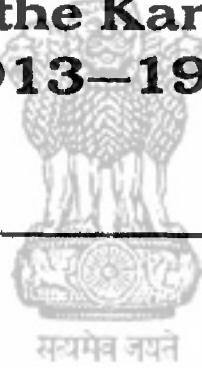

**Final Report of the Third Revised
Land Revenue Settlement of the
Palampur, Kangra and Nurpur
Tahsils of the Kangra District,
1913–1919.**



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Final Report
OF THE
Third Revised Land Revenue Settlement

OF THE
Palampur, Kangra and Nurpur Tahsils

OF THE
Kangra District.

1913—1919.

By

L. MIDDLETON, I.C.S.,

Settlement Officer.



Lahore :
PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRINTING, PUNJAB
1919.

Kangra Settlement Report, 1913—1919.

List of corrections.

- In the table of contents *add* an extra paragraph No. 40-A "General."
- In line 12 of paragraph 3 *for* "and monkey" *read* "monkey and."
- In line 19 of paragraph 3 interchange the comma and semi-colon.
- In line 1 of page 4 *for* "numbers" *read* "members."
- In line 20 of page 4 *insert* "a" before "high."
- In line 25 of paragraph 7 *after* "termed" *insert* "shamilat tika whilst those common to all tikas of a mauza were distinguished as"
- In line 27 of paragraph 7 *after* "meanings" *insert* "rather than their English equivalents."
- In sub-paragraph 7 of paragraph 14 interchange the comma and colon.
- In sub-paragraph 13 of paragraph 14 *for* "(11)" *read* "(12)."
- In line 1 of paragraph 15 *for* "an" *read* "on."
- In line 8 of paragraph 15 *for* "succeasive" *read* "successive."
- In line 44 of page 11 *for* "comdemned" *read* "condemned."
- In line 2 of paragraph 16 *for* "correctly" *read* "correctly."
- In the figure in paragraph 18 *insert* a small square "a" inside the large square "B."
- In line 28 of paragraph 18 *insert* a comma between "successful" and "possibly."
- In line 4 of paragraph 25 interchange the comma and full-stop.
- In line 11 of paragraph 25 *insert* "I" between "tahsils" and "received."
- In line 15 of page 18 *insert* a comma after "assessment."
- In line 16 of page 18 *insert* a comma after "results."
- In line 21 of page 19 *for* "agricultutal" *read* "agricultural."
- In 4th line from bottom of page 20, *for* "estimates" *read* "statements."
- In lines 11 to 23 of page 23, *for* "reduced" *read* "raised," and *for* "raised" *read* "reduced."
- In lines 16 and 18 of page 23 *after* "less than 10 per cent." *add* "or by 10 per cent."
- In line 31 of paragraph 34 *after* "differences" *insert* "of interpretation."
- In line 6 of paragraph 36 *for* "mass of" *read* "main."
- In line 6 of paragraph 36 *for* "conservency" *read* "conservancy."
- In line 36 of paragraph 36 *for* "reserved" *read* "reserves."
- In line 37 of paragraph 36 *for* "Hoshairpur" *read* "Hoshiarpur."
- In paragraph 37, the small print should end at "as Government Forest" and the remainder should be in big print.
- In line 10 of page 30 *insert* "that" before "in future."
- In line 6 of paragraph 40 *for* "Sowandar" *read* "Sowanedar."
- In 9th line after the first table in paragraph 40 *insert* "the" before "three tahsils."
- The paragraph headed "General" on page 31 should be numbered "40-A."
- In penultimate line of Chapter V *for* "parwari" *read* "patwari."
- In line 7 of paragraph 51 *insert* a comma after "local," and *for* "district" *read* "District."

TABLE OF CONTENTS.

Para.	Contents.	Page.
CHAPTER I.—DESCRIPTIVE		
1	Introductory	1
2	Physical features	<i>ib.</i>
3	Vegetation, animal life and natural products	2
4	Climate and rainfall	3
5	The people	<i>ib.</i>
6	Communications and markets	5
7	Sub-divisions	6
CHAPTER II.—HISTORICAL.		
8	Early history	6
9	Regular Settlement, 1849—1852	7
10	First revised settlement, 1865—1869	<i>ib.</i>
11	Second revised settlement, 1887—1892	8
CHAPTER III.—PROGRESS OF SETTLEMENT AND REVISION OF THE RECORD.		
12	Necessity for revision of settlement	8
13	Extensions of the period for completion	9
14	Contents of the standing record	<i>ib.</i>
15	The new field maps	10
16	Composite maps	12
17	Records of rights in irrigation	<i>ib.</i>
18	Detached fragments of tikas	13
19	Determination of boundaries	14
20	Trijunction pillars and survey marks	<i>ib.</i>
21	Tika inspection note-books	<i>ib.</i>
22	Mutation and case work	<i>ib.</i>
CHAPTER IV.—ASSESSMENT AND DISTRIBUTION OF LAND REVENUE.		
23	Assessment circles and classification of soils	15
24	Procedure intended for adoption	16
25	Modification in procedure adopted	<i>ib.</i>
26	Preliminary assessment reports	<i>ib.</i>
27	Inspection for assessment	17
28	Special forms of assessment	18
29	Assessment of Palampur Tahsil	20
30	Assessment of Kangra Tahsil	21
31	Assessment of Nurpur Tahsil	22
32	General results of assessment	24
33	Distribution of revenue over holdings	<i>ib.</i>
CHAPTER V.—FORESTS.		
34	Government ownership of trees	25
35	Tea Planters' rights in trees	26
36	History of forest conservancy giving rise to the present classification of Government forests	27
37	Incorporation of tree file orders and working plan proposals in the settlement records	28
38	Forests in the jagirs	29
39	Appropriation of waste lands	<i>ib.</i>
40	Cattle tax	30

Para.	Contents.	Page.
CHAPTER VI — MISCELLANEOUS.		
41	Assignments of revenue	32
42	Amount and dates of instalments	34
43	Cesses	35
44	Term of settlement	ib.
45	General scheme for the reduction of lambardars	ib.
46	Scheme for grading zaildars and revision of zails	ib.
47	Patwaris and Kanungos	36
48	Tenants	ib.
49	Di-alluvion rules	ib.
50	Suspensions and remissions	ib.
51	Riwaj-i-am and District Hand-book of Customary Law	37
52	District Gazettee	ib.
53	Training of officials	ib.
54	Notice of officers	ib.
55	Orders required	39
APPENDICES.		
I	Statement of areas	i
II	Statement regarding assesement	ii
III	Statement of forest areas	iv
IV	Statement of cost of settlement	v
V	Di-alluvion rules	vi
VI	Scheme for the working of suspensions	xiii
VII	Notifications relating to the settlement	xiv
VIII	Glossary of vernacular terms	xv
IX	Map of the Palampur Tahsil with list of mauzas	xvi
X	Map of the Kangra Tahsil with list of mauzas... ..	xvii
XI	Map of the Nurpur Tahsil with list of mauzas	xviii

FROM

THE HON'BLE MR. E. JOSEPH, I.C.S.,
Revenue Secretary to Government, Punjab.

TO

THE SENIOR SECRETARY TO THE FINANCIAL
COMMISSIONERS, PUNJAB.

Dated Lahore, the 8th April 1920.

Revenue and Agriculture.

Revenue.

SIR,

I AM directed to acknowledge receipt of letters No. 460, dated 10th May 1916, and No. 91--753-1, dated 10th February 1920, forwarding respectively Messrs. Shuttleworth's and Middleton's final reports on the settlement of the Dera and Hamirpur tahsils and the Nurpur, Kangra and Palampur Tahsils of the Kangra district, together with notes by Sir A. H. Diack and Mr. Fagan.

2. The re-settlement of the Kangra district was undertaken partly in order to correct an unequal distribution of the revenue, partly to rectify an admittedly defective record-of-rights and partly to arrive at a decision on certain important matters regarding rights in forests. No considerable enhancement of the land revenue demand was anticipated though the general rise in prices since last settlement was expected to justify a slight increase. Although the work has, from various causes for which the settlement officers were not to blame, cost considerably more and occupied a longer time than was anticipated, the Lieutenant-Governor is well satisfied with the results attained. The maps and records have been brought up to date and the district has been provided with a record-of-rights far superior to any it has possessed in the past. The care and industry bestowed by the settlement officers on the distribution of the new demand over estates and holdings as well as the leniency of the demand itself are evidenced by the fact that, despite the enormous number of tikas involved and the wide variation of the changes effected, less than 100 objections were made either to the assessment or the distribution, while the number of cases carried beyond the settlement officers' courts was insignificant.

3. The many vexed questions connected with forest rights and management in the district have been examined and disposed of by separate orders, and there is reason to hope that though the question will still demand the attention of the local officers, it will not in the future give rise either to the misunderstandings or to the uncertainties that have existed in the past. The excessive damage which the forests have suffered from over-grazing has led to the imposition of a grazing tax. The effect of this tax, in regard to the revision of which orders have been passed in Revenue Secretary's letter No. 23255, dated 1st November 1919, must continue to be watched, but as at present advised His Honour agrees with the Financial Commissioner that it is likely to afford the best means of reducing the number of the flocks and herds and keeping them within reasonable limits.

4. Forest records-of-rights for the jagir forests have been drawn up and conditions of management as between Government and the Jagirdars have been approved. For their work in connection with the settlement of these vexed questions Messrs. Mitchell, I.C.S., and Walters, I.F.S., are entitled to the greatest credit.

5. The new assessment which has been announced and is formally confirmed by the Lieutenant-Governor amounts to Rs. 2,20,977. The enhancement excluding the grazing tax, which is in fact land revenue varying from 9 per cent. in Dera to 17 per cent. in Palampur and averaging 13 per cent. for the district as a whole, amounts to a quarter of a lakh over the anticipated figure. The cost of the settlement will be recovered in less than 7½ years so that the work which was considered justified by the importance of the other considerations involved will in fact be fully remunerative. The new demand cannot be considered anything but lenient, amounting to Re. 1-13-3 per cultivated acre, and ranging from Re. 1-0-6 the matured acre in Hamirpur, to Rs. 2-1-8 in the Kangra tahsil. The pressure of population is however severe and there has been little or no improvement in the general resources and communications of the tract. The term of settlement has already been fixed at 30 years in Dera and Hamirpur and the Lieutenant-Governor now fixes the same period for the remaining three tahsils.

6. Separate orders will issue regarding the completion of the Gazetteer. Sir Edward Maclagan agrees with Mr. Fagan as to the inadvisability of a special enquiry into the status of occupancy tenants.

7. Messrs. Connolly and Boughey, who were both unfortunately compelled to resign their respective charges by ill-health, are to be congratulated on the sound lines which they laid down. To their successors Messrs. Shuttleworth and Middleton the thanks of Government are due for the unremitting industry, the patient attention to detail and the sympathetic attitude which they brought to their tasks. The settlements were arduous and exacted a high degree of physical exertion as well as unremitting application.

The services of Messrs. Mitchell and Walters have been acknowledged above, and the Lieutenant-Governor desires to add his acknowledgments of the excellent work performed by Malik Zaman Mehdi Khan and Lala Arjan Das, the Extra Assistant Settlement Officers, and of the Tahsildars and subordinate officials whose names have been brought to notice.

I have &c.,

E. JOSEPH,

Revenue Secretary to Government, Punjab,

No. 91—753-1.

FINANCIAL COMMISSIONERS' OFFICE :

Dated Lahore, 20th February 1920.

FROM

V. CONNOLLY, Esq., I.C.S.,

Senior Secretary to the Financial Commissioners, Punjab,

TO

THE HON'BLE MR. E. JOSEPH, I.C.S.,

Revenue Secretary to Government, Punjab.

The Hon'ble Mr. P. J. Fagan, C.S.I., I.C.S.

SIR,

I AM directed to submit, for the orders of Government, Mr. L. Middleton's final report of third revised Land Revenue Settlement of the Palampur, Kangra and Nurpur Tahsils of the Kangra District, together with the review thereon of the Commissioner, Jullundur Division, and the Financial Commissioner,

I have the honour to be,

SIR,

Your most obedient servant,

V. CONNOLLY,

Senior Secretary to the Financial Commissioners, Punjab.



सत्यमेव जयते

**Note by the Financial Commissioner on Mr. Middleton's Final Report on
the Settlement of the Palampur, Kangra and Nurpur Tahsils of the
Kangra District.**

1. The final report on the settlement of the other two tahsils of Kangra proper, Dera and Hamirpur, has already been dealt with in Sir Alexander Diack's note of the 24th April 1916, which was submitted to Government with Junior Secretary's letter No. 460, dated 10th May 1916. The special nature of these final reports is explained in paragraph 1 of that note and also in paragraph 1 of the present report. In order to facilitate simultaneous treatment of both these final reports by the Punjab Government I shall adhere, as far as possible, to the order of subjects in Sir A. Diack's note, and where needful shall endeavour to supplement and bring up to date his remarks on settlement operations in Dera and Hamirpur and their results. The separation of the five tahsils of Kangra proper into two parts for the purposes of settlement and the successive carrying out of practically two distinct settlements in one district has been productive of several inconvenient results, not the least of which has been the preparation of two Final Settlement Reports and the necessity of dealing with them piecemeal. I propose to give at this point for facility of reference a very brief outline of the general course of settlement operations in all five tahsils. Limited in the first place to the Dera and Hamirpur Tahsils they were commenced in the spring of 1910 by Mr. V. Connolly as Settlement Officer without the assistance of an Extra Assistant Settlement Officer, the deficiency not being made good until June 1911. In October 1910 the conduct of similar operations in the Una Tahsil of Hoshiarpur was added to his charge. He submitted the preliminary assessment reports of Dera and Hamirpur in September 1911, and orders were passed on them by the Financial Commissioner in the following December. Mr. Connolly's health unfortunately broke down in May 1912, and he was compelled to proceed on leave. He was relieved by Mr. Shuttleworth, who completed the settlement of the Dera and Hamirpur Tahsils and also that of Una, his operations in the first two tahsils terminating in December 1914. Meanwhile settlement operations were begun in the three tahsils of Palampur, Kangra and Nurpur, to which the present report relates, in the autumn of 1913 under Mr. G. M. Boughey as Settlement Officer. He submitted the preliminary assessment report of Palampur a year later, but owing to the necessity of a reference to the Punjab Government orders were not passed on it until November 1915. Meanwhile in the May of that year Mr. Boughey was compelled by ill-health to relinquish charge of the settlement and proceed on leave. He was relieved by Mr. Middleton, who took over charge in August 1915 and completed settlement operations in January 1919.

2. A good description of the physical features of the three tahsils is given in paragraphs 2-4 of the report. They comprise, proceeding southwards, the precipitous slopes of the Dhaula Dhar, the outermost Himalayan range, the confined, very fertile and well-watered Kangra valley stretching east and west at their foot and beyond this on the south a broken country of low sandstone and conglomerate hills in which irrigation is scanty. The purely mountainous Gadheran tract lying in and beyond the Dhaula Dhar constitutes on the east a projection from the three tahsils which is almost dissevered. Narrow alluvial areas are found in the valley of the river Beas on the south-eastern and south-western boundaries of the tract comprised in the three tahsils. With a rainfall varying from an annual average of 116" at Dharamsala to 63" at Nurpur the tract is on the whole more favoured than the Hamirpur and Dera Tahsils. The appended figures show the broad features of the cropping of the three tahsils :—

			PERCENTAGE OF TOTAL AREA MATURED UNDER VARIOUS CROPS.						Percentage of matured crops on total cultivated area.
			Wheat,	Barley.	Total Rabi.	Rice,	Maize.	Total Kharif.	
Palampur	...	..	80	8	40	29	14	60	150
Kangra	...	...	91	6	46	32	15	54	118
Nurpur	...	...	94	13	51	14	20	49	94

So far as they go they indicate the inferiority of Nurpur to the other tahsils of Kangra proper. Forest growth and forest produce are naturally varied and plentiful, but have to contend, very often unsuccessfully, with the reckless depredations of man and of his herds and flocks. Except for a good metalled road which traverses the Kangra valley the communications are inferior, and there is at present no railway in the tract.

3. Rajputs, Brahmins and Ghirths comprise one-half of the population, while Thakkars and Rathis whose social position is inferior to that of the Rajput contribute a little more than one-fifth. In the case of the Rajput and Thakkar the importance attached to social precedence and to social restrictions is decidedly prejudicial from an economic point of view. The true local cultivators are the Ghirth and the Rathi, but their agricultural efficiency is not really high. The Rajput has for a long time been plentifully represented in the Indian Army, and in recent years his example has been followed by the Rathi. These three tahsils are even more congested than Dera and Hamirpur, the incidence per square mile of cultivated area being over 900, though in Nurpur it falls to a little less than 600. In the latter tahsil with its comparatively unfertile conditions the pressure on produce is greater and during the last thirty years it has shown a slight though steady decline in population which is attributed to the evil effects of the prevailing social customs.

4. In chapter II a good survey of the fiscal history of the tract has been furnished. Both before and since annexation in 1846 it has been very similar to that of the other two tahsils, Dera and Hamirpur. A regular settlement in 1849-52 with a reduced and on the whole fair assessment was followed by Sir J. Lyall's revision of records in 1865-69 and a first assessment of the Lambagraon jagir. The revised settlement of 1887-92 conducted by an officer who was compelled to combine in himself the onerous posts of Deputy Commissioner and Settlement Officer resulted in an impaired record of rights and an assessment which under more favourable conditions might have gone further towards remedying existing inequalities than it actually did. Its result was to raise the khalsa land revenue of the five tahsils by Rs. 96,000 round, or 15 per cent., to Rs. 7,43,000; the corresponding separate figures for the three tahsils treated in the report being Rs. 57,000, 13 per cent. and Rs. 4,87,000.

5. The whole tract comprised in the three tahsils except the Gadheran Circle has in the recent settlement been subjected to complete re-measurement and entirely new field maps have been prepared. The system adopted is fully described in paragraphs 15 and 16 of the report. Its main feature consists in its being based on a skeleton survey carried out by the Survey Department in the course of which convenient points were fixed by traverse in each tika and were then plotted on sheets on which the new maps were drawn by the patwaris. The straight lines joining the points formed the frame work on which the measurements were carried out and the maps prepared. As an exception to the system certain makeshift arrangements were adopted in the comparatively few places where large continuous blocks of waste existed in which it was not worthwhile to incur the expenditure of traversing a large number of points. The system on the whole worked admirably and cordial acknowledgments are due to the Survey Department for the valuable assistance rendered by it. The successful results fully compensate for the extra expenditure involved. Measurement work which was prolonged was also rendered difficult by the polygonal and irregular shape of the fields which is common in this hilly and mountainous tract. One good result of the system has been that it has been possible to compile from the tika maps useful maps for entire tahsils which will in turn give a map for the whole district. Doubtful boundaries, both riverain and other, received a good deal of attention, and all discrepancies and disputes appear to have been disposed of satisfactorily. The repair of trijunction pillars and the erection of necessary survey marks has been carried out. The point dealt with in paragraph 18 of the report is an apt illustration of the complexity and intricacy which has been introduced in the past into the revenue administration of the district.

6. The standing record of rights has been drawn up tika by tika and contains all the prescribed documents. The important subject of the usages and connected rights which regulate irrigation by means of *kuhls* appears to have received adequate attention in the preparation of the record. A large amount of mutation work was carried out, the number of cases decided being 132,000 round. As regards the rights of tenants I am not in favour of the general enquiry which is suggested in paragraph 48 of the report and which meets with support from the Commissioner. Admittedly there are but few suits involving occupancy rights or ejectment so that the matter can in no sense be a burning one; while the results of the proposed enquiry will certainly render it so by producing a crop of litigation. As stated in paragraph 37 of the report the jamabandi included in the standing record contains full and detailed entries of the rights of Government in forest trees, an intricate matter which will be noticed later. It may, I think, be confidently claimed that as a result of the settlement the three tahsils immediately under reference, as well as Dera and Hamirpur, now possess a record of rights far superior to any other that has existed in the past, and it is to be hoped that revenue and forest administration will in consequence be facilitated and improved.

7. Paragraphs 24—26 of the report give a sufficiently accurate account of the method of procedure and of the principles prescribed by Sir Alexander Mack and accepted by Government for framing the assessments, which are all fixed. Broadly it may be said that in actual practice it has been so far modified owing to various causes that in the orders passed on the preliminary assessment reports considerably more prominence than was originally contemplated has been given to rough aggregate standard assessments for circles and less to standard soil rates framed without reference to their anticipated total results. Paragraph 27 gives an admirably clear account of the method of arriving at the assessment of the individual tika and of its distribution over holdings, which are the essential features of the Settlement Officer's task. It shows also the peculiar difficulties involved in this work in a hilly and mountainous tract. It was, I am confident, carried out by Mr. Middleton with extreme care and discrimination and with very satisfactory results. Considering the large number of individual tikas (hamlet estates) which were involved the number of objections and appeals was remarkably small.

8. It is not necessary for me to follow the Settlement Officer at any length through the very full discussion of the assessments tahsil by tahsil and circle by circle which is given in paragraphs 29—31 of the report. The general result for the three tahsils is summarised in paragraph 32. On the whole except in Nurpur the assessments finally announced do not differ materially from those adopted as rough anticipations in the orders passed on the preliminary assessment reports, the proposals in which were framed it must be remembered after a preliminary and more or less cursory local inspection and before accurate area statistics based on the new measurements were available. I have seen many of Mr. Middleton's tika inspection notes and can testify to the care with which this part of his work has been carried out. In a mountainous tract such as Kangra with its continuous variations in physical as well as in other features assessment must be more largely than elsewhere a matter of personal opinion and discretion, based of course on minute local knowledge, rather than one to be regulated by the precise orders and detailed instructions of superior authority. It is evident that the Settlement Officer has made full use of the discretion which was allowed him to depart from the rough standard aggregate assessments anticipated in the orders issued on the preliminary reports; and it is satisfactory that these were as close as they have turned out to be to the demands which have been actually imposed on the complete data ultimately obtained. The main feature of the re-assessment has been not a large enhancement but a more equitable distribution as between and within individual estates. Special care and attention has been devoted to the actual *bachh* as described in paragraph 33. I append below the financial results of

the re-assessment of the five tahsils, the figures including assigned land revenue :—

Tahsil.	Former assessment.	New assessment as announced.	Enhancement.	Percentage.	INCIDENCE OF NEW ASSESSMENT PER	
					Acre cultivated.	Acre of matured crop.
	Rs.	Rs.	Rs.		Rs. A. P.	Rs. A. P.
Dera ...	1,72,760	1,88,434	15,674	9	1 12 3	1 10 7
Hamirpur ...	1,61,584	1,80,970	19,406	12	1 8 8	1 0 6
Palampur ...	1,71,738	2,01,534	29,796	17	2 10 1	1 11 0
Kangra ...	1,73,113	1,98,841	25,728	15	3 2 11	2 1 8
Nurpur ...	1,36,695	1,51,198	14,503	11	1 6 6	1 8 7
Total ...	8,15,870	9,20,977	1,05,107	13	1 13 8	...

The anticipated enhancement of land revenue proper, accepted by the Punjab Government in 1910, was Rs. 80,000, so that the fiscal results of the settlement have been somewhat better than was expected.

9. Excluding the pay of the Settlement and Extra Assistant Settlement Officers the total cost of settlement operations in the three tahsils has been Rs. 3,96,000, round. For Dera and Hamirpur the corresponding figure was Rs. 3,76,000 ; so that the total for the whole district stands at Rs. 7,72,000 or 7·3 times the total enhancement inclusive of assigned revenue. The total cost of the settlement of the five tahsils was estimated in 1910 at Rs. 6,22,000 round, so that in this case there has been an excess of $1\frac{1}{2}$ lakhs. Operations were in progress for nearly 9 years, 1910—1919, the periods for the two groups of tahsils separately being nearly 5 years in the case of Dera and Hamirpur and slightly more for the other three tahsils, while the Settlement Commissioner in 1909 expected that the settlement of each group would require 3 years. Both the cost and duration of operations have thus substantially exceeded original anticipations. One chief cause of this result has undoubtedly been the unexpected dimensions and intricacy of certain questions relative to the ascertainment, decision and record of State rights in forest trees which, with other connected matters such as the cattle tax, have presented themselves for treatment in the course of the operations. It was recognised from the first that the disposal of forest questions must necessarily fall to some extent within the scope of the Settlement Officer's duties, but it is I think correct to say that complexities of the type which actually emerged and which had to be dealt with were never anticipated. The subject is treated in full in chapter V of the report and will be noticed below. Another contributory factor to the prolongation of operations beyond the periods initially anticipated was, I think, insufficient recognition of the difficulties attending measurement in a mountainous country, more especially where existing maps were in an unsatisfactory condition. Both settlements were also unlucky in losing their Settlement Officers through bad health at an early stage of the operations, a misfortune which necessarily entailed a certain amount of dislocation and delay. With reference to paragraph 13 of the report I do not consider that Mr. Middleton can be held responsible for an undue prolongation of the operations. It is easy to be wise after the event, but experience clearly points, I think, to the conclusion that, had the settlement of all five tahsils been taken up simultaneously under a single Settlement Officer assisted by an Assistant as well as an Extra Assistant Settlement Officer and a full staff, operations would have been facilitated and considerably shortened and the cost probably reduced.

10. The numerous petty assignments in the three tahsils involved much laborious investigation, the matter having been complicated to some extent by previous unsatisfactory treatment during the term of the expiring settlement. It has

now been placed on an improved footing, while many of the petty and useless *lahri basi* or homestead grants have been resumed.

11. The zaildari arrangements have been entirely revised during the settlement in all five tahsils and the graded system of remuneration has been introduced with a definite cadre for each tahsil. There are now in all 46 zaildars arranged in three grades with annual inams of Rs. 250, 170 and 125, respectively. Necessary additions have been made to the staff of kanungos and patwaris and their circles have been revised. The proportions of and the dates of payment of land revenue instalments have been reconsidered and where necessary re-arranged. The di-alluvion rules applicable to lands affected by the Beas and by the numerous streams and torrents which flow into it have been revised in the light of experience and a new set drawn up which is embodied in Appendix V. No scheme for suspensions and remissions of land revenue of the ordinary kind is necessary nor indeed possible, but the suggestions contained in Appendix VI of the report should receive due attention in regard to the whole tract included in the five tahsils. Hamirpur and Nurpur are, however, the two which will be chiefly concerned in this connection. A *riwaj-i-am* and an English handbook of Customary Law has now been completed for all the five tahsils, and considerable trouble has been expended on this work. With reference to paragraph 52 of the report it has been ascertained that Mr. Mitchell was unable to complete the revised edition of the Gazetteer before proceeding on leave in July 1919 but that only one month's work remains to be done. It has been suggested to Government by the Commissioner that Mr. Middleton should undertake the completion on his return from furlough.

12. As in Dera and Hamirpur, forest questions have bulked very large in the settlement of the three tahsils now under reference. They are dealt with at length in chapter V of the report, a good summary of the gradual evolution of the present position in regard to forest conservancy being furnished in paragraphs 36-39. It gives adequately the gist of the interminable mass of printed material which in the course of half a century has accumulated round the subject of the Kangra forests, and I do not propose to add anything to it.

13. The delimitation and record of areas the trees on which are to remain the property of the State was the most important forest matter dealt with in the course of the settlement. Reference was made to it in paragraph 20 of Sir Alexander Diack's note reviewing the Final Settlement Report of Dera and Hamirpur. The arduous and intricate work carried out in connection with it is fully described in paragraphs 34 and 40-A. It gave rise to prolonged correspondence and discussion which was only definitely terminated by the orders passed by the Punjab Government in its letter No. 322 of 4th November 1916, several months after Sir A. Diack's note was written. The work was entrusted to Mr. J. F. Mitchell who was placed on special duty under Mr. Middleton in connection with forest matters. His operations embraced the area of all five tahsils and both officers are entitled to the greatest credit for the very careful and thorough manner in which the whole subject was dealt with in accordance with the principles laid down. Matters are now on a far more satisfactory footing than ever before and it may fairly be claimed that one of the main difficulties of revenue and forest administration in Kangra has very largely ceased to exist. By Punjab Government Notifications Nos. 991 and 993 to 995, dated 11th January 1919, certain consequential amendments have been made in Punjab Government Notifications Nos. 57, 59 and 61 of the 26th January 1897 and No. 416, dated 14th August 1897, which relate to protected forests in Kangra, while for Notification No. 58 of 26th January 1897 has been substituted No. 992 of the 11th January 1919. Before proceeding on leave in July 1919 Mr. Mitchell prepared a full report of his proceedings which has been printed. It will demand careful attention from future Deputy Commissioners and other officers concerned with the forest administration of the district.

14. Much discussion took place during the course of the settlement on the subject of future forest conservancy in Kangra proper. It was ultimately decided that those portions of the protected forests (chiefly demarcated) which are still capable of responding to scientific treatment should remain under the control of the Forest Department while the remainder with the unclassed forests should be transferred to that of the Deputy Commissioner, who, with a suitable staff of assistants and subordinates, would work them with the co-operation of the people, and with the double object of securing some degree of conservancy as well as supplying legitimate local requirements for timber and other forest produce. The task of elaborating the necessary schemes for transfer of areas to the Deputy Commissioner and for delimiting closure series in the areas which are to remain under departmental control was entrusted to Mr. Mitchell and to Mr. Walters of the Indian Forest Service who have worked in conjunction. Their detailed proposals for transfer, for the staff required in connection with the scheme and in respect of connected matters were framed and received separately for each of the five tahsils. They have been submitted to Government with certain alterations. Orders have been passed by it on most of the matters involved but a few still remain under its consideration. The scheme involves the transfer to the control of the Deputy Commissioner of 523 square miles of area of which 352 square miles are protected and the rest unclassed forests.

The working plan to which reference is made in paragraph 36 of the report and which will embody proposals for the future rotational closure of forest areas retained by the Forest Department and for their delimitation is, I understand, practically complete, but it has not yet reached me. The work done by Messrs. Walters and Mitchell in this connection is noticed at the top of page 32 of the report. It has been prolonged, intricate and physically arduous, and the result will I have no doubt show that they deserve the greatest credit for the tactful energy which they have displayed.

15. The Settlement Officer gives an account of the cattle-tax, and of its assessment in paragraph 40. It requires to be supplemented in some particulars. Since the report was written certain proposals relating—

(1) to the periodical enumeration of cattle for the assessment of the tax,

(2) to the grazing fees charged for migratory Gaddis' flocks,

were submitted to Government with Senior Secretary's No. 291—254-4 of 3rd October 1919. They were accepted in full in Revenue Secretary's No. 23255, dated 1st November 1919. It has thus been decided that the next enumeration of cattle shall be carried out in kharif 1920 in all five tahsils, but that the resulting new demand for cattle-tax shall not come into force in Dera, Hamirpur and Palampur, where there has already been one revision of assessment of the tax, until a year later, i.e., in kharif 1921. In Kangra and Nurpur it will be introduced from the time of enumeration, i.e., from kharif 1920. By the same orders the rate for migratory Gaddis' goats has been enhanced to Rs. 12-8-0 per hundred or Re. 0-2-0 per head, that is, it has been doubled, the rate for sheep being retained at Rs. 4-11-0 per hundred or 9 pies per head. It has also been decided that migratory Gaddis who have grazing rights appendant to the ownership of land in a tika will be liable for cattle tax *quâ* residents as well as for grazing fees *quâ* migrants if they choose to enjoy grazing facilities in both capacities. As regards the buffaloes of persons other than sowanadar Gujars it has been directed that they shall not be taxed for the present unless they are taken for grazing to tikas in which their owners have no grazing rights. In such cases Rs. 2 per female buffalo per annum is to be charged. Government has, however, expressly retained power to tax other buffaloes which may be in excess of the domestic requirements of their owners even though they are at present exempted. On the whole Mr. Middleton is pessimistic, unduly so I am disposed to think, as to the future operation and effects of the cattle-tax, more especially it would seem as regards the flocks of migrant Gaddis. He would, if I understand him rightly, rely on restriction by a definite compulsory limitation of numbers rather than on

restriction by special taxation involving, as the latter must, periodical enumeration. No doubt there are considerable difficulties in the way of accurate enumeration, but I fail to see how a system of restriction in numbers can itself dispense with enumeration in some form at some stage of another, while the practical enforcement of such limitation seems to me to be wholly impossible. On the other hand the figures furnished on page 31 of the report, so far as they go, certainly seem to indicate that a reduction in the number of sheep and goats has followed upon the imposition of the tax, though it is no doubt too early to conclude definitely that the former is either partially or entirely the result of the latter. Assuming that an attempt to bring about a reduction in the number of goats and in a less degree of sheep which infest and exploit the Kangra forests is legitimate, I am by no means satisfied as yet that this cannot be secured ultimately by a cattle-tax of an elastic character which can be enhanced gradually as experience shows to be necessary up to a point where it may be really protective or prohibitive. I fully agree, however, that the flocks of the migratory Gaddis are the chief offenders; and it was for this reason that the measures for their special treatment which have been recently approved by Government were proposed.

16. Under the conditions of the district a term of 20 years for the new settlement is obviously appropriate, and I recommend that it should be sanctioned. It seems needless, however, to provide for a prospective revision such as that proposed by the Settlement Officer for the Nurpur Tahsil. It can be carried out at any time which Government may think proper on the motion of the local officers, should deterioration become apparent.

17. Mr. Middleton's task was one of no ordinary difficulty and he is, I consider, deserving of the highest commendation for the successful manner in which it has been accomplished. His work throughout has been characterized by ability, patient and assiduous care and sound judgment while his final report is clear, complete and thorough. Mr. Mitchell's work in connection with the State's rights in trees was one which demanded exceptional energy, tact and discretion and its successful completion is highly creditable to him. The good work, done by L. Arjan Das as Extra Assistant Settlement Officer, merits cordial acknowledgment. The other officials, mentioned by Mr. Middleton, are recommended to the favourable notice of Government. The Commissioner has furnished an excellent summary of the report for which I am much obliged to him.

सत्यमेव जयते

P. J. FAGAN,

The 24th January 1920.

Financial Commissioner, Punjab.

No. 5706.

FROM

LIEUT.-COL. P. S. M. BURLTON, I.A.,
Offg. Commissioner, Jullundur Division,

TO

THE SENIOR SECRETARY TO THE FINANCIAL
COMMISSIONERS, PUNJAB.

Dated Jullundur City, the 20th August 1919.

SIR,

IN continuation of my letter No. 4855, dated the 17th July 1919, I have the honour to forward a Brief Note on the Final Report of third revised Land Revenue Settlement of the Palampur, Kangra and Nurpur Tahsils of the Kangra District.

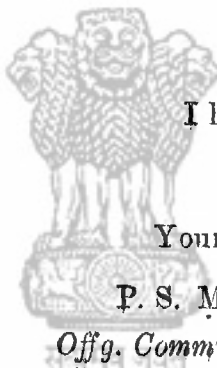
2. I send herewith the tika assessment statements as desired in your letter No. 91—753-1, dated 23rd May 1918.

I have the honour to be,

SIR,

Your most obedient servant,

P. S. M. BURLTON, LIEUT.-COL.,
Offg. Commissioner, Jullundur Division,



Note.

The third revised Settlement Report of the 3 remaining tahsils of the Kangra District, *viz.*, Palampur, Kangra and Nurpur Tahsils, now submitted by Mr. Middleton, completes the settlement operations in the Kangra District which are comprised as follows:—Kulu Sub-Division conducted by Mr. J. Coldstream; Messrs. Connolly and Shuttleworth between them carried out that of the Dehra and Hamirpur Tahsils, whilst the 3 remaining tahsils under report were commenced by Mr. Boughey in the year 1913 and completed by Mr. Middleton.

The present report is divided into 2 parts, the 1st 4 chapters comprise all that is generally included in a Settlement Report, whilst chapter V presents the unusual feature of the result of the enquiry ordered by Government in 1916 as to the principles to be applied to determine the thorny question of Government ownership of trees for the whole 5 tahsils of Kangra proper, and the specification of these areas in the 5 tahsils formed part of the present settlement operations.

GENERAL DESCRIPTION.

Of the tract under settlement consisting of 1,380 square miles and elevation varying from 20,000-900 feet a large part of the Palampur Tahsil extends beyond the mountain ridge known as Dhaula Dhar, resembling more the Kulu Sub-Division than Kangra proper. This tract has much grazing but little cultivation. The rest of Palampur Tahsil and the whole of Kangra Tahsil drops suddenly down and across what is commonly known as the Kangra Valley, has a breadth of roughly 6 miles, narrowing down considerably in the west of Kangra Tahsil, and is extremely fertile. The valley is much broken up by ravines, the water from which is used for irrigation. The whole of the valley is therefore plentifully irrigated and regularly double cropped. Across the valley the condition of these 2 tahsils is greatly altered. A low hill country, with deep gorges, incapable of being irrigated from streams, and scanty cultivation, Kangra Tahsil finishes in the low hills, whilst Palampur extends to the Beas river. The remaining Tahsil, Nurpur, lies to the west of Kangra and to the south of the Dhaula Dhar ridge.

The rainfall is abundant, 116 inches in Dharmsala to 63 in Nurpur. The main crops are rice and wheat in Kangra and Palampur and in Nurpur rice and maize in Kharif and wheat in Rabi. Crops are more injured by excessive than want of rain.

The tract is inhabited by Rajputs, the aristocracy of the district, and the Settlement Officer has some interesting remarks to make as to the custom of the hand of daughters of this tribe. The Rajputs enlist freely in the Indian Army, and have done no small deeds in the 4 years' Great War. It is satisfactory to note that their aversion to ploughing is weakening, though on the other hand the restrictions on marriage, accompanied by heavy and useless expenditure, must have a sadly weakening effect on this martial tribe.

The Thakur next in the social scale, is even more handicapped than the Rajput. The majority remain unmarried and are in debt. After these two tribes comes the Rathi. A hard man, with no restrictions in marrying or giving in marriage, he is the backbone of the agricultural community and has also been taken into the Indian Army freely.

Mr. Middleton has not much good to say of the Ghirth. He is very low in the social scale, of loose morals and addicted to drink, yet he takes the place of the Rathi in the irrigated valleys of Kangra and Palampur Tahsils, and doubtless fulfils his purpose in the social scale of agricultural life. Of the rest, the Gaddi, a nomadic grazer, is practically confined to the slopes of the Dhaula Dhar.

There are no large towns in the tract under assessment.

II—FISCAL HISTORY.

The early history of the tract is interesting. The country was held by independent Rajput Rajas, who were eventually brought into subjection by the

Sikhs. The present land-owners derived their title to land from grants made by the Rajas, and at the cession of the Jullundur Doab and hill tracts, including the Kangra district in 1846, local leaders offered some resistance.

A summary settlement was made by Mr. John Lawrence, the demand being about 10 per cent. lower than that of the Sikhs, but many miscellaneous dues were also abolished. Jagirs were granted to the leading Jagirdars, but, with the exception of the Raja of Lambagraon, who is a descendant of the paramount Raja of former times, none of these jagirs come into the tract under settlement. Three years after, *i.e.*, in 1849, a settlement was made by Mr. Barnes in which he maintained the demand on irrigated tracts, but reduced that on dry lands. Except in the more valuable estates no regular maps were made at the settlement. This assessment on the whole worked fairly well. Mr. (Sir James) Lyall was deputed in 1865 to draw up a correct record. The assessment circles were the tracts called Taluqas, which had been the administrative divisions before the cession to the British. Mr. Barnes found a collection of hamlets with patches of cultivation, groups of which were under the headmen. These he demarcated and called *Mauzas*. Mr. Lyall sub-divided these into *tikas* consisting of one or more hamlets with surrounding waste over which rights were claimed and the work of fixing the boundaries of these *tikas* was one of the important features of Mr. Lyall's operations. In 1887-92 another settlement was made by the Deputy Commissioner, Mr. O'Brien, at whose death in the latter year Mr. Anderson undertook the final stages.

Mr. Middleton's remarks in paragraph 11 show in what respect the settlement immediately after completion was proved to be unsatisfactory. The assessments imposed in these settlements were :—

					1849-52.	1865-69.	1887-92.
					Rs.	Rs.	Rs.
Kangra	...	...	...	...	1,54,055	1,60,869	1,74,128
Palampur	...	...	...	...	1,42,718	1,45,320	1,72,109
Nurpur	...	...	...	...	1,25,149	1,23,858	1,36,293
Total					4,21,917	4,29,547	4,82,530

The present final demand by tahsils is :—

					1913-18.	Increase per cent. on expiring demand of 1887-92.
					Rs.	
Kangra	...	...	...	...	1,98,841	14.9 %
Palampur	...	...	...	...	2,01,534	17.3 %
Nurpur	...	...	...	...	1,51,198	10.6 %
Total					5,51,573	14.5 %

The present operations were sanctioned from October 1913—September 1916. They had to be extended to end of June 1918, and a reduced staff was sanctioned thereafter up to January 1919.

It was noted before settlement that the increase would probably not warrant a revision, but the necessity of having an accurate record and a decision on the rights of Government in forest rendered a settlement imperative and, as Mr. Middleton remarks, if these objects have been attained, the small increase is amply justified.

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It was noted before settlement that the increase would probably not warrant a revision, but the necessity of having an accurate record and a decision on the rights of Government in forest rendered a settlement imperative and, as Mr. Middleton remarks, if these objects have been attained, the small increase is amply justified.

The settlement operations cost Rs. 3,96,232, which will be recovered in 6 years.

Great care has been taken by Mr. Middleton in the preparation of the standing record, the preparation of the new maps, and the system adopted in the various assessment circles. In the latter the principle was adopted that assessment within a fixed proportion of any sanctioned rate would be impossible and so assessment was done separately for each *Tika*. This necessitated very detailed and minute inspection work, which was evidently done in a very thorough manner both by Mr. Boughey and Mr. Middleton. The actual assessment was done by the latter officer, though the preliminary inspection work was performed by Mr. Boughey in the Palampur Tahsil alone. The number of objections and appeals at the end of paragraph 27 show the satisfactory nature of this detailed inspection. Nine appeals were pending and they were rejected. There were special forms of assessment described in paragraph 28 of the Report of lands held in fee simple and assessment of land under tea. The former is still exempt from payment of land revenue, and the latter is assessed at Re. 1 per acre.

Attention is invited to paragraph 44 where a minimum period of 30 years as the term of settlement is recommended, but in view of the progressive deterioration of Nurpur Tahsil (*vide* end of paragraph 5 of Settlement Officer's Report) it is suggested that after 15 years an enquiry should be made as to whether a reduction of assessment is required in those *Tikas* of that tahsil in which the demand has not been raised. I also invite attention to paragraph 48 on Tenants. Something is undoubtedly necessary. Mr. Lyall's entries of classification are a mystery to most of us. They are a fruitful source of litigation in which cases last for over a year, and I am of the opinion an enquiry should be held into the status of all such tenants and to record them definitely as occupancy or non-occupancy tenants.

III.—FORESTS.

Considerable opposition had been aroused to the arrangements made for securing a correct record of the title to trees in areas in which the title was left open to doubt by the previous record. This was undoubtedly due to the apprehension of a wholesale declaration of private lands as forest; when it was seen that this was not to be the case and that the sympathetic and careful carrying out of the orders of Government did not justify this fear, the opposition to a large extent died away, though the Settlement Officer notes that the people still persist in regarding the declaration of specified areas as forest as imputing new restrictions on their rights. He hopefully, however, optimistically, adds that in a few years the wrong headed opposition will give place to thankful approval. Mr. J. F. Mitchell, I.C.S., was placed on special duty to carry out the orders contained in Punjab Government letter No. 822-Forests, dated 4th November 1916, and the method adopted by him is related in paragraph 34 of the Report. The solution has, I venture to think, been found, and the difficulty of ascertaining which areas, outside the demarcation, were Government forests overcome.

With Mr. Mitchell's "tree file" work was enjoined upon him the safeguarding of the rights of the people and ensuring that no closure should prejudice their interests when Mr. O. H. Walters of the Forest Department was preparing a working plan for the whole of Kangra proper. Under this closure series the distinction between demarcated and undemarcated forests practically disappears and those areas which do not come within the rotational closure proposals are to be handed over to the control of Deputy Commissioner. Appeals from Mr. Mitchell on "tree files" were heard by the Settlement Officer and on those regarding "rotational closure" by the Deputy Commissioner. The Financial Commissioner is much better acquainted with the value of Mr. Mitchell's and Mr. Walters' work than I am, who have only seen

it in its ultimate stage with the final proposals, so I refrain from commenting on it. The grazing tax imposed in the interests of forest conservancy is gone into fully in paragraph 40 of the report. 'The difficulties of a truthful enumeration are given, and it is recommended that a fresh enumeration should be made throughout the district in Kharif 1920, and that one season's tax in three tahsils first assessed in the spring harvest should be waived, so that this tax may be assessed and collected at Kharif at the same time as the tax on sheep and goats is being *collected*. In conclusion, attention is invited to paragraph 55, which details the matters on which Government orders are required, and I trust that the Financial Commissioner will be able to heartily endorse the opinion that the two main objects of the settlement have been very satisfactorily completed, *viz.*, the replacing of an inaccurate record and the precise definition and delimiting of forest areas.

P. S. M. BURLTON, LIEUT.-COL.,

Offg. Commissioner, Jullundur Division.

The 13th August 1919.



Final Report

OF THE

Third Revised and Revenue Settlement

OF THE

Palampur, Kangra and Nurpur Tahsils

OF THE

Kangra District—1913—1919.

CHAPTER I.—DESCRIPTIVE.

1. Kangra District falls naturally into two clearly defined parts,—Kangra Proper on the west which runs southwards from the ridge of the Outer Himalayas and includes the greater part of the foot-hills of that system from Gurdaspur on the west to Mandi and other hill States on the east; and the Sub-Division of Kulu which lies amongst the Himalayas to the east. The latest revision of the settlement of the district has been taken up piecemeal, that of the Kulu Sub-Division was conducted by Mr. John Coldstream and was completed in 1913; Messrs. V. Connolly and Shuttleworth carried out that of the Dera and Hamirpur Tahsils of Kangra Proper in which the new demand was introduced from Kharif 1914; whilst the remaining three tahsils of Kangra Proper form the subject of the present report. The operations now under report therefore were mainly confined to the Palampur, Kangra and Nurpur Tahsils; but some branches of the work extended over the whole of Kangra Proper.

Special rules of procedure applicable to hill tracts governed these operations; these involved the submission of Preliminary Assessment Reports on each tahsil at an early stage before measurement work had been completed. The orders on those reports fixed standard rates which were to be used as guides in assessment, but allowed the Settlement Officer greater freedom than usual in assessment which he was to impose without further reference to higher authorities: hence in addition to the usual matters discussed in a settlement report, this report deals fully with the assessments imposed and forms a supplement to the assessment reports; this being so I have refrained from repeating matter which has already appeared in them.

2. The outer ridge of the Himalayas, here known as the Dhaula Dhar, dominates the whole tract varying along its crest from a height of 13,000 to nearly 16,000 feet. In the north-east a large part of the Palampur Tahsil extends beyond this ridge and forms the Gadheran assessment circle; it is a country of mountains and glaciers more resembling the Kulu tract than any other part of Kangra Proper; it affords fine grazing for nomadic pastoral races, but cultivation is confined to scattered hamlets grouped in the valleys of the Uhl river, a tributary of the Beas, and from the revenue point of view it is of little importance. The main part of the Palampur Tahsil and the whole of Kangra Tahsil run down in a south-westerly direction from the ridge of the Dhaula Dhar. This range drops precipitously and within six miles of the boundary these tahsils run out across the Kangra Valley, the surface of which varies between 4,000 and 2,300 feet above sea level; the valley is one of amazing fertility and is a tract with an average breadth of six miles narrowing to inconsiderable dimensions in the west of Kangra Tahsil; viewed from the Dhaula Dhar it appears to be a level tract broken by a few isolated hills; in reality it slopes rapidly downwards from the foot of the range and is traversed by innumerable ravines; these ravines collect the surface water from the range, whilst the largest of them are fed from the perpetual snows. In spite of the broken character of the valley its slope is so considerable that water from these ravines can be run on to the surface of the land by quite short approach channels. Minor ravines which are not themselves sources of perennial irrigation form no obstacle as the

irrigation channels are run into them and taken along the further bank reaching the surface again with very little loss of elevation. As a result practically the whole of the valley, including many tracts which from the south appear to be high hills, is copiously irrigated; the general rich nature of the soil, reinforced by the humus brought down by the water and aided by much artificial manuring, leads to a regular system of double cropping and the whole valley is covered with rice and wheat in their due seasons.

After crossing the Kangra valley these two tahsils extend into a broken country of low sandstone and conglomerate hills; in their passage across the valley the life-giving waters from the mountains collect into a few main streams which break through these low hills in deep gorges, their depth is so great and the surface of the country so broken that they cannot now be used as sources of irrigation except in such few small plots of land as lie below their cliffs; the low hill country then is practically entirely unirrigated, much of it is waste either forest, or downs, or bare rock, whilst cultivation is confined to small plateaux and valleys and to the lesser slopes wherever the depth of soil is sufficient to support a crop. Kangra Tahsil ends amidst this low hill country, Palampur extends to the Beas on the south but the hills stretch right down to that river which here flows in a confined bed and there is no difference in the character of the country right down to the boundary.

From the north of Kangra Tahsil the Dhaula Dhar runs into Chamba State territory the boundary of which here leaves the ridge and running across a wild series of flanking hills again turns towards the north-west along the crest of a subordinate ridge—the Hathi Dhar—with an average height of rather under 5,000 feet. Nurpur lies south of this ridge and to the west of Kangra Tahsil; the greater part of it resembles the low hill country of Kangra and Palampur, but the minor hills are more regular in form and include a series of small level valleys between ridges, whilst in places these valleys spread out into tracts which by comparison with the surrounding country are called plains. The Beas river flows within the south-west boundary of Nurpur and has a wide alluvial valley through which it flows by several channels which change their positions during the flood season, forming a tract of country comparable with the riverain areas of the Punjab plains; the elevation of the river bed at the point where it leaves the tahsil is just over 900 feet, the lowest point in any of the three tahsils.

The above description can convey little idea of the variations met with in a tract of 1,380 square miles varying between heights of 20,000 and 900 feet above sea level, but more detailed descriptions of each assessment circle will be found in the three preliminary reports.

3. Through the tract the “chil” pine is the commonest forest tree, deodar, fir, oak (both holly oak and brown oak) are found on the slopes of the Dhaula Dhar whilst innumerable deciduous trees, of which perhaps “Ohi” is the commonest, are found in the valleys and low hills. The countryside is beautified by large numbers of flowering trees and shrubs and there are many varieties of wild fruit trees such as the peach, cherry and medlar; common and unpalatable varieties of mangoes are grown in profusion, and there would appear to be an opening for the cultivation of mangoes of good varieties if not of other fruits; up to the present however there has been no enterprise in this direction.

Leopard, hill cat, and monkey pig are common throughout the tract; black bear frequent the slopes of the Dhaula Dhar; small deer are occasionally found in the scattered forests of the low hills; the Beas riverain is subject to the depredations of large herds of Nilgai and the wild descendants of domestic cattle. The wastes which give cover to these enemies of the farmer also afford grazing for large flocks of goats and sheep, and the wandering buffalo herdsman finds ample sustenance for his herds in the larger forests. The local breed of plough cattle is of the poorest, of small hill stock; it has deteriorated through generations of improper feeding and overwork.

Various forest produce is of marketable value and a thriving trade exists in soap nuts, the product of a common tree of the district. No minerals of workable value have ever been discovered; roofing slates of fair quality are extracted from quarries on the slopes of the Dhaula Dhar and have given birth

to one very flourishing industrial company ; road metal is, of course, always available on the spot, but is not exported except from the bed of the Chakki river near Pathankot railway station.

4. Here again reference should be made to the Assessment Reports ; the district is one of copious and in general well-distributed rainfall, the precipitation is excessive in the immediate neighbourhood of the Dhaula Dhar but rapidly diminishes towards the south-west. The average annual rainfall of the last 25 years has been —

Climate and rainfall.

Dharmsala	... 116 inches.	Kangra	... 80 inches.
Palampur	... 105 inches.	Nurpur	... 63 inches.

The position of the gauges is well chosen ; the two at Dharmsala give a return representative for the whole of the slopes of the Dhaula Dhar. Those at Palampur and Kangra probably give about the highest and lowest falls in the Kangra valley, whilst that at Nurpur gives a fair indication of the rainfall for the whole of that tahsil and for the south-western parts of the other two tahsils.

In the winter the snow lies on the Dhaula Dhar down to about 7,000 feet ; it rapidly disappears off the steep slopes in the spring but is to be found in the upper hollows and ravines throughout the year ; the melting of the snows fills the irrigation channels of the valley and allows the timely sowing of rice independent of the break of the monsoon.

On the Dhaula Dhar the climate is too cold for rice, and maize is the principal summer crop but is usually damaged by excessive rain ; here too in order to get in two crops the quicker growing barley is sown in preference to wheat.

In the valley rice and wheat are practically the only crops of importance ; irrigation is such that they never suffer from drought though rain at either harvest is not an infrequent source of loss, whilst within a mile of the foot of the Dhaula Dhar damage to the wheat crop from hail is a normal incident of the seasons.

In Nurpur and in the low hills of the other two tahsils the average rainfall and distribution is just what is required. Rice is grown where the sub-soil is impervious and maize elsewhere, whilst wheat is the winter crop except where monkeys abound ; the soil however is often so shallow that a very short period of drought is sufficient to ruin the crop.

5. An excellent description of the peoples of the district, which is almost as applicable to-day as when it was written, is given in paragraphs 249 to 294 of Barnes' report and is supplemented by a few further remarks in paragraphs 71 to 74 of Lyall's report ; no such detailed account can be attempted within the limits of a modern settlement report, and my remarks on the subject should be read in conjunction with the authorities cited. The following table shows the percentages of the cultivated area owned by the leading tribes in the three tahsils :—

Tahsil.	Rajputs.	Thakkars.	Rathis.	Brahmans.	Ghirths.	Others.
Palampur	20.6	0.0	17.5	21.0	9.1	31.8
Kangra	19.5	1.8	5.8	11.5	13.1	28.3
Nurpur	28.7	26.4	10.0	12.6	2.5	19.8
Total	23.8	11.8	11.3	14.9	12.4	25.8

The Rajputs form the aristocracy of the district, they are divided into a large number of tribes each with a rigidly defined place in a well-recognised

order of precedence ; the daughters of each tribe are taken to wife by numbers of higher tribes, not however of tribes which are many degrees higher ; the reverse of this custom is absolutely forbidden and leads to immediate loss of position ; the lower orders of the Rajputs will marry women of Thakkar or Rathi families, these tribes being intimately connected with Rajputs though not allowed to adopt the name. The Rajputs have always been an essentially martial race, and during the present war have fully upheld their reputation ; so soon after the conclusion of hostilities it is impossible to deal adequately with their services which have been daily adding lustre to their name. Since Mr. Barnes recorded his account of this race there have been few changes, it may be noted that the prejudice against ploughing is gradually weakening and is not accompanied by any prejudice against other agricultural operations—this perhaps is partly due to our system of record which tends to fix the lines between caste and to stop the changes in position consequent upon the non-observance of social customs to which Mr. Lyall drew attention. On the other hand the limitations on marriage have become even more rigid and are now accompanied by an almost universal custom of making large payments to the bride's parents and also by a senseless extravagance in the ceremonies attendant on the marriage.

Mr. Barnes considered the Thakkar to be high grade Rathi ; he certainly holds a higher social position, but I would be inclined to regard the two as separate castes.

The Thakkar is limited to Nurpur Tahsil and to a small adjoining tract in Kangra ; he is strict in observing most of the Rajput customs, in regard to marriage he goes to further lengths than his superiors, his main endeavour is to marry his daughter to as high a Rajput as possible, and he refuses her to one of his own tribe unless he obtains an extremely heavy monetary payment ; at the same time there is no other tribe from which he can obtain a bride. In consequence the majority of Thakkars remain unmarried, whilst the remainder start their married life under an insupportable load of debt and generally at an advanced age. The inevitable result of these pernicious customs, together with a natural aversion from hard work and a rigid system of seclusion of women, has been a decline in numbers and a deterioration in physique. Apparently the Thakkar was at one time as fine a soldier as the Rajput now ; though there are noteworthy exceptions, he has lost his vigour and spirit and is a decadent survival of a fine race.

The Rathi differs from the Rajput and Thakkar in the looseness of his social observances and his capacity for hard and continuous agricultural work, his choice of a wife is unrestricted by hard and fast laws, he sees no degradation in a laborious life, and he allows his women enough freedom to ensure their obtaining sufficient exercise and fresh air. Consequently whilst forming the backbone of the agricultural community in the hills, he has retained his physique and added to his spirit and independence, and has now become a thoroughly acceptable recruit for the army.

I can add no useful remarks to Mr. Barnes' description of the Brahman ; it may, however, be noted that the example of the Thakkar in the Nurpur Tahsil appears to have affected both the Rajput and Brahman, and that in that tahsil—though not elsewhere—these two races appear to be suffering in a minor degree from the loss of numbers which is threatening the Thakkar with extinction.

The Ghirth is a farmer and nothing else ; in the irrigated valleys of Kangra and in some parts of Palampur he replaces the Rathi who is the true cultivator of the low and dry hills. His place in the social scale is low, his customs are gross and he is addicted to drink ; his body is stunted and often deformed, whilst goitre attacks him more frequently than any other tribe. He is undoubtedly laborious and, in comparison with the incompetence of the leading tribes, is a good farmer ; but I think that Mr. Barnes and Mr. Lyall tended to exalt him too far as an agriculturist, and it appears to me that he is laborious without being effective, so that except where he has only a very small holding he is unsuccessful ; possibly the facts that his women are constantly seen on the land and that he is unable to work without plastering himself in dirt from head to foot have been partly responsible for his inflated reputation.

A tribe that holds considerable areas on the slopes of the Dhaula Dhar is the Gaddi, a nomadic shepherd who shows few signs of settling down to agriculture as long as his pastoral opportunities are as unrestricted as at present.

A non-agriculturist class that holds much land is the Mahajan or Kaisth; these people held high revenue offices in ancient days and by the alertness of their mind and superiority of intellect wield considerable influence in the district; many of them now hold Government posts of responsibility and trust.

Except for a few Kashmiri traders of Nurpur the negligible Mussalman element of the population consists almost entirely of Gujars, a people who depend more on their herds of buffaloes than upon agriculture.

Mr. Barnes commented on the well-populated character of the district and any large increase in the numbers of the people cannot be expected; the census returns however show an actual decline in numbers in the Nurpur Tahsil which is of serious import; useful figures on the subject are shown below:—

Tahsil.	TOTAL POPULATION.			Lives lost in the earthquake of 1905.	CULTIVATED AREA PER 100 OF THE POPULATION.		CROPPED AREA PER 100 OF POPULATION.	
	1891.	1901.	1911.		Irrigated.	Unirrigated.	Irrigated.	Unirrigated.
Palampur	129,590	132,955	132,692	5,105	28.4	29.4	47.0	43.1
Kangra	125,138	126,335	119,648	7,558	27.2	25.0	49.5	29.5
Nurpur	104,891	102,259	100,040	6	13.0	91.3	12.8	85.6
Total	359,628	361,549	352,380	12,669	28.6	45.5	38.1	50.5

Allowing for the effect of the earthquake the figures for Palampur and Kangra are not abnormal; but in Nurpur, where the earthquake was least felt and where the incidence of population on the cultivated area is least, there has been a steady decline in population. Roughly the yield of irrigated crops may be taken as practically double that of unirrigated, on this supposition 100 people in Palampur Tahsil have the equivalent of 137 acres of unirrigated crops for their support, in Kangra, 128 acres and in Nurpur 11.1 acres; both soil and rainfall are most favourable in Palampur and poorest in Nurpur, so that the incidence of population on produce is certainly heaviest in Nurpur, more especially as this tahsil contains the most purely agricultural community; but this fact alone is certainly insufficient to account for the loss in numbers, and I ascribe it mainly to the evil effects of the social customs of the Thakkars on which I have commented above. Attention has recently been drawn to this decline in the Provincial Legislative Council and it is certainly a matter which requires anxious consideration.

6. Even for a hill district the communications are very poor; no railway enters the district and the nearest rail-heads are at Pathankot, Hoshiarpur and Mukerian; the last is of little importance though it has opened up a fresh outlet for the produce of the Beas riverain tract in Nurpur.

An excellent metalled road leads from Pathankot below the foot of the higher hills through all three tahsils to Mandi, and is now metalled as far as Baij Nath; this is crossed at Mataur by a road running from Dharmasala to Kangra which is metalled throughout the greater part of its length and a chord road cuts off a corner between these two, running from Gaggal to Chetru.

There are no other metalled roads in the tract, but roads suitable for wheeled traffic connect Nurpur and Jowali, Kangra and Hoshiarpur, and link

up Bhawarna with the main road ; the Hoshiarpur road is the most important of these and ranks next to the Pathankot road as a main artery for traffic.

Other bridged roads suitable for pack traffic at all seasons run from Nerti to Dharmsala, Dharmsala to Palampur *via* Dadh, and from Bhawarna to Paprola ; the remaining roads are in general mere tracks, the best of them (some partly bridged) run from Pathankot to Andaura, Andaura to Re, Nurpur to Andaura through Gangtha, Nurpur to Dalhousie, Shahpur to Chamba, Shahpur to Ranital, Shahpur to Dareni and Rehlu, Ranital to Nagrota, Palampur to Alampur through Bhawarna, Palampur to Baij Nath through the Bir Bangahal tract, and Bhawarna to Lambagraon.

It is proposed to metal a chord road from Kangra to meet the main road at Kachhiari, and to construct an unmetalled road southwards from Holta to Sujampur ; these two proposed roads will meet decided needs.

During the rains most of these roads are frequently rendered impassable, and many places are extremely inaccessible.

There are really no markets or centres of trade ; the most important bazaars are situated at Palampur, Bhawarna, Paprola, Dharmsala, Kangra, Shahpur, Kotla, Nurpur, Jowali and Andaura—none have much trade, that at Palampur is remarkable as being the centre of the tea industry.

7. The tahsils are divided into tracts termed “ taluqas ” which had been administrative divisions before the British occupation ; these taluqas formed the basis of the system of zaildar’s circles introduced by Mr. Lyall, and in previous settlements have been treated as assessment circles though possessing none of the homogeneous characteristics usually associated with the term ; with the changes in assessment circles and zails now being introduced, this sub-division no longer has any significance.

No village community such as typifies the Punjab is found in these hills. Mr. Barnes found a collection of hamlets with patches of cultivation and undefined rights of user in the surrounding wastes ; groups of these were found to be connected administratively under the leadership of headmen ; he demarcated the boundaries of tracts connected with such groups and appointed the headmen as lambardars ; subsequently Mr. Lyall sub-divided these mauzas, as they are called, into tikas, a tika usually consisting of one or more hamlets with surrounding waste over which the residents claimed or exercised rights of user ; in many cases the waste included in one tika is common to other tikas also, whilst in the less populated regions a waste tika is often found which contains no hamlet and is common to all the other tikas of the mauza.

One result of Mr. Barnes’ settlement, not intended by him but created by Government rulings on the effect of terms used in the revenue records, was that the property in the soil of all waste lands passed to the people whilst the forest growth thereon remained Government property. At the time of Mr. Lyall’s further sub-division the waste lands connected with one tika were termed “ shamilat deh.” To avoid confusion in writing of the Kangra District it is advisable to use the vernacular terms mauza, tika, shamilat deh, and shamilat tika which have definite meanings which are open to misinterpretation.

With the exception of the administration papers, which are common to a whole mauza, the new record is entirely separate for each tika ; the tika is thus the “ estate ” as defined in the Revenue Act whilst the mauza is scarcely a unit except in name, the only features which now characterise a mauza being the control by one or more lambardars and, in some cases, the existence of shamilat deh.

CHAPTER II.—HISTORICAL.

8. It is unnecessary to go fully into the past history of the district in this report and reference is invited to the Gazetteer and to former settlement reports. All that need be noticed is that the countryside used to be under the sway of Rajput Rajas who eventually acknowledged the leadership of the Katoches and that, after varying fortunes in struggles with the Sikhs and Gurkhas, these had acknowledged the supremacy of the Sikhs, though they had by no

means become dependent nonentities, before the British victories in the first Sikh War led to the cession of the Jullundur Doab together with a hill tract including the present Kangra District to them in 1846.

These Rajas had been absolute lords of their territories before the Sikh conquest and the present landowners appear to have derived their title from grants made by them; such grants were of land for cultivation and though the grantees exercised privileges in the surrounding wastes the Rajas recognised no rights therein and regarded them and in particular the forests as their own property; this resulted in a countryside of scattered hamlets, each with its patches of cultivation in which the people exercised rights practically amounting to full ownership, whilst they also claimed rights of user in the waste and in many cases respected rough boundaries fixed by custom in it.

After the cession of territory in 1846 and after the suppression of some minor resistance from local leaders who were not willing to recognise that cession, a summary settlement was carried out by Mr. John Lawrence, Lieutenant Lake assisting him in Nurpur. This summary settlement was based on the Sikh rent-roll and was completed in one month; in it numerous miscellaneous dues were abolished and the demand consolidated into a definite sum which as a general rule was a reduction of ten per cent. on the Sikh demand; in Nurpur, however, this reduction was not granted initially but after two years' experience of the difficulty of collection the demand was lowered by Rs. 20,000 to Rs. 1,76,890.

At the time the British took over the district they granted jagirs to the leading Rajas, but the tract which has now come under settlement includes none of these except the major portion of that of the Raja of Lambagraon who is the representative of the family of the paramount Raja of former times; the Raja of Nurpur was granted a fixed allowance and is not one of the jagirdar Rajas.

9. A regular settlement was conducted by Mr. Barnes during the years 1849—1852; he had been in the district for four years previously and had full knowledge of the working of the regular settlement, he considered that the assessment on irrigated tracts could safely be maintained but that that on dry lands was too high and required a reduction of about twelve per cent.; the actual decrease he announced together with that already given in Nurpur in 1848 came to six per cent. of the total revenue of the district; he announced the settlement as being for twenty years but the term was subsequently extended to thirty.

At this settlement, except in the more valuable estates where regular chain measurements were carried out, the cultivated lands were plotted in a rough and unscientific way and the waste was not mapped; boundaries were fixed for mauzas but not for their sub-divisions known as tikas.

10. Mr. Barnes' assessment worked admirably but his records were found to be insufficient and faulty and Mr. (Sir James) Lyall was deputed to draw up a correct record in 1865; the period of the regular settlement not having elapsed no revision of assessment could be undertaken and for this reason there is some doubt as to whether the term first revised settlement should be used to denote Mr. Lyall's operations; it is however the 1868 settlement, as it is usually called, which has had the most far-reaching and important effects and which is considered by the people and Government as the true basis on which all subsequent revenue administration has been founded.

In the Lambagraon jagir no regular settlement had been made by Mr. Barnes and Mr. Lyall's settlement is therefore the regular settlement for this tract and there included an assessment in cash as well as record work.

The maps prepared in 1868 are of tikas, the work of fixing the boundaries of these units being one of the main features of the operations; as far as the cultivated area is concerned they were admirable maps and form a model with which few field maps of the present day can be compared with credit, in the wastes however they were faulty and inaccurate as was bound to be the case with the agency available for their compilation.

Mr. Lyall's records and settlement report cannot be described in any detail here but they are the basis of the district revenue policy and practice,

and the latter must form a constant book of reference for the district officers in the future as it has done in the past.

11. An idea had arisen that Mr. Lyall's maps were too complicated and that it was necessary either to replace them by simpler maps or to increase the revenue staff very largely ; after much correspondence Government decided that a settlement should be undertaken on cheap lines, the Deputy Commissioner was appointed as Settlement Officer and given a very small settlement staff, he was ordered to simplify the maps by consolidation of field numbers with a minimum of measurement work on the spot and to revise the assessment at the same time. Mr. O'Brien performed this double duty from 1887 till 1892, he died in the latter year and the final stages were supervised by Mr. Anderson who issued the Settlement Report in 1897.

The consolidation of field numbers without reference to facts on the spot resulted in an incomplete record, it became impossible to recognise the position of the new field numbers on the ground and rights in particular areas were lost sight of owing to their being measured up with others over which such rights did not exist ; it was found necessary to leave the records of 1868 with the patwaris and both in the field and in the courts it became an almost invariable custom to go behind the new records and to decide all questions on those of 1868. Mr. Anderson's final report gives an excellent account of the operations and though he wrote it so soon after their completion he was able to point out the main features in which they had not been successful with a clearness of perception emphasised by subsequent experience ; paragraphs 20, 21, 22, 92, 93, 96 and 102 of his report deal with the weak points of the settlement, and clearly show that they arose from the orders under which it was carried out and not from any failure in execution.

Mr. O'Brien's tika inspections were very thorough and the assessment he imposed has stood the test of time, but in this branch of his work too he was acting under orders which did not leave him as free a hand as he would have liked : the instructions given him stated "The amount of increase that can be expected is small and can be got by tinkering at the existing jamas, where a man can pay 10 he can pay 11"; his tika notes show that he considered these instructions a bar to the grant of reductions and to violent changes in the old demands, and in many cases whilst noting on the severity of the demand he refrained from altering it ; the old assessment was merely a modification of the old Sikh demand and in various tracts there had been continuous deterioration or improvement through a long term of years ; the inefficient revision of the record tended to obscure these changes and even where recognised they were not reflected adequately in the adjustment of revenue. Certainly the new tika assessments were a great improvement on the old, and all changes were in the right direction, but the adjustments were not sufficiently bold.

The internal distribution of the demand was perforce left to subordinates and was not always satisfactory.

It must be recognised that this settlement left the district with an unsatisfactory record, a greatly improved but still uneven assessment, and an inferior distribution ; but the weak points about it arose primarily from the instructions under which it was carried out and secondarily from the want of an adequate staff.

CHAPTER III.—PROGRESS OF SETTLEMENT AND REVISION OF THE RECORD.

12. The original imperfections of the last record rendered it desirable that they should be revised as soon as possible ; in 1903 the record-room at headquarters was destroyed by fire and only patwaris' copies of the 1868 maps were left ; the later maps were insufficient unless supported by those of 1868 and new headquarters copies of these had to be prepared by tracing the patwaris' copies which had been in use for thirty-five years and many of which were illegible or partially destroyed ; in 1905 the disastrous earthquake resulted in the loss of many records throughout the district.

Many questions arose, particularly in connection with forest matters, which it was found impossible to settle satisfactorily with such an incomplete record, and it was decided that the district should again come under settlement although it was realised from the outset that the increase in assessment would be very small and would not justify the measure from purely financial point of view. The tahsils of Dera and Hamirpur were taken up first as it was in them that the main forest questions most urgently demanded decision.

13. The operations were expected to occupy three years from October 1913 to September 1916. In the opening stages difficulties were experienced in collecting a staff, whilst the preliminary work of the Survey Department was not far enough advanced to allow measurement work to proceed, and the operations did not get into full swing till quite a year after their nominal commencement.

In August 1915 I joined the settlement and found that in a tract comprising 3,047 tikas the actual work completed to the end of that month consisted of the following : 967 tikas measured up, 680 measurement papers checked and arranged by patwaris, 536 checked by kannungos, 468 by Naib-Tahsildars and only 421 by Tahsildars, whilst in no case had jamabandis or copies of the maps been prepared and nothing had been done in connection with the announcement or distribution of the new demand.

After reviewing the situation I estimated that the whole staff would be fully occupied till October 1918 and that there would be miscellaneous work for a reduced staff for six months longer ; I communicated the result of my investigation in my letter No. 1-C., dated the 1st October 1915. When I framed that estimate I had not realised that the failure to prepare jamabandis had allowed a great deal of incomplete work to remain undetected and that the statistics threw an unduly favourable light on the progress already effected.

The period was now prolonged upto the end of September 1917 under orders contained in Punjab Government letter No. 232-S Revenue, dated the 2nd June 1916, and thus the extension granted was more than a year less than that which I had considered necessary when estimating from unduly sanguine statistics ; later Government further extended the period in its letter No. 5033-S-Rev., dated 3rd October 1917, allowing the retention of the full staff up to the end of June 1918 and of a reduced staff for six months longer ; the orders in this latter letter have been subject to a slight subsequent modification and the reduced staff was eventually retained till the end of January 1919 when operations came to an end.

Whilst sincerely regretting the fact that Government was obliged to extend the period of settlement operations on three successive occasions, I note that these were closed down before the date suggested in the estimate I submitted on first joining and on reviewing the operations I am unable to see how they could have been expedited materially and think that the original expectations were based on an imperfect appreciation of the work involved.

14. The new standing record contains the following documents :—

(1) *The field map.* The original map plotted on the sheets supplied by the Survey Department showing the positions of the fixed points used as a basis for measurement forms the headquarters map ; exact copies on backed mapping sheets are filed in the tahsils and will be amended periodically as laid down in the Standing Orders ; complete copies on cloth are with the patwaris and will form their maps for crop inspections and all other purposes.

(2) *The Genealogical Table* has been drawn up on a continuous sheet of paper for each tika, the tables for all tikas of one mauza have been placed together in a stiff case and filed in the tahsil, complete copies in a similar case being retained by the patwari.

(3) *The Preliminary Proceeding* citing the notification sanctioning the settlement

(4) *Index of field Numbers*

(5) *Jamabandi*.—Being an exact copy of the “khataunis” prepared during measurement and therefore being the jamabandi for the year of measurement. In the case of riverain estates the changes caused by river action between the year of measurement and the announcement of the new demand have been incorporated by the addition of a detailed statement. Other changes have been recorded by mutation and will appear in the next quadrennial jamabandi.

(6) *Statement of Revenue Assignments* prepared in accordance with the orders passed at revision of the grants.

(7) *Statement of Rights in Wells*.—This is new and has been prepared under the instructions in the Settlement Manual, there being very few wells in the district: this statement only appears in a few records.

(8) *Statement of Rights in Irrigation, other than Wells*.—A separate paragraph will be found dealing with these and connected documents.

(9) *The village Administration Papers* being the same for every tika of a mauza, has only been bound with the jamabandi of the last tika of each mauza.

(10) *Mutations sanctioned since the last Quadrennial Jamabandi* are bound up with the standing record.

(11) *Order of the Settlement Officer determining the Assessment*.

(12) *Order of the Settlement Officer distributing the Assessment*.—These last two are abstracts of the original orders which are included in No. (13).

(13) *The file dealing with the method of distribution and the actual distribution record*.—In the authoritative record documents Nos. (3) to (8) and (10) to (11) are bound together, a separate volume being made for every tika to enable easy reference by the Courts.

In the patwaris' copy documents Nos. (3) to (8), (11) and (12) are bound together, but those for as many tikas of a mauza as convenient have been included in one volume to save expense and to render them more compact.

Number (13) has not been bound up with the others on account of its size but has been filed with them and duly copied for the use of patwaris.

15. The new maps are based on a scientific skeleton of base lines laid down by the Survey Department, who erected wooden pillars at convenient spots in every tika and supplied backed mapping sheets showing the position of these; the original field maps were plotted direct on to these sheets, and form one system of maps fitting in to each other on consecutive sheets throughout the tract measured; the system ensures a high level of accuracy as mistakes must become apparent as the mapped portion reaches successive fixed points and no accumulative error can occur unless deliberately concealed by the measuring staff.

The system is an excellent one for a hill tract, but the expense is high; the base lines are however fixed for all time, for, though the wooden pillars will disappear, three permanent stone pillars have been erected in every tika from which the skeleton base can be relaid. Some errors in the plotting of the fixed points came to light in Palampur and Kangra but they were few and could usually be corrected individually.

The field work was retarded at the start by the necessity of waiting for the plotted sheets, and the same cause led to measurements in three tahsils being taken up in turn instead of concurrently—a system which caused difficulties of organisation and prevented healthy rivalry between the staffs of different tahsils, and which was responsible for prolongation of operations; it would have been far better had the plotted sheets been prepared by the Survey Department before settlement operations were started, though on the other hand even with the assistance and collaboration of settlement officials they were not always able to place the base points at the most convenient spots and sometimes prepared the skeleton maps on scales unsuited to the particular needs of a tika.

The commonest scales employed were 40 and 20 karms to the inch, the larger scale was necessary in the majority of tikas owing to the minute sub-division of property and even where it was adopted it was frequently necessary to plot small portions of the map separately on an even larger scale.

This system was adopted almost universally and, except in the cases noted below, the new maps are the result of entirely new measurements based on a scientific framework.

It was thought that the work would be so accurate on this system as to do away with the necessity of measuring the sides of fields and that these could be computed by scale. The staff, however, was not sufficiently capable to realise this counsel of perfection and throughout the operations the lengths of sides of fields have been measured up by chain.

It is from an inspection of the maps that the fallacy of the idea that the small size of tikas means little mapping work is exposed ; a tika may be small but if its sub-division is correspondingly minute the mapping work is as great as in a large estate with large fields ; the map of an average tika in this district is as complicated as that of an average village in the plains ; in particular the contour lines of the hill-sides affect the shape of fields and whereas in the plains a field is usually fixed by plotting four points it is here necessary to plot an average of twenty points before a field boundary can be completed ; in some cases I have seen field numbers which required the plotting of over a hundred points.

System adopted in the Gadheran Assessment Circle.—In the Gadheran circle of the Palampur Tahsil, which is a wild mountainous country with cultivation confined to the vicinity of river valleys, no base lines were plotted by the Survey Department, the new maps are mere free-hand sketches made without the use of the chain or other survey instruments. This system was approved on account of the undeveloped state of this tract and the maps should be sufficient for its normal needs ; they are certainly hopelessly inaccurate and useless to settle anything but routine matters : towards the close of operations I ordered the preparation of new maps for portions of five tikas in this tract by chain measurement as it was found that forest interests demanded a more accurate record than that based on the sketch maps. I regret the fact that this system was adopted and must admit that the records are on a very low level only justified by the elementary nature of the revenue administration.

Two systems adopted in large waste areas.—Along the Dhaula Dhar range and also scattered in other places are large blocks of waste in which it would have been an unnecessary expense to lay down fixed points. In Palampur Tahsil such large waste tracts were mapped as follows : a small scale of the mauza was copied from the survey map (which shows mauza boundaries and also the trijunction points of tika boundaries but not the tika boundaries themselves), the old revenue maps of tikas were then fitted together as closely as possible and an approximation to their boundaries added to this map, from this index maps of the tikas were compiled in which the position of patches of cultivation were indicated, the actual cultivated area being mapped by chain on a larger scale on separate sheets to form part of the record. The system was excellent in conception but miserable in execution, and on seeing the results in Palampur Tahsil I unhesitatingly condemned it ; unfortunately it was too late to get fixed points plotted in the waste areas of the other tahsils where it had been proposed to follow this system, and the areas themselves were generally too broken or too thickly wooded to allow of measurement without such fixed points. In these tahsils I had the 1868 map boundaries reproduced, though inaccurate they formed a sufficient record for the purposes required ; where, however, a tika boundary coincided with a mauza boundary I had the latter enlarged from the survey map and shown in red on the new map, this was explained by notes in the margin of the mapping sheet, no attempt was made to reconcile the boundaries given by the 1868 and the survey maps. I considered that as the maps were merely based on those of 1868, it was better to reveal their inaccuracy and leave the courts to deal with the matter than to adjust the 1868 boundaries by guesswork and to produce a map purporting to be correct.

Luckily except for the uncultivated upper slopes of the Dhaula Dhar there are few places where these systems had to be adopted ; they are makeshifts and I certainly recommend that in all such tikas the help of the Survey Department be enlisted at next settlement and accurate maps made for the future.

Copies of the Field Maps.—The tahsil copy of the map has been prepared on backed sheets and is an exact duplicate of the original; but the original is on consecutive sheets throughout the tract under settlement with the result that a small tika which might easily have been plotted on one sheet often occupies the corners of four sheets involving waste and demanding extra space for storage: in such cases the tahsil copy was prepared on fewer sheets by shifting it downwards or sideways, the shifting being done so as to bring the ruled squares on the copy into agreement with those on the original.

The patwari's copy has been prepared on continuous sheets of long-cloth and shows the lengths of all sides of fields but has not been coloured like the two principal maps; under the standing orders it will be replaced every eight years but I doubt whether this is desirable; the scale employed is necessarily so large that the expense of cloth maps is very great and it is probable that the careful definition of irregular field boundaries would disappear in copies made by the district staff of patwaris.

All the maps and copies show the positions of the three fixed points at which stone pillars have been erected.

Maps in reverain areas.—In the Beas riverain exactly the same system was adopted as elsewhere, but stone pillars were erected by the Survey Department on both sides of the river at the corners of squares instead of at the fixed points actually used; it will thus be possible to lay down the squares corresponding to those on the maps at any time.

16. The system of connected base lines results in the tika maps all lying
 Composite maps. correctly placed on consecutive sheets and themselves forming an immense composite map of the whole tract; hence no index maps were required in order to prepare composite maps of the tahsils.

In Palampur Tahsil the tika maps were reduced directly on to a system of mapping sheets at tahsil headquarters and the resulting composite map was copied by pantograph to form a map on the scale of four inches to the mile; this tahsil map shows the boundaries of tikas as well as of mauzas and is the first map of the sort yet produced. In the other two tahsils instead of the first reduction being made direct on to one system of sheets, separate composite maps were prepared for each patwari's circle with the idea that these would form useful records for the patwari's use; these were then compiled into one map on the four inch scale at headquarters.

These tahsil maps showing the tika boundaries are the basis of all others and show all sub-divisions, rivers, torrents, roads, buildings, etc., which are required in a map for general use; they are unwieldy in size and reductions have been made on the scale of two miles to the inch which show mauza boundaries but not tika boundaries.

A map of the whole of Kangra Proper is still under preparation in which the smaller scale tahsil maps will be combined with the tahsil maps prepared in the Dera-Hamirpur settlement.

As the tahsils were measured in turn the Nurpur map could not be prepared till the very end of the operations; this fact coupled with the fact that proposals for changes in zail and police-station boundaries are still pending prevented the completion of the district map and of handkerchief maps for district use before the close of the settlement; a mapper has been transferred to the Deputy Commissioner's office with full material for the preparation of these maps which should be ready for reproduction soon after orders have been passed on the pending proposals.

17. Statements regarding rights in wells in the usual form have been
 Records-of-rights in irrigation. incorporated in the records-of-rights.

The only important irrigation, however, is that from small canals or "kuhls"; beyond the classification of fields as irrigated or unirrigated the former records contained no mention of rights in these. At the 1868 settlement a statement had been added to the record of-rights of each "mauza" giving the names of kuhls from which it received irrigation, the customs concerning

these kuhls, and the areas, denoted by vague names, which were entitled to water therefrom; in addition a "riwaj-i-abpashi" was prepared for the Palam tract (part of the Kangra and Palampur Tahsils) giving a history and statement of rights and customs connected with the more important kuhls issuing from the main streams. No attempt had ever been made to bring these records up to date.

The new records have been prepared on the same general lines as those of 1868; the record-of-rights of each "tika" now includes a statement showing the kuhls from which it receives water, an account of the usages within the tika regarding each such kuhl, and a list of the actual field numbers entitled to irrigation therefrom.

In Nurpur Tahsil and a large part of Palampur Tahsil this record is sufficient in itself as the kuhls are very minor works irrigating small areas lying mainly in one tika; in Kangra and the valley tract of Palampur there are large kuhls running for several miles and irrigating numerous tikas. For these the entries in the records-of-rights are insufficient and for these two tahsils a vernacular record termed the "Riwaj-i-abpashi" has been prepared. This record explains the meanings of local terms used in connection with irrigation, gives an account of the general customs applicable to all kuhls, and contains a map and full statement regarding each kuhl showing how it was made and the customs and rights appertaining to it as between tikas. These two volumes form a far fuller record than that of 1868; in the Palampur register 298 kuhls are dealt with in full detail, whilst 1,168 more are given brief mention only as they have been dealt with sufficiently in the records-of-rights of individual tikas; in the Kangra register 415 kuhls are mentioned and are all treated in full detail.

The riwaj-i-abpashi registers will require no more amendment before next settlement than can be shown by the insertion of notes regarding judicial decisions. Amendments to the tika statements should be few: to avoid unnecessary work and the introduction of errors by copying I have left orders that they should not be repeated in quadrennial records unless a change has occurred and that all changes are to be incorporated by regular mutation procedure.

18. In this district the evolution of the tika which is now the estate and revenue unit was very different from that of the village in the plains. The method by which a sparsely populated countryside was divided up into tikas each with fixed boundaries is given at length in paragraph 173 of Lyall; the operation must have been one of great difficulty; in some cases one family or group of owners were found in possession of a tract of country and also of small isolated patches in the midst of a tract belonging to another group; in such cases the difficulty was often avoided and the detached patch declared to be part of the former tract. Thus if "A" and "B" represent two tikas; not necessarily within a short distance of each other, it is often found that a small plot of land such as "a" has been brought on the record as part of tika "A"; such a plot is denoted in the records as "chak kharij az tika "B" dakhili tika "A", a blank occurs on the field map of "B" and a map of the area is inset in the margin of the "A" map; the records concerning "a" are found in the records of "A" with no mention in those of "B." This system is clumsy and involves much trouble at crop inspection and other times. The original cause of its adoption has in most cases disappeared, for during the past fifty years the original owners of "a" have often found it convenient to alienate it to the owners of "B" or to other people.

This complication of the records received no attention in Palampur and did not come to my notice till measurement work in Kangra was far advanced. In Kangra and Nurpur, in many cases, I tried to simplify the records by transferring such a plot as "a" from "A" to "B" tika; I only attempted this in cases where the owners of "A" had lost their interest in the plot; in few cases however was the attempt successful possibly ownership in "A" carried with it rights over a large waste area whilst that in "B" did not; in such a case even though the owners of "B" now own "a" they refuse to have it recorded as part of their own tika on account of the consequent prejudice to

their grazing rights. In every case where such a transfer was suggested or accomplished the lambardar of "A" objected on the frivolous ground that the transfer affected his share of revenue collections.

In general this blot upon the revenue records remains and the attempt to remove it has been abortive. The easiest time to effect such transfers would have been at the commencement of settlement before the work of measurement started. I regard the existence of these isolated plots as a serious fault of the record, and I suggest that when a further settlement is undertaken an effort should be made to transfer all such plots on the existing record before measurement and revision of record is taken up. I suggest also that considerable latitude be shown in dealing with objections such as I have noted above.

19. All estates in the district have fixed boundaries and though the previous maps could not be made to fit into each other on account of errors of measurement, there were few disputes on the spot; the new maps being on one system of sheets can be compared square by square and all discrepancies between boundaries have been decided by my orders; there was rarely any difficulty in deciding these except in forest and waste areas where the previous maps were more than usually faulty.

In the Beas riverain the Survey Department prepared a composite map, to show the discrepancies in boundaries, by reduction of the old field maps. These however were so extremely bad that the composite map formed a chaotic jumble of little real assistance; the boundaries of all estates in the riverain have been determined by my orders and accepted without dispute; the riverain boundaries with the Hoshiarpur and Gurdaspur Districts were fixed as far as possible in accordance with orders passed in the recent settlements of those districts though in a few cases some slight variation had to be made. Copies of my orders on these district boundaries were supplied to the District Officers concerned.

20. Trijunction pillars have been repaired throughout the tract, the cost being borne by the people; they are now in a general good state of repair, but some may have been overlooked as the staff was very dilatory in reporting on the condition of these marks. Many of them are situated in the middle of torrent beds: in the past a pillar had sometimes been erected on the bank of the torrent opposite its true position: it was found that this practice had led to misunderstandings and I directed that in these cases no pillar should be erected in future.

Three fixed points in each tika have been marked by stone pillars, erected at Government expense. These are in positions where they can be protected, whilst even if some disappear in measurement base lines can be replaced with the aid of those in adjoining tikas.

21. It was decided that no abstract village note-books were required in this district of numerous small estates. My tika inspection notes have been bound in leather to form permanent records. The entries regarding each tika include—

- (a) A map of the tika.
- (b) A collection of useful statistics.
- (c) A copy of Mr. O'Brien's inspection note.
- (d) The new inspection note in original.
- (e) An order announcing the new land revenue and cattle tax demands.
- (f) An English abstract of the distribution order.

These volumes contain full notes on the individual characteristics of each tika and should prove useful to District Officers on tour; at next settlement they can be taken apart and bound up afresh with the notes which will then be recorded.

22. During the course of settlement 132,145 mutations were decided, 4,000 by the Settlement Officer and his Assistants.

Case work was not heavy and is summarised in the following table :—

Cases decided during settlement operations.

Court.	Number.	Class of case.	Number.
Mr. Boughey, Settlement Collector ...	286	Zaildars and lambardars ...	466
Mr. Henriques, " " ...	4	Patwaris and kanoongos ...	619
Mr. Middleton, " " ...	2,788	Assessment and distribution objections ...	181
Lala Arjan Das, " " ...	242	Special assessments ...	32
Lala Arjan Das, Assistant Collector ...	4,116	Boundaries and survey marks ...	2,560
Tahsildars, etc. ...	955	Partitions ...	1,504
		Other cases under the Land Revenue Act ...	2,256
		Revenue assignments (omitting lahri basis)	757
Total ...	8,391	Total ...	8,391

Appellate work was light except in connection with Mr. Mitchell's tree file work; altogether only 800 appeals were decided by the Settlement Officer of which 410 were appeals against tree file orders.

CHAPTER IV.—ASSESSMENT AND DISTRIBUTION OF LAND REVENUE.

23. In previous settlements the old taluqas had been treated as separate Assessment circles and classification of soils. circles for assessment purposes. A new series of assessment circles was sanctioned for this settlement in Financial Commissioner's letter No. 538, dated 29th July 1914; these are identical with the old taluqas in Kangra Tahsil and involve very minor changes in Palampur but import considerable re-arrangement in Nurpur. These new circles are more useful for assessment purposes than the former ones, but none of them are homogeneous tracts in which assessment within a fixed proportion of predetermined rates would be practicable.

Sanction was accorded in the same letter to the classification of soils in the new record. The soils are—

Chahi. Irrigated from wells.

Nahri I. Land irrigated from a perennial source and entitled to water more or less regularly all the year round.

Nahri II. Land entitled to water in its turn, or at certain times, or from streams which do not run all the year.

Nad. Inundated land only growing a rice crop.

Dofasli. (Unirrigated) bearing two crops a year or three crops in two years.

Ekfasli. (Unirrigated) bearing one crop a year or two crops in two years.

Bahand banjar bearing a crop once in two or three years.

Eharetar or hay fields.

The usual classes of waste.

Subsequently another system of classification was sanctioned for lands subject to riverain action, the rules concerning which are given in an appendix to this report.

Little comment is necessary on this classification. It may be noted that the distinction between Nahri I and Nahri II is only suitable in the Kangra valley and that the dividing line is difficult to fix; roughly the main distinction is that in the former rice is sown by "mach" and in the latter by "battar," terms which have been explained in the preliminary reports. On the Beas riverain the irrigated land has been recorded as nahri without further distinction, as the canals are in the nature of inundation canals, this land more resembles Nahri II than Nahri I.

The definition of Nad is somewhat misleading; it really means all swampy land kept permanently moist by the presence of springs; the term does certainly not include inundated land by a river such as is usually termed "sailab." Throughout the statistics Nad has been treated as an irrigated soil; some confusion has existed on this point; land irrigated from a spring through a water-channel is classified as nahri and when the spring actually exists in the land and there

is no need for a channel it appears reasonable to classify the soil as irrigated especially as the rice cultivation resembles that in nahri rather than that in unirrigated land.

In the new records the land recorded as ekfasli certainly includes land less frequently cropped than in the definition. I would refer to it as land which would bear two crops in two years given favourable seasons, in practice it may bear far less. Bahand banjar too is generally less cropped than would appear from the definition; in Nurpur Tahsil where there are large areas it is cropped on an average of once in six years.

The classification of unirrigated soils in the new record has certainly been more severe than was intended, and this fact must be borne in mind when considering the result of applying standard rates for assessment.

24. Owing to the extreme variability of a hill district it was realised that assessment within a fixed proportion of any sanctioned rates would be impossible and that assessment would have to be done separately for each tika; hence it was decided that whilst standard rates should be approved by the Financial Commissioner for adoption by the Settlement Officer as a rough check on his tika assessments they should be used as nothing more than a check and that preliminary estimates of the demand should not be binding upon him. These standard rates were of small importance compared with circle rates as understood in the plains, and were therefore proposed in preliminary assessment reports for each tahsil before new measurements had provided an accurate statistical basis; the intention was that the actual assessment should commence directly these rates had been sanctioned, that the Settlement Officer could announce the new demand in each tika directly after inspection and have the distribution completed whilst still inspecting in the neighbourhood. This procedure would economise time spent in touring and would ensure the important question of distribution being carried out in accordance with the Settlement Officer's orders.

25. Mr. Boughey prepared the report on Palampur Tahsil early in the course of operations, but it was found necessary to refer it to Government in connection with the assessment of tea gardens, before orders had been passed on it. Mr. Boughey had completed his tika inspections in the tahsil but had not, of course, been able to announce the new demand. The orders were received soon after I had joined, but were in such a form that standard rates could not be finally fixed until measurement had been completed; hence in Palampur Tahsil circumstances necessitated the postponement of announcement till February 1916 long after inspection work had been completed.

In the other two tahsils: received orders regarding standard rates whilst in the middle of inspection, I could therefore have announced concurrently with my remaining inspections had it not been for the fact that measurements were still incomplete in the majority of tikas I was inspecting. To announce the demand in a few scattered tikas would have been no advantage whilst it would have dissipated the energies of the staff on distribution work whilst measurement was in progress. I therefore postponed announcement till the completion of measurements and was thus able to collect the staff under my personal supervision when employed on distribution. Incidentally this enabled me to review my tika assessments in the light of experience gained in inspecting the whole tahsil, a matter of considerable advantage.

26. These reports were submitted for each tahsil separately after a preliminary tour and after some detailed inspection had given the requisite local knowledge, the figures on which they were based were those of the inaccurate expiring record but were sufficient for the purpose of fixing standard rates. Mr. Boughey prepared that for Palampur whilst I was responsible for the reports on the other two tahsils.

The orders on them fixed the standard rates and also referred to the aggregate assessments which they were expected to yield, the former were to be used as a check in assessment but the latter were to be disregarded entirely. It seems to me that there is a fallacy underlying this procedure which should be mentioned; preliminary touring gives a fair idea of the economic position and the possibilities of enhancement of revenue, the framing of rates which are to be the average of rates over wide areas of variable land really needs

detailed inspection; the arguments in the preliminary reports were based on a calculation of assets; from this a fair assessment was deduced, from which again the necessary rates were calculated; to reverse the process and apply these rates to areas very different from those on which they had been based, disregarding the resulting aggregate assessment, implies the abandoning of the theoretical relation between revenue and agricultural net profits. The point, though worthy of notice, is of little importance in view of the tika by tika assessment.

27. The whole of Palampur Tahsil was inspected by Mr. Boughey, who recorded notes on each tika. Unfortunately he was obliged to leave before the demands could be announced; his notes were the result of very thorough inspection and in all cases mentioned the assessment he proposed, whilst they would have recalled the circumstances of each tika to him they were somewhat brief guides to assessment for any one who had not seen the tikas; the majority of them had been recorded before measurements had been completed and it was not clear how far the changes revealed by measurement had been anticipated when the demand was suggested. I therefore inspected ten per cent. of the tikas over again and with the experience thus gained was able to announce the demand, though in several cases where there had been large changes in recorded areas the task was one of some difficulty.

Files suggesting a method of internal distribution had been prepared by the staff. These appeared to me to show a lack of appreciation of the problems involved. The people themselves cannot understand the probable effect of such documents and had obviously fallen back on their universal remark "as it was before, so let it be," the result being that the former method of distribution was unchanged in nine cases out of ten even though obviously unfair. Consequently my announcements were accompanied by long discussions in the course of which alleged variations in the soil forced me to visit many tikas at a time when delay was inconvenient.

My experience in Palampur made me resolve to record notes in the other tahsils on the assumption that I might be unable to announce the assessment myself, showing particularly how far my first proposals should be modified if new measurements gave unexpected results; and also to go into the question of internal distribution at the time of inspection.

It had been suggested to me that in a district of minute estates it would be unnecessary to make very detailed inspections and that with experience I could estimate the possibilities of an estate by a general survey from a neighbouring hill-top. This idea has not been justified. I have found that actual inspection reveals most unexpected features; in the monotonous plains a gallop across the village lands followed by an enquiry into statistics may give all that is required; here each patch of land may be very different from other patches in similar positions whilst the statistics are hopelessly inaccurate.

Inspection of a tika containing only a few acres of cultivation and that several miles from the next plot involves an amount of labour disproportionate to the resulting adjustment of revenue, but that tika may be the only property of several families and without inspection an unfair demand may escape notice, with a revenue, in my opinion, far less light than usual in the Punjab and with a by no means wealthy population, the distribution over tikas and over separate blocks of land within a tika has more effect on the economic position than the pitch of the aggregate assessment.

For these reasons my inspections have been very detailed. Apart from unassessed tikas containing no cultivation I have been in the lands of all except two and in the majority I have visited every main patch of cultivation.

At the time of inspection I recorded my notes on the spot on a sheet showing leading statistics that had been compiled beforehand; I also framed a tentative order detailing the method of internal distribution; in doing so I consulted the people who had had their thoughts directed to the matter by previous enquiries by the Tahsildar.

These tentative orders were again subject to modification at announcement so that the people could think over the matter and give considered

views ; even so the majority had no views on the point, in which case I devised what appeared to me to be the fairest method.

My tika inspection notes have been completed by the entry of the result of new measurements, the demand announced and its final method of distribution, and have been bound in volumes which should be of considerable use at next settlement and possibly to District Officers meanwhile.

The inspection work was laborious, but has been repayed by the absence of disputes over the distribution and by the small number of objections against assessment. Those inclined to grumble have generally been satisfied by others reminding them that I saw their land myself and have refrained from putting in formal objections. Marked inequality in previous assessment has been met with drastic alterations and it is to the people's appreciation of the detailed inspection that I ascribe the complacency with which these have been received.

I fixed the assessment subject to modification on receipt of measurement results at my inspections ; it was based primarily on the quality of the land compared with a theoretical mean to which I would have applied standard rates ; a second important guide was given by cropping statistics, which however had to be used cautiously, if new measurement showed an increase of cultivation due to correction and not to actual extension I had to consider whether the old cropping statistics were or were not inaccurate to the same extent as the records on which they had been based ; finally the prosperity or failure of the people had to be considered.

The following statement shows the number of objections and appeals lodged against assessment and distribution orders :—

TAHSIL.	ASSESSMENT.						DISTRIBUTION.						CATTLE TAX.		
	<i>Objections before the Settlement Officer.</i>			<i>Appeals to the Commissioner.</i>			<i>Objections before the Settlement Officer.</i>			<i>Appeals to the Commissioner.</i>			<i>Objections before the Settlement Officer.</i>		
	Accepted.	Rejected.	Total.	Accepted.	Rejected.	Total.	Accepted.	Rejected.	Total.	Accepted.	Rejected.	Total.	Accepted.	Rejected.	Total.
Palampur	...	47	47	...	8	8	7	13	20	...	1	1	3	23	26
Kangra	2	20	22	...	1	1	7	8	15	...	...	...	3	7	10
Nurpur	...	17	17	...	...	9	...	10	10	...	...	...	1	6	7
Total	2	84	86	...	9	18	14	31	45	...	1	1	7	36	43

The nine appeals regarding assessment in Nurpur are pending at the time of writing ; the single rejected appeal concerning distribution was accepted by the Financial Commissioner on revision.

28. Appendix No. 2 shows the actual result of assessment in each circle, and compares it with the previous demand, the demand at standard rates and the demand anticipated in the orders on preliminary reports. Before dealing with each tahsil a few special forms of assessment need notice.

Land held in fee simple.—Under orders which are now obsolete several owners of tea-gardens commuted the revenue on their lands once for all in 1862 ; such land is said to be held in fee simple and is exempt from assessment ; at the same time the owners are liable for the payment of cesses and to calculate these a nominal demand has to be calculated on the land. In former statistics this nominal demand was included in the revenue accounts and shown as assigned, it has now been excluded entirely in showing the new revenue and therefore for purposes of comparison should be added to the new revenue shown.

Assessment of land under tea.—In the Government orders on the Palampur report the assessment of land under tea was fixed at one rupee an acre ; some doubt was expressed as to the validity of assessing such land which had

been diverted from other crops differently and the orders were that the existing custom was to be continued. I found that after last settlement all land under tea was brought under the uniform rate whether originally under other crops or not, hence all land under tea has now been assessed at one rupee an acre irrespective of its former history. I may here note that had a higher rate been applied to land diverted from the production of other crops it would have fallen on the zamindars' small patches of tea and not on tea-gardens proper; the zamindars have a long-standing grievance in connection with the original acquisition at the favourable assessment of tea; it is satisfactory that this dissatisfaction was not intensified by the exclusion of their own small patches from the concession. Incidentally it should be reported that in direct opposition to Government orders the actual previous assessment on tea was one rupee a ghumaon and not one rupee an acre, so that the tea industry has received a slight unanticipated concession under Government orders.

Assessment of building sites—The village "abadi" or collection of houses is rarely found in this district; in general each resident lives apart upon his own land; in accordance with previous practice the land under these scattered buildings has not been assessed to land revenue. In the neighbourhood of Dharmsala alone is there land liable to assessment which has been diverted from agricultural or pastoral use for building purposes; the assessment of this land was referred to Government and has been carried out in accordance with orders contained in Punjab Government letter No. 128 Revenue, dated 3rd November 1916. The land was classified under four heads and rates fixed as a guide to assessment. The classes and rates were to be—

Government land sold for building sites in the Civil Station, Rs. 5-4-0 to Rs. 7-14-0 per acre.

Sites in the Forsyth Ganj, Kotwali and Chelian bazaars not exempt from assessment, Rs. 3-3-0 to Rs. 6-9-0 per acre.

Scattered residential sites, including buildings and the enclosures attached to them, Rs. 2-10-0 per acre.

Abandoned sites at the waste land rate of Rs. 0-2-0 per acre.

For the convenience of house-owners it was arranged that revenue and cesses together should form convenient round sums and should be collected once a year only.

The resulting "urban" assessment was—

<i>Mauza.</i>	<i>Tika.</i>	<i>Revenue assessment.</i>
		Rs. A. P.
Dharmsala. ...	Kajlot ...	2 12 0
Do. ...	Dhial ...	3 6 3
Do. ...	Bareh ...	62 13 3
Do. ...	Dharmkot ...	8 10 6
Do. ...	Gamru ...	43 5 3
Do. ...	McLeod Ganj ...	92 3 3
Do. ...	Dharmsala Khas ...	90 2 0
Do. ...	Civil Station ...	8 0 0
Mant ...	Chelian ...	4 0 0
Do. ...	Mant Khas ...	5 7 6
Total		320 12 0

Assessment of slate quarries.—Certain slate quarries in the main range are assessed to land revenue, it having been held that the presumption of Government ownership had been rebutted by entries made at the revised settlement of 1868. These have now been assessed in accordance with the Financial Commissioner's orders given in his No. 2447, dated 4th April 1916, and are as follows:—

	Rs
Kaniara ...	1,700
Narwana ...	120
Dharmsala ...	40

With the exception of those in Kaniara the quarries are not scientifically exploited and are of no more than purely local importance. The Kaniara quarries are worked by the Kangra Valley Slate Company, Limited, a flourishing industrial concern which hold a lease from the joint body of landowners entitling it to work all quarries within the boundaries of Kaniara mauza on an annual rental of Rs. 2,000 of which Rs. 1,700 is payable to the proprietary body and the remaining Rs. 300 to private persons. The assessment is with

the proprietary body who can, of course, apply for an increase of rent in consequence of the re-assessment under section 34 (1) (a) of the Tenancy Act ; as the new assessment, though far below the calculated half net assets, swallows up the whole of the rent it was expected that such an application would follow immediately on announcement ; none has however yet been made and the owners of this very valuable property are at present deriving no benefit therefrom.

29. The assessment report went to press in August 1914 and it was proposed to introduce the new demand from Kharif 1915. Government orders were published in November 1915 and in his letter No. 7812, dated 24th November 1915, the Financial Commissioner sanctioned the introduction of the new demand from Rabi 1916. Even so the announcement had to be made with undue haste ; results of new measurements were not available till February 1916 and the assessment and its distribution had to be made before the record was complete. The new revenue was collected as ordered though in the case of some estates the date for payment had to be extended to enable the distribution papers to be completed.

No description of the assessment circles beyond that contained in the preliminary report is required. A note on the assessment of each is given below, and should be read in conjunction with Appendix No. 2 :—

Gadheran Circle.—No increase was to be taken in this circle and no standard rates were framed, those shown in the statement are merely those which appear to be most suitable to bring out the former demand. Very little re-distribution over tikas was found to be necessary.

I have had no opportunity of visiting this tract myself and cannot comment on the demand, which was obviously more lenient than the people had expected ; as they have also been exempted from payment of cattle tax they may be regarded as exceptionally fortunate.

Bir Bhangal.—The standard rates were calculated as directed in paragraph 15 of the Financial Commissioner's orders, those entered in paragraph 16 being half net assets rates which must have been entered by mistake. The assessment (including fee simple demand) is some six hundred rupees higher than anticipated, but Mr. Boughey proposed rates well below those given by his calculations and the new demand is certainly lenient.

Kandt.—No increase was proposed for this circle, but whilst there were few tikas in which a reduction of assessment was required there were others in which an enhancement was certainly justified so that the result has been to raise the demand by about five hundred rupees which is in close agreement with that given by rates.

Palam.—Sanction to the transfer of three mauzas from this to the Changer circle was conveyed in Financial Commissioner's letter No. 5388, dated 29th July 1914 ; this however was not mentioned in the report ; the new demand on these three mauzas is Rs. 3,510 ; adding this and the demand on fee simple land the new assessment closely approaches that anticipated by the Financial Commissioner but is well above that given by rates ; this is due to the cultivated area being less than supposed combined with the fact that many estates where there was no sufficient reason to lower the demand were already assessed above rates ; previous distribution in this circle had been very uneven and the increase was made up of comparatively large increments in part only of the tract.

Changar.—Here again the addition of land now assessed at Rs. 3,510 must be allowed for in comparing the assessment with that anticipated ; practically no change has been made in the aggregate demand but considerable alteration was made in the distribution over tikas, some of which have been heavily burdened in the past.

Rajgiri.—In this circle the former distribution of the demand was more equitable than elsewhere in the tahsil ; in other circles a small increase was gained by considerable increment in a few tikas which made the realisation of the aggregate increase less easy than would appear from the estimates ; here however most estates were in a position to share the increase and not unnaturally it was found possible and legitimate to take slightly more than had been suggested.

The final result is that the revenue of the tahsil has been raised by 17·3 per cent., thereby somewhat exceeding the estimates based on the preliminary report; this is a larger increase than in the other two tahsils, but I can state without hesitation that the assessment is light in comparison with that of Kangra and Nurpur.

Owing to the change of control between inspection and announcement, and to the necessity for announcement before the records were in their final form, I have less confidence in the comparative assessment of individual tikas and in the distribution over holdings than elsewhere; but even so I think the distribution is so far improved that there are fewer cases of individual heavy burdens under the enhanced demand than there were under the former one.

30. The preliminary report went to press in December 1915 and orders were received thereon in the following March. The date for collection was left open but the new demand was finally introduced from Kharif 1917 under sanction conveyed in Financial Commissioner's letter No. 91—735-5; dated 27th February 1917. I had been directed to obtain the preliminary approval of the Financial Commissioner before announcing the reduction of demand in any estate, and such approval was granted in his letter No. 91—1375-4 of the same date.

Assessment of Kangra Tahsil.

In this tahsil the new records show a general decrease of just under 2 per cent. in cultivated area, due, I think, entirely to correction in calculation and not to any actual change; but they also show a decrease of 22 per cent. in ekfasli accompanied by increases of 12 per cent. and 7 per cent. in dofasli and bahand banjar respectively. I do not think this indicates any increase in intensiveness of cultivation—rather the reverse, for the classification of dofasli was severe and it includes much land on the border line. This change should result in standard rates giving higher demands than those anticipated, but owing to the severity of classification should not lead to a corresponding increase in actual assessment; this is what has actually occurred in the two unirrigated circles where it will be seen that the demand announced exceeds that anticipated but is below that given by rates.

Rehlu Circle.—Of the total demand of Rs. 62,275 the special assessment on quarries and urban sites accounts for Rs. 1,740 and Rs. 311 respectively. Deducting these sums and adding Rs. 145 which would have been assessed on fee simple land had not the revenue been commuted, the actual assessment on agricultural land is Rs. 60,369 and rather less than that given by rates or expected in the preliminary report. Rates in this circle were of little real use owing to its varied nature and individual tika assessment varied from 74 per cent. below rates in several tikas in the mountain village of Darení to over 100 per cent. above them in an excellent valley tract round Bandi and Gharoh. It could hardly be expected that the total demand would approximate closely to that given by rates.

Kangra Circle.—In this circle Rs. 129 were due to special assessments and hence the agricultural assessment, including commuted revenue of Rs. 45, came to Rs. 81,810 and slightly exceeded that given by rates. The re-assessment of this circle only produced an increase of 13 per cent., but the main feature of it was that the distribution over tikas was adjusted on a more equitable basis, the increase being very far from being proportional throughout the circle.

Bargraon Circle.—A small area has now been recorded as nahri in this circle for which no rate has been suggested in the preliminary report but the actual irrigation is so extremely poor that it was impossible to assess it appreciably higher than unirrigated land. I would have suggested no higher rate than that for dofasali had I known of its existence when reporting. Owing to the nominal increase in dofasli soil the rates give considerably more than was expected and though my assessment comes to less than the rate demand it involves an increase 50 per cent. greater than that regarded as probable before measurement had taken place, detailed inspection of this circle rather raised the opinion which I had formed of it in my preliminary touring; though the new demand impresses me as a full one compared with the new demands in irrigated circles it is certainly a far easier assessment than in the adjoining Ramgarh Circle and in several circles of Nurpur where practically no enhancement has been made.

Ramgarh Circle.—The rates suggested for this circle were framed so as to bring out an unchanged demand and were considerably above any I would have suggested had the previous assessment not rendered it impracticable to aim at assessment in parity with the rest of the tahsil. Some relief was afforded by reductions in the demand of several tikas, but this did not counteract the enhancement imposed in scattered tikas, which had formerly been assessed at a much lower standard than their neighbours; it was only in tikas of this latter description that any increase was made, but even so the result has been to raise the demand of the circle by about three hundred rupees. I regard this circle as the most fully assessed tract in the three tahsils under settlement, but the presence of a hardy body of landowners who show no signs of physical deterioration or increasing financial difficulties showed no necessity for general reduction of demand such as had to be made in parts of Nurpur where a decaying population has failed to keep up the former standards of cultivation. The total result for the whole tahsil is an increase of 14.9 per cent. to the sum of Rs. 1,98,651; this is somewhat less than the increase in Palampur, but there was not so much room for increase and I think that the difference might have been more pronounced without any hardship in Palampur.

31. The assessment report was sent to the press in January 1917 and orders thereon were received in June of the same year, the new demand being announced with effect from Kharif 1918. I was given a free hand in assessment with the proviso that reductions of more than 10 per cent. in demand should be announced subject to the Financial Commissioner's approval. I actually lowered the demand by more than 10 per cent. in 102 of the 847 tikas in the tahsil, and the Financial Commissioner approved of my action in all except 6 tikas in which he raised the assessment by an aggregate of Rs. 50

Paragraph 20 of the Financial Commissioner's orders directed me to submit a supplementary report regarding the results of assessment in this tahsil; that report read in conjunction with the preliminary report gives all that is necessary for this report and may be repeated here:—

“Former methods of computing areas introduced a slight exaggeration throughout the district, reflected in this tahsil by a nominal decrease of 1.3 per cent. in total area. New measurements show an increase of about 3 per cent. in cultivation, inspection shows little new cultivation but considerable areas in which cultivation has been abandoned; the nominal increase is due mainly to the bringing to record of cultivation which existed at last settlement but had never been mapped. Variations in the two main classes of soil, irrigated and unirrigated, are slight; but the internal classification of unirrigated land has been changed enormously. The former standard of classification was extremely lenient and it is feared that the new standard is unduly severe; the large areas lying on the border-line between two classes were invariably recorded in the inferior class at last settlement and have now generally been included in the superior class. This accounts for a large area formerly classed as ekfasli being now recorded as dofasli, and for a similar and practically equal transfer from bahand banjar to ekfasli. The new classification is based on past cropping records, and the nominal increase in cultivated area and improvement in classification does not indicate that the cropping statistics on which the preliminary report was based should be increased in proportion to show the true facts.”

Appendix No. 2 shows the leading statistics with regard to assessment. It will be noticed at once that the assessment imposed is far below that given by standard rates but well above the assessment anticipated. If rates alone were to be followed a fallacy would arise; proposals were mainly based on produce estimates and soil standard rates suggested to bring out a demand deemed suitable in comparison with those estimates; in view of the changes in areas and particularly the change in classification of soil on the border-line between two classes those standard rates applied to new areas no longer bring out a result in conformity with the produce estimates; in fact the rates now show a guide demand of Rs. 1,61,947 whereas the Financial Commissioner named Rs. 1,61,000 as being a fair estimate of the half net assets of the tahsil. In other tahsils the instructions were that standard rates were to be the only check on tika assessments, in this tahsil the orders indicated that the gross assessments of each circle were to approximate to anticipated figures.

In practice the assessment has been made tika by tika, checked by but not based on standard rates, and made without any conscious reference to the aggregate assessment resulting. In dealing with a tika the question of the extent to which changes in recorded areas indicate errors in previous crop statistics is one which raises no particular difficulty; it is only after finishing the assessment of the tahsil that the discrepancy between the demand produced by rates and the demand it was expected they would produce calls for explanation.

The redistribution of the demand over tikas has been a far more important matter than the change in total demand would suggest.

In 26 tikas the demand has been reduced by more than 50 per cent.

„ 14	„	„	„	„	„	„	„	„	„	40 per cent.
„ 49	„	„	„	„	„	„	„	„	„	30 per cent.
„ 133	„	„	„	„	„	„	„	„	„	20 per cent.
„ 172	„	„	„	„	„	„	„	„	„	10 per cent.
„ 160	„	„	„	„	„	„	„	„	„	less than 10 per cent.
„ 148	„	„	„	„	„	„	„	„	„	left unaltered.
„ 35	„	„	„	„	„	„	„	„	„	raised by less than 10 per cent.
„ 53	„	„	„	„	„	„	„	„	„	more than 10 per cent.
„ 30	„	„	„	„	„	„	„	„	„	20 per cent.
„ 12	„	„	„	„	„	„	„	„	„	30 per cent.
„ 7	„	„	„	„	„	„	„	„	„	40 per cent.
„ 8	„	„	„	„	„	„	„	„	„	50 per cent.

I may add that the re-distribution of the demand over soils within tikas has been almost as pronounced as that over tikas.

Nurpur Circle.—Detailed inspection has shown no reason for modifying the remarks contained in the preliminary report; the demand imposed is about 3 per cent. above that suggested by the Financial Commissioner, whilst the nominal increase in cultivation is also about 3 per cent. The new demand is calculated to fall at Re. 1-7-4 per acre cropped. The distribution of demand over tikas has been radically changed, no less than 50 out of 246 tikas having been allowed a reduction in demand, the main reason for these reductions being decline in population followed by decreases of cultivation.

Lodhwan Circle.—Here the demand announced is 8 per cent. above the amount regarded as a safe assessment in the orders and it may appear that (except for the elusive change in classification) the increase is not justified by the former report. This circle, however, was found to contain many obviously under-assessed tikas on which considerable increments could be imposed, whilst there were comparatively few tikas where the existing demand was sufficiently severe to justify a reduction.

Chhattar Circle.—The assessment approximates closely to that anticipated and this circle calls for no remarks.

Jowali Circle.—In this circle detailed inspections lead to a modification of the views formed at preliminary inspection; though there is no need to modify anything actually recorded in the preliminary report, it must be admitted that the suggestions as to assessment were based on slightly too favourable a view of the resources of the circle. The Financial Commissioner considered that the suggestions in the preliminary report were somewhat too high, and his view has been supported by further experience.

Khairan Circle.—This circle and Andaura contain land which will be assessed from the start under riverain rules for which rates were fixed subsequent to the issue of orders on the preliminary report. In this circle the accepted standard rate of Rs. 4-4-0 for Nahri was found to be too high to be followed closely in actual assessment; on the other hand it was found that there was much cultivation which had never been brought on record though it must certainly have been in existence at last settlement.

The circle is one containing lands of widely different quality; the two worst mauzas of the tahsil are included in it whilst some of its riverain is excellent; in consequence it is difficult to discuss the assessment as a whole, and it is not surprising to find the result of tika assessment varying widely from that suggested in a report prepared after a general cursory inspection.

Andaura Circle.—The standard rates proposed were calculated to bring out Rs. 29,039, but the orders reduced them and Rs. 28,000 was cited as a fair assessment. It had been pointed out that inequality of the expiring demand would probably prevent the realisation of a demand equal to that given by rates, as the increase would fall mainly on part only of the circle. The sanctioned rates now produce a demand of over Rs. 30,000, but the difficulty mentioned has resulted in the imposition of only Rs. 28,032. The increase in this circle is larger than in any other and of 17 objections under section 52 of the Land Revenue Act which have been decided 10 emanate from this circle; the assessment, however, appears to be lenient.

Surajpur Circle.—This circle has been found to have been fully assessed; it contains a few estates where there has been a great reduction in cultivation and the distribution over tikas has been modified considerably.

The final result is that an increase of 10·6 per cent. amounting to Rs. 14,503 has been imposed against an anticipated increase of about Rs. 10,000. In a tahsil where the margin for increase was so small the fact that an additional sum of Rs. 3,279 has been imposed on sheep and goats must not be overlooked.

The re-assessment has mainly resulted in an equalisation of the burden and it may be hoped that the increased demand will be collected with fewer cases of individual hardship than the former demand.

32. The total revenue of the tract under settlement has been raised from Rs. 4,81,546 to Rs. 5,51,523, involving an increase of 14·5 per cent. It was noted before the settlement was started that increase in revenue would probably be insufficient to warrant a revision of settlement were it not for the necessity of providing an accurate record and deciding a number of vexed questions mainly connected with forests: whether the settlement has attained these objects can be decided by time alone, if so the operations would have justified a considerable irrecoverable outlay whilst they have as a matter of fact cost some Rs. 3,96,000 which will be recovered in six years from the enhanced demand. Apart from other considerations the result of the settlement from the purely financial point of view can hardly be considered as satisfactory to Government, but it must be remembered that before the revision of settlement had been decided upon a forecast report had been prepared in which the new demand of the tract was estimated as likely to be about Rs. 5,12,450. Government had regarded that estimate as likely to be exceeded but by less than the actual result now under report.

33. The methods by which I endeavoured to insure that the internal distribution of the revenue should reflect the capacity of the lands assessed and should be in accordance with such views as the people were able to render intelligible have been described above. The tract comprises 3,027 tikas of which 75 are not assessed at all; of the remaining 2,952 tikas all except 535 have had the revenue distributed according to soils; the exceptions were as follows:—

At one rate 506, by shares 5, miscellaneous special forms 24.

The classification of soils adopted for the new record was found very suitable as a basis for the distribution and in the majority no further classification was required. In tikas where much unirrigated rice is grown the people often adopted a triple classification of the unirrigated soil as follows:—

Chhaliari.—Maize growing land, practically identical with dofasli.

Dhanun.—Rice land, including a very small quantity of dofasli but mainly ekfasli.

Bariai.—Being the remaining ekfasli land.

The rice crop is a paying one but exhausts the soil, so that in such tikas dhanun is often amongst the best land whereas bariai is always poor outlying cultivation; the triple classification therefor helped towards an equitable distribution and was adopted wherever desirable.

In other tikas the land was occasionally divided up into blocks according to quality or position and these assessed at different rates, the distribution within blocks being by recorded soils; I only allowed the differentiation of

such blocks where I personally considered there was an appreciable difference in quality and where the majority of the people agreed with my opinion; this system is one that could not have been adopted had I not gone into the question at the time of inspection.

In Nurpur Tansil where there are a few wells, I assessed each well to a fixed sum in addition to rating the land at the same rate as the adjoining dry land. I found that it would be impossible to get any agreement amongst the people as to the relative value of well irrigated and other land and therefore adopted this simple method which is very suitable as each well usually belongs to a single owner.

In the Beas riverain of Nurpur Tahsil where the canals are liable to destruction by diluvion, in which case remission of assessment is admissible under the riverain rules, I assessed all nahri land at the same rate as ekfalsi with an extra rate (nahri parta) of Re. 0-3-0 a kanal. The intention of this is that when the fixed nahri parta is remitted owing to the destruction of a canal the remaining assessment should be the same as for similar land which had not been irrigated at settlement: in the event of this occurring it is unlikely that more than a very small fraction of the land affected would become dofasli.

Except in Palampur Tahsil, every method of distribution adopted is the result of my own estimate of the comparative assessable value of soils modified with reference to the wishes of the people: though I cannot pose as an expert in estimating the profits from various classes of soil I think I can guarantee that the new distribution will be an improvement on the previous one which in many tikas was obviously unsound. As an instance I may quote the case of numerous tikas in Nurpur where land recorded as bahand banjar and cultivated not more than once in six or seven years was rated at one-half the rate applied to land which was cultivated every year.

CHAPTER V—FORESTS.

34. Previous to the settlement of 1868 all trees on waste land and the more valuable trees on cultivated land belonged to Government; at that settlement Government relinquished its rights in trees on cultivated land and on certain classes of waste. Various sections of the 1868 administration papers and Mr. Lyall's Settlement Report (paragraph 191) contain definitions of the classes of land on which Government owned all trees of spontaneous growth as well as those planted by or on behalf of Government. The definitions are, however, vague and depend largely on certain methods of record, whilst an examination of the individual records-of-right shows that the forms of entries actually made were not invariably compatible with those which Mr. Lyall stated he had adopted. Since 1868 no general enquiry had been made into rights in trees though various transactions had taken place affecting those rights in particular cases; many of these transactions had never been brought on to the revenue records and were difficult if not impossible to trace.

Up to the present settlement the decision of any question regarding Government ownership of trees has involved a reference to the 1868 records; the entries in those records were so various that their interpretation demanded more intimate knowledge of the subject than could be attained by most district officers; even where they were interpreted correctly a possibility of error arose in identifying the land on the 1868 map with that in the current records whilst subsequent transactions which had transferred rights since 1868 were often overlooked.

This position was intolerable; the uncertainty as to ownership of trees prejudiced forest administration and caused much dissatisfaction amongst the landowners.

The difficulties were most acute in the Dera and Hamirpur Tahsils and this fact was one of the main reasons why the settlement of those tahsils was taken up before that of the remaining three; the questions involved proved so complicated and the definitions given by Mr. Lyall were found to be open to such differences that a final decision as to the principles to be applied was not reached until 1916 and as a result the specification of the exact areas on which Government owns the trees for the whole five tahsils of Kangra Proper formed part of the present settlement operations.

Final orders on the principles to be observed are contained in Punjab Government letter No. 822-Forests, dated 4th November 1916, and are to the effect that "All trees on waste land which was recorded at Lyall's settlement as *dakhil bachh* waste and *maqbuza* whether by more or less than two owners should now vest in the owners of the land, except in the case of *dakhil bachh* areas which were included by Mr. Anderson in demarcated protected forests."

Mr. J. F. Mitchell, I.C.S., was placed on special duty to give effect to these orders and in doing so adopted the following procedure: in every tika a tree file was prepared showing every note regarding trees that could be found in the 1868 record and a list of field numbers which under that record were thought to be under Government trees; these lists were personally checked by Mr. Mitchell who examined the 1868 record with a view to finding whether the entries therein supported the entries in the lists and no others; he then deleted small detached areas from the list which he was empowered to do by discretionary powers vested in him by Government. The areas concerned were then traced both through the subsequent maps and subsequent records and identified with field numbers of the current record; the list of current field numbers was then checked by Mr. Mitchell and effect was given to all ascertainable transactions which had affected rights in trees since 1868. This double check was a complicated process involving the interpretation of ambiguous entries and a prolonged search for notes in various parts of the 1868 and subsequent records; on it depended the whole validity of the conclusion and it could not have been conducted without a prolonged and painfully acquired knowledge of the intricacies of the subject.

The result of the enquiry was brought on to a mutation declaring the current field numbers subject to Government's right in trees. These mutations were announced by Mr. Mitchell (in Dehra Tahsil by the District Revenue Assistant to whom my thanks are due) and were subject to appeal before me.

In Nurpur Tahsil these orders were passed before the preparation of the new settlement map; this carried the advantage; that where parts of field numbers were affected they could be measured as separate numbers in the new record; on the other hand owing to the inaccuracies of the then current map it was found necessary to pass supplementary orders after measurement; these supplementary orders, giving up detached fragments of waste, authorised cultivation, village pathways through cultivated land, etc., etc., which could not be distinguished in the old map, were passed by me and entailed considerable additional labour.

In the other four tahsils Mr. Mitchell's orders were passed after measurements had been completed, and except for variations on appeal were final; this was more satisfactory but it entailed the amendment of the new maps where part only of a field number was found to be under Government's right in trees.

At one time it had been intended that Mr. Mitchell should only deal with Dehra and Hamirpur and that I should pass orders in the three tahsils under settlement; luckily this intention was abandoned; had it been put into effect it would have prolonged the settlement operations, incidentally it would have laid a burden of appellate work on the Commissioner and as I decided 410 appeals of this nature, nearly all of which involved reference to numerous bulky and complicated records, the burden would have been considerable. In 11 cases have these appeals gone up to the Commissioner on revision and in 2 of them only have the orders been varied.

The tree files prepared by Mr Shuttleworth for Dehra and Hamirpur and by Mr. Boughey for Palampur were found to be of little assistance in giving effect to final orders and this work has been done practically, from start to finish for all five tahsils by Mr. Mitchell and myself.

35. Mr. Mitchell's enquiry extended to all lands in Kangra Proper, but in connection with a memorial submitted by Tea Planters' rights in trees. the Kangra Tea Association a special enquiry into the rights in trees on tea estates was conducted by a committee consisting of Khan Bahadur Munshi Imam-ud-Din, Divisional Forest Officer, and myself. In a foot note to paragraph 191 of his Settlement Report Mr. Lyall had noted that all blocks of waste land bought of village communities by

Europeans prior to revision of settlement were considered as "private waste"; accordingly the State has no claim to trees on tea garden land of this nature and the enquiry was practically limited to land acquired for tea gardens since that revision. The enquiry dealt with 2,284 acres of land, both cultivated and waste; we found that in 794 acres the tea planters had acquired rights in trees as well as in the soil; with regard to 1,184 acres containing few trees or containing trees, the existence of which was mainly due to the protection afforded by the tea planters, Government, upon our recommendation, waived all claim to trees without demanding compensation; the owners of a further 14 acres were permitted to purchase rights in trees thereon at the market value of the existing growth, whilst only in regard to 292 acres of true forest land did Government decide to retain its right over trees; a small part of even these 292 acres was found later on not to be subject to Government rights, as it had been granted as a "ban-muafi."

The result of Government orders has been incorporated in the revenue records as described in paragraph 37 below.

36. Even the most masterly condensation of forest history of the district would require a large volume to itself and I attempt nothing more than a summary of the events leading to existing distinct classes of forest. Paragraphs 60 and 61 of Mr. Lyall's Report give a detailed history up to 1868; in the mass of forests conservancy merely rested on clauses of the administration papers prepared by Mr. Barnes and Mr. Lyall, and on some elementary rules promulgated in 1850 and 1853. Rights in the soil of four forests in a tract transferred from Hoshiarpur to Dehra Tahsil had however been acquired and these four forests are the earliest instances of reserves. In 1859-60 many areas had been closed to all rights as "trihais" apparently with the intention of forming the first of a series of rotational closures; no provision had been made for shifting these periodically and they all remained closed till Mr. Anderson's forest settlement and many of them up to the present day.

In 1863 Government had acquired land for tea estates in what is now Palampur Tahsil and in exchange had abandoned all rights in trees in certain areas known as "ban muafis" which henceforth ceased to be Government forest; at the same time the Government right of temporarily closing one-third part of the remaining forests was abandoned in the 8 villages concerned; this led to the creation of forest now known as "un-classed" to which the provisions of Chapter IV of the Indian Forest Act cannot be applied.

This was the position in 1868. Mr. Lyall then drew up proposals for forest conservancy which were never sanctioned, so that apart from the somewhat unsatisfactory definition of land under Government forest and the conservancy clauses of the administration papers his settlement had little effect upon forests.

In 1872-75 a scheme was set on foot whereby Government should acquire absolute proprietary rights in selected areas in exchange for a modification of its rights in the remaining waste. This scheme resulted in the acquisition of full rights in certain forests in 21 villages of Nurpur Tahsil and 38 villages in Dehra Tahsil. The negotiations then failed and the scheme was dropped. It has resulted in the existing "reserved" forests, whilst on account of the abandonment of the right of closure in the remaining waste of the villages affected it has also resulted in the creation of a large number of "unclassed" forests. It appears that the four old reserved which had previously been transferred from Hoshiarpur were included in this scheme.

No further really important changes occurred till Mr. Anderson's Kangra Forest Settlement of 1887, the results of which were not sanctioned till 1897. Mr. Anderson did not deal with reserved and unclassed forests, the remaining forests came under the term protected and in these he demarcated a large number of the more important areas including the majority of the old "trihais" thus creating the "Demarcated Protected Forests" whilst the areas outside his demarcation became known as the "Undemarcated Protected Forests." Apart from the actual demarcation his main work consisted in drawing up a forest record-of-rights and notifications of rules applicable to the various classes of forest.

Mr. Anderson's work resulted in a clear record of the rights in all forests ; it did not remove the difficulty of ascertaining which areas, outside the demarcation, were Government forests which has been mentioned in the preceding paragraph ; nor in the opinion of the Forest Department did it adequately provide for conservancy and necessary regeneration. One of the main difficulties arose from the enormous areas of undemarcated forest of practically no value which dissipated the energies of the Department ; before I joined this settlement some steps to remove difficulties of administration had been taken by transferring certain forest areas to the Deputy Commissioner, whilst a Forest Officer was engaged in preparing a working plan for rotational closures in the workable areas.

The deputation of Mr. Mitchell for "tree file" work was made the opportunity of associating him with the working plan and extending it to all parts of Kangra proper. This working plan is being prepared under the orders contained in Punjab Government letter No. 3791-Forests, dated 23rd February 1917 ; briefly it consists in delimiting areas of both demarcated and undemarcated protected forests for rotational closure to which they are liable under Mr. Anderson's notifications. Mr. O. H. Walters of the Indian Forest Service is drawing up the plan whilst Mr. Mitchell assists him and pays special attention to the safeguarding of all rights of the people and to ensuring that no closure shall prejudice their interests in an avoidable manner. The plan involves the delimitation of the whole closure series or blocks and also of its different divisions which will come under periodical closure ; it thus goes far beyond the scope of the 1859-60 operations and precludes the possibility of the first closures becoming permanent ; that defect of the old trihais has naturally caused much misunderstanding as regards the new closures.

The working plan introduces no new class of forests ; the main difference between demarcated and undemarcated protected forest is the fact that the Deputy Commissioner may allow cultivation in the latter, this he would never do if it prejudiced forest conservancy and hence would never do in workable forest areas such as come within the new closure series ; hence within the closure series the distinction between demarcated and undemarcated forest is practically lost. As a corollary of the working plan it is proposed to hand over the forests which are not fit for treatment by closure to the control of the Deputy Commissioner whilst the Forest Department will confine their attention to the closure series.

This delimitation of closure series does not form part of the revenue settlement operations, and appeals against proposed closures have been heard by the Deputy Commissioner and not by me ; but being concurrent with settlement operations it has led to additional work for the settlement staff.

37. The closure series are being enclosed by pillars, and though they will not come into effect till notified there is little doubt that they will be enforced as proposed ; hence it has been thought advisable to incorporate the proposals in the new records which would have been a task beyond the powers of the district revenue staff. This has involved the mapping of the boundaries of the closures series and of their internal divisions and the mention of the series in the settlement record.

In the body of the record-of-rights wherever a field number occurs in which Government owns the trees, a note to that effect has been recorded in the remarks column ; at the end of the record and forming part of the "jambandi" a statement has been inserted which runs as follows :—

"The trees of spontaneous growth on the following field numbers belong to Government and this area is known as Government Forest" ; the list of numbers is then followed by a table headed 'Details of the Government Forest' and divided into sections according to the class of forest concerned which may be any or several of the following :—

1. Protected Forest under the Forest Department (i. e. the closure series including both demarcated and undemarcated).
2. Reserved Forest under the Forest Department.
3. Demarcated (Protected) Forest under the Deputy Commissioner.
4. Undemarcated (Protected) Forest under the Deputy Commissioner.
5. Unclassed Forest under the Deputy Commissioner.

This table showing the classification of forests shows the area and classification of every field.

It is intended that this statement should be repeated, and if necessary modified, in each quadrennial record ; modifications will be very rare ; they may occur as the result of civil litigation but the commonest will occur when the Deputy Commissioner allows cultivation and collects compensation for trees on areas coming under head No. 4 or sells the trees in areas coming under head No. 5 in which there is no prohibition of cultivation not attended by damage to trees.

In order to assist the Forest Department and the Deputy Commissioner in the control of forests, and also to prevent any tampering with these records a Forest Register has been drawn up for each tahsil. This register shows the field numbers and area of every class of forest in every tika ; it is intended that each ranger or other forest official should be provided with a copy of so much of these registers as refers to his beat, thus eliminating the constant reference to the patwari which has been one of the hindrances in forest administration in the past.

The results of the enquiry into rights in trees and of the working plan proposals are given in appendix 3.

38. The three foregoing paragraphs apply to areas outside the jagirs, but with certain modifications which need not be detailed here they also apply to all the jagirs except to that of the Raja of Lambagraon. In the Lambagraon jagir Government owns no trees, hence there has been no enquiry and no statement has been added to the records ; claims between the inferior proprietors and the jagirdar will be decided as heretofore by reference to the village administration papers.

39. Prior to Mr. Barnes' settlement the waste lands of the district were generally recognised to be the property of the State, but owing to the fact that they were then recorded as "Shamilat" it was subsequently held that the property in the soil though not in the trees thereon had passed to the joint proprietary bodies of the estates in which they were situated.

In ancient days the Rajas had made grants of waste land for settlement and cultivation, thus giving rise to private property in land ; in the administration papers of 1868 it was laid down that for the future appropriation of waste land for any purpose could only be made with the unanimous consent of the shareholders, and that if such waste contained Government trees the Government could either forbid the encroachment or insist on payment for those trees.

It appears clear that this Government right of veto was based merely on the right of protection of trees and did not continue the Raja's claim to disposal of the waste as such ; under this rule any appropriation of "shamilat" had to be authorised by the agreement of all shareholders and by the permission of the Deputy Commissioner and in such cases was supported by the execution of a "patta nautor." The custom was continued with regard to undemarcated protected forest under rule 32 of notification No. 416, dated 14th August 1897 ; at the same time breaking up of demarcated forests was absolutely forbidden, whilst in the unclassified forests there was no penalty for breaking up the soil unless it involved offences against the rules regarding timber.

In general a "patta nautor" has been preceded by the collection of the price of standing trees from the grantee, and in practice such a grant has been recognised as removing the area concerned from the operation of the forest rules. Whether under the terms of notification No. 58 such a grant really did result in disafforestation of the land is a moot point, but that notification confined the protected forests to lands on which Government owned trees and it is logical if not strictly accurate to hold that when Government sold such trees the area ceased to be protected.

In the present settlement no area which has been the subject of a formal "patta nautor" has been included in the lists of Government forests ; and it will certainly be in the interests of both the administration and the people if future grants are accompanied by exclusion from the Government Forest area.

The mere exclusion of such grants from the lists of Government forest is however insufficient to safeguard the rights of the grantee ; he has paid for

the trees and is therefore their owner and thus differs from a shareholder who has appropriated common lands which were not originally recorded as forests; he has also received the approval of all the shareholders in his appropriation and it is probable that the provisions of section 150 of the Land Revenue Act would never be enforced against him. It follows that a permanent record of such grants should be maintained; many alleged grants have been difficult to prove because this was not always done in the past; in the new settlement record-of-rights a statement has been added after the forest statements showing the areas for which such grants have been made, and I consider it necessary in future all such grants should be preceded by payment for trees and should be incorporated in the records by a mutation removing the area from the list of Government forests and adding it to the list of sanctioned grants.

The precise rights of these grantees are not very clear. Mr. Boughey and several former Deputy Commissioners have been of the opinion that they amount to full proprietary rights and in this view are supported by the majority of the people; Mr. Lyall's administration papers, however, indicate that land for which a grant has been made is not exempt from partition along with the rest of the waste. I think that the grantees are entitled to undisturbed possession up to partition, they have been recorded as shareholders or non-occupancy tenants holding under the "shamilat" which obviates the very complicated entries concerning shares in shamilat which would be necessitated if they were to be recorded as owners; the method of record adopted shows that they are grantees without importing any arbitrary decision as to their exact position.

I have drafted rules for the future treatment of applications for such grants and these have been incorporated in the Forest Register; I trust these will be found useful but have taken no steps to have them formally approved and made binding on future Deputy Commissioner who may improve upon them after experience of their working has been gained. These rules should prevent several errors that have occurred in the past, the commonest of which have been grants to non-right-holders, grants in excess of share, grants of small patches in the midst of large forest areas, and which have arisen from too great a dependence on reports prepared in the tahsils.

40. In the interests of forest conservancy it was decided to impose a tax upon cattle throughout the district. The current orders on the subject are contained in Punjab Government letters No. 164, dated 12th April 1915, and 13-Forest, dated 8th January 1916. The taxes sanctioned are Rs. 2 on each female buffalo belonging to a Gujar Sowandar, nine pies on every sheep, and one anna on every goat, the rates on goats to be doubled two years after original assessment except in tikas where there has been a substantial reduction or in which the number of goats is found not to be excessive.

A further tax of eight annas on each buffalo belonging to zamindars has not been imposed pending further orders.

In applying these orders several difficulties have been experienced. The tax is described as land revenue and is a form of fluctuating assessment of grazing; a separate tax on the flocks of itinerant Gaddis (shepherds of the hills) had previously been in force; this separate tax had not been imposed when the flocks grazed in a village in which the flock master owned land, as the new tax applied to all landowners and others this concession had to be abolished. As the Gaddis are frequently away from their villages at the time of enumeration and at the time of revenue collection and as the numbers of their flocks are constantly changing it was impracticable to assess the cattle tax on their flocks through the revenue agency; with the approval of the Commissioner I imposed no assessment on these wandering flocks and asked the Forest Department to collect the Gaddi grazing dues irrespective of the fact of their being landowners.

The word Sowana is used in several senses in the district, the true Sowanedar is a man having an exclusive right of grazing in a defined area for three months in the year, that right excluding all other persons' rights during the period; the word is also applied to Gujars and others who visit a village for grazing but have no right to exclude others and have no recorded right to the grazing which is allowed them by the landowners. In assessing the tax I have only included the true Sowanedar.

The general tax on other buffaloes has not been imposed pending further orders ; I have submitted a report on the subject showing that there are various classes of buffalo owners whom it would be advisable and fair to tax at different rates ; the subject is a complicated one but does not need further reference here as final orders have not yet been passed.

The following table gives the results of the first assessment of the tax :—

Tahsil.	Session in which first assessed.	Number of sheep.	Number of goats.	Gujar Sowanddar's buffaloes.	Total tax.
	<i>Rabi.</i>				Rs. A. P.
Dera	1916	10,919	62,061	...	4,390 10 3
Hamirpur	1916	...	...	...	6,663 7 3
Palampur	1916	25,422	41,966	558	4,930 8 6
	<i>Kharif.</i>				
Kangra	1917	12,942	43,036	1,009	5,314 6 6
Nurpur	1918	1,954	51,199	...	3,291 8 6
Total		51,237	198,262	1,567	24,590 9 0

Fresh enumerations and re-assessment are to take place in each tahsil after two years and thereafter after every three years ; this entails enumeration at different times and will encourage the migration of animals from one tahsil to another at the time of enumeration. I recommend that a fresh enumeration be made throughout the district in kharif 1920, when every tahsil will have had the full benefit of two years' taxation at the lower rate. The tax on sheep and goats is being collected entirely with the kharif demand, whilst that on Sowanddar's buffaloes is collected in equal instalments at the two harvests ; to avoid complication I recommend waiving one season's tax in three tahsils first assessed in the spring harvest, so that throughout the district the tax may be assessed at kharif and collected for the agricultural year.

The results of the first re-assessment which came into effect from rabi 1918 were as follows :—

Tahsil.	Sheep.	Goats at anna one.	Goats at annas two.	Gujar Sowanddars' buffaloes.	Total tax.
					Rs. A. P.
Dera	9,081	33,480	19,400	338	5,619 2 9
Hamirpur	25,187	25,808	21,698	176	5,857 14 3
Palampur	17,589	18,493	11,501	529	4,475 14 9

I am afraid that even with a large settlement staff the enumeration was much affected by collusion between the patwaris and owners, and that with the ordinary district staff this collusion will assume very serious proportions ; it must be remembered that the people live in isolated houses amongst forests and that there is no method by which the animals can be counted which does not depend largely on the admissions of the owners themselves. This consideration, I am afraid, entirely stultifies the nominal reduction in flocks which is apparent from the re-assessment and which would otherwise indicate that the tax had already been successful in achieving its object of reducing grazing.

After the replacing of a very inaccurate record I regard the precise definition of forest areas as the most important work of the settlement ; in its initial stages it aroused vehement opposition mainly due to the people anticipating a wholesale declaration of private lands as forest whilst final orders on the subject were pending ; the actual orders though provoking a large number of appeals have not been the subject of much adverse comment ; most of the opposition that remains is due to misunderstandings, the people persist in regarding the

(General.

declaration of specified areas as forest as importing new restrictions on their rights, whereas in reality no rights have been restricted thereby and no land has been declared to be forest which was not already so under Lyall's settlement ; on the contrary much land which could have been declared to be forest under the old definitions has been removed therefrom. The opposition has already subsided and I am convinced that after a few years the people will realise the benefits accruing to them from the certainty regarding rights in trees and that the wrong-headed opposition will give place to thankful approval.

The delimitation of closure series can never be popular ; it has however provoked far less discontent than might have been expected, and for this fact much credit is due to Messrs. Mitchell and Walters for the patient way they have investigated the effects of the proposed closures and have endeavoured to meet all reasonable objections of the people. Their difficulties were increased by the distrust arising as a result of the trihai closures of 1869-70 ; those closures were intended to be for twenty years but remained for fifty ; they were made without reference to any future change of site and perhaps naturally though very prejudicially to future operations they were invariably placed in positions where they caused least inconvenience to the people, thus causing a difficult problem when it became necessary to shift them. Their delimitation should relieve the Forest Department from the dissipation of their energies on large areas of worthless waste and initiates an organised scheme for the regeneration and systematic exploitation of the forests which are of real value.

The imposition of the cattle-tax has proved far more unpopular than the other measures taken in protecting the forests ; opinions on the subject have been so varied that I hesitate to make any additional comment : there are, however, two points on which my convictions are so strong that I am forced to leave them upon record. In the first place it appears to me that whilst the Gaddi flocks are not restricted except by an entirely ineffectual tax (and a tax of one anna per head cannot induce restriction of the flocks of people whose whole livelihood depends upon them) the attempt to restrict the numbers of sheep and goats kept by residents of the district is equivalent to an attempt to heal the camel by the removal of the last straw ; the wholesale spoliation of the scrub jungles of the Gaddis, I think, requires far stronger repression than can be attained by taxation. I strongly advocate a gradual restriction in the numbers of their flocks. I would at once prohibit the introduction of any flock belonging to a man without a hereditary grazing run and would restrict the numbers allowed to each man with a hereditary run by at least ten per cent. after every five years until the numbers were reduced to reasonable proportions. All restrictions of grazing must be unpopular. It appears to me that while taxation infallibly provokes discontent but is not necessarily operative, definite restriction of numbers must be operative. It is the Gaddis who are the principal enemies of forest conservancy and they are for the most part non-residents exercising their calling at the expense of the people who own and live upon the land. Incidentally if the landowners do reduce the numbers of their sheep and goats, they will depend more upon the Gaddis and foster an increase in the flocks of these picturesque survivals of a period anterior to the development of full private ownership of land.

In the second place I must record my grave doubts as to whether the results of the triennial enumeration of sheep and goats will bear any real relation to the actual numbers of animals in the district. The inaccessible country with its large wastes and scattered homesteads does not allow the patwari to actually count the flocks and he must depend largely on the statements of the owners who can easily combine for their mutual benefit ; still more does it preclude any adequate supervision of the parwari's work and he too may therefore join the combine.

CHAPTER VI.—MISCELLANEOUS.

41. There were no less than 1,526 assignments of land revenue in the three tahsils under settlement. The investigation into these was taken up at an early stage in each tahsil and completed before the announcement of the new demand. The main records of these grants were English registers compiled in 1868 and vernacular registers of the last settlement ; neither of these was complete and they did not agree with each other ; the origin of many grants was shrouded in doubt and

Assignments of revenue.

the task of revision was one involving considerable labour. No attention had been paid to the necessity of distinguishing the land under these grants at the consolidation of field numbers of last settlement, so that in many cases the old records showed unspecified portions of field numbers as being subject to grants and in these the field numbers of 1868 had to be re-plotted on the new maps before orders could be passed.

The grants fall under three main heads, Muafis and Jagirs, Rihayats and Lahri Basis. All grants, except the petty lahri basi grants, were dealt with in separate files giving the whole history from original release up to date and the orders on these files have been incorporated in detailed vernacular registers, one copy of which has been sent to the tahsil concerned, another being retained at the district headquarters. The registers for the three main varieties of grants are separate and all are arranged in convenient sub-divisions according to the conditions of the grants.

Muafis and Jagirs.

	Tahsil.	In perpetuity.	DURING THE PLEASURE OF GOVERNMENT.				For the term of settlement.	For life.	Military grants for three generations.	Total.
			Institutions.	Persons.	Males of em-campments.	Gardens, plantations, etc.				
Released.	Palampur	11	79	16	7	2	...	15	...	130
	Kangra	9	53	6	4	10	3	17	6	118
	Nurpur	12	124	12	2	11	...	29	2	192
	Total	32	261	34	13	23	3	61	8	435
Resumed.	Palampur	...	2	...	...	1	2	...	...	5
	Kangra	2	4	...	1	...	1	...	...	8
	Nurpur	1	3	...	...	...	1	...	...	5
	Total	3	9	...	1	1	4	...	...	18

These grants presented no special difficulties. The terms of the grants were usually ascertainable in a definite form and, whilst a few grants had to be resumed for breach of conditions or other reasons, in the majority the only revision necessary was that caused by orders having been passed since settlement contrary to the terms of the original grant.

Rihayats.

	Tahsil.	In perpetuity.	During the pleasure of Government.	For the term of settlement.	For life.	Total.
Released.	Palampur	7	...	...	101	108
	Kangra	...	...	1	26	27
	Nurpur	...	1	...	114	115
	Total	7	1	1	241	250
Resumed.	Palampur	...	...	1	7	8
	Kangra	...	...	...	6	6
	Nurpur	...	...	...	3	3
	Total	...	...	1	16	17

A large number of personal muafis were released in 1868 for life only with the condition that on resumption the heirs of the muafidars should pay only one-half revenue rates, and sometimes with the further condition that the next generation should pay at three-quarters revenue rates. Grants of such favourable assessment are termed rihayats; though the origin of many can be traced to definite orders on the original muafi grant, the majority appear to have been released in compliance with some general order which cannot now be traced; in very few cases was any term fixed for the continuation of the favourable assessment, but in accordance with the orders in Financial Commis-

sioner's letter No. 4605, dated 24th June 1915, where conditions are not traceable, the existing grants have been treated as for the lives of the present grantees only ; in some cases these hold their shares separately and in others jointly ; in the latter class of cases the shares lapse to the survivors amongst the present grantees till the death of the last.

The investigation into these grants was most troublesome ; owing to the indefiniteness or absence of conditions they had been treated in many different ways and individual shares had often been resumed with the result that in many cases the portion of land revenue still released was in the form of a complicated fraction.

They have now all been placed on a sound basis and with the exception of nine will lapse as the present grantees die out. In general these grants have become too widely dissipated amongst numerous shareholders to be of any real value to the grantees.

Lahri Basis.—These are petty grants of the land revenue on small plots of land attached to dwelling houses ; in some cases they were released to land-owners but in the majority to persons who had no property in land beyond the actual revenue-free plot. Such sites had generally been lent or given to them by the proprietary body, sometimes by the Rajas of past times, and it is a question whether the grantees really were owners of these sites although recorded as such in the revenue records of 1868. Since then they have been continuously recorded as owners and it is unlikely that the true proprietors could ever succeed if they were to deny the grantees' ownership rights in the courts.

The orders for the treatment of these petty grants are discussed in paragraph 64 of the Dehra-Hamirpur Settlement Report, very few of them exceed eight annas in amount, they are not valued by the people and very often the grantee considers that the fact that his revenue is assigned to him lowers his status by depriving him in some vague way of the full rights of owner ; I did my best to remove this false impression but it led many grantees to ask for the resumption of the grants and in such cases I saw nothing in the orders to prevent me complying with their request.

The results of revision were as follows :—

Tahsil.							Released for the term of settlement.	Resumed.
Palampur							141	177
Kangra							36	110
Nurpur							151	191
Total ...							328	478

No orders have ever been passed on such grants between settlements nor is it desirable that they should be ; the grants are petty in the extreme and occasional revision is quite sufficient. My own opinion is that it would have been better had I been allowed to resume grants more freely, and I hope that at next settlement all those which remain will be resumed except where there are special reasons for further release.

42. The views of the people on this subject were ascertained in every mauza at the time of inspection and orders obtained before announcement of the new demand.

Amount and dates of instalments.

In Palampur and Kangra the kharif harvest is the far more valuable of the two ; it consists largely of rice which is husked before it is sold and cannot be disposed of quickly ; the rabi harvest is of minor importance and is largely consumed by the people themselves ; throughout these two tahsils the kharif demand will be paid in two and the rabi in one instalment. In Nurpur the revenue is paid very largely from outside earnings and as these come in gradually the demand at each harvest will be paid in two instalments. In all cases the two instalments of the demand for one harvest will be equal, though the whole of the cesses will be collected with the first.

The proportion between the demands of the two harvests was devised to meet the wishes of the people in each mauza and resulted as follows :—

Proportion of the kharif to the rabi demand.						Pelampur.	Kangra.	Nurpur.
3 to 1	...	...	...	...	...	111	101	...
2 to 1	...	...	...	...	...	...	...	19
5 to 3	...	...	...	...	...	2	33	...
3 to 2	...	...	...	...	...	...	...	110
1 to 1	...	...	...	...	...	...	...	68
Total number of mauzas						113	134	195

It has been arranged that the last date for payment should be the same for a whole zail, but that payments from different zails should be on different dates, that from those nearest the tahsil being the earliest ; this should prevent congestion at the tahsil such as occurs when one date is fixed for a whole tahsil.

43. During the course of settlement the rate which the local rate bears to the land revenue was raised in all five tahsils of Kangra proper from 16 to 20 pies in the rupee under Punjab Government notification No. 3913, dated the 24th February 1917, with effect from kharif 1917. The only other cess is the lambardars' pachotra of 5 per cent. on the revenue ; the total amount of cesses is therefore Rs. 15-6-8 for every Rs. 100 of revenue ; no further changes are proposed.

44. In view of the small increase obtained by re-assessment, the fully developed agricultural resources of the district, and the smallness of holdings it is unlikely that any considerable change in assessment can be made for many years, and further revision of the settlement should be postponed till the record needs a general revision. I advocate a minimum period of thirty years as the term of settlement, but in view of the progressive deterioration occurring in the Nurpur Tahsil I suggest that after fifteen years an enquiry should be made as to whether a reduction of assessment is required in those tikas of that tahsil in which the demand has not been raised.

45. During the course of settlement operations enquiries have been made concerning the possibility of reducing the number of lambardars in all mauzas where there are at present two or more ; notes on all these enquiries have been incorporated in a register which has been handed over to the Deputy Commissioner. One hundred and three enquiries were made and in 61 I have recommended a reduction : these 61 cases will be treated under Correction Slip No. 18, dated 10th July 1909, to paragraph 329 of the Land Administration Manual when occasion arises. These enquiries brought to light a number of cases where the number of lambardars is not excessive but where the distribution of work and remuneration between them is anomalous ; in 27 such cases I have placed on record a recommendation for redistribution of the work when a suitable opportunity occurs.

These figures do not include cases which have been finally decided during settlement.

46. The present zails are those fixed by Mr Lyall, and are based on former divisions of territory which in some cases have now ceased to have any significance ; the zaildars receive an emolument of 1 per cent. on the revenue of their zails and as the country is of very varying fertility this results in differences of pay which bear no intelligible relation to the amount of work to be done by them. A complete scheme for the revision of zail boundaries and for grading the pay of zaildars throughout Kangra Proper has been prepared and is under the consideration of Government.

47. In each tahsil the patwaris' circles have been rearranged and increased in number, orders have already been received except with regard to the question of employing assistant patwaris in the Palampur and Nurpur Tahsils; subject to orders on this point the number of patwaris will be—

	Palampur.	Kangra.	Nurpur.	Whole District.
1st grade on Rs. 14 per mensem ...	15	12	11	88
2nd grade on Rs. 12 do. ...	30	23	22	175
3rd grade on Rs. 10 do. ...	15	11	10	87
Assistants on Rs. 8 do. ...	3	3	3	17
Total ...	63	49	46	367

There are three kanungos' circles in each tahsil and the boundaries of these have been fixed by my orders.

The total increase in staff in the three tahsils consists of thirteen patwaris and eight assistants, which is a very moderate increase when it is remembered that before the second revised settlement it was stated that either the record should be simplified or the patwari staff be doubled.

48. Mr. Lyall's settlement took place before the passing of any Punjab Tenancy Act and in anticipation of such an Act coming into force he classed the tenants he found in the district under eleven heads which are fully described in paragraph 182 of his report. It appears that originally the entries made in the records were not always in agreement with the description of the classes given in the report; these entries have been repeated in subsequent records and have sometimes been mutilated in the process; in cases where the claim of such tenants to occupancy rights has been decided in the courts Mr. Lyall's entries of classification have been discontinued, but a large number still remain. The meaning of these entries is not generally understood by the people nor by subordinate revenue officials.

Paragraph 220 of the Settlement Manual forbids any settlement enquiry into the status of tenants, and the only revision attempted by me has been that of correcting entries which had been mutilated in the course of time.

These entries are considered by the courts when deciding suits for occupancy rights or for ejectment, but there are comparatively few cases of this nature and unless steps are taken to define the position of these tenants under the Tenancy Act these obsolete and unintelligible entries will remain on the record indefinitely. In my opinion it would be advisable to hold a summary enquiry into the status of all such tenants and to record them as occupancy or non-occupancy tenants; the new entries would still be subject to amendment as the result of judicial decisions, but meanwhile they would bring the record into line with those in other districts and remove much misapprehension; such an enquiry would not be a heavy task and could easily be undertaken by the Revenue Assistant.

49 No rules for annual measurement and assessment of land under riverain or torrent action were prepared in the Dehra-Hamirpur settlement. Rules applicable to all five tahsils have now been approved by the Financial Commissioner and will be found attached to this report as Appendix No. V.

50 The preliminary assessment reports give data showing that suspensions and remissions have been of very rare occurrence in the past. The rainfall of the district is ample, certain and in general well-distributed, so that widespread failure of crops due to normal variations in the seasons is almost unknown; the poorer tracts in the low hills of Nurpur and in the south of Palampur and Kangra show a high proportion of failure as a normal incident of their cropping, but this is due to poor soil and occurs in all seasons.

Unanticipated failure occurs when rain spoils the crops at harvest time or results from hail or other exceptional feature of the weather; such failure may occur anywhere and is not confined to any special tracts.

The people are very averse from taking advantage of suspensions; this is partly due to the fact that the poorer amongst them obtain their ready cash as much from the earnings of labour and service as from farming, so that their ability to pay the revenue is not in direct relation with the success of their crops.

Reports have been submitted recommending the classification of the whole tract under settlement as secure, and pointing out that any general scheme for working of suspensions and remissions prepared on a statistical basis would not assist but rather prejudice the revenue administration.

51. As part of the work of this settlement a *riwaj-i-am* has been drawn up for all five tahsils of Kangra Proper; the same set of questions was put to the leading tribes in each tahsil and the answers recorded by them were supported by instances in which the alleged customs had been followed or traversed; such instances were collected on the spot, from past mutations and from the record of judicial cases in the local district Judge's and Chief Courts, special kanungos being deputed to the two latter courts to search the records.

Riwaj-i-am and district Handbook of Customary Law.

In the Dehra-Hamirpur settlement questions had been put to and answered by the leading tribes, but the answers had not been supported by instances; regarding the collection of instances authenticating alleged customs as the most important part of a modern *riwaj-i-am*, and desiring to have one set of questions used throughout the district, I had the enquiries made again in these tahsils.

The work was carried out under my supervision by Lala Arjan Das in the three tahsils under settlement, and by Lala Diwan Chand in the other two tahsils; both officers deserve praise for the thorough way in which they completed this work and for their painstaking collation of instances.

The *riwaj-i-am* has been bound separately for each tahsil, and in addition to that at District Headquarters fair copies have been supplied for use in the Chief Court and District Judge's Court.

The contents of the *riwaj-i-am* have been brought together in an English handbook of customary law which is now in the press; for his work in connection with the preparation of this handbook Lala Arjan Das deserves favourable notice.

52. I regret that I have found no time to bring out a revised edition of the District Gazetteer during the course of settlement operations; at my request Mr. J. F. Mitchell, who has been attached to the district as long as I have myself and who has toured throughout Kangra Proper and not only in the tahsils under settlement, has undertaken to revise the gazetteer; this work forms no part of the duties allotted to him and my best thanks are due to him.

District Gazetteer.

53. The following officials of the Punjab have undergone settlement training during the settlement:—three Assistant Commissioners, one Extra Assistant Commissioner candidate, eight Munsif candidates, six Naib-Tahsildar candidates and several kanungo candidates.

Training of officials.

In addition Indian gentlemen and officials from outside the Punjab have also been trained including one from Kashmir, one from Laluchistan, two from Chamba and one from Mandi.

54. The arduous nature of Mr. Mitchell's duties can be gathered from Chapter V of this report: his work has involved constant touring in all seasons, a searching examination of old records and the patient hearing of innumerable objections. It is difficult for others to realise the amount of personal checking required in the supervision of a staff dealing with a very complicated enquiry which could not be reduced to mechanical routine; the work has been monotonous and wearisome and has demanded an amount of patience, firmness and sympathy

Notice of officers.

which few could have given it. Mr. Mitchell deserves the highest commendation for the way in which he has conducted the work and I count myself extremely fortunate that he was chosen for this special duty.

Lala Arjan Das, Extra Assistant Settlement Officer, is the only officer, except for subordinates on the district staff, who has remained on duty throughout the settlement; his probity and sympathy with the people and with the staff have earned him universal respect and goodwill; his untiring devotion to duty and cheerful optimism in the face of difficulties have been a constant incentive to the staff; he has never shirked the monotonous routine of checking measurements and records, and his candid criticism of the staff and of the conduct of operations have been extremely helpful. His work in connection with the District Handbook of Customary Law is especially worthy of commendation, and the notes which he supplied when I was writing the assessment report of the Kangra Tahsil at an early stage in my acquaintance with the district were evidence of his grasp of local conditions and settlement problems.

Lala Diwan Chand was Revenue Assistant in the Dehra and Hamirpur Tahsils during the latter part of settlement and assisted in all the branches of work which extended to those two tahsils; I have remarked on his help in connection with the preparation of the *Riwaj-i-am*; in Dehra Tahsil his work in connection with tree-files, the orders on which were announced by him, showed a careful mastery of detail illustrating the thoroughness of his work.

The settlement has been particularly fortunate in its Tahsildars; Sardar Bir Singh controlled operations in half of the Palampur Tahsil till the work was at an advanced stage and was then transferred to Nurpur where he started operations but where, to the great loss of Government and to the sorrow of those that knew him, he died soon after arrival; he was an honest and hardworking Tahsildar well liked by the people.

Chaudhri Narain Singh, who hails from Nurpur Tahsil, supervised work in the other half of Palampur and on the transfer of Lala Ram Labhaya was put in charge of operations in Kangra; he was promoted to the rank of Extra Assistant Commissioner and transferred before the Kangra records were completed. His promotion was well deserved, his work being characterised by promptness and efficiency.

Lala Ram Labhaya was in charge of the Kangra Tahsil work until appointed as Extra Assistant Commissioner and transferred; his work was such that I can confidently affirm that the general level of records in this tahsil is superior to that in any other in the district; he possessed indefatigable energy and demanded the same from his staff; as Settlement Tahsildar he was an almost ideal official and his promotion was a well-merited recognition of his services.

Thakar Faqir Chand took charge of operations in Nurpur Tahsil on Sardar Bir Singh's death and remained in charge till they were concluded; his promptness and hard work throughout have been most commendable.

To Lala Banwari Lal and Chaudhri Ali Bakhsh fell the somewhat dreary task of completing the record and miscellaneous work in the Palampur and Kangra Tahsils respectively after measurements had been completed and their predecessors transferred. Both worked with a will and, though this class of work does not give scope for the exercise of all the functions of a Settlement Tahsildar, they both showed themselves to be efficient and hard-working.

It was unfortunate for the settlement that so many transfers of Tahsildars took place, but this was compensated for by the worth of all six men who were appointed from time to time.

No general recommendation of the Naib-Tahsildar staff can be given; as a body they were certainly not above the level which should be expected; the services of those who did especially well have been recognised in a Darbar held in Dharmsala on the 31st January 1919; selecting only the best of those who earned commendation I would mention :—

B. Pindi Das, whose work as Head Clerk was really good in all respects and who is now working in the Commissioner's office.

D. Mohan Lal, who as my reader assisted me to an extent I never expected from anyone in that post, he is a man of exceptional ability and possesses a thorough knowledge of revenue and settle-

ment work ; throughout his time no allegations were made against him and he maintained a reputation for honesty which was highly creditable to one holding a post usually so exposed to jealous complaint.

Lala Badri Das, who served as long as any Naib-Tahsildar in the field, and by honest, hard work got through more work and gave more satisfaction than any other.

Lala Harbhagwan, Reader, and Chaudhri Jalal-ud-din and Lala Parmeshri Das in the field who proved themselves to possess exceptional ability and application.

Kanungos and others must rest content with the remarks recorded in their character rolls and with the notice they received at the settlement darbar. I must however mention—

M. Daulat Ram, M. Gyan Chand 1, M. Gyan Chand 2 and M. Kahn Singh as field kanungos of exceptional merit, and also M. Gopi Chand (Nazir) and M. Kishori Lal (Reader) as conscientious office hands of marked ability.

The patwari staff was a very poor one and, though there are a few bright exceptions amongst a crowd of lazy and incompetent men, none merit further notice than that already accorded in Darbar.

My thanks are due to local gentlemen, official and non-official, and to all classes of the agricultural community who have assisted in the settlement ; the ready help afforded by the majority of residents and their cheerful acceptance of both the results of the settlement and the minor discomforts attending its operations when in progress have gone far to make a pleasant and interesting duty of what might otherwise have degenerated into an arduous and dispiriting labour.

55. The only orders required are with regard to the term of settlement (paragraph 44), the preparation of the District Gazetteer by Mr. Mitchell (paragraph 52), the concurrunt enumeration of cattle in all five tahsils in kharif 1920 (paragraph 40), and an enquiry into the status of tenants (paragraph 46).

The 16th February 1919.

L. MIDDLETON,
Late Settlement Officer, Kangra.

APPENDICES.



सत्यमेव जयते

APPENDIX I.

Areas according to new measurements.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
		UNCULTIVATED.				CULTIVATED.											
Tahsil.	Assessment Circle.	Uncultivable (ghat munkin).				Total uncultivated.	Irrigated.				Unirrigated.				Total cultivated.	Total area.	
		Acres.	Culturable waste (banjar).	Reserved for grazing (kharat).	Acres.		Chahi.	Nabri 1.	Nabri 2.	Nad.	Total irrigated.	Dofash.	Bekash.	Behand Banjar.			Total unirrigated.
PALAMPUR.	Gadheran	921	224,074	422	225,417	...	...	...	...	...	1,525	2,010	...	3,535	...	3,535	228,952
	Bir Bengul	854	26,876	1,474	29,204	...	1,572	627	3	2,202	911	319	11	1,241	1,211	4,654	33,858
	Kandbi	1,145	28,372	2,002	31,519	...	1,677	1,117	45	2,839	746	112	9	867	939	4,815	36,134
	Palam	3,858	14,120	4,634	22,613	...	10,755	7,418	459	18,632	1,093	261	10	1,354	5,287	25,253	47,895
	Changar	1,812	9,481	3,103	14,396	...	207	849	...	1,556	3,083	800	682	4	4,545	5,605	20,001
	Rajgiri	10,663	39,789	14,039	64,491	24	1,735	7,584	193	9,534	18,647	2,786	845	22,278	1,137	32,956	97,447
	Tahsil Total	19,253	342,712	25,674	387,639	24	15,946	17,595	705	34,270	20,005	6,288	1,537	33,830	8,548	76,648	464,287
KANARA.	Rablu	5,451	59,174	3,239	97,864	...	9,894	2,533	127	12,054	4,194	721	257	5,172	590	18,116	115,990
	Kangra	5,600	32,215	4,402	42,277	...	7,528	7,189	80	14,777	3,435	1,653	107	5,245	137	20,209	62,456
	Palam	1,825	7,143	2,434	11,402	...	3,633	1,824	52	5,539	1,690	369	154	2,213	199	7,961	19,353
	Bargaon	2,102	19,895	4,347	26,344	...	...	39	5	44	4,695	2,379	3,033	523	10,167	...	36,555
	Bamgarh	1,875	24,779	3,063	29,657	...	131	5	...	137	2,555	3,008	523	5,886	...	6,023	35,680
	Tahsil Total	16,913	173,206	17,425	207,544	1	20,386	11,570	294	32,551	16,419	8,130	4,134	28,683	1,276	62,510	270,054
NARPUR.	Nurpur	7,724	58,235	5,140	71,149	...	204	541	8	753	10,173	12,491	2,742	25,406	...	28,161	97,310
	Lodhwan	6,364	31,988	2,853	41,225	...	1,986	427	12	2,418	6,332	6,845	2,373	15,550	...	17,988	59,213
	Chhatar	2,794	10,300	1,567	14,661	...	...	105	1	106	6,265	8,231	1,951	16,447	...	16,553	31,214
	Jowali	3,576	15,291	2,455	21,322	...	645	559	...	1,208	4,784	6,560	526	11,870	...	13,078	34,400
	Khairan	10,042	29,852	4,883	44,777	...	10	1,260	...	1,294	4,932	6,297	4,827	16,056	...	17,350	62,127
	Andaura	13,156	7,815	5,316	25,287	24	535	2,374	...	4,949	2,009	6,202	206	8,417	...	13,366	35,653
	Surajpur	2,524	2,756	672	5,952	3	889	96	...	2,188	196	509	33	738	...	2,236	8,878
	Tahsil Total	45,180	156,287	22,906	224,373	84	4,269	8,562	21	12,936	34,691	47,135	12,658	94,434	2	107,422	331,795
	Total for tract under settlement	81,346	672,205	66,005	819,556	109	40,901	37,727	1,020	79,757	77,115	61,553	18,329	156,997	9,326	246,580	1,066,136

Notes.—Nabri 2 in Kharian and Andaura Circles includes nabri under riverain rules.
 Ektashi " barani and nautor under riverain rules.
 Kharatar " charand under riverain rules.
 Land under tea is partly irrigated and partly unirrigated.

APPENDIX

Assess

1	2	3	4	5	6	7	8	9	10	11
Tahsil.	Assessment Circle.	ASSESSABLE AREAS ACCORDING TO NEW MEASUREMENTS AND								
		Under fixed assessment.								
		Ta.	Chahi.	Nahri 1.	Nahri 2.	Nad.	Dofaali Barani.	Ekfaali Barani.	Bahand Banjar.	Khareta.
PALAMU.	Gadheran ...	Acres ...	...	...	...	...	1,525	2,010	...	422
		Rs. ...	...	...	...	...	0 9 6	0 6 5	...	0 1 0
	Bir Bangahal ...	Acres 1,211	...	1,572	627	3	911	319	11	1,474
		Rs. 1 0 0	...	2 4 10	2 2 1	2 2 1	1 2 6	0 9 3	0 3 1	0 2 0
	Kandhi ...	Acres 909	...	1,677	1,117	45	746	112	9	2,002
		Rs. 1 0 0	...	3 0 0	2 12 0	2 0 0	1 8 0	0 12 0	0 4 0	0 2 0
	Falam ...	Acres 5,287	...	10,755	7,418	459	1,093	261	10	4,634
		Rs. 1 0 0	...	4 7 0	3 7 0	2 14 6	2 4 6	0 13 10	0 5 3	0 2 0
	Changar ...	Acres 4	...	207	849	...	3,083	800	662	3,103
		Rs. 1 0 0	...	5 0 0	3 12 0	...	2 2 0	0 12 0	0 4 0	0 2 0
	Rajgiri ...	Acres 1,187	24	1,785	7,584	198	18,647	2,786	845	14,039
		Rs. 1 0 0	4 4 0	4 4 0	3 8 0	2 12 2	2 4 4	0 11 9	0 3 4	0 2 0
	Tahsil Total ...	Acres 8,548	24	15,946	17,595	705	26,005	6,288	1,537	25,674
KANGRA.	Rehlu ...	Acres 890	...	9,394	2,533	127	4,194	721	257	3,239
		Rs. 1 0 0	...	4 3 0	4 3 0	4 3 0	2 0 0	0 13 0	0 4 0	0 2 0
	Kangra ...	Acres 187	...	7,528	7,169	80	3,485	1,653	107	4,402
		Rs. 1 0 0	...	4 12 0	4 12 0	4 12 0	2 6 0	1 1 0	0 4 0	0 2 0
	Falam ...	Acres 199	...	3,633	1,824	82	1,690	369	154	2,434
		Rs. 1 0 0	...	4 8 0	4 8 0	4 8 0	2 0 0	0 11 0	0 4 0	0 2 0
	Bargaon ...	Acres ...	...	...	39	5	4,693	2,879	3,093	4,347
		Rs. ...	...	...	2 4 0	2 4 0	2 4 0	0 14 0	0 4 0	0 2 0
	Ramgarh ...	Acres ...	1	131	5	...	2,355	3,008	523	3,003
		Rs. ...	3 12 0	3 12 0	3 12 0	...	2 8 6	1 6 0	0 4 0	0 2 0
	Tahsil Total ...	Acres 1,276	1	20,686	11,570	294	16,419	8,130	4,134	17,425
NURPUR.	Nurpur ...	Acres 2	...	204	541	8	10,173	12,491	2,742	5,140
		Rs. 1 0 0	...	2 12 0	2 12 0	2 12 0	1 12 0	1 3 0	0 4 0	0 2 0
	Lodhwan ...	Acres ...	13	1,986	427	12	6,332	6,845	2,373	2,873
		Rs. ...	8 2 0	3 2 0	3 2 0	3 2 0	1 8 0	0 14 0	0 3 0	0 2 0
	Chattar ...	Acres ...	...	...	105	1	6,265	8,281	1,951	1,567
		Rs. ...	...	...	3 8 0	3 8 0	1 15 0	1 4 0	0 3 0	0 2 0
	Jowall ...	Acres ...	4	645	559	...	4,784	6,560	526	2,455
		Rs. ...	3 8 0	3 8 0	3 8 0	...	1 12 0	1 3 0	0 3 6	0 2 0
	Khairan ...	Acres ...	24	10	820	...	4,932	6,088	4,327	3,012
		Rs. ...	5 0 0	4 4 0	4 4 0	...	1 8 0	1 0 0	0 3 0	0 2 0
	Andaura ...	Acres ...	40	535	3,854	...	2,009	5,585	206	570
		Rs. ...	6 0 0	3 8 0	3 8 0	...	1 10 0	1 6 0	0 5 0	0 2 0
	Surajpur ...	Acres ...	3	889	1,296	...	196	509	38	672
		Rs. ...	2 4 0	2 4 0	2 4 0	...	2 0 0	1 8 0	0 3 0	0 2 0
	Tahsil Total ...	Acres 2	84	4,269	7,602	21	34,691	40,259	12,658	16,289
Total for tract under settlement		Acres 9,828	109	40,901	36,767	1,020	77,115	60,677	18,329	59,388

II.

ment.

12	13	14	15	16	17	18	19	20	21	22	23
SANCTIONED STANDARD RATES.				Demand given by standard rates.	Demand at the close of expiring settlement.	Demand anticipated in the Financial Commissioner's orders.	New demand as announced.	Add for nominal demand on land held in fee simple.	Increase per cent.	Incidence per acre cropped.	Cattle tax as announced initially.
Under riverain rules.											
Nahri.	Barani.	Nantor.	Charand.								
...	...	...	...	Rs.	Rs.	Rs.	Rs.	Rs.		Rs. A. P.	Rs.
...	...	...	...	1,738	1,740	1,740	1,740	...	...	0 8 3	...
...	...	...	...	7,596	6,867	7,500	7,480	680	27.4	1 4 1	388
...	...	...	...	10,557	9,982	10,000	10,163	854	5.3	1 7 9	267
...	...	...	...	83,147	71,720	91,000	85,631	911	20.7	2 1 8	962
...	...	...	...	11,928	12,449	9,000	12,535	...	0.7	1 8 10	769
...	...	...	...	79,650	69,476	81,000	82,090	...	18.2	1 8 7	2,544
...	...	...	...	1,94,616	1,71,738	2,00,240	1,99,639	1,895	17.3	1 11 0	4,930
...	...	...	...	60,309	53,136	61,230	62,275	145	17.5	2 1 4	1,103
...	...	...	...	80,988	72,427	81,186	81,894	45	13.1	2 6 7	1,854
...	...	...	...	29,101	24,676	29,800	29,723	...	20.5	2 3 3	1,024
...	...	...	...	14,061	12,309	13,312	13,892	...	12.9	1 5 4	887
...	...	...	...	11,117	10,565	10,566	10,867	...	2.4	1 10 4	441
...	...	...	...	1,96,076	1,73,113	1,96,094	1,98,651	190	14.9	2 1 8	5,314
...	...	...	...	36,037	33,371	33,500	34,474	...	3.3	1 7 4	901
...	...	...	...	23,910	20,404	21,000	22,595	...	10.7	1 6 10	686
...	...	...	...	23,860	18,384	20,000	20,722	...	13.3	1 5 10	422
...	...	...	...	20,812	17,540	19,500	19,549	...	11.4	1 6 1	344
440	259	...	1,871	20,925	17,765	18,500	19,886	...	11.0	1 6 4	604
3 15 2	1 15 7	...	0 2 8	30,734	23,453	28,000	28,032	...	19.5	2 1 4	260
520	606	9	4,746	6,169	5,678	5,950	5,940	...	1.1	2 7 10	62
3 15 2	1 15 7	0 15 10	0 2 8	...	...	...	...	...	...	...	...
...
...
920	867	9	6,617	1,01,947	1,36,695	1,46,450	1,51,198	...	10.6	1 8 7	3,279
960	867	9	6,617	5,52,639	4,81,546	5,42,784	5,49,483	2,085	14.5	1 12 3	13,523

APPENDIX III.

Forest Areas.

TAHSIL.	Assessment Circle.	UNDER FOREST DEPARTMENT.		UNDER THE DEPUTY COMMISSIONER.			Total Government Forest.
		Reserve Forest.	Protected Forest.	Demarcated Protected Forest.	Undemarcated Protected Forest.	Unclassed Forest.	
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
DEHRA ...	Jagir Dada Siba ...	...	...	6,579	16,844	...	23,423
	Chanaur ...	347	...	...	354	587	1,288
	Gangot ...	442	...	...	...	905	1,347
	Kotasan ...	...	...	...	841	...	841
	Jaiwan ...	1,374	...	...	...	6,870	8,244
	Balihar ...	1,320	...	...	1,645	4,018	6,983
	Changar ...	1,506	...	280	5,213	10,793	17,792
	Man Garh ...	1,453	...	...	985	6,321	8,759
	Haripur ...	1,521	...	...	...	10,512	12,033
	Nagrota ...	663	...	...	...	2,735	3,398
	Narihana ...	...	...	...	255	...	255
	Dhameta ...	1,936	...	...	765	8,163	10,864
	Guler Jagir ...	...	...	2,356	1,715	...	4,071
	Tahsil Total ...	10,562	...	9,215	28,617	50,904	99,298
HAMIRPUR ...	Kutlehr ...	...	...	11,220	45,106	...	56,326
	Nadaun ...	...	...	...	12,884	...	12,884
	Nadaunta ...	...	12,494	341	15,736	...	28,571
	Mahlmori ...	...	985	619	3,263	...	4,867
	Tibra ...	...	2,174	125	3,286	...	5,585
	Rajgiri ...	...	...	...	...	...	...
	Tahsil Total ...	...	15,653	12,305	80,275	...	108,233
PALAMPUR ...	Gadheran ...	...	3,078	...	* 220,852	...	223,930
	Bir Bhangal ...	...	6,978	207	1,686	28,222	37,093
	Kandi ...	...	15,604	276	1,465	17,592	34,937
	Palam ...	...	2,287	186	6,102	2,127	10,702
	Changar ...	...	1,246	88	6,769	...	8,103
	Rajgiri ...	...	2,129	225	13,781	...	16,135
	Tahsil Total ...	...	31,322	982	250,655	47,941	330,900
KANGRA ...	Rehlu ...	349	66,615	2,250	18,687	...	87,901
	Kangra ...	...	10,529	1,925	15,650	...	26,104
	Palam ...	...	1,041	150	4,945	...	6,136
	Bargraon ...	...	3,884	1,130	14,136	...	19,150
	Ramgarh ...	...	7,992	3,291	11,909	...	23,102
	Tahsil Total ...	349	90,061	8,656	65,327	...	164,493
NURPUR ...	Nurpur ...	7,005	4,585	275	20,815	19,652	52,332
	Lodhwan ...	523	3,665	1,172	20,379	795	26,559
	Chattar ...	542	502	263	3,417	2,361	7,085
	Jowali ...	...	419	1,451	7,145	...	12,795
	Khairan ...	...	313	2,635	21,210	...	24,214
	Andaura ...	...	...	393	4,566	...	4,959
	Surajpur ...	440	...	...	151	611	1,214
	Tahsil Total ...	8,521	13,481	6,239	77,631	23,419	129,698
KANGRA PROPER	Tahsil Total ...	...	...	...	...	...	...

V
APPENDIX IV.

Cost of Settlement Operations, Palampur-Kangra-Nurpur Settlement.

Head.	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.	1918-19.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
ESTABLISHMENT.							
Office Establishment ...	876	8,145	5,249	5,659	5,712	4,820	29,962
Field Establishment ...	3,460	21,597	29,023	34,483	28,596	12,379	1,29,588
Temporary Establishment ...	66	17,678	25,865	23,087	24,998	13,101	1,04,743
Peons ...	...	...	3,885	4,697	3,349	1,882	12,763
Total ...	4,402	47,419	63,972	67,876	62,655	31,982	2,78,006
ALLOWANCES.							
Travelling allowances ...	1,156	6,907	8,585	9,622	8,681	4,325	39,276
Total ...	1,156	6,907	8,585	9,622	8,681	4,325	39,276
AUDITED CONTINGENCIES.							
Petty construction and repairs ...	95	200	87	40	511	...	953
Purchase and repair of furniture ...	1,271	816	43	112	160	54	1,956
Hot and cold weather charges ...	153	88	89	75	95	25	533
Tour charges ...	600	2,068	4,111	4,119	5,233	2,834	19,965
Service postage ...	400	1,890	2,090	2,100	2,200	1,250	10,260
Rents, rates and taxes ...	...	855	848	569	903	676	4,136
Cloth for records ...	11	5	50	27	9	32	184
Liveries for peons ...	...	94	...	78	...	...	172
Pay of menials ...	...	...	803	...	...	...	803
Repairs of tents ...	7	26	12	51	46	14	156
Miscellaneous ...	600	6,980	1,470	3,303	3,764	2,103	18,103
Purchase of tents ...	2,054	520	...	...	...	...	2,574
Rewards ...	...	396	1,265	1,838	1,348	1,091	5,938
Cost of books ...	7	36	3	18	...	...	62
Subscriptions to periodicals ...	...	...	16	...	...	...	16
Cost of survey instruments ...	1,089	1,851	326	71	16	...	2,363
Cost of survey marks ...	...	...	...	1,182	49	...	1,231
Construction of temporary huts ...	...	...	...	...	1,034	...	1,034
Total ...	6,737	15,683	11,118	13,841	15,378	8,122	70,869
STATIONERY AND PRINTING.							
Stationery ...	383	920	904	906	1,757	1,140	6,133
Lithography ...	351	1,250	1,715	669	1,000	886	5,971
Total ...	737	2,170	2,679	1,583	2,757	1,266	11,504
Rewards at Darbar ...	...	...	...	...	...	1,347	1,347
Total ...	...	...	...	...	...	1,347	1,347
GRAND TOTAL ...	13,032	72,179	85,354	92,974	89,481	47,002	4,01,003
Deduct one-third of cost of Mr. Mitchell's office establishment.	...	...	182	264	396	396	1,238
And two-thirds of his travelling allowances.	...	...	985	583	584	1,380	2,532
Remainder cost of settlement ...	13,032	72,179	85,187	92,127	88,481	45,226	3,96,232

EXPLANATION.—Mr. Mitchell was engaged on the delimitation of Government Forest areas, which formed one of the settlement operations; and also on delimitation of closure areas which was not a settlement operation; it is estimated that one-third the cost of his office establishment and two-thirds of his travelling allowance were incurred in

APPENDIX V.

*Di-alluvion rules, Kangra District omitting Kulu.**Approved in Financial Commissioner's letter No. 111—50-2, dated 25th September 1918.*

Part I.

Part I of these rules applies to—

- (a) The Beas in the Dehra and Nurpur Tahsils.
- (b) The Gaj and Buner from their entry into Dehra Tahsil downwards.
- (c) The Dehr in the Nurpur and Dehra Tahsils from and including Jowali mauza downwards.
- (d) The Chakki in the Nurpur Tahsil from and including Saliali mauza downwards.

A.—ASSESSMENT.

1. Land "under these rules" includes both assessed and unassessed land as follows:—

- (a) All land in Nurpur Tahsil declared to be under these rules at the settlement concluded in 1918.
- (b) All land which in the course of that settlement has had its assessment changed under di-alluvion rules previously in force, and all land subject to river or torrent action which was not cultivated at that settlement.
- (c) Land on which the assessment has been remitted or reduced under rule 7.

But land under these rules can be removed from their operation by order of the Deputy Commissioner, land so removed will henceforth bear a fixed aggregate assessment equal to that last imposed under these rules, but the classification will be revised and the internal distribution carried out afresh according to the wishes of the landowners. Action under this proviso should be limited to large blocks of land which have ceased to be under direct riverain action.

2. All land under these rules shall be classified as follows:—

Nahri—Means all lands irrigated by kuhls from the Beas, Gaj, Buner, Dehr or Chakki, or by kuhls which collect waste water from lands so irrigated.

Barani—Means all cultivated lands other than nahri and nautor.

Nautor—Means all land (other than nahri) previously unassessed or assessed as charand which is freshly broken up and brought under cultivation in the year of enquiry.

Charand—Means all uncultivated land growing kharkana reeds or grass fit for grazing.

Ghair mumkin.—Means all other uncultivated land.

3. The following rates shall be applied in assessing:—

- (a) Land not cultivated at settlement but subsequently rendered by river or torrent action fit for, and brought under cultivation.
- (b) Land originally assessed as cultivated but of which the assessment was subsequently remitted under these rules and which has again been brought under cultivation.

RATES.

Class.	Beas river below Dera Gopipur.		Gaj, Buner and Dehr torrents and Beas river above Dera Gopipur.		Chakki torrent.	
	Kanal.	Acres.	Kanal.	Acres.	Kanal.	Acres.
Nahri ...	0 6 0	3 15 3	0 5 0	3 4 8	0 3 6	2 14 10
Barani ...	0 3 0	1 15 7	0 2 6	1 10 4	0 2 0	1 5 1
Nautor ...	0 1 6	0 15 10	0 1 8	0 13 2	0 1 0	0 10 0
Charand ...	0 0 8	0 2 8	0 0 8	0 2 8	0 0 8	0 2 8
Ghair mumkin ...	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>
Nahri parts ...	0 3 0	1 15 7	0 2 6	1 10 4	0 1 6	0 15 10

4. When cropping results are poor the assessing officer, in applying the above rates, may, for reasons to be noted on the file, assess any land at half rates: or even in the case of nautor altogether remit the assessment if the results are below a four anna yield on the whole field, but the classification will not be altered and the fact will not affect assessment in subsequent years.

5. Land classed as *nautor* in any year shall be classed as *barani* if it has been cultivated in the succeeding year, and the assessment shall be enhanced accordingly, subject, however, to the provisions of rule 4.

6. The classification of land should not be too minute; unless a survey number is very large it will usually be best to record it in a single class according to its major portion even though parts of it would be classified differently if measured separately. When in such cases there is a doubt as to the class to be recorded the inferior should be recorded.

7. In calculating the revenue no fraction of less than ten marlas should be taken into account. Ten marlas or more will be taken as a whole kanal.

8. When by river or torrent action land assessed as cultivated is carried away or rendered unfit for cultivation, the revenue shall be remitted or reduced to that for *charand*, provided that in the latter case the affected land falls within the definition of *charand*; when uncultivated assessed land is carried away or rendered unfit for growing *kharkana* reeds or for grazing the revenue shall be remitted. When owing to drainage into a torrent or river, a ravine is formed in cultivated land, the land thus falling out of cultivation shall be treated as if it had been rendered unfit for cultivation by the action of the torrent or river.

9. If in any year land which was classed and assessed as *nautor* in the previous year remains uncultivated the *nautor* assessment shall be remitted, but if such land falls within the definition of *charand* then the *charand* rate may be applied in lieu of the *nautor* rate.

10. No assessment shall be reduced or remitted except as provided for in rules 4, 8 and 9.

11. This rule applies to all land under these rules, and to land under fixed assessment in Nuepur Tahsil irrigated from the Beas, Dehr and Chakki. When land previously assessed as *nabri* ceases to be irrigable owing to the destruction of a *kuhl* or branch thereof by river or torrent action, the assessment thereon shall be reduced by the amount of the *nabri* parta detailed in rule 8.

When land previously assessed as unirrigated is irrigated owing to the construction of a new *kuhl* or branch thereof, the assessment shall be enhanced by the amount of the *nabri* parta, provided that such enhanced assessment shall not be collected from the landowners concerned until the protective *patta* granted for such new *kuhl* or branch shall have expired.

No imposition or remission of *nabri* parta will be made for casual extensions or restrictions of irrigation not caused by the construction or destruction of a *kuhl* or branch thereof.

If the *kuhl* falls out of repair otherwise than by river or torrent action no reduction of assessment will be made.

If before the destruction of the *kuhl* sufficient water has reached the land to mature the *khari* crop no reduction of assessment will be made for that year.

B.—PROCEDURE.

1. Measurements under these rules will be made annually and will commence as soon as the rivers have fallen to their ordinary cold weather level which will usually be by the 15th of November.

2. The changes caused by river or torrent action should be shown both in the *patwari's* own di-alluvion tracing and in the tracing which forms part of the annual di-alluvion file. The former tracing should be prepared from the *tika* map on unbacked mapping sheets and cover the whole area under these rules and adjacent areas to a depth of eighty *karms*. It shall continue in use till a fresh tracing is prepared under rule 4. The tracing which forms part of the annual file will be on unbacked mapping sheets of suitable size and will be prepared every year.

3. The *patwari's* di-alluvion tracing shall show (a) the boundary of the land under these rules, (b) the edge of the river or torrent (i.e. of the area classed as *ghair mumkin*), and (c) any new cultivation.

These will be shown by a green line, a blue line and a dotted red line respectively; before commencement of measurements in any year the dots showing the new cultivation of the previous year will be run together into a continuous red line.

The position of (a) and (b) will be fixed by measuring the remaining sides of fields which cross the lines; the position of new cultivation will be fixed with reference to the nearest fixed points, and if necessary by laying the *musavi* squares on the ground from the marked base line.

The tracing to be attached to the annual file will reproduce only the changes of the particular year for which it has been prepared, but in order that there may be no doubt as to the position of any new fields, the fields that touch them should also be shown.

4. The procedure for the correction of field maps will be applied without any modification to the portions of di-alluvion *tikas* not under these rules, but as regards areas under these rules.

The procedure will be modified as follows :—

- (a) *Tatimma shajras* will be prepared only for changes other than those due to di-alluvion. Changes due to di-alluvion will be shown from year to year in the di-alluvion tracing prescribed in rule 2.
- (b) At the end of every fourth year when a special attestation is carried out a fresh tracing of the portion of the tika under these rules and adjacent land will be prepared, and all new fields, whether formed in consequence of di-alluvion or other changes and whether shown in the old di-alluvion tracing, or separate *tatimma shajras*, will be incorporated therein. This new tracing will be prepared in duplicate and one copy will be filed in the tahsil with the jamabandi and the other will form the patwari's di-alluvion tracing for the next four years. Both copies must be duly attested by the kanungo. The preparation of a new tracing may be ordered even before the quadrennial attestation if the old tracing cannot continue in use without causing confusion.
- (c) In the di-alluvion files the new fields will be given temporary numbers such as 40/1, 40/2, 40/3, etc., but all fields incorporated in the fresh tracing prepared under (b) will at the time of incorporation be renumbered in accordance with the system laid down in paragraph 42 of Standing Order No. 18 and will be entered in the field book therein prescribed.

5. It is not necessary that every new field should be given a new number. If a portion of a field is submerged and the ownership of that portion remains unaltered a new sub-number should not be given thereto, as the soil entry will show all that is necessary.

6. As the measurements proceed the patwari will prepare form A, entering in it every field in which there has been any change of class, but the entries in columns 2 and 13 will remain in pencil till the Tahsildar has made his visit and passed his opinion as to the assessment. He will also fill in entries for the current year in form C regarding fields previously assessed below the full rates of their class; these entries will also be in pencil until checked by the Tahsildar. The patwari should first make the entries concerning all fields lying between the new green and blue lines on his tracing and their previous positions; he should then go over the ground between the green and blue lines as at girdawari and enter up all changes. In this way he will make certain that no changes have been overlooked.

Finally if any kuhl or branch thereof has been destroyed or constructed he should note the fact in form A and thereafter add the fields which are to be changed from nahri to barani or *vice versa*.

7. The kanungo will satisfy himself that the patwari has included in his maps and register all land which should be included, and will test the measurements and check the area calculations.

8. The Tahsildar will test the map, etc., on the spot, and pass orders as to class of land, rates, and revenue after inspecting the fields and examining the entries in forms A and C. He will cause to be entered in ink in these forms the class and rates for each field as determined by himself; and will add to form C particulars of fields assessed for the first time below full rates. He will also have an extract from form C, showing those numbers only of which the assessment has been changed in the current year, put on the file. He will, in the event of imposition or remission of nahri parta under assessment rule 11, record a certificate on form A that such imposition or remission is permissible under that rule.

Form D will be completed by the patwari under the Tahsildar's instructions. The Tahsildar will add a brief note to the file, explaining in narrative form the changes which have occurred and his assessment proposals. He will also sign every entry in the register (form C) which the patwari will retain in addition to his own copies of the other papers.

9. When the Revenue Officer who is empowered to pass final orders on the assessment disposes of the case, any corrections required in the papers on the file will be made and the patwari will be ordered to correct his register and duplicate of form D accordingly.

The patwari will then prepare a khewat in form B in duplicate showing the result of the new assessment and forward both copies to the Tahsildar through the kanungo. The Tahsildar will see that the khewat agrees with the orders, will sign both copies, place one on the annual file and return the other to the patwari.

The patwari will then prepare the "bachh" papers for the ensuing year accordingly and will correct those of the current year by adding and deducting the increases and decreases for the whole year to the previously sanctioned rabi instalment.

10. The whole of the annual file will be prepared on Lucknow paper stitched at the back in book form. The tracings of maps will be placed in an envelope of the full size of the file and will not be folded more than twice.

11. The district report on changes of assessment due to riversain action will be prepared in the form prescribed in paragraph 5 of Standing Order No. 26 after obtaining the necessary figures from the tahsils on vernacular forms of the same detail.

12. Cases occasionally occur in which remission of the current demand is required in consequence of destructive inundation, not causing permanent injury to the soil. The Tahsildar should report such cases at the time of his inspection ; they should not be dealt with under these rules but should be treated under paragraph 12 of Standing Order No. 30.

13. In future the areas and revenue of the parts of a tika under fixed assessment and under these rules shall be shown separately in the quadrennial jamabandi, the tika, circle and tahsil note-books. At quadrennial attestation the total assessment of the area under these rules will be checked with the areas, and if there is an error of more than Rs. 5 it shall be corrected in the succeeding year's di-alluvion file after obtaining the orders of the Deputy Commissioner.

Part II.

Part II of these rules applies to all rivers and torrents in the five tahsils of Kangra proper except those to which Part I is applicable.

A.—ASSESSMENT.

1. Land under these rules includes—

- (a) all land subject to river or torrent action, not cultivated at settlement, which has subsequently been brought under cultivation.
- (b) land originally assessed as cultivated which is rendered unculturable by river or torrent action, and all assessed land which is carried away by such action.

2. When owing to drainage into a river or torrent, a ravine is formed in cultivated land, the land thus falling out of cultivation shall be treated as if it had been rendered unculturable by river or torrent action.

3. *Special rules.*—All landslips, and their effects upon the classification of soil, shall be treated under this part of these rules as though caused by river or torrent action.

4. The classification and assessment of all lands under this part of these rules will be made in accordance with the classification and rates employed in the settlement distribution (bachh).

B.—PROCEDURE.

1. The measurements will commence on the 15th November and will usually be made in the year of quadrennial attestation only ; but where in any estate changes of sufficient importance have occurred in the estate as a whole or in individual holdings measurements may be ordered by the Collector in any other year. At the end of the kharif girdawari the Tahsildar will submit to the Collector a list of estates not coming under quadrennial attestation in which measurements appear to be necessary, and the Collector will return the list with his orders thereon.

2. Changes caused by torrent action will be shown on "tatimma shajras," one copy of which will be placed on the di-alluvion file and the other with the patwari's "tatimma."

3. The procedure for the correction of field maps detailed in Standing Order No. 26 will be applied without modification to changes due to torrent action.

4. Forms A, B and D only will be used and will be prepared and completed by the patwari under kanungo's supervision before the Tahsildar's inspection. Every field undergoing change will be entered in forms A and B. Forms B and D will be prepared in duplicate.

5. The Tahsildar will check and sign the papers on the spot; he will record a note explaining the changes in narrative form; he will take over the di-alluvion file which shall consist of forms A, B, D, the tatimmas and his own note. The duplicates of forms B and D will remain with the patwari.

6. After the Revenue Officer empowered to pass final orders on the assessment has disposed of the case, the necessary corrections will be made in the di-alluvion file and the patwari will be ordered to correct his duplicates accordingly. The patwari will incorporate the results in the bachh papers for the ensuing year, and will correct those of the current year by adding and deducting the increases and decreases for the whole year to the previously sanctioned rabi instalment.

7. Procedure rules 10, 11 and 12 of part I apply without modification.

FORM A.

Khasra of changes in class of land due to river or torrent action.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Serial No.	Khasra No.	Khwat No.	Owner, briefly.	Tenant, briefly.	FORMER.			PRESENT.					REMARKS.
					Area.	Class of soil.	Rate of assessment.	Khasra No.	Area calculation where necessary.	Area.	Class of soil.	Rate of assessment.	

Note.—In case of "nautor" area calculation will be by diagonal and perpendicular, in case of diluvion area calculation will be by diagonal and perpendicular of the remaining portion of the field.

FORM B.

Khevat showing changes in revenue of holdings due to riverain action as ascertained at end of kharif 19 .

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Khatat No.	Khatani No. if necessary.	Name of owner and of tenant where necessary.	Assessment of khata according to last year's papers.	CHANGES IN CLASSIFICATION.								DIFFERENCE IN REVENUE.		REMARKS.	
Khasra No.	Class and area.	Rate.	Demand.	<i>Former.</i>				<i>Present.</i>				Increase.	Decrease.		
				Khasra No.	Class and area.	Rate.	Demand.	Khasra No.	Class and area.	Rate.	Demand.				

Note.—Khalsa and assigned revenue will be shown separately in columns 4, 8, 12, 13, 14 and 15. Totals of columns 6 and 10 to be checked with form A.

FORM C.

Register of fields assessed below full rates under rule 4.

1	2	3	4	5	6	7	8	9	10	11
Khasra No.	Owner and tenant (briefly).	SAN 19 .		SAN 19		SAN 19		SAN 19		REMARKS.
		Area with detail.	Rate.	Area with detail.	Rate.	Area with detail.	Rate.	Area with detail.	Rate.	

FORM D.

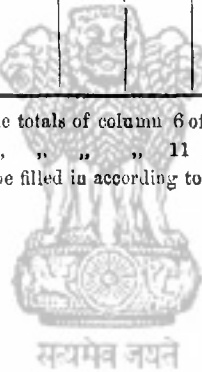
Tika abstract for the year San 19 showing assessment for the year and prospective assessment for the following year.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	AREA IN KANALS AND MARLAS.											LAND REVENUE.		
	Under fixed assessment.						Under riverain rules.					Khalas.	Assigned.	Total.
							Nabri.	Barani.	Nanor.	Charand.	Ghair mumkin.			
—	—	—	—	—	—	—								
Last year San 19 .														
Deduct ...														
Add ...														
This year San 19 .														

Note.—Deductions will correspond to the totals of column 6 of Form A.

Additions „ „ „ „ „ „ „ „ 11 „ „ „

Headings of columns 2 to 7 will be filled in according to the classes employed in the settlement baohh.



Rules for the grant of protective leases in connection with the assessment of land in Nurpur Tahsil of Kangra District irrigated from the Beas river by means of Kuhls.

1. Whenever a new *kuhl*, or new branch of a *kuhl*, is first constructed to irrigate land in the Nurpur Tahsil from the Beas river the Tahsildar will, at the time of the annual di-alluvion enquiry, report the fact. His report should state the approximate cost of construction of the *kuhl*, allowing for the money value of labour and materials provided by the landowners, and should show the method by which this cost has been estimated. The report should be accompanied by a statement in the following form :—

Details of land, previously unirrigated, brought under irrigation by kuhl,
constructed in the year at a cost of Rs.

1	2	3	4	5
Name of tika.	Khewat No.	Names of the land-owners.	Khasra Nos and area of the land brought under irrigation.	REMARKS.

Where any landowners entered in column 3 have not contributed in cash, labour or material towards the cost of construction this fact should be noted in column 5.

2. This report shall be submitted to the Collector of the district along with the annual di-alluvion files of the tikas concerned.

3. The Collector will decide whether any of the owners of the newly irrigated land are not entitled to share in the benefits of a protective lease, and, if so, shall have the entries relating to their land deleted from the statement. The areas recorded in the statement shall then be totalled and the assessment given by the application of the *nahri parta* of three annas a *kanal* to the total area shall be recorded on the statement.

4. The Collector will then pass an order remitting the assessment of *nahri parta* on the land shown in the statement for a term not less than one and not exceeding five years. The term should be such that the cost of construction of the *kuhl* is covered by the total remission for the whole term, but where this would entail the remission of a fraction of the *nahri parta* in the last year then either the whole or none of the *nahri parta* should be remitted for that year according as that fraction exceeds or does not exceed one-half. With the sanction of the Commissioner the term of remission may be extended beyond five years if this is necessary in order to cover the total cost of construction.

5. Where from the Tahsildar's report it appears that the irrigation from the *kuhl* in the year of construction is unlikely to prove normal, the Collector may remit the *nahri parta* for the first year and defer orders on the period of the protective lease till the following year when a similar report will again be submitted by the Tahsildar.

APPENDIX VI.

Scheme for the working of suspensions (paragraph 554, Settlement Manual).

All the estates in these five tahsils are classified as secure. Widespread failure in irrigated estates is practically unknown, in unirrigated estates the general poor quality of the soil is such that a high percentage of failure is a normal feature of the harvesting, such normal failure has received full recognition at assessment.

The only occasions on which suspensions or remissions of land revenue may become necessary may be classed under two heads—

(1) Most exceptional season of drought or excessive rainfall, when all estates may be affected whatever their normal qualities may be. In such seasons it is by no means the poorest estates which may be affected most.

(2) Local vagaries in the weather, such as hailstorms, rain during harvest operations, etc.; these may affect any estates—the most secure as well as the least secure—and cannot be provided for in any predetermined scheme for working the suspension and remission rules.

It follows that when the necessity for suspension arises it will entail a local enquiry which will not be facilitated in any way by the existence of a general scheme such as that contemplated in paragraph 554 of the Settlement Manual.

In the poorer tracts of the district the population depend more on outside earnings, from Government and other service, than on agriculture. The ability of landowners to pay revenue is not mainly governed by the conditions of the particular season; as a result there is a very widespread aversion from accepting the facilities for suspension as the owners fear that arrears will be collected at the next good harvest and know that in reality their assets do not vary in strict agreement with the harvests.

In these peculiar circumstances the only guides which can be laid down for general use in granting remissions and suspensions are—

(1) Suspensions should be allowed very rarely; in exceptional years the landowners should be notified that applications for suspensions should be submitted before a given date, and enquiries should not be made in any estate from which no application is received.

(2) In passing orders regarding suspensions, while due consideration should be given to crop returns, it must be remembered that most owners have land in several estates, and that the ability of most owners to pay the revenue demand depends more on their earnings by service than on their harvest.

(3) Wherever it is obvious that payment of the full demand would be beyond the powers of the owners it should be considered whether a remission of land revenue would not be more suitable than a suspension; in all cases of damage by hail and damage to cut crops (which are the two most usual forms of calamity) remissions should be granted in preference to suspensions.

APPENDIX VII.

Principal Gazette Notifications relating to the present Settlement of the Kangra, Palampur and Nurpur Tahsils of Kangra District.

No.	Date.	Abstract.
3036-S.-Rev. ...	30th September 1913 ...	Ordering a general re-assessment of the land revenue of Kangra, Nurpur and Palampur tahsils of the Kangra District.
3087-S.-Rev. ...	30th September 1913 ...	Orders the special revision of the records of rights in the Kangra, Nurpur and Palampur Tahsils of the Kangra District.
1550 ...	26th November 1913 ...	Appointment of Lala Arjan Das, Vasudev, as Extra Assistant Settlement Officer, Kangra Settlement, from 1st October 1913.
44 ...	7th January 1914 ...	Appointment of Mr. G. M. Boughey as Settlement Officer.
1653-A ...	16th December 1913 ...	Conferring powers of a Magistrate of 1st class in Kangra District on Mr. Boughey.
1653-B. ...	16th December 1913 ...	Conferring powers of a Collector in Kangra District on Mr. Boughey under the Land Revenue and Punjab Tenancy Acts with the exception of chapter 6 of the Tenancy Act. Such powers to be exercised in Nurpur, Kangra and Palampur Tahsils and not subject to the control of Collector of Kangra District.
693 ...	9th June 1915 ...	Granting three months' special leave to Mr. Boughey.
696 ...	9th June 1915 ...	Appointment of Mr. Q. Q. Henriques as Settlement Officer in addition to his own duties of Deputy Commissioner, Kangra, from 19th May 1915.
791 ...	22nd July 1915 ...	Conferring all powers of a Collector on Lala Arjan Das, Extra Assistant Settlement Officer, as conferred by sub-sections 1 and 2 of section 27 of Punjab Land Revenue Act of 1887 and sub-sections 1 and 2 of section 105 of Punjab Tenancy Act of 1887 with the exception of chapter 6 of the former Act.
936 ...	22nd September 1915 ...	Appointment of Mr. Middleton as Settlement Officer, Kangra, from 25th August 1915, relieving Mr. Henriques of these duties.
882-A. ...	25th August 1915 ...	Conferring on Mr. Middleton all the powers of a Collector conferred by sub-sections 1 and 2 of section 27 of Punjab Land Revenue Act of 1887 and sub-sections 1 and 2 of section 105 of Punjab Tenancy Act of 1887 with exception of chapter 6 of the former Act. Such powers not to be subject to the control of the Collector of the District.
936 ...	22nd September 1915 ...	Appointment of Mr. Mitchell, Assistant Commissioner, on special duty [in connection with the Forest Settlement work in the Kangra District, with effect from 15th September 1915.
226-Ga. 34 ...	28th June 1916 ...	Granting privilege leave for one month from 4th June 1916 to Mr. Mitchell, Assistant Commissioner on special duty.
No. nil Punjab Gazette, dated 27th October 1916.	25th October 1916 ...	Appointment of Mr. Mitchell on special duty in connection with the Forest work in the Kangra Settlement from 18th October 1916, afternoon.
12260 ...	22nd May 1917 ...	Conferment of all powers of Collector on Mr. Middleton within the limits of the Gurdaspur District for the purpose of defining the limits of such estates as adjoin the Riverain between the Kangra and Gurdaspur Districts and that these powers shall not be subject to the control of the Collector of the District.
12261 ...	22nd May 1917 ...	As above in Hoshiarpur District.

APPENDIX VIII.

Glossary of vernacular terms.

Abadi ...	... A village site.
Bariai ...	... Defined in paragraph 33.
Baband Banjar ...	... Defined in paragraph 23.
Ban muafi ...	... Defined in paragraph 36.
Battar ...	... A method of sowing rice in moist soil which does not necessitate flooding in the early stages.
Chahi ...	... Defined in paragraph 23.
Chhaliari ...	... Defined in paragraph 33.
Chil ...	... A species of pine tree.
Dakhili ...	... Included in.
Dakhil bachh ...	... Assessed, included in the distribution of demand.
Dhanun ...	... Defined in paragraph 33.
Dofasli ...	... Defined in paragraph 23.
Ekfasi ...	... Defined in paragraph 23.
Ghumaon ...	... An area of land equal to eight kanals.
Jagir ...	... A grant of revenue ; the lands included in such grant.
Jagirdar ...	... The grantee of a jagir.
Jama ...	... The land revenue demand.
Jamabandi ...	... A record of rights in land.
Kanal ...	... An area of land 10.53 kanals equal one acre.
Kanungo ...	... A Revenue official placed in charge of patwaris.
Karin ...	... A measure of length.
Kharetar ...	... Land reserved for hay.
Kharif ...	... The autumn harvest.
Kharji ...	... Excluded from.
Khatauni ...	... Land belonging to the same owner and cultivated by the same tenants. A part of a jamabandi relating to such land.
Kuhl ...	... A canal.
Lauri basi ...	... Defined in paragraph 41.
Lumbardar ...	... The headman of a manza, responsible for collecting the revenue.
Mach ...	... A process of sowing germinated rice seed in a flooded field.
Maqbuza ...	... Possessed.
Mauza ...	... Defined in paragraph 7.
Muafi ...	... A revenue free-grant of land.
Muatidar ...	... The grantee of a muafi.
Munsif ...	... A judicial officer.
Nad ...	... Defined in paragraph 23.
Nahri 1 ...	... Defined in paragraph 23.
Nahri 2 ...	... Defined in paragraph 23.
Nahri parta ...	... A rate of assessment placed on nahri land in addition to the rate imposed on dry land.
Naib-Tahsildar ...	... An assistant Tahsildar.
Nilghai ...	... A species of buck, literally a blue cow.
Ohl ...	... A species of deciduous tree. <i>Albizza stipulata</i> .
Patta nantor ...	... A grant entitling the grantee to cultivate waste land.
Patwari ...	... The village accountant. Placed in charge of the revenue records of the mauzas in his circle and responsible for their preparation and upkeep.
Rabi ...	... The spring harvest.
Riyayat ...	... Defined in paragraph 41.
Riwaj-i-abpashi ...	... Customs relating to irrigation. See paragraph 17.
Riwaj-i-'am ...	... A statement of general customs.
Sailab ...	... Land subject to inundation from a river.
Shamilat ...	... Defined in paragraph 7.
Shamilat deh ...	... Defined in paragraph 7.
Shamilat tika ...	... Defined in paragraph 7.
Sowana ...	... Defined in paragraph 40.
Sowanedar ...	... A shareholder in a sowana.
Tahsil ...	... A revenue division of a district. The offices at the headquarters of such division.
Tahsildar ...	... A revenue and executive officer in charge of a tahsil.
Taluqa ...	... Defined in paragraph 7.
Tika ...	... Defined in paragraph 7.
Trihai ...	... A third of a forest closed to all rights of user for a term of years.
Zail ...	... A tract placed under the supervision of a zaildar.
Zaildar ...	... A non-official appointed to assist in revenue and executive administration, and rewarded by a portion of the land revenue of the tract for which appointed.
Zamindar ...	... An agriculturist.

APPENDIX IX.

List of mauzas in Palampur Tahsil, showing the number of tikas included in each.

The Hadbast Nos. of the mauzas are shown on the accompanying map.

Hadbast No.	Name of mauza.	of Number tikas.	Hadbast No.	Name of mauza.	of Number tikas.	Hadbast No.	Name of mauza.	of Number tikas.
	GADHERAN CIRCLE.		30	Mahal Banuri ...	1	75	Rajhum ...	25
1	Kothi Sower ...	13	31	Mahal Holta ...	1	76	Kahnpat ...	10
2	Kothi Kohd ...	26	33	Mahal Palampur ...	1	77	Dhira ...	22
	Gadheran circle total, 2 mauzas.	39	34	Maranda ...	3	78	Jauna ...	15
			35	Banghiar ...	1	79	Naura ...	13
	BIR BANGAHAL CIRCLE.		36	Daihan ...	6	80	Balota ...	4
3	Bir ...	10	37	Punnar ...	9	81	Purba ...	4
4	Bhatta ...	2	38	Bhati ...	8	82	Gharana ...	1
5	Sansal ...	14	39	Bbawarna ...	8	83	Tamloh ...	2
6	Doal ...	22	40	Sandghawar ...	5	84	Dagera ...	4
7	Lanod ...	20	41	Hainja ...	1	85	Bachhwai ...	8
	Bir Bhargal circle, total 5 mauzas.	68	42	Garla Dei ...	1		Changar circle total, 12 mauzas	119
			43	Garla Sarkari ...	1		RAJGIRI CIRCLE.	
	KANDI CIRCLE.		44	Saloh ...	12	86	Alampur ...	39
8	Rajehr ...	1	45	Raipur ...	11	87	Ghirthun ...	1
9	Kandbari ...	18	46	Jasun Samula ...	3	88	Thural ...	42
32	Bandla ...	21	47	Saloh ...	2	89	Bandahu ...	19
58	Kandi ...	20	48	Arla ...	1	90	Kotlu ...	17
57	Kusmal ...	1	49	Bhattun ...	1	91	Barram ...	7
59	Chichian ...	14	50	Mohrla ...	3	92	Lambagaon ...	27
60	Jia ...	12	51	Sidhpur Sarkari ...	2	93	Jaisinghpur ...	48
	Kandi circle, total 7 mauzas...	87	52	Khalet ...	3	94	Sansai ...	8
			53	Ghugar ...	2	95	Chadhiar ...	37
	PALAM CIRCLE.		54	Sidhpur Rani ...	10	96	Baijnath ...	53
10	Sungal ...	3	55	Bhagotla ...	2	97	Dhanag ...	1
11	Bhadiarkar ...	8	58	Bagora ...	3	98	Sakri ...	8
12	Paprola ...	14	61	Dadh Uparla ...	2	99	Tikri ...	4
13	Majheran ...	2	62	Dadh Jhikli ...	3	100	Sagur ...	48
14	Nauri ...	3	63	Gopalpur ...	4	101	Asapuri ...	3
15	Awairi ...	2	64	Lahla ...	17	102	Nagban ...	1
16	Jandpur ...	2	65	Latwala ...	2	103	Dagoh ...	14
17	Tarehl ...	1	66	Mainjha ...	3	104	Kosri ...	17
18	Agojar ...	3	67	Katlar ...	1	105	Dramman ...	29
19	Andreta ...	3	68	Paraur ...	1	106	Laht ...	10
20	Tikkar ...	20	69	Darang ...	4	107	Khaira ...	29
21	Thandol ...	6	70	Dhoran ...	1	108	Bhaura ...	5
22	Bhatpura ...	1	71	Ghaneta ...	4	109	Bhoda ...	3
23	Maniara ...	14	72	Kharot ...	4	110	Garh Janula ...	27
24	Saliava ...	22	73	Panapri ...	7	111	Mundhi ...	12
25	Deogran ...	5		Palam circle, total 59 mauzas	285	112	Daroh ...	39
26	Patti ...	8				113	Nanoon ...	10
27	Rajpura ...	3		CHANGAR CIRCLE.			Rajgiri circle total, 28 mauzas	553
28	Holta ...	4	74	Gaggal ...	11		Tahsil total, 113 mauzas	1,151
29	Bauri ...	12						

APPENDIX X.

List of Mauzas in Kangra Tahsil, showing the number of Tikas included in each.

The Hadbast Nos. of the mauzas are shown on the accompanying map.

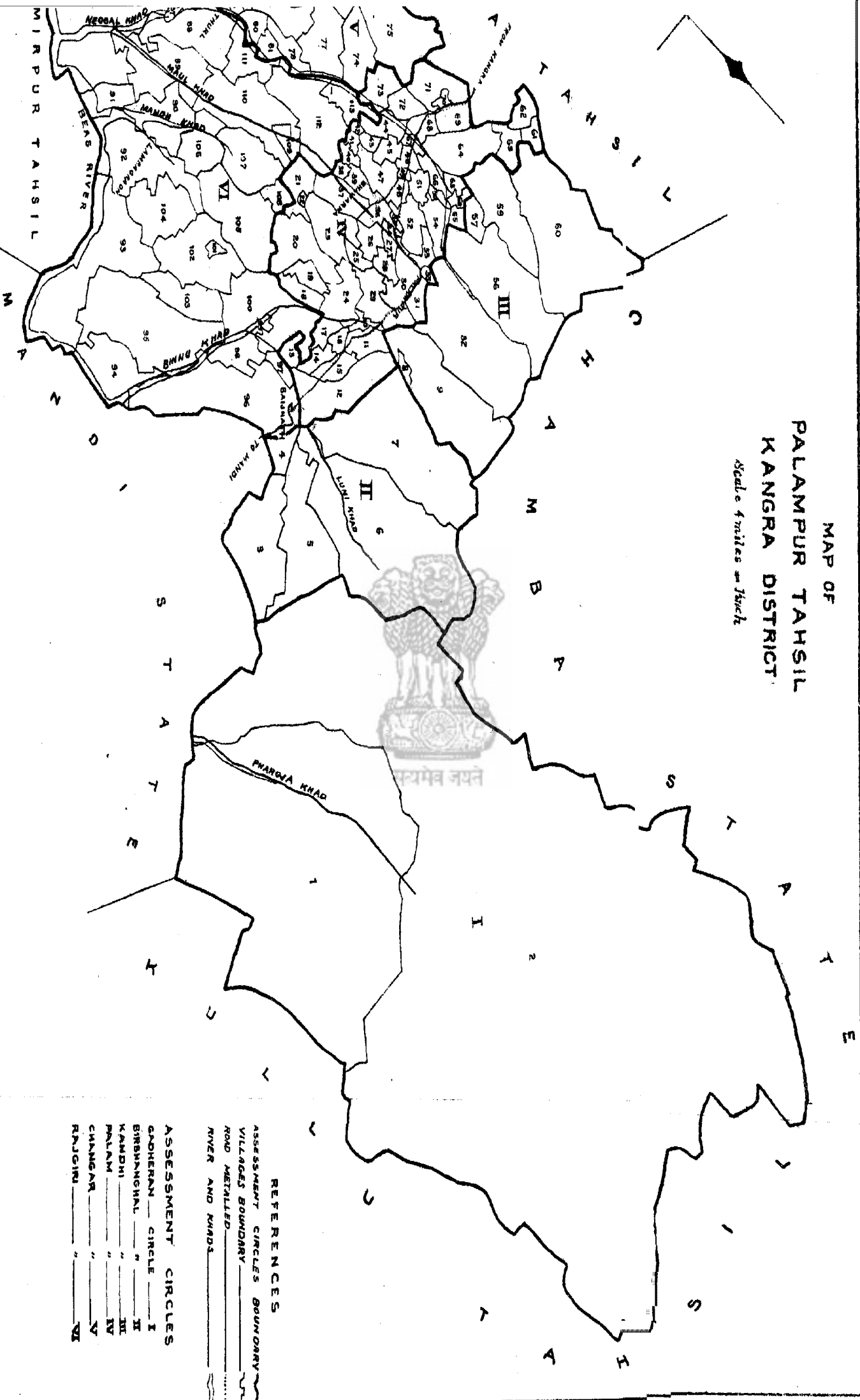
Hadbast No.	Name of mauza.	of Number tikas.	Hadbast No.	Name of mauza.	of Number tikas.	Hadbast No.	Name of mauza.	of Number tikas.
1	Bob	4	47	Saruli	6	93	Hatwas	7
2	Daveni	25	48	Maned	4	94	Masal	7
3	Bchnala	9	49	Bagli	3	95	Kothi Uparli	23
4	Manjgraon	6	50	Ghana	2	96	Mumta	6
5	Banihar	7	51	Bhadwal	2	97	Warai	1
6	Sihwan	7	52	Mandal	3	98	Sunehr	1
7	Shabpur	12	53	Dughwar	6	99	Mundla	2
8	Dohb	4	54	Harnar	1	100	Imrar	19
9	Ranchr	3	55	Sukkar	3	101	Kothi Jhikli	92
10	Bsanur	3	56	Bhutchr	2		Palam circle total, 17 mauzas	152
11	Nerti	19	57	Pasa	3		BARGRAON CIRCLE.	
12	Rajol	19	58	Garb	2	102	Balol	10
13	Ladwara	6	59	Sidhbari	5	103	Thana	11
14	Dhanotu	3	60	Kuned	4	104	Chandrot	4
15	Dodhamb	2	61	Ghiana Kalan	4	105	Suhni	9
16	Chari	14	62	Ghiana Khurd	2	106	Sarotri	8
17	Rehlu Khas	12	63	Jh'ol	6	107	Luhua	9
18	Kareri	21	64	Barwala	3	108	Jalot	6
19	Dharmwala	19	65	Yol	5	109	Saddun	8
20	Khaniara	18	66	Narwana	18	110	Khawa	16
22	Ghakoh	4	67	Baler	2	111	Kandi	17
23	Sadhed	7	68	Tangroti	4	112	Airla	10
24	Gharoh	14	69	Dhalun	7	113	Danoa	8
25	Bandi	12	70	Kobala	6	114	Busal	12
	Rehlu circle total, 24 mauzas	250	71	Ghurkari	5	115	Khart	13
	KANGRA CIRCLE.		72	Birta	1	116	Jandrah	9
21	Mant	2	73	Lulehr	1	117	Ghin	7
26	Badhiara	8	74	Kachhiari	3	118	Balogaloo	6
27	Tiara	6	75	Kholi	5	119	Bari	6
28	Shamirpur	7	76	Rejiana	4	120	Jepai	13
29	Rajal	10	77	Jasaur	3	121	Rajiana	5
30	Kharthi	2	78	Raunkhar	2	122	Bhangwar	5
31	Nandrol	4	79	Kuled	2	123	Kuthar	3
32	Jalari	11	80	Thana	3		Bargraon circle total, 22 mauzas.	195
33	Taqipur	11	81	Baldhar	4		KANGRAH CIRCLE.	
34	Daulatpur	14	82	Sihund	2	124	Gab'lin	17
35	Sakauht	6	83	Ramehr	4	125	Lanj	33
36	Ujjain	12	84	Jadrangal	5	126	Salol	19
37	Zamnabad	2		Kangra circle total, 60 mauzas	269	127	Baranj	9
38	Abdullapur	1		PALAM CIRCLE.		128	Mani	12
39	Sahora	3	85	Pathiar	19	129	Pargor	23
40	Nandehr	5	86	Amwari	5	130	Dhar Kalan	12
41	Mataur	2	87	Malwalkari	4	131	Thehr	6
42	Ansoli	1	88	Kawari	4	132	Dhar Khurd	6
43	Ichhi	8	89	Chabri	6	133	Lapiana	13
44	Gaggal	1	90	Kir Chamba	2	134	Harnera	8
45	Dughiarf	4	91	Nagrota	11		Ramgarh circle total, 11 mauzas.	163
					8		Tabell total, 134 mauzas	1,029

The Hadbast Nos. of the mauzas are shown on the accompanying map.

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MAP OF PALAMPUR TAHSIL KANGRA DISTRICT

Scale 4 miles = Inch

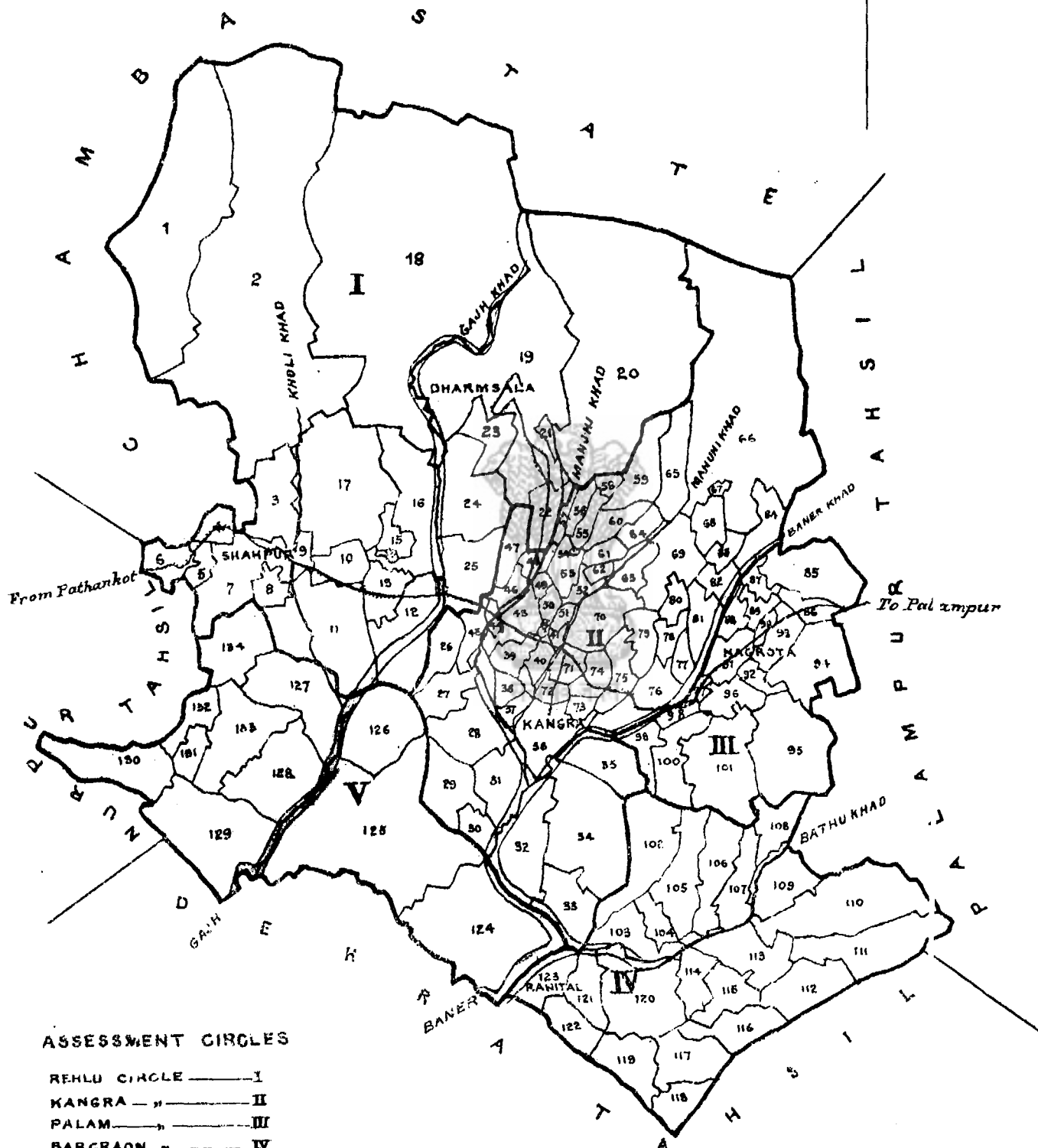


REFERENCES

- ASSESSMENT CIRCLES
- GADHERAN CIRCLE I
- BIRBHANGHAL " II
- KAMDHI " III
- PALAM " IV
- CHANGAR " V
- RAJGIRI " VI
- ASSESSMENT CIRCLES BOUNDARY
- VILLAGES BOUNDARY
- ROAD METALLED
- RIVER AND KHADS

MAP OF KANGRA TAHSIL KANGRA DISTRICT

Scale 4 miles = 1 inch



ASSESSMENT CIRCLES

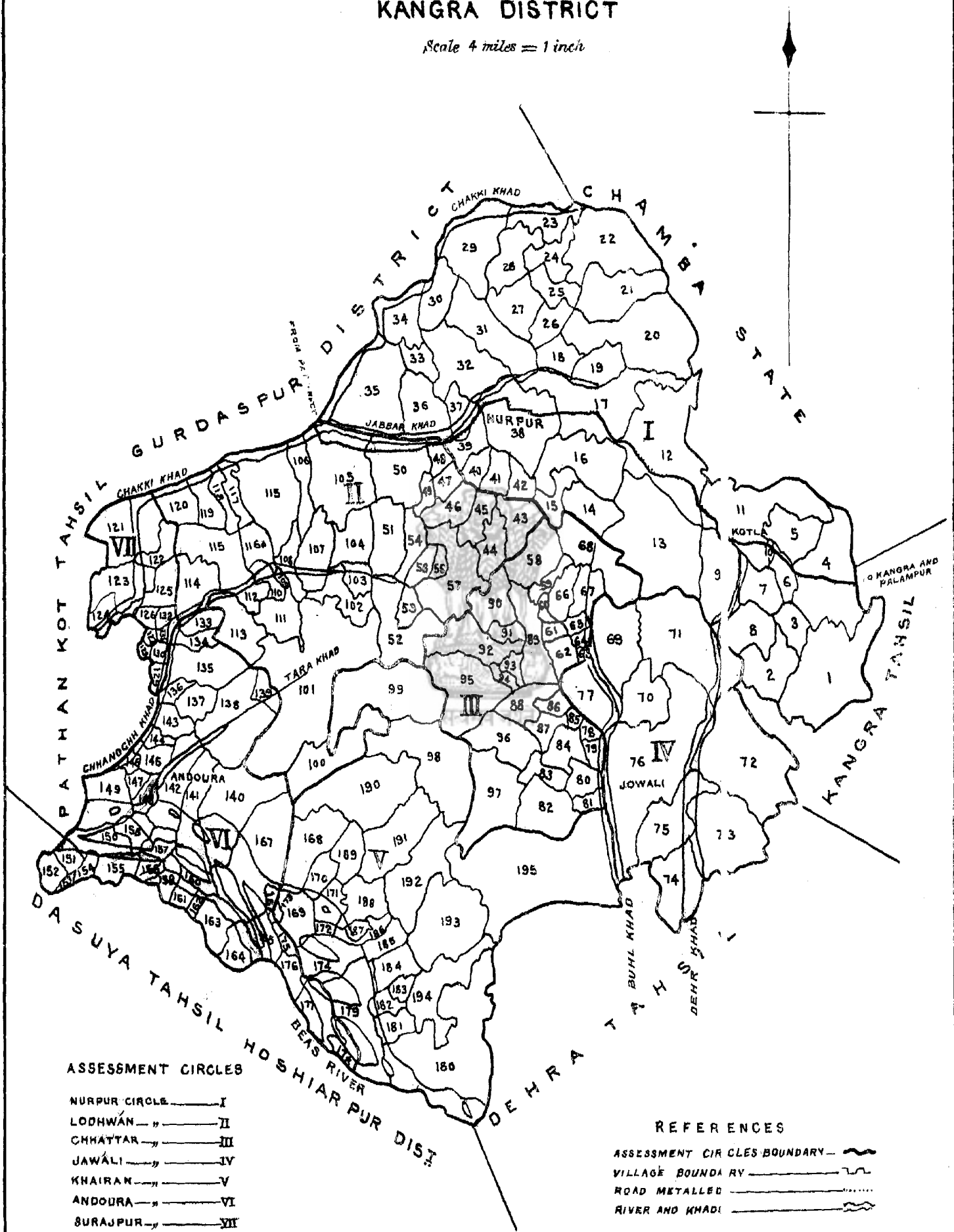
- REHLU CIRCLE ——— I
- KANGRA ——— II
- PALAM ——— III
- BARGRAON ——— IV
- RAMGARH ——— V

REFERENCES

- ASSESSMENT CIRCLES BOUNDARY ———
- VILLAGE BOUNDARY ———
- ROAD METALLED ———
- KHADS ———

MAP OF NURPUR TAHSIL KANGRA DISTRICT

Scale 4 miles = 1 inch



Scale 1 inch = 8 Miles

8 7 6 3 4 3 2 1 1 8 11

