

REPORT
ON THE
SETTLEMENT OPERATIONS
IN THE
PUNJAB

For the year ending 30th September 1904.



Price Annas 2 or 6d. .

Lahore:
THE "CIVIL AND MILITARY GAZETTE" PRESS,
Sole Contractors for Printing to the Punjab Government.

1905.



G. P.

336.222(5442)

P969 in

1984

18084

PUNJAB SETTLEMENT OPERATIONS
REPORT, 1904.

Agents for the sale of Punjab Government Publications.

IN LONDON.

E. A. ARNOLD, 41 and 43, Maddox Street,
Bond Street, W.

CONSTABLE & Co., 16, James Street,
Haymarket, S. W.

P. S. KING & SON, 9, Bridge Street,
Westminster, S. W.

KEGAN PAUL, TRENCH, TRÜBNER & Co.,
Chancery Cross Road, W. C.

B. QUARITCH, 15, Piccadilly, W.

DEIGHTON BELL & Co., Cambridge.

B. H. ELACKWELL, 50 and 51, Broad Street,
Oxford.

ON THE CONTINENT.

FRIEDLANDER & SOHN, 11, Carlstrasse,
Berlin.

OTTO HARRASSOWITZ, Leipzig.

KARL W. HIERSEMANN, Leipzig.

ERNEST LEROUX, 28, Rue Bonaparte, Paris.

MARTINUS NIJHOFF, The Hague.

IN INDIA.

THACKER, SPINK & Co., Calcutta & Simla.

NEWMAN & Co., Calcutta.

THACKER & Co., Bombay.

HIGGINBOTHAM & Co., Madras.

V. KALYANARAM IYER & Co., 189,
Esplanade Row, Madras.

NATESAM & Co., Madras.

SUPERINTENDENT, AMERICAN BAPTIST MISSION
PRESS, Rangoon.

A. CHAND & Co., Imperial Book Depot
Office, Delhi.

GULAB SINGH & SONS, Mufid-i-'Am Press,
Lahore.

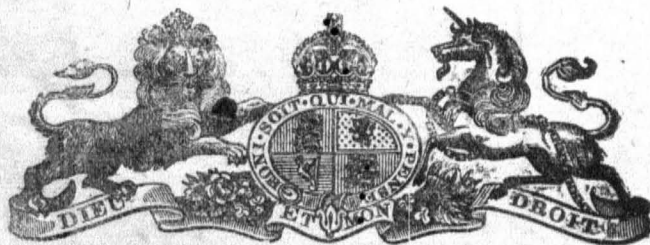
S. MUMTAZ ALI & SON, Rafah-i-'Am Press,
Lahore [for Vernacular Publications
only].

MQHAN LAL, Punjab Law Book Depot,
Lahore.

MANAGER, "The Aryan Printing, Publish-
ing and General Trading Co., Limited,"
Lahore.

REPORT
ON THE
SETTLEMENT OPERATIONS
IN THE
PUNJAB

For the year ending 30th September 1904.



Lahore:
THE "CIVIL AND MILITARY GAZETTE" PRESS,
Sole Contractors for Printing to the Punjab Government.

1904.

1 JAN 2010



32cm

No. 61.

FROM

A. H. DIACK, ESQUIRE,
*Chief Secretary to Government,
Punjab and its Dependencies,*

TO

THE SENIOR SECRETARY TO THE FINANCIAL
COMMISSIONER, PUNJAB.

Dated Lahore, 24th February 1905.

File No.

Revenue and Agriculture.

Revenue.

SIR,

I AM directed to acknowledge the receipt of the Report on the Settlement operations in the Punjab and North-West Frontier Province for the year ending the 30th September 1904, forwarded with your letter No. 40, dated 16th January 1905, and to convey the following remarks.

2. Good progress has been made generally during the year, although the deficiency of trained staff noticed in connection with the Settlement of Gurgaon requires consideration, and the Financial Commissioner has rightly directed the attention of the Settlement Commissioner to the necessity of taking measures to supply the deficiency. The Lieutenant-Governor accepts March 1906 and March 1907 respectively as the dates of termination of the Jhang and Rawalpindi Settlements.

3. His Honour concurs in the Financial Commissioner's remarks, conveyed in paragraph 5 of your letter, on the introduction of the Kilabandi system, and the papers on the subject may be circulated as proposed.

4. The thanks of Government are due to Mr. Douie for his work as Settlement Commissioner during the year, and I am to ask that they may be conveyed to him.

I have, &c.,

A. H. DIACK,

Chief Secretary to Government, Punjab.

No. 40.

FROM

L. H. LESLIE JONES, ESQUIRE,

Senior Secretary to Financial Commissioner, Punjab.

TO

A. H. DIACK, ESQUIRE,

Chief Secretary to Government, Punjab.

Dated LAHORE, the 16th January 1905.

SIR,

I am directed to forward a letter No. 4267,* dated November 21st, 1904, from the Settlement Commissioner, Punjab, being the Annual Report on Settlement work in the Punjab and the N.-W. F. Province for the year ending September 30th, 1904. The remarks of the Financial Commissioner will be confined to the Punjab districts.

2. The work in the Attock tahsil has been sufficiently noticed in the reviews of the Assessment Report, *vide* your letter No. 63 of April 4th, 1904.

3. Similarly the Lieutenant-Governor has been made acquainted with the character of the work in Jhang by the perusal of the Chenáb Nahri Circle Assessment Report.* From this Settlement some Assessment Reports are still due of which one has reached the Settlement Commissioner. He assigns March 1906 for the completion of operations. This is rather later than the date required by the scheme of Settlement operations published as Appendix V to Douie's Settlement Manual. According to that scheme the operations should end in 1905, but the Financial Commissioner thinks that Mr. Abbott has made good progress and that any slight delay which may occur in completing the Settlement operations is not his fault. Sir Lewis Tupper understands that the Riverain Assessment Report is about to reach him at once. In the returns a third report is shown as due, but it will really be split in two; the Kachi and the Jhelum-Nahri tracts being treated separately. No doubt a great part of the Settlement establishment will be available for transfer to other Settlements by the beginning of next cold weather; and this is an important point so that work elsewhere may not be delayed for want of hands.

4. Good progress has been made in the Háfizabad and Khángah Dográn tahsils. As noted by Mr. Douie one Assessment Report has been disposed of. The Chenáb Report is in type and will come up for orders shortly. The third report due relates to the *báráni* tract.

5. In connection with the *kilabandi* which has been so prominent a feature in this Settlement, I am to submit, for the information of Government, printed copies of some notes on the subject by Messrs. Isa Charan Chandu Lall, Hailey and Renouf which the Financial Commissioner thinks might be circulated for perusal by Commissioners, Deputy Commissioners and Settlement Officers. The essence of *kilabandi* is the demarcation of small squares which serve as units for assessment purposes and thus enable every peasant to be clear as to his own liability under a fluctuating demand. Where any assessment—the canal occupiers' rate included—fluctuates with the area irrigated or cultivated the system should be of use. It is of course inapplicable where physical conditions do not admit of the squares being laid; nor is it suited to tracts under fixed assessment where property is much sub-divided and the value of land is high. It cannot be compulsorily introduced anywhere except where canal-irrigation is being given for the first time. In such cases it is practicable to make the preparation of the fields by *kilabandi* a condition precedent to the water-supply.

* *Vide* Punjab Government Letter No. 85, dated 20th April 1904.

6. The Gujar Khan Assessment Report has been submitted by the Settlement Officer, Rāwalpindi, and is now in press. There will be three more such reports, viz., (1) Murree and Kahuta, (2) Rāwalpindi tahsil and (3) Fatehjang and Pindigheb. The correction of maps has been pushed on with so much energy that the work of attestation is in arrears. The "extra," "ordinary" and "regular" Tahsildars referred to by Mr. Douie are all Settlement Tahsildars, not those employed on ordinary district work. What is meant is that a great deal of extra assistance must be given in order to bring the work of attestation up to date. The Financial Commissioner entirely agrees that this is very necessary. Mr. Douie has given his reasons for fixing the date for completion as March 1907 instead of October 1906 as originally contemplated. The Financial Commissioner thinks that Mr. Kitchin is more likely to go too fast than too slow, and advises that the date be left as now proposed.

7. The Settlement Commissioner says very little about the Miānwāli Settlement; but the Financial Commissioner has ascertained that Mr. Douie is quite satisfied with the progress made by the Settlement Officer. A great deal of work has been done in the way of square-laying and preparation of the preliminary statements of rights and holdings (*chitta khatauni*) which is not shown on the annual return.

8. Sir Lewis Tupper fears that he cannot congratulate the Settlement Officer, Gurgāon, on having made a particularly good start though this may be due to no fault of his. Deficiency of trained staff has been his difficulty. In this connection the state of things indicated in the report is not satisfactory. Apparently the delay in the completion of some Settlements has been causing deficiency of initial establishments in others, so that one miscalculation of date for the completion of operations tends to bring about another by a second delay. The Settlement Commissioner will be asked to take up at an early date this question of prompt provision of necessary staff and to make such proposals as will arrest the vicious tendency which the facts seem to disclose. The Umballa and Rohtak Settlements will soon begin and if adequate establishments are not provided there from the first we may have a repetition of the complaint which has been made in Gurgāon. The Settlement Commissioner should see what means he has of meeting the requirements; and if his means are insufficient—as very likely they are—what remedy can be applied. Since the report was submitted the Financial Commissioner has ascertained that Mr. Hamilton does not think that very much of the Gurgāon work will have to be done over again; perhaps this will happen in about a dozen villages in each tahsil. It is now estimated that Gurgāon (begun in 1903 instead of 1902) will be completed in March 1908, i.e., in four-and-a-half years instead of in four years as the scheme of Settlement operations requires. The Settlement Commissioner should explain the reasons for his present estimate.

9. Sir Lewis Tupper thinks that the Hon'ble Mr. Douie deserves the thanks of Government for his able superintendence of the Settlement Department during the year under review.

10. In conclusion I am to express regret for the delay in the submission of this report which was due to Government on the 10th ultimo. It was laid before Colonel Montgomery who preferred that it should be dealt with by Sir Lewis Tupper on his return from leave; and the latter was too much occupied with Select Committee work to find time to write his remark on it before Christmas. Moreover he wished to discuss the circumstances of the several Settlements with the Settlement Commissioner personally: and this he has now done.

I have the honour to be,

Sir,

Your most obedient servant,

L. H. LESLIE JONES,

Senior Secretary to Financial Commissioner, Punjab.

No. 2428 G., dated 23rd December 1904.

From—The Revenue and Financial Secretary to the Chief Commissioner, North-West Frontier Province,

To—The Settlement Commissioner, Punjab.

I AM directed to acknowledge receipt of your letter No. 4571, dated the 10th instant, enclosing copy of the Report on Settlement Operations in the Punjab and this Province for the year ending 30th September, and to remark as follows:—

Satisfactory progress has been made during the year in Hazara, and orders have been passed on the Haripur and Mansahra Tahsils in time to allow of the new assessments being introduced from this kharif. In Dera Ismail Khan the delay in winding up the operations is to be regretted, and Chief Commissioner agrees with you that it might in part at least have been avoided. It is hoped that Captain Crosthwaite's proposals for the assessment of the Daman have by now reached you.

Note on Killabandi by MR. I. C. LALL, Settlement Officer, Hāfizabad.

1. *Definition.*—A “*killa*” is a square field $\frac{1}{5}$ th of a survey square, and with each side 40 *karams* or 220 feet long. The area is 8 *kanāls* and 18 *marlās*, i.e., 1 acre and 18 poles.

There are 25 *killas* in each square.

2. *How laid on the ground.*—When the squares have all been laid out on the ground, *killas* are easily made by chaining along each side of a square, dividing it into 5 equal bits of 40 *karams* or 220 feet each and marking off each of these bits with a small peg (*killi*) driven into the ground. When all the four sides of the square have been chained and marked off in this manner, flags are put up on opposite pegs and the distance between these is similarly marked off. The square is thus divided into 25 equal and smaller squares, the corners being all marked on the ground with small pegs or with earthen mounds. The villagers then stretch a rope from one peg to another and dig a trench along it.

This process is continued until all the *killas* are demarcated. Permanent embankments or ridges are made by the cultivators when the ground is watered. If any land is under crops at the time the *killas* are made, the embankments are made after the crops have been cut and all cultivation thereafter is done on *killas*.

3. *Killabandi in zamindāri villages.*—In *zamindāri* villages, owned by one person, or by two or more jointly, field boundaries exist for cultivation purposes only and no objection is made to *killabandi*. As soon as *killas* are made the land is distributed among tenants afresh. Often roads and water-courses are all re-aligned along the sides of squares or *killas*.

4. *Killabandi in pattidāri villages.*—In *pattidāri* villages where proprietary fields are large, the owners agree to *killabandi* inside these for cultivation purposes, and unless there are dissensions among them they also agree to rectifying the proprietary boundaries in accordance with *killas* by mutual exchanges of irregular bits.

5. *Killabandi in bhāichāra villages.*—In *bhāichāra* villages or in *pattidāri* villages where sub-division is minute, the owners at first refuse to have anything to do with *killabandi*. This is partly due to hear that some trick will be played on them and partly to the inherent dislike to making any change. It is a good deal due to instigation of patwāris also who know that *killabandi* will reduce their power of making mischief and money. In such cases the patwāris are made to understand that if there is much opposition in the villages of their circle to *killabandi* they will incur serious displeasure and matters are fully explained to the people by Naib-Tahsildars and superior officers, and in the majority of cases the people give in. Where they still persist, pressure is brought to bear on them through the Irrigation Department, by notifying to them that canal irrigation will be withheld unless they make *killa* embankments. This has the desired effect.

6. *Re-partition by killas.*—In all such villages the proprietary sub-division being minute, a re-partition of the estate is made by *killas*. Before commencing the work, the Naib-Tahsildar or Tahsildar goes to the village, explains everything to the owners and then records their statements as to how the work will be done. In almost all cases the owners require possession to be maintained by *killas*, that is, all *killas* including land in the possession of one sharer are assigned to him. *Killas* which include land in the possession of more than one owner are assigned to the sharer who possesses most land in them. Conditions are entered about valuable trees and all other matters are fully disposed of. The file is then sent for the orders of the Settlement Officer, and when sanctioned by him the *killas* are made and allotted according to the sanctioned method. When the *killabandi* is complete the Naib-Tahsildar finally makes up the area due to each holding, shows each owner's *killas* to him and when all objections have been disposed of and every one satisfied, the *khataunis* are completed and a partition mutation is entered in the register and attested. In the columns of old entries on the mutation form is entered the total area of each holding as by last *jamabandi* with details of soils. In the columns of new entries a copy of the *khatauni* is made showing each field, area and soil, &c., allotted to the holding. Under the Financial Commissioner's orders no fees are charged on *killabandi* mutation.

7. *Advantages of killabandi to cultivators.*—The advantages of *killabandi*, as explained to the zamindārs, are as follows:—

(a) It is a permanent survey and where *killas* are completely acted upon no remeasurements will ever be needed. No chaining of areas harvest by harvest by canal or revenue patwāris will be required for purposes of assessment of occupiers' rate or revenue demand.

(b) Boundary disputes between fields will no longer occur.

- (c) Each man will know exactly how much land he possesses.
- (d) The cultivators will be able to satisfy themselves easily whether the demand for occupiers' rates or revenue assessed on them is correct, as they will be given rates by *killas*.
- (e) Ploughing and watering will be facilitated by straight embankments.

8. *Advantages to officials.*—The advantages to the officials are :—

- (a). During remeasurements the work of calculation of areas and checking of the sides of fields by scale is much reduced and is only needed in case of *killas* broken up by roads, water-courses, &c.
- (b). Crop inspection work will become much easier and patwáris will be able to manage larger circles.* Checking of crop inspections and *kharába* deductions by officers will be facilitated.
- (c). No amendments of the map will be required at quadrennial attestations.

9. *Suitability of tracts to killabandi.*—*Killabandi* is unsuited or not required in tracts under fixed assessments where proprietary sub-division is minute and the value of land high, as in such localities the field boundaries do not change and a *killa* is too large a unit for very valuable land held in small bits.

It is suitable and would be of advantage in sandy *báráni* tracts under fixed assessments where the fields are large, the soil too light and field boundaries get obliterated. The corners of *killas* could be shown on the ground by bricks and the boundaries from one brick to another being perfectly straight the fields would always be identified.

It is of the greatest value however in tracts under fluctuating assessments whether irrigated from canals, unirrigated or getting river floods. In riverain villages it is specially desirable, as the work of fluctuating assessments, alluvion and diluvion and crop inspections would be facilitated, frauds on the cultivators obviated, and when land carried away by the river is thrown up again it would at once be relaid into the original *killas* and identified.

In canal-irrigated tracts the owner can now be made to accept *killabandi*, but at present there are no means of exerting pressure on them in the riverain villages.

5th February 1904.

I. C. LALL,

Settlement Officer.

Note on Killabandi by MR. W. M. HAILEY, C.S., Colonization Officer, Jhelum Canal.

"Killabandi" as described in I of Mr. Lall's note has now been done over the whole of the canal commanded area in Shahpur district (both Crown and village lands), and the portion of the colony included in tahsils Chiniot and Jhang should be finished this winter. [See printed Colony Report.]



Mr. Lall has only to deal, I believe, with his own squares, which I have no doubt are regular in all respects. The canal squares which are the basis of my killabandi are not correct, and consequently I have a device whereby I throw all the imperfect killas into two outside lines of the square. Each square must therefore have 16 correct killas, however irregular it may be.

The rule is that all wats or embankments must be $1\frac{1}{2}$ foot high and $1\frac{1}{2}$ foot on top.

Under orders sanctioned by the Financial Commissioner all irrigation must be conducted according to killas. If wats are not properly constructed I report the fact to the Canal Department, which charges penal rates of *abiāna*. This applies equally to Crown and old villages.

There is no difficulty of any sort in Crown villages. The first thing the colonist does is to throw up his wats and the patwāri stands by, gives him the line, and sees that the wats are made.

In the old villages there was some difficulty in getting zamíndárs to construct proper wats but this difficulty has been surmounted and they are now being made.

Wats having been made, the next point is to get zamíndárs in old villages to alter their field boundaries to the killa, half, or quarter lines. I make it a condition of all partitions that they should be conducted on killa lines, and as the village waste is in most places under partition, this disposes of the difficulty in a considerable proportion of the canal area. There remain of course even in these villages a number of proprietary fields having boundaries which do not coincide with the killa lines. Wherever this is possible, I get zamíndárs to agree to the necessary exchanges in order to notify these boundaries. Several large villages have been completely done. I do not attempt to do more than get the boundaries to run along a half killa, a quarter killa or even an eighth killa. In canal work all killas are in the long run (or should be) divided into 8 *kiāris*, and in time I dare say that the *kiāri* will be a recognized unit of measurement, as the killa is. But negotiations of this sort want careful management; they must be done on the spot and must be carried out by a Tahsildar or Naib-Tahsildar. And they must be managed on such clear and simple lines that a Civil Court can understand them. I have ordered that a *naksha kam-o-besh* should be prepared in each case as in partitions, and that regular *khatauni* should be drawn up. The whole of the papers are filed separately with a revised and attested *shajra* as a "Misl Sidhai Line," by which name the process is generally known here.

I notify village boundaries in the same way. But I would strongly urge that no one should take up the question of "Sidhai Line" unless he is prepared to observe these precautions. A mischievous patwāri can throw the whole of one's model village into confusion by any of those suggestions as to inequality of exchanges which lead to so much civil litigation. One has to be able to prove without a moment's hesitation what a man ought to receive and what he has got.

Finally I would urge that it is a matter for consideration whether all partitions of big blocks of common waste should not in the future be carried out on squares drawn from the Settlement base line.

W. M. HAILEY,

Colonization Officer, Jhelum Canal.

Dated 28th February 1904.

Note on Killabandi by MR. W. RENOUF, C.S., Director of Land Records.

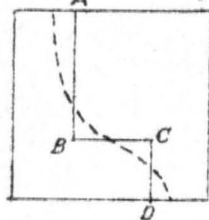
1. Since the receipt of Financial Commissioner's unofficial file on *killabandi* I have been able to see the work done in the Lyallpur and Jhelum Colonies, in Hafizabad and Khanga Dogran, and in Montgomery. There is very little to add to what has already been written by Mr. Hailey and Mr. I. C. Lall.

2. It will be noticed that there are varying degrees of success in *killabandi* in old cultivated tracts where old boundaries have to be re-adjusted. These degrees depend upon the extent to which the landowners can be persuaded to make exchanges.

(a) The zamindars agree to have the entire village area remeasured and repartitioned into *killas*. Each man also agrees to have all his property in one block. This is rare.

(b) Each man asks to retain possession of those *killas* in which he is already the principal landowner. Exchanges are fewer, but are still very numerous.

(c) Some relaxation is allowed, as in Mr. Hailey's "rectification of boundary" "system". The figure in the margin explains what is done. The old field boundary is shown by a dotted line, and the new boundary is A, B, C and D. It is obviously easier to get a landowner to agree to a boundary of this kind, which involves very little disturbance of possession than to persuade him to surrender a portion of a square in return for land elsewhere.



(d) A further relaxation may be as follows. We may assume a large irregularly shaped holding. It being found impracticable to convert it entirely into a number of rectangular figures, the internal fields only are arranged into *killas* and the outer boundary remains as before.

Of course, the more perfect the *killabandi* the better, but exceptions are unavoidable in certain cases.

3. *Killabandi* has thus far been done—

(a) In both the Chenab and Jhelum Colonies in allotting Crown lands. This presents no difficulty.

(b) In both colonies, in old village lands commanded by the canal—

(i) where village common lands have become irrigable there has been little difficulty, as the areas are ordinarily very extensive and are mostly waste.

(ii) Where old well or *barani* cultivation has become canal-irrigated, there has been some difficulty, and in almost all cases success has only been obtained by a threat to withhold canal water unless fields are arranged in squares, or boundaries are rectified.

In some cases, men who have opposed *killabandi* at first have afterwards asked for it when they have seen its advantages in neighbouring villages.

(c) In some very few cases villages not commanded by the canal have asked for *killabandi*.

The work done in Lahore, Jhang, and Montgomery has been in connection with canal extension and has been on the above lines.

(d) Mr. MacLagan did some *killabandi* in Mooltan on the Sidhnai Canal on land which was not private property before the canal came (see paragraph 45 (ii) of his Settlement Report). His *killas* were of 2 acres. He made no attempt to interfere with those fields which had been previously irrigated from wells.

The advantages of *killabandi* are clearly and fully explained in Mr. I. C. Lall's note, and I concur in what he says.

4. As to the suitability of tracts for *killabandi*, he has pointed out that it is unsuited or not required in tracts under fixed assessment, where proprietary sub-division is minute, and land valuable.

He recommends it for sandy *barani* tracts under fixed assessment where fields are large, the soil light and field boundaries easily obliterated. He says it is of the greatest value in tracts under fluctuating assessment, whether canal irrigated, unirrigated or *sailab*, and that it is specially desirable in riverain villages subject to river action.

5. A few further considerations may be added.

In well-irrigated districts like Hoshiarpur and Jullundur, each cultivator has spent money on improving certain fields, and some fields having become much more valuable than others, partitions and exchanges on the scale required for *killabandi* would be impossible. Further holdings are small in such tracts, and all cultivated land fetches a high price.

In canal-irrigated areas canal irrigation tends to remove differences in quality, unless holdings are very small, when special fields again receive particular attention. Where fields and holdings are small, the zamindár already knows their areas exactly.

In submontane or hilly districts where we cannot have square measurements or where cultivation depends on drainage lines, *killabandi* is impossible.

To sum up, the chief test is the size of the holding. Large holdings will facilitate *killabandi*. Where holdings are large land will also be cheap, and this makes exchanges easy to arrange.

As remarked by Mr. I. C. Lall, *killabandi* is most desirable where the assessment is fluctuating whether the tract be canal irrigated, unirrigated or *sailáb*, and in riverain villages. It would also be useful in level *bárání* tracts where there are large holdings.

6. Applying these principles, I would first draw attention to a statement attached which shows the average areas of fields and *khatauni* holdings in each district. The latter figure is, I think, the more important.

In the Delhi Division, *killabandi* would be practicable in all districts except Simla and Amballa, the latter being submontane and much of its surface being uneven. In the remaining districts, holdings are large and land is cheap, except upon canals, where *killabandi* will be difficult.

In the Jullundur Division, Kangra, Hoshiarpur and Jullundur and most of Ludhiána are obviously unsuitable. Ferozepore is a promising district. Cultivating holdings are very large in the *bárání* tracts, and average 5.7 acres for the district.

In the Lahore Division, the average cultivating holdings are as small as 1.8 or 1.9 acres in Amritsar, Gurdáspur and Siálkot. The two latter are also partly submontane and uneven. There is much well-irrigation in all three districts and land is costly. A trial of *killabandi* could only be recommended in Amritsar, but the smallness of the holdings over the greater part of the district would cause difficulties. Prospects are encouraging in Montgomery, Gujranwála and parts of Lahore.

In the Ráwalpindi Division, the Attock, Jhelum and Ráwalpindi districts are quite unsuited on account of their hilly character. Gujrat is submontane in two tahsils which are thickly populated, and Phália is the only favourable tahsil. The only part of the Shahpur district not included in the Jhelum Colony is the Khusháb tahsil. In this tahsil, the holdings are very large and *killabandi* could be done except near the hills.

Holdings are large in the whole of the Mooltan Division, and there is also much fluctuating assessment, so that *killabandi* would be particularly advantageous. It could be done in all except the hilly tracts.

7. I have, so far, chiefly considered the physical configuration of the country. The very important factor which must now be discussed is the attitude of the land-owners. We could employ absolutely no compulsion, for in tracts already irrigated by canals we could not threaten to withdraw water. The system would not only have to stand on its merits, but would be handicapped by the conservatism of the zamindárs.

We may take it for granted that progress would be slow and difficult at first. In canal areas there would be the added difficulty that irrigation channels would have to be rearranged at some labour and expense. Our best chance would be to begin with those villages where holdings are largest and which have supplied an appreciable number of settlers in the Colonies. In such villages, the merits of *killabandi* would already have been discussed. The above remarks apply especially to *nahri* areas. Where there are large *bárání* holdings the difficulties would be much less.

8. It cannot be insisted on too strongly that *killabandi* and rectification of boundaries should be done under reliable supervision and with extreme care as regards the framing of record. It should only be undertaken at the time of settlement or under special officers. The best course might be to post special officers, who had acquired some experience of the work, to likely districts for one or two winters before they come under settlement. They could select villages to work in, and by the time the settlement began, the Settlement Officer would be in a position to decide how far he should make *killabandi* a part of his programme.

9. As regards riverain villages (riverain tracts could be tried with advantage in all districts), Captain Buck told me that the Rávi villages in the Montgomery district are willing to accept *killabandi* having seen it in the neighbouring villages which will be irrigated from the Chenáb Canal. It would be interesting to make this experiment in Montgomery.

10. When large areas of *shamilât* are partitioned, there should be no difficulty in forming the fields into *killas*.

11. I think it is well worth making an attempt to extend *killabandi*. But we should proceed tentatively. It is difficult to gauge the amount of opposition or indifference which we shall encounter. Success will depend to some extent on the officers entrusted with the work.

Dated 28th April 1902.

W. RENOUF,

Director of Land Records and Agriculture, Punjab.

LIST OF DIVISIONS AND DISTRICTS.

DIVISION.	Number.	District.	Total area in acres.	Number of fields.	Average area per field.	Number of khatauni holdings.	Average area per khatauni holdings.
DELHI.	1	Hissár	3,315,100	435,579	7.6	273,807	12.1
	2	Rohtak	1,154,200	711,056	1.6	290,534	4.0
	3	Gurgáon	1,241,500	1,091,321	1.1	336,146	3.7
	4	Delhi	815,700	1,134,884	0.7	272,133	3.0
	5	Karnál	2,015,400	1,146,409	1.8	335,202	6.0
	6	Umballa	1,112,700	1,379,072	0.8	407,500	2.7
	7	Simla	49,000	48,111	1.0	9,489	5.2
JULLUNDUR.	8	Kángra	2,467,800	2,210,735	1.1	447,733	5.5
	9	Hoshiárpur	1,430,400	2,945,644	0.5	801,527	1.8
	10	Jullundur	870,300	2,040,805	0.4	557,178	1.6
	11	Ludhiána	891,000	1,479,592	0.6	354,815	2.5
	12	Ferozepore	2,611,800	1,350,591	1.9	458,250	5.7
LAHORE.	13	Montgomery	2,953,200	920,106	3.2	136,471	21.6
	14	Lahore	2,300,100	1,806,670	1.3	430,211	5.3
	15	Amritsar	997,700	1,426,676	0.7	544,622	1.8
	16	Gurdáspur	1,167,500	1,578,049	0.7	615,865	1.9
	17	Siálkot	1,264,800	1,879,652	0.7	669,128	1.9
	18	Gujránwála	1,904,600	1,172,679	1.6	313,955	6.1
RAWALPINDI.	19	Gujrát	1,231,900	1,114,517	1.1	412,012	2.9
	20	Shahpur	2,019,000	384,017	5.3	136,610	14.8
	21	Jhelum	2,537,700	1,645,650	1.5	425,807	6.0
	22	Ráwalpindi	3,239,300	1,503,475	2.2	603,900	5.4
MUGLTAN.	23	Miánwáli	4,977,100	703,658	7.1	211,284	23.5
	24	Jhang	4,331,800	2,634,087	1.6	219,673	19.7
	25	Móltan	3,810,500	1,157,129	3.3	170,341	22.4
	26	Muzaffargarh	2,019,300	928,498	2.2	272,984	7.4
	27	Dera Gházi Khan... ..	3,478,900	568,333	6.1	222,354	15.6
		Total	56,208,300	35,396,995	1.6	9,935,541	5.7

No. 4267.

FROM

THE HON'BLE MR. J. M. DOUSE, C.S.,
Settlement Commissioner, Punjab,

TO

L. H. LESLIE JONES, ESQUIRE, C.S.,
*Senior Secretary to the Financial Commissioner,
Punjab.*

LAHORE, dated 21st November 1904.

SIR,

I have the honor to submit the report on settlement work in the Punjab and the North-West Frontier Province for the year ending 30th September 1904. The field of operations has been a large one. Without counting Attock, where Mr. Butler held a semi-independent charge, seven settlements were in progress during the year. In addition fixed boundaries were being laid down on parts of the Chenáb, Rávi, and Sutlej rivers. From the nature of the case the work done by Settlement Officers comes prominently before Government from time to time. I shall, therefore, now confine myself to stating as shortly as I can the progress made in each district.

2. The work in Attock has been finished. Mr. Butler sent in his Assessment Report in the end of November and the orders of Government were received in the beginning of April. The village assessments have been announced and distributed over holdings, and the new records of rights have been filed. The addition to the revenue was Rs. 45,000, the former demand being enhanced by 28 per cent. The re-settlement lasted for about three years, and cost Rs. 93,000. Though the tract was a small one, I do not think the task of assessing it was easy, and Mr. Butler deserves great credit for the ability and thoroughness with which it was accomplished.

3. In Jhang work has been in progress for three years, and the measurements, which have been made on the square system, are practically finished. The Assessment Report of the Chenáb-Nahri Circle was received in the cold weather, and the new demand was introduced with effect from Rabi 1904. The circle only included 100 estates, but the orders passed on its assessment were of importance as settling the character, and to some extent the pitch also, of the canal and well land revenue assessments in the old estates throughout the large tract irrigated by the Chenáb Canal. The increase taken was about Rs. 58,000, representing an enhancement of 124 per cent. The circumstances were of course quite exceptional, as the Settlement Officer had to deal with an enormous extension of cultivation rendered possible by a large expenditure of State money. The canal demand is fluctuating, and liberal differentiation has been allowed between village and village. The Assessment Report of the riverain circles, written during the year, reached me in the beginning of the present month. Partition work in Jhang is heavy, and at the same time intricate and important. The acquisition of land for the Chenáb and Jhelum Canals and the Jech Doáb Railway forms a heavy addition to the ordinary duties of a Settlement Officer. While Mr. Abbott enjoyed a well-earned rest during part of the hot weather the Extra Assistant Settlement Officer, Lala Ganga Rám, was in charge of the settlement.

4. The re-settlement of the Háfizábád and Khángah Dográn Tahsils has been carried on with energy by Mr. I. C. Lall, and good progress has been made. As in 1902-03, the tract suffered severely from plague, and again the staff

behaved very well. The survey of the large canal-irrigated area has been finished. Its great feature is the success attained in introducing *kilabandi*. The prejudices against it have practically melted away, and many of the owners in the purely *barāni* and riverain villages now wish for it. The greater part of the Chenāb Circle is perfectly level, and the annual floods do not, therefore, effect sweeping charges. There are no physical obstacles to *kilabandi* such as exist in some river tracts. But there is no such urgent need for rectangular fields as in the canal-irrigated area, where the matter is so important that we are justified in putting some pressure on the people. Elsewhere *kilabandi* should only be undertaken where there is a genuine wish for it on the part of the landowners. The Assessment Report of the canal-irrigated tract reached me in August and the orders of Government have been received. An additional revenue of $2\frac{1}{2}$ lakhs will be secured. Notwithstanding reductions in non-canal villages the demand for the whole tract will be doubled.

5. The correction of maps in Rāwalpindi has been pushed on with great energy and will be complete in $2\frac{1}{4}$ years after the starting of the settlement. As a matter of fact it would have been better, as Mr. Kitchin now himself feels, to spread the work over three years. Too many temporary patwāris were employed in order to increase the number of chains at work. On my first visit to Rāwalpindi last spring I ordered gradual reduction, but things had probably gone too far for any effectual remedy. The result is that final attestation has only been carried out in one-third of the estates in which the new maps and *khataunis* have been completed. Two extra tahsildars will shortly be appointed to help in pushing on attestation. It has been recognized that this will be necessary where survey is confined to the correction of old maps, a process which takes much less time than re-measurement, but the proper time to give this assistance is when survey work is at its height, say, in the second year of a settlement. This is what is being done in Gurgāon, and what will be done in Karnāl. The regular tahsildars can then be given more leisure for attestation by reducing for the time being the size of their charges. At the stage which work has reached in Rāwalpindi the problem, an insoluble one I fear, is how to employ extra tahsildars without diminishing the responsibility of the ordinary tahsildars for work done under their supervision. I have full confidence that Mr. Kitchin will not allow final attestation to be scamped because it is so much in arrears. If he made the mistake of pushing on too fast, it was a very pardonable one, and I fear he risked his own health in the enterprise. It must be remembered that in the forecast report it was estimated that the Rāwalpindi Settlement could be finished in four years. I do not think the attempt to do so would be wise, and I have therefore changed the date in Statement III for the probable completion of the settlement to March 1907. It is unlikely that this will involve any addition to the cost of the settlement as originally stated. The Assessment Report of the Gūjar Khan tahsil has been written, though I have not as yet received it in print.

6. In Miānwāli and Gurgāon work was started at the beginning of the year. Owing to the rapid growth of settlement operations in recent years, and the realization that it is true economy to give a Settlement Officer from the first a sufficient staff, a good deal of difficulty is experienced at present in providing efficient naib tahsildars and kánungos. This has been accentuated by the fact that the period of the duration of certain settlements has been underestimated. All naib tahsildar candidates who are not kánungos at the time of their acceptance should after a year's training be made to work for two years as settlement kánungos before being entrusted with higher duties. Unless we succeed in doing this, inefficient men will be foisted on Settlement Officers as naib tahsildars, and the system of choosing half of our candidates from among men of family and education with no previous settlement experience will be discredited. A Settlement Officer must expect to spend the first year of his settlement in drilling his regiment of patwāris, but he is entitled to get good sergeants and trained lieutenants.

7. The starting of work in Miānwāli has been attended with a good deal of difficulty and it became necessary to make some changes in the superior staff. Practically the whole tract will be

re-measured on the square system. Survey work has now got a fair start and will be carried on with great vigour in the current year. The partition work is very heavy, and, as far as possible, it will be pushed on so that the results may be embodied in the new record of rights.

8. In Gurgáon Mr. Hamilton has, for the reasons already stated, carried on his work under great difficulties. I may quote his own remarks on the subject.

"I wish to protest strongly against a system which requires a settlement to be carried through with a totally inefficient staff. Almost without exception my naib tahsildars were quite untrained and could not command the smallest respect from the patwáris, who easily detected their ignorance. Of the kánúgos the less said the better. The result is that the supervision of the patwáris has been of the slightest and the record and the maps are everywhere full of mistakes. This is unfair on the people and on the superior staff who have not of course time to do the work of the naib tahsildars, and kánúgos in addition to their own. The naib tahsildars have improved greatly, but many of the kánúgos are still quite unfit."

On paper the work accomplished is large, but, if Mr. Hamilton's account of its quality is not exaggerated, much of it will have to be done over again. I shall spend some weeks in Gurgáon in January and pay special attention to this question. It would be intolerable to file records which the Settlement Officer himself describes as "full of mistakes." One extra tahsildar has already been sent to Gurgáon, and another will shortly be appointed. This will enable the Settlement Officer to reduce the size of the charges of the permanent tahsildars. Orders have been passed on Mr. Hamilton's preliminary report on assessment circles, soils, and prices.

9. Captain Crosthwaite's work in the part of his charge included in the Punjab is practically finished. I inspected the Dera Ismail Khan District. tract in the Dera Ismail Khan and Kuláchi tahsils last March. There has been considerable delay in the submission of the Assessment Report, but I hope to receive it shortly. The report on the partition of the lands of the Gandápur tribe was submitted during the year, and Captain Crosthwaite and Kamál-ud-dín, Settlement Tahsildar of Kuláchi, received well merited praise from the Chief Commissioner of the North-West Frontier Province for the successful completion of this work, whose difficulty was only equalled by its utility. In his report the Settlement Officer has given a very modest account of the great improvements he has effected in the hill stream irrigation, by which 200,000 acres of waste land have become culturable. Captain Crosthwaite hopes to wind up the settlement in March 1905, but I feel some doubt whether this will be practicable. It has lasted much longer and cost much more than was originally contemplated. I think that some part of the delay might have been avoided. But the original expectation that the re-settlement of the enormous area included in the old Dera Ismail Khan district could be carried out in four years was an extraordinarily sanguine one.

10. The first estimate of the duration of the Hazára settlement, four years, has proved equally fallacious. Probably when it was started no one realized how defective the maps and records of the last settlement were, or how difficult it would be to make an accurate survey in such a country. In the past year the progress of measurements has been rapid. Owing to the inaccuracy of the existing records it was impossible to compile trustworthy assessment data till the survey was far advanced. Partly on this account final attestation has been allowed to lag far behind, and I have submitted proposals for the appointment of two extra tahsildars to help in this important branch of settlement work. The Assessment Report of the Haripur tahsil by Mr. Watson, and that of the Mansehra tahsil by Captain Beadon, were received during the year. The orders of the Chief Commissioner on the latter reached me during the present month, and I have just sent in my own review of the former.

The increase, inclusive of mill assessments, to be taken in Mansehra, amounts to Rs. 73,000, and the old demand will be almost doubled. If my proposals for Haripur are accepted the rise, exclusive of mill assessments, will be Rs. 73,500, which is equal to 50 per cent. The assessment under revision has been in force for more than thirty years, and was from the first very lenient.

11. The forecast report of the Karnál settlement was submitted in April, and sanction was received to the re-assessment of that district. *Other matters.* Orders have been passed by the Punjab Government on the revision of the Sirhind Canal occupiers' rates. I propose to march next month through part of the tract in the Lahore district watered by the Bári Doáb Canal, and I shall then be able to dispose of Mr. Hamilton's proposals for the revision of the rates there. Pandit Hari Kishen Kaul's report on the same question as regards the Western Jumna Canal has not as yet been received. The rules for the remission of revenue on wells falling out of use lately issued mark an important advance in settlement policy. Fixed boundaries were approved by the Financial Commissioner for a few villages on the Rávi in the Amritsar and Siálkot districts. The reports by Messrs. Townsend, Talbot, and de Montmorency on the boundaries laid down on the Chenáb, Sutlej, and Rávi will be submitted very shortly, as the appeals presented have with one or two exceptions been decided. Mr. Butler's work on the Indus boundary between Attock and Pesháwar will be referred for orders to the Financial Commissioner by the Revenue Commissioner of the North-West Frontier Province. During my recent tour in Hazára, I had an opportunity of meeting Mr. O'Dwyer, and we together heard two appeals presented by Pesháwar villages against Mr. Butler's decisions. The charge of the two canal colonies makes a heavy, but interesting, addition to my duties as Settlement Commissioner. But this branch of work is the subject of a separate report.

12. A former Settlement Commissioner once remarked to me on the pleasure he derived from having under his orders a body of very efficient officers. Since I took charge of my present post *Conclusion.* I have had many proofs of the truth of that observation.

I have, &c.,

J. M. DOUIE,

Settlement Commissioner.

STATEMENTS.

STATEMENT No. I.

SHOWING PROGRESS MADE IN RE-MEASUREMENT AND ATTESTATION DURING THE YEAR ENDING 30TH SEPTEMBER 1904.

		2	3	4	5	6	7	8	9	10	11	12	13	14
		DISTRICTS OF THE PUNJAB.							Total Punjab Districts.	DISTRICTS OF THE NORTH-WEST FRONTIER PROVINCE.				REMARKS.
		Bhakkar and Leiah Tahsils of the Mianwali District (a), October 1898.	Attock, October 1901.	Jhang, October 1901.	Hafizabad, June 1902.	Rawalpindi, October 1902.	Mianwali and Isakhel Tahsils of Mianwali District, October 1903.	Gurgaon, October 1903.		Dera Ismail Khan, October 1898.	Hazara, October 1900.	Total North-West Frontier Province.	GRAND TOTAL	
Total number of villages under Settlement ...		373	194	788	530	1,508	116	1,264	4,773	460	885	1,345	6,118	
Total area under Settlement ... Acres.		3,857,226	327,415	1,703,588	872,113	2,823,616	1,380,207	1,241,644	12,205,809	2,214,086	1,630,375	3,844,461	16,050,270	
AREA REMEASURED IN ACRES.	In previous years ...	3,857,226	327,415	1,026,014	372,486	617,648	...	...	6,200,789	2,214,086	696,705	2,910,791	9,111,580	
	During the year ...	...	...	461,366	299,267	1,689,062	151,513	891,118	2,992,326	...	813,128	813,128	3,805,454	
	Total to date ...	3,857,226	327,415	1,487,380	671,753	2,306,710	151,513	891,118	9,193,115	2,214,086	1,509,833	3,723,919	12,917,034	
VILLAGES OF WHICH THE MAPS HAVE BEEN COMPLETED AND FINALLY ATTESTED.	In previous years ...	373	194	538	173	522	...	...	1,800	460	458	918	2,718	
	During the year ...	...	...	242	172	813	3	564	1,794	...	326	326	2,120	
	Total to date ...	373	194	780	345	1,335	3	564	3,594	460	784	1,244	4,838	
VILLAGES OF WHICH THE RECORDS HAVE BEEN COMPLETED AND FINALLY ATTESTED.	In previous years ...	373	11	448	81	148	...	...	1,061	460	154	614	1,675	
	During the year ...	...	183	293	134	292	1	156	1,059	...	164	164	1,223	
	Total to date ...	373	194	741	215	440	1	156	2,120	460	318	778	2,898	

(a). Includes figures relating to 32 villages of Sangarh Tahsil, Dera Ghazi Khan District.

STATEMENT No. II.
SHOWING PROGRESS MADE IN RE-ASSESSMENT DURING THE YEAR ENDING 30TH SEPTEMBER 1904.

1		2	3	4	5	6	7	8	9	10	11	12	13	14
		DISTRICTS OF THE PUNJAB.								DISTRICTS OF THE NORTH-WEST FRONTIER PROVINCE.			GRAND TOTAL.	REMARKS.
		Bhakkar and Leiah Tahsils of the Mianwali District, (a) October 1898.	Attock, October 1901.	Jhang, October 1901.	Hafizabad, June 1902.	Rawalpindi, October 1902.	Mianwali and Isakhel Tahsils of Mianwali District, Octr. 1903.	Gurgaon, October 1903.	Total Punjab Districts.	Dera Ismail Khan, October 1898.	Hazara, October 1900.	Total North-West Frontier Province.		
AREA UNDER ASSESSMENT.	Total area in acres ...	3,857,226	327,415	1,703,588	872,113	2,823,616	1,380,207	1,241,644	12,205,809	2,214,086	1,630,375	3,844,461	16,050,270	
	Area of which assessments have been sanctioned in previous years ... Acres	3,635,833	...	...	...	...	...	...	3,635,833	293,169	...	293,169	3,929,002	
	Area of which assessments have been sanctioned during the year ... Acres	...	327,415	297,324	...	...	...	...	624,739	407,622	...	407,622	1,032,361	
	Area still to be assessed ... Acres	221,393	...	1,406,264	872,113	2,823,616	1,380,207	1,241,644	7,945,237	1,513,295	1,630,375	3,143,670	11,088,907	
ASSESSMENTS SANCTIONED DURING THE YEAR.	Previous assessment ... Rs.	...	1,59,290	46,544	...	...	...	...	2,05,834	80,891	...	80,891	286,725	
	New assessment as sanctioned ... Rs.	...	2,04,500	1,04,489	...	...	...	...	3,08,989	1,04,368	...	1,04,368	4,13,357	
	Total increase of assessment ... Rs.	...	45,210	57,945	...	...	...	...	1,03,155	23,477	...	23,477	1,26,682	
	Increase, per cent. ...	...	28	124	...	...	...	...	51	29	...	29	44	
VILLAGES OF WHICH THE ASSESSMENT HAS BEEN ANNOUNCED.	During the year	Number of villages ...	354	194	101	...	...	...	649	214	...	214	863	
		Total area ... Acres	3,835,833	327,415	297,324	...	...	...	4,260,572	700,791	...	700,791	4,961,363	
		Total new assessment Rs.	3,13,595	2,04,500	1,04,489	...	...	...	6,22,584	1,52,723	...	1,52,723	7,75,307	
	Total to date.	Number of villages ...	354	194	101	...	...	...	649	214	...	214	863	
		Total area ... Acres	3,835,833	327,415	297,324	...	...	...	4,260,572	700,791	...	700,791	4,961,363	
		Total new assessment Rs.	3,13,595	2,04,500	1,04,489	...	...	...	6,22,584	1,52,723	...	1,52,723	7,75,307	
ASSESSMENT REPORTS.	Total due ...	2	1	3	3	4	2	...	15	3	3	6	21	
	Previously submitted by Settlement Officer ...	2	...	1	...	...	...	...	3	2	...	2	5	
	Submitted by Settlement Officer during the year ...	...	1	...	1	...	...	...	2	...	2	2	4	
	Sanctioned by Government ...	2	1	1	...	...	...	...	4	2	2	2	6	
	Still due to Government ...	...	...	2	2	4	2	...	10	1	1	2	12	
RESULT OF RE-ASSESSMENT OPERATIONS.	Increase of assessment as announced to date ... Rs.	66,399	45,210	57,945	...	...	...	...	1,69,554	30,314	...	30,314	1,99,868	
	Percentage of increase ...	27	28	124	...	...	...	...	38	25	...	25	36	
	Increase of assessment for the whole area under Settlement. As now estimated ... Rs.	80,650	45,210	1,58,000	...	...	...	...	2,83,860	32,150	1,51,000	1,83,150	4,67,010	
	As estimated in the forecast report ... Rs.	60,000*	50,000	1,12,000	2,25,000	1,89,000	68,000	175,000	8,79,000	15,000*	1,50,000	1,65,000	10,44,000	

(a) Includes figures relating to 32 villages of Sangarh Tahsil, Dera Ghazi Khan District.

* The total enhancement has been very roughly divided between the tahsils in the Punjab and those now in the North-West Frontier Province.

STATEMENT No. III.

DURATION AND COST OF SETTLEMENT OPERATIONS.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	
	DISTRICTS OF THE PUNJAB.								DISTRICTS OF THE NORTH-WEST FRONTIER PROVINCE.					
	Bhakkar and Leiah Tahsils of the Mian- wali District (a).	Attock.	Jhang.	Hafizabad.	Rawalpindi.	Mianwali and Iskhel Tahsils of the Mian- wali District.	Gurgaoon.	Total Punjab Dis- tricts.	Dera Ismail Khan.	Hazara.	Total North-West Frontier Province.	Grand Total.	REMARKS.	
Date on which Settlement operations commenced	Octr. '98	Octr. '01	Octr. '01	June '02	Octr. '02	Octr. '03	Octr. '03	...	Octr. '98	Octr. '00	...	...
PROBABLE OR ACTUAL DATE OF COMPLETION OF	Measurements	30th June '02	Augt. '03	Novr. '04	June '05	Jany. '05	Octr. '05	July '05	Decr. 1901	Decr. '04	...	...
	Revision of records	31st Decr. '02	Decr. '03	Decr. '04	June '06	Sept. '05	Mar. '06	July '06	Decr. '02	Octr. '05	...	...
	Re-assessment	31st Decr. '04	1904	Sept. '05	Do.	June '06	Octr. '06	Decr. '07	Decr. '04		...	...
	Settlement operations	31st Mar. '05	Octr. '04	March '06	Sept. '06	March '07	Mar. '07	March '08	Mar. '05		April '06	
COST OF FIELD SURVEY OPERA- TIONS DURING THE YEAR, DEDUCTING EXPENDITURE ON ORDINARY DISTRICT STAFF.	Total cost	Rs. ...	...	74,787	41,167	1,50,303	49,261	67,845	3,82,363	...	79,546	79,546	4,62,909
	Cost per square mile re- measured	Rs. ...	...	104	88	57	208	111	82	...	63	63	78
TOTAL COST OF SETTLEMENT OPERATIONS, DEDUCTING EXPENDITURE ON ORDINARY DISTRICT STAFF.	During the year	Rs. ...	32,851	38,389	74,787	56,919	1,50,303	49,261	97,587	5,00,097	39,184	1,47,884	1,87,068	6,87,165
	Total to date	...	2,38,739	93,337	2,32,187	1,19,219	2,45,241	49,261	1,00,258	10,78,242	2,56,284	4,62,331	7,20,615	17,98,857
	Now estimated for the whole operations of Settle- ment	Rs. ...	2,38,750	93,482	3,07,187	2,25,000	5,12,012	2,00,000	5,75,756	21,52,187	2,75,000	3,71,087	8,46,087	29,98,274
	As estimated in the forecast report	Rs. ...	1,80,016*	75,270	3,21,544	1,84,966	5,12,012	1,93,248	5,75,756	20,42,812	1,80,000	2,96,676	4,76,676	25,19,488

(a) Includes figures relating to 32 villages of Sangarā Tahsil, Dera Ghāzi Khan District.

* The total cost has been roughly distributed between the part of the old Dera Ismail Khan district now in the Punjab and that in the North-West Frontier Province.

70

74

78

MAY OF THE PUNJAB

TO ILLUSTRATE THE REPORT ON THE
SETTLEMENT OPERATIONS

for the year 1903-04

Scale 1 inch = 64 Miles

50 40 30 20 10 0 50 100 Miles

Settlements Completed during the year

Settlements in Progress

32°

32°

28°

28°