon'ble the Lieutenant-Governor that the existing records-of-rights for the estates including in the Rawalpindi District (excluding the area included within the limits of the Attock Tahsil) required special revision, the Lieutenant-Governor, in exercise of the powers conferred upon him by Section 32 of the Punjab Land Revenue Act, 1887, hereby directs that the records of rights of the said estates shall be specially revised.

GAZETTE NOTIFICATION.

The 29th September 1902.

No. 249.—Notification.—In exercise of the powers conferred by sub-sections (1) and (2) of Section 27 of the Punjab Land Revenue Act, 1887, the Hon'ble the Lieutenant-Governor is pleased to confer, and hereby confers, upon Mr. A. J. W. Kitchin all the powers of a Collector under the said Act (with the exception of Chapter VI thereof); such powers to be exercised within the local limits of the Rawalpindi District (excluding the area included within the limits of Attock Tahsil), and the Lieutenant-Governor further directs that in the exercise of these powers Mr. Kitchin shall not be subject to the control of the Collector.

x
APPENDIX VII.

Glossary of Vernacular terms.

Abadi...	...	...	Village site.
Abi ...	...	...	Land irrigated from springs.
Bachh	...	...	Internal distribution of the assessment in an estate.
Bajra...	...	...	Spiked millet.
Barani	...	...	Unirrigated (land).
Bhaiachara	...	...	A form of tenure when possession is the measure of right
Chahi...	...	...	Land irrigated from a well.
Chak ...	...	...	Assessment circle or other block of country.
Charri	...	...	Jowar grown thick for fodder.
Hail ...	...	...	Manured land.
Illaqa...	...	...	A tract of country.
Inam ...	...	...	A grant of land revenue to a rural notable.
Jagir ...	...	...	A large grant of land revenue.
Jama ...	...	...	Land Revenue demand.
Jamabandi	...	...	Annual record of rights of a village.
Jowar...	...	...	Great millet (<i>serghum vulgare</i>).
Kamin	...	...	Village menial.
Kanungo	...	...	A revenue official who supervises patwaris.
Khalsa	...	...	Revenue received by Government not being assigned to grantees.
Kharaba	...	...	Crops which fail to mature.
Kharif	...	...	Autumn harvest.
Lambardar	...	...	Village headman.
Las ...	...	...	Embanked land.
Lipara	...	...	Manured land.
Maira...	...	...	Ordinary level unirrigated land.
Malikana	...	...	Proprietary dues.
Muafi...	...	...	An assignment of land revenue.
Mukarridar	..	...	A form of fixed tenure.
Nahri	...	...	Land irrigated by canals.
Pattidari	...	...	A form of tenure where shares are the measure of right.
Patwari	...	...	Village accountant.
Rabi ...	...	...	Spring harvest.
Rakar	...	...	Inferior unirrigated land.
Sailab	...	...	Riverain land.
Sarson	...	...	An oilseed (<i>Brassica campestris</i>).
Shamilat	...	...	Village common land.

APPENDIX VII—concluded.

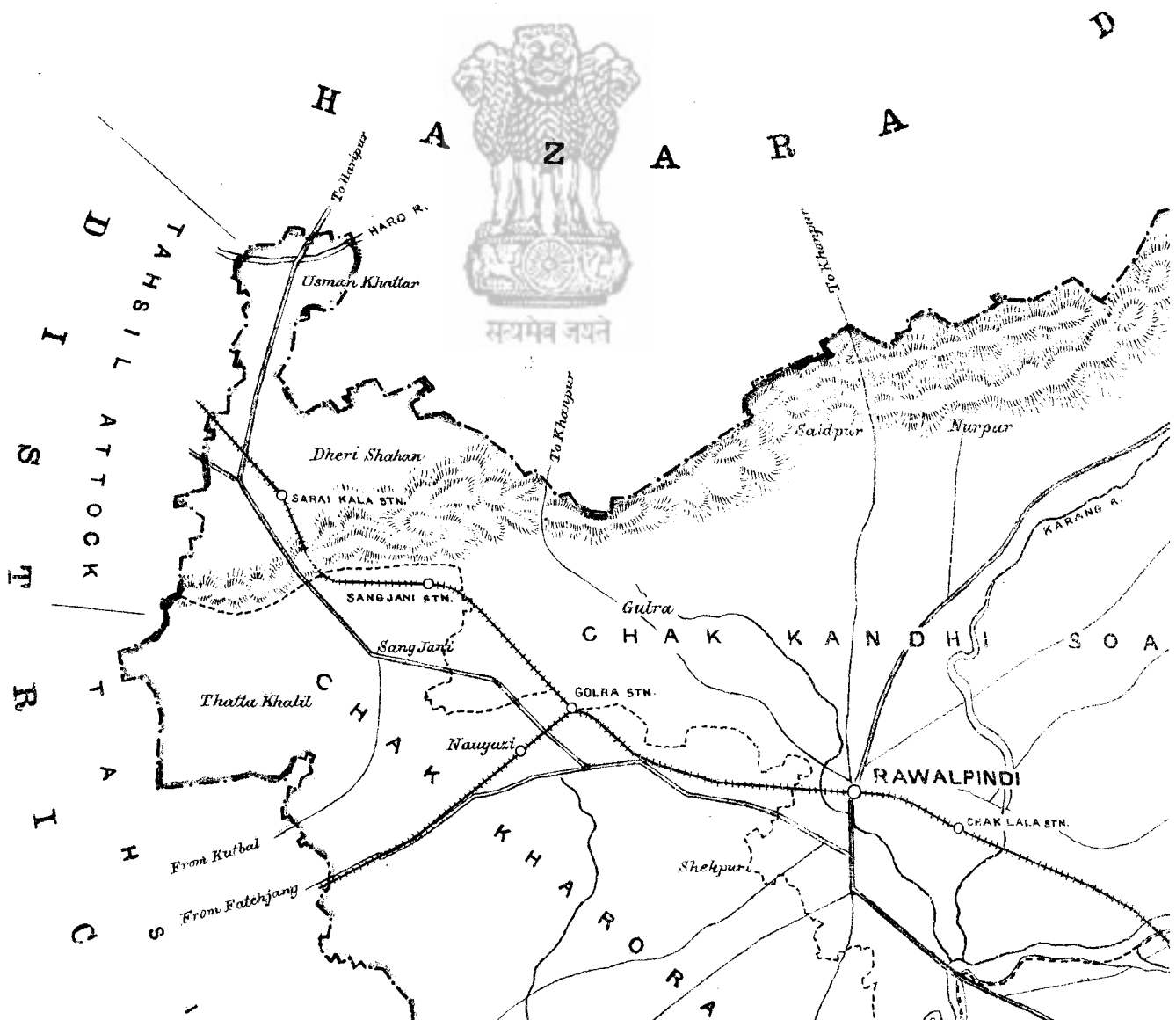
Tahsil	...	...	An administrative division of a district.
Tahsildar	...	...	Officer in charge of a tahsil.
Taluqdar	...	...	Right of superior ownership.
Taramira	...	...	An oilseed (<i>eruca sativa</i>).
Zaildar	...	...	A rural official.
Zamindar	...	...	A peasant.
Zamindari	...	...	A form of tenure, where an estate is held in single or joint undivided ownership.

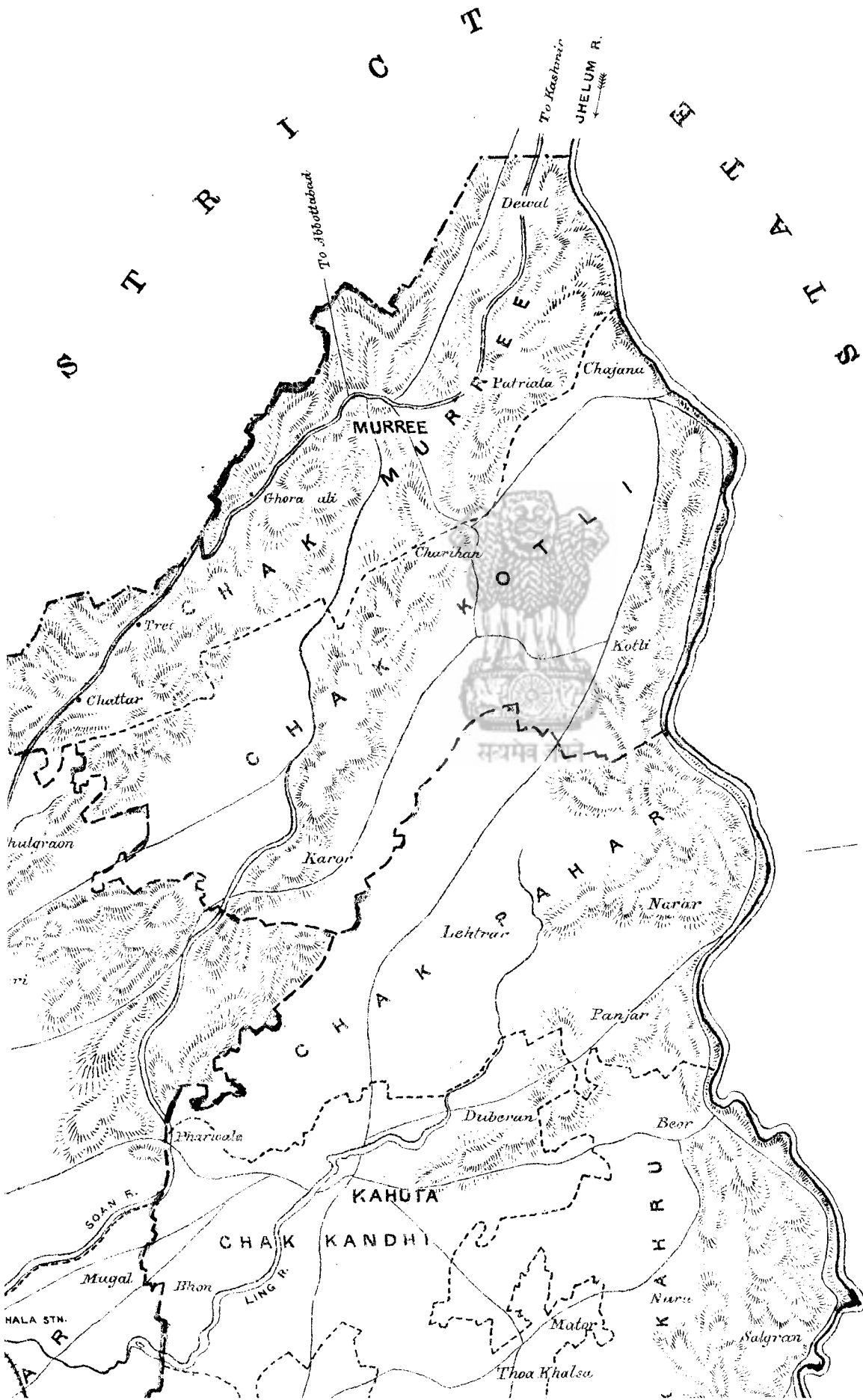


MAP OF
District
RAWALPINDI

Scale 4 Miles = 1 inch



MILES 1 2 3 4 5 6 7 8





PUNJAB

INDIA

REFERENCES	
District Boundary	— — — — —
Tahsil Boundary	— — — — —
Assessment Circles	— — — — —
Hills	
River and Nalas	
Matted Road	— — — — —
Un-matted Road	— — — — —
Railway Line	— — — — —

