FINAL REPORT

ON THE

SETTLEMENT OF LAND REVENUE

IN THE

DELHI DISTRICT,

CARRIED ON 1872—77, BY OSWALD WOOD, Esq.,

AND

Completed 1878—80, by R. MACONACHIE Esq., C.

Lahore:
PRINTED AT THE VICTORIA PRESS, BY SAID RAJAB ALI SHAH.

1882.

No. 293 OF 1880.

To Commissioner Delhi Division.

SIR,

I have the honour herewith to submit the Final Report on the Settlement operations recently concluded—in the Delhi District. The village statements and other District Registers are being forwarded at the same time to the Deputy Commissioner.

2. The circumstances under which I was appointed to the charge of the Delhi Settlement are known to Government, and they indicate the conditions under which I had to work in completing it. I feel sure that in estimating the character of the work now reported on His Honor the Lieutenant-Governor will remember these circumstances. I wish I could feel as confident that I have made the best use of them possible. As to the report itself, I had little or no time for it till very lately—the daily work of the Settlement was carried on at high pressure and was enough to keep most hours of the day fully employed. However, I have treated the Settlement part proper in considerable detail and this is what seemed of most importance. There are points in the report (as on the work) on which I should have dearly liked to linger, to elaborate and polish, but on the whole I thought it best to push on trying to secure essentials but not minding about other things.

3. The points on which orders are required besides the general sanction of Government to record and assessment are I think these :—

(1).—Patwárí arrangements.

(2).—Assessment of Civil Station.

(3).—Treatment of Government property, including Taiul and Ballabgarh tenants rights.

(4).—Maáfis.

(5).—Zaĕdár arrangements and ala-lambardár appointments.

(6).—Increase of lambardárs in five villages.

(7).—Enjoyment of owner's rate by jagirdárs and maáfidárs.

(8).—Entries in records as to levy of cesses on owner's rate.

(9).—Entries in records as to Government right of revising the assessment of canal villages quinquennially.

(10).—The credit of revenue due in chak jhíl to the canal department.

I have the honour to be,

Sir,

Your most obedient seryant,

LAHORE, *Decr. 18th 1880.*

R. MACONACHIE,

Settlement Officer.

No. 1157.

FINANCIAL COMMISSIONER'S OFFICE,

Dated LAHORE, *10th October* 1884.

FROM

R. G. THOMSON, ESQUIRE,

Offg. Senior Secy. to Finl. Commr., Punjab,

To

C. L. TUPPER, ESQUIRE,

Offg. Secretary to Government, Punjab.

SIR,

I am directed to submit, for the orders of Government, the final report on the settlement of the Delhi district, written by Mr. Maconachie, late Settlement Officer; and also the review of the report submitted by the Commissioner of Delhi, Lieutenant-Colonel Gordon Young, with his letter No. 2890, of 12th December 1882. Lieutenant-Colonel Young has submitted so able and exhaustive a review that the Officiating Financial Commissioner will make his remarks as brief as possible.

2. The account of the district, which is contained in Chapter I. of the report, calls for no special notice. The Officiating Financial Commissioner would only invite attention to the remark at page 9 of the printed report (para. 9, section 9). It will be a great pity if owing to insufficient cross drainage the Agra canal is allowed to reproduce, even in a limited area, the evils created by the Western Jamna canal.

Chapter II., on the spontaneous produce of the district, may also be passed over with a few remarks. The Settlement Officer (pages 21, 22, sections 1 and 5) and Commissioner (para. 14) are both in error in noting chalk as one of the mineral products of the district. The white substance alluded to, with which the Officiating Financial Commissioner is well acquainted, differs widely from chalk in origin and in

chemical composition. Chalk is composed almost wholly of carbonate of lime, and is a marine deposit made up of organic remains. The substance quarried in the Delhi hills is kaolin (silicate of alumina), and results from the decomposition of felspar, the principal constituent of granite, intrusive veins of which would doubtless be found penetrating the rocks (as they do the hills further to the south-west) were the superficial deposits which cover these rocks removed.

The crystals (crystallized quartz) formerly found in the deserted mines were doubtless from stray pockets in the rocks; and the probability of stumbling on other finds hereafter is not very great. The Officiating Financial Commissioner fears that Mr. Maconachie's gold does not rest on a much more solid foundation than his chalk.

3. The Commissioner remarks that the Settlement Officer's notes on the fauna of the district "are probably not exhaustive," and in this opinion the Officiating Financial Commissioner concurs. The Commissioner has supplemented the Settlement Officer's notice by a list of the vernacular names of 32 species of fish, which is valuable in its way. The objection to vernacular names, however, is that they do not help one to trace the species in scientific works of reference; and vernacular names not only change every hundred miles or so, but a name that is applied to one species in one part of the province is sometimes applied to a different species in another part. When the Officiating Financial Commissioner was Deputy Commissioner of Delhi he got Dr. Day, a scientific specialist, whose work on the fishes of India is well known, to furnish the Delhi museum with a rather complete set of Delhi specimens labelled with their scientific names.

4. Mr. Maconachie's remarks in para. 11, as to the obstruction of the drainage of the country caused by the Grand Trunk Road, have already formed the subject of a correspondence ending with your letter No. 74, of 23rd October 1882; the result of the inquiries made was to show that no action was necessary.

5. Chapter III., on the agricultural products and agriculture of the district, contains much useful information, illustrated, like other parts of the report, by quotations of local proverbs and verses. Wheat, jowár, bájra, barley, sugar-cane, gram and cotton are the most important crops; the cultivation seems to be of a fairly high character, and very little land is left fallow.

6. The proportion of the cultivated area of the Delhi di which is protected by irrigation against drought, is, as shown in Ch IV., very large; 15 per cent. being irrigated from wells, 4 per cent. *bands* and jhils, and 18 per cent from canals. The subject of the imp ment and extension of the *band* irrigation has lately engaged the atte of the local officers in connection with famine preventive work, there is every prospect of the capabilities of the district in this direc being fully utilised. In carrying out these works the danger of the lan behind the *band* being covered with deposits of the sand often held in suspension in the water, and in other cases of the flooded lands becoming salt from saturation without drainage, have to be remembered Again, the area which can be irrigated behind the *band* depe of course on the slope of the country: where this is rapid the wa covers a comparatively small area, being mainly collected in a de pocket immediately behind the *band*; in these cases the water can only be fully utilised by a system of distributing channels in front o the *band*.

7. The efforts which are now being made to remedy the evils which have in the past been connected with the irrigation from the Western Jamna canal are noticed by the Settlement Officer at pages 16 (section 18), 17 (sections 19,20) and 214 (section 25) of his report, and by the Commissioner at para. 24 of his review.

The Settlement Officer's remarks regarding the prejudicial effects on the health of the people from the water-logged condition of the land watered by the canal are, the Officiating Financial Commissioner remarks, but too true. Much, however, to the knowledge of Colonel McMahon, has already been done to drain this area. What were extensive swamps when he first became acquainted with the Delhi district were completely drained by the Canal Department before he left it, and he gathers from the Commissioner's report that "enormous expense has *lately* been incurred" in the endeavour to remove the evils to which the Settlement Officer draws attention.

8. From Chapter V. of the report it appears that some 35 per cent. of the culivated area is held by tenants; and of this rather less than a quarter is in the hands of tenants with rights of occupaney. The feature noticed by the Settlement Officer, of the large area for which the tenants pay no more than the Government demand, is common to

nd the neighbouring districts; but, as remarked by the Commis-
, it is hardly possible that such a state of things can continue much
r.

he area for which rents in kind are paid is small.

9. The Officiating Financial Commissioner has nothing to add to
ommissioner's review of Chapters VI., VII., and VIII. of the report,
ept to strongly support the proposal that the country traffic should
e allowed to make use of the road on at least one of the canal-banks;
nd to express his concurrence in the Commissioner's remark that with
little tact and energy it might be found possible to convert some of the
gious fairs into useful opportunities for the purchase and sale of
le.

10. Chapter IX., on the fiscal history of the district before the
resent settlement, contains much interesting information. It tells the
sual story of this part of the province: a succession of short lived and
eavy settlements up to the regular settlement of 1842; since then a
eriod of fair prosperity, marred to some extent by the evil consequences
of excessive irrigation from the Western Jamna canal.

11. The recent Settlement operations which commenced in January 1872 were protracted until the end of July 1880, and cost in round numbers 6¼ lakhs of rupees, out of which some Rs. 4,82,000 were charged to the imperial and provincial revenues. The causes of this long duration of the settlement operations seem to have been various, but to be in no way due to Mr. Maconachie, who deserves great credit for the vigour with which he pressed on the work after taking charge in 1878. The Officiating Financial Commissioner is glad to see that the record of rights is characterised by the Commissioner as good and reliable, and he hopes that the result will show that sufficient supervision was exercised to secure proper accuracy in the faired record prepared by contract, a plan which does not on the whole commend itself to him. The Officiating Financial Commissioner expects the Commissioner to see that the village note-books are properly kept up to date by the district officer. Instructions to this effect were issued to him in this office No. 9642, of 20th December 1882. The proposal that maps of the village sites should be prepared by the patwáris is one on which the Commissioner himself is competent to pass orders. The Officiating Financial Commissioner doubts whether the results would be sufficiently

valuable to compensate for the loss of the patwári's time whilst prepari such maps, which would have little value unless prepared on a rath large scale and with great care and accuracy.

12. The Officiating Financial Commissioner agrees with th opinion expressed by the Commissioner at para. 57 of his review, to the effect that the procedure followed by the Settlement Officer in recording the rights of tenants, and described in para 202, page 176, of the report, is the correct one ; but he thinks the Commissioner was mistaken in supposing that the Settlement Officer entertained any doubts regarding the correctness of this procedure.

13. The question discussed in para. 62 of the Commissioner's review, as to the preservation of certain rough settlement papers, is one which has been for some time pending in this office for consideration in connection with the proposed revision of the rules under the Land Revenue Act, a work which must now be taken up anew when the amended Act is passed. In the opinion of the Officiating Financial Commissioner, the propriety of retaining "rough copies" or chittas is very questionable. Loose papers tied up in "bustahs" are very easily got at and tampered with ; and the system of preserving "rough copies" for record seems to open a wide door for forgery and the fabrication of false evidence. Moreover, in the opinion of Colonel McMahon, these "rough copies" would be of doubtful value as evidence. By section 16 of the Land Revenue Act a legal presumption is raised in favour of the correctness of entries in the record of rights. No such presumption is raised in favour of "rough copies," "parchas," and loose memoranda used by Settlement Officers in compiling the record of rights. As compared with the records of rights itself these "parchas" would stand somewhat in the relation of a lawyer's memoranda for the guidance of his clerk to the formal deed drawn up and executed in accordance with those instructions. The deed itself would be the evidence of the contract, and the rough instructions would be worthless to contradict it. So in the record of rights, "rough copies" are not required to nt regarding the correctness of which the law raises ; whilst they would be of little or no value to con- e would be evidence open to every kind of suspicion other side which the law presumes to be true. igh copies," therefore, seems to the Officiating o be opposed to the policy indicated by clause

f section 16 of the Land Revenue Act. Every effort should be made make the record of rights correct, but facilities for discrediting it ould not be created.

14. In Delhi, as in the neighbouring districts of Karnál and Rohtak, the most important change in the revenue administration of the district which has been made during the recent settlement has been he introduction of the owner's rate system, under which the lands irrigated from the canal have not been assessed, as they would have been under the former system, at irrigated rates, but have been treated as unirrigated and have been assessed at what are called "dry" rates. These "dry" rates, however, represent rather the rates which could be fairly imposed on such of the canal lands of an estate as temporarily ceased to take canal water—all the other advantages accruing to such lands from the presence of the canal remaining unimpaired—than the rates which could be levied on the lands if the canal irrigation were totally discontinued; and in case of the withdrawal of canal irrigation from any villages, it will be necessary to carefully watch those villages, especially if they are among the estates named by the Settlement Officer in his para. 264 as assessed at more than a true dry rates assessment.

15. The canal irrigated lands having been thus treated as unirrigated, the Canal Department collects on the area annually irrigated the "owner's rate" authorized by section 37 of the Canal Act (VIII. of 1873); and the proceeds of this rate, which for the present has been fixed at one-half the occupier's rate, have been ruled to be not land revenue, but direct canal revenue.

16. This transfer of income from the Revenue to the Canal Department must of course be kept in view when comparing the land revenue now assessed with that due under the former settlement; and for the purposes of this comparison the income from owner's rate will be taken as Rs. 1,22,622, being half the average occupier's rate o
years preceding the re-settlement.

17. The materials available for deducing reven
rates were but scanty, and less use than might hav
made of these materials; the basis of the assessm
be found mainly in the judgment of the Settleme
his village inspection, assisted by comparison w

the neighbouring districts, which were at the same time under settlement, and by the revenue deduced from the produce estimates as revised by the Financial Commissioner, then the Commissioner of Delhi. The existing assessment was light only in the Ballabgarh tahsíl and in the Sonepat Khadir, while much of the canal-irrigated tract had suffered from the effects of over-irrigation and imperfect drainage. There had been a considerable rise in prices, but against this must be put the reduction of the standard of assessment from ⅔ to ½ the net assets. The measurements showed an increase of cultivation amounting to a little over 9 per cent. in the whole district, but of this increase some may be due to more accurate survey and some has occurred in inferior soil. Moreover, as a set-off against the increase of cultivation, it must be remembered that a considerable amount of land watered by the Western Jamna Canal has deteriorated from over-cropping or water-logging and from the efflorescence of reh. It has followed that the result of the re-assessment has not been to secure any material increase of the Government revenue; the increase as shown on page 244 of the report, including the income from owner's rate at the estimate already noticed, and the jama on villages held under direct lease, is only Rs. 47,765, or a little over 5 per cent. on the former revenue. The total of the fixed land revenue for the district is stated at Rs. 8,44,480, and its incidence as stated in Appendix XX. is per acre:—

	Rs.	A.	P.
In tahsil Delhi	1	9	6
„ „ Ballabgarh	1	6	11
„ „ Sonepat	1	12	9
„ whole district	1	9	10

18. The Commissioner states that the revenue has been paid without difficulty, but that some complaints have been made in Ballabgarh. It appears probable that these complaints were induced by the revision operations in Gurgaon; but the Commissioner points out that as this is a tract mainly dependent upon rain for success of its crops, it will always require special watchfulness upon the part of the Deputy Commissioner. The Financial Commissioner agrees in this remark, and would invite the special attention of the Deputy Commissioner to Mr. Maconachie's observations in paras. 238 and 239 of his report.

19. With reference to para. 240 of the report, it may be remarked that orders have been passed to allow a book credit in favor of the Canal Department for owner's rate remitted on cháhi lands. One of the benefits hoped for from the introduction of the owner's rate system

was the diminution of the over-irrigation, which had for some time been a notorious evil in some estates on the Western Jamna Canal. It was argued that under the old system of assessment the people were not really free to refuse the canal water, as they were bound to grow irrigated crops in order to pay their assessment; and it was hoped that under the new system they would themselves reduce their irrigation. And the first result of the introduction of the owner's rate system was a very great decline in the irrigated area. But the people soon found by experience that the refusal of canal water brought with it inability to grow their most profitable crops, such as sugar-cane and rice, and a reaction very soon set in; and since then the irrigated area has been steadily increasing and the opinion of the local officers now is that the change of system will have no permanent effect on the irrigation, at any rate of the more valuable kharif crops, although there may be less willingness to take water for the less valuable rabi crops.

The following figures showing the demand on account of occupier's rates have been extracted from the reports of the Irrigation Department; the demand on account of owner's rate is half the demand on account of occupier's rate; the owner's rate system was introduced into the Sonepat tahsíl in the kharif of 1879, and into the Delhi tahsíl in the rabi of 1880:—

Year.	Rabi.			Kharif.			Total.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1874	39,011	13	9	1,10,660	15	9	1,49,672	13	6
1875	84,551	10	3	1,26,924	9	3	2,11,476	3	6
1876	44,244	13	5	1,42,527	2	8	1,86,772	0	1
1877	63,055	2	3	1,58,888	12	3	2,21,943	14	6
1878	1,08,859	4	6	1,58,868	6	8	2,67,727	11	2
1879	1,00,539	10	6	1,54,562	3	10	2,55,101	14	4
1880	26,366	4	10	76,185	2	9	1,02,551	7	7
1881	15,990	3	6	1,09,572	7	1	1,25,562	10	7
1882	44,403	14	6	1,35,583	8	0	1,79,987	6	6
Total	5,27,022	13	6	11,73,773	4	3	17,00,796	1	9

These figures show the great fall in 1880 and the rapid recovery in 1881 and 1882; but even in 1882 the owner's rate demand fell more than Rs. 30,000 below the Settlement Officer's estimate based on the verage of the past ten years (*viz.*, Rs. 1,22,622.)

20. It is perhaps too soon to judge as yet whether other measures re needed to remedy the evils of over-irrigation; but the question is ne which should engage the attention of the local officers and be oticed by them in their annual revenue reports.

21. As stated in para. 250A. of the report, a few villages on ne Najafgarh jhil were subjected to the system of fluctuating assess-ent adopted in the adjoining villages of Gurgaon. In Gurgaon it was uled that the revenue collected from the jhil lands should be credited o the Canal Department, in consideration of the fact that the possibility f cultivating the lands was due to the drainage operations conducted y that department. Mr. Maconachie recommends that the same course e followed here, and asks for orders on the point. Colonel McMahon understands that the orders contained in para. 5 of your letter No. 751, of 9th August 1880, read in connection with para. 6 of this office No. 181S.C., of 9th October 1879, and para. 19 of Commissioner of Delhi's memo. on the revenue rate report for tahsil Delhi, are already sufficient sanction to this proposal; but as there appears to be some doubt on the subject he recommends that these orders be re-affirmed.

22. In para. 251 of his report Mr. Maconachie refers to the uestion of assessment of nazul lands held by the Municipal Committee. he question was referred to Mr. Lyall as Financial Commissioner, and e held that the lands must be assessed in the usual way, and that if it ere desired to confer upon the Municipal Committee the revenue ssessed on these lands, as distinguished from the rent, a special refer-ce to Government would be necessary. The Commissioner has not yet ported in reply to this letter, but he has been again addressed.

23. In accordance with the orders contained in para. 4 of our letter No. 767, of 15th July 1881, and para. 4 of your No. 1172, of 0th October 1879, power was to be reserved to revise quinquennially the ssessment of those canal villages which, owing to swamping and bad rainage, were now assessed at less than a true dry assessment. A list f these villages, twenty in number, is given by Mr. Maconachie in his

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that in many parts of the Punjab, especially in Jat communities, the system is really popular with the people, their anxiety being to reduce the interference of the settlement officials to a minimum, and to maintain as far as possible their independence of internal management. Where this feeling exists Colonel McMahon thinks it is wise to recognize it as the Settlement Officer has done, notwithstanding that certain theoretical objections may be urged against the system. In this office Circular No. VI., of 3rd April 1879, and XVII., of 25th November 1879, the principle that a Deputy Commissioner can, under certain circumstances, order a redistribution of assessment on an estate was affirmed, and the existence of this power seems sufficient to check any grave abuse of the "all-round" mode of assessing estates.

28. The dates of the instalments in the Delhi district are at present—Rabi 15th May and 15th June, Kharif 15th November and 15th December. The whole question of the maintenance or revision of existing dates throughout the province is at present under consideration, and a report is awaited from the Commissioner of Settlements and Agriculture.

29. The rate at which the patwári's cess was to be levied was not finally settled in the orders on the revenue rate reports; and in para. of Government No. 767, of 15th July 1881, it was requested that the ubject might be noticed in the final report. Mr. Maconachie, in his ara. 294, states the arrangements which, with the sanction of the inancial Commissioner, were finally adopted; and sanction is now asked the levy of the cess at 4½ per cent. in Ballabgarh, and 4¼ per cent. in elhi and Sonepat (not 4 per cent. in Sonepat, as stated in the printed port).

The patwáris have been graded and girdawárs were appointed at ettlement; but these will be superseded by kanungos when the reorgasation of the kanungo establishment is complete. The difficulty noticed to the retention of the patwári cess in deposit has since been surounted. The question of the construction and maintenance of patwáris' ouses is engaging the attention of the Financial Commissioner. olonel Davies, as at present advised, considers that the original contruction and extraordinary repairs of such houses should be charged o the patwári funds, while ordinary repairs should be executed by the atwáris who occupy the houses.

30. Zaildárs have been at this settlement appointed in the Delhi district. Considerable apprehension was at first expressed as to the evil effects which were likely to follow from the introduction of the zaildári system, but happily these apprehensions do not appear to have been justified by the subsequent events. At the same time Colonel McMahon entirely agrees with the views expressed by the Commissioner that the value of the system depends mainly on the way in which it is worked by the Deputy Commissioner; and he doubts not that zaildárs are capable of rendering most valuable aid to district officers. Colonel Davies lately issued some instructions on the subject in this office Circular No. 39 of 1883.

There are in the district 44 zaildárs, receiving on an average Rs. 193 per annum each.

31. Ala lambardárs were also appointed in 349 villages, which contained three or more headmen. The Commissioner does not state whether these appointments have been found useful.

32. The cost to Government of the zaildárs and ala lambardárs is Rs. 14,219 per annum.

33. From para. 311 of the Settlement Officer's report it appears that the average lambardári fee is only Rs. 18-10-11 per annum and that one lambardár receives only 10 pies per annum. Under the present rules a headman's post can only be reduced with the consent of the shareholders whom he represents; and in practice it is found that this consent is rarely, if ever, given. Whether or not the rule on this point should be amended is a subject which is under consideration, and on which a recommendation will be made when the rules under the revised Land Revenue Act are submitted.

34. The question of rural *taiul*, which is referred to in paras. 314 *et seq.* of the report, is still pending before the Financial Commissioner, and will be dealt with in separate correspondence.

35. Mr. O. Wood, since retired, had charge of the settlement for six out of the nine years during which it lasted. Mr. Wood was a most painstaking, conscientious, and hardworking officer, who had many years' experience of settlement operations in Oudh; and, as pointed out by the Commissioner, he had more work "entrusted to him at the outset than he could be expected thoroughly to fulfil." But he was a slow worker himself, and he does not seem to have possessed the

faculty of getting the fullest work out of his subordinates; and the Officiating Financial Commissioner is under the impression that in the hands of a younger, more active, and more energetic officer, the settlement operations would hardly have lasted as long as they did.

The Officiating Financial Commissioner cordially endorses the high praise bestowed by Colonel Young on Mr. Maconachie's work. He thinks his report on all subjects connected with the settlement operations an interesting and good one, and it is clear that Mr. Maconachie brought a large amount of "energy, diligence, and skill" to bear on his work, and that he evidently took great personal interest in it.

The late Rai Ajudhia Parshád is highly spoken of by the Commissioner and Settlement Officer; and the Superintendents, Chandan Lál and Aziz-ud-din, are also highly commended.

36. In conclusion, I am to ask that the assessments may be sanctioned for the term of thirty years from the rabi of 1880, with the exception of those of the twenty villages noticed in para. 24; that the record of rights be sanctioned; and that sanction be also accorded to the levy of the patwári's cess at the rates specified in para. 29.

I have, &c.,

R. G. THOMSON,

Offg. Senior Secy. to Financial Commissioner, Punjab.

FROM

LIEUT.-COL. GORDON YOUNG,
Commr. and Supdt., Delhi Division,

To

F. C. CHANNING, ESQUIRE,
Senior Secy. to the Finl. Commr., Punjab.

No. 2890, *dated* DELHI, 12*th December* 1882.

SIR,

Submits settlement report of Delhi district.

I have the honor to submit Mr. Maconachie's report on the settlement of the Delhi district.

Explains delay in submission.

2. The report was printed, before its submission to me for review, under sanction of the Financial Commissioner. It was said to be forwarded with a manuscript letter from the Settlement Officer, No. 293, dated *18th December 1880;* but in point of fact this was only the date on which it was made over to the Superintendent of the Financial Commissioner's Office for printing, and it did not reach me till 17th February 1882 from the Financial Commissioner's Office.

Mr. Maconachie's apology for imperfections in his report.

3. In the Settlement Officer's letter referred to, he apologises for any imperfections in the report, urging, with perfect fairness, that it was written under the disadvantage of great pressure of work. Mr. Maconachie was at the time acting as Settlement Secretary to the Financial Commissioner, and, under the circumstances, it was no doubt wise to surrender the natural desire he felt to dwell on, and elaborate further, certain portions in which he felt a keen interest, and confine himself to essentials. But in point of fact there is little necessity for apology, as the report is one of deep interest, and manifests in every line the ability and sagacity of the author, and the sympathy with the people, for which Mr. Maconachie is conspicuous.

The report is divided into two parts: I.—Description of the district.

4. The report is, as usual, divided into two parts: the first being generally descriptive of the district, and following nearly, but not absolutely, the order prescribed in the rules under the Land Revenue Act for final settlement reports.

II.—The Settlement.

5. The second part treats specially of the settlement in four chapters, to be more particularly noticed later on.

Abstract of Appendices.

6. There are, in addition, certain appendices relating to statistics of rainfall, produce, tenures, tribal distribution of land, the force of police, and lists of roads, encamping grounds and rest-houses, a polymetrical table, a statement of the local fairs, a statement of transfers of land by sale and by mortgage, a statement showing the rewards granted for loyal service in the Mutiny, an abstract of the contents of the administration paper, a sample of village malba accounts, and other matters not necessary to particularize.

Regrets absence of an atlas illustrating the report.

7. It is to be regretted that, up to the present moment, no atlas illustrating the report has been received. The maps, five in number, were made over to the Roorkee Press two years ago, but have not, up to now, been rendered. But as His Honor the Lieutenant-Governor has expressed a wish to receive the report while the facts are fresh, I have not thought it right to wait longer for these: they will no doubt be added before the Financial Commissioner deals with the report.

CHAPTER I.

General aspect of the district.

8. The first chapter of Part I. deals with the general aspect of the district with some account of its drainage, climate, rainfall and general physical aspect.

Communications and facilities for produce traffic.

9. In the matter of communication and facilities for transport and export of produce the district is exceptionally well off. Delhi itself is the centre of three important railway systems, East Indian Railway, Sindh, Punjab and Delhi Railway, and Rajputana State Railway The Grand Trunk Road from Umballa towards Mathra runs throughout its whole length: a navigable river bounds its entire eastern side; and the two canal systems (the Western Jumna and Agra canals), now in process of being united by a channel under the very walls of the city of Delhi, afford the means of carriage by water to and from the neighbouring province: there are also metalled roads in the direction of Rohtak to the west and Gurgaon to the south, as well as many cross-country unmetalled roads, suitable for carts.

District amply supplied with communications, but cross communications for wheeled traffic rendered difficult owing to the interpositio n of the Aravali range.

10. Thus it will be seen that in the matter of communications the district is amply supplied, although in parts the interposition of the low ranges of the Arayali hills renders cross communications for wheeled carriage a matter of some difficulty. The city of Delhi itself affords an unrivalled mart for the disposal of grain and other produce.

The Aravali range described in para. 5 of Settlement Officer's report.

11. The appearance of these low ranges of hills, which are so prominent a feature in the immediate neighbourhood of Delhi and that part of the district south of Delhi, is described in para. 5 of the report, as also the height and breadth of the range. This range divides the district into two portions with markedly differing natural qualities; the northern half being the more fertile and with better soil, and more populous than the southern half, which is rocky and undulating; while the soil is sandy and in places liable to floods from the drainage towards the Jumna. These physical differences formed a natural primary guide for the division of the district for purposes of assessment.

Treats of streams, nalas, and naddis.

12. The streams, nalas, or naddis, are none of them perennial, but are simply the channels by whose agency the district is drained; when, that is to say, the drainage is not intercepted and arrested by the faulty alignment of the old Western Jumna Canal. The manner in which the embankment of this canal and its distributaries have damaged, almost irretrievably, many of the fairest parts of the district, has been explained by the Settlement Officer in paras. 12 and 13. It is consolatory to be able to state that a project has now been approved in the Irrigation Branch of the Public Works Department, which, in connection with the new branch as now laid down, will remove the evils complained of, and prevent the stagnation of drainage water, as well as saturation of the soil in the neighbourhood of the canal from leakage and filtration from a bed artificially raised above the level of the adjacent country. His Honor the late Lieutenant-Governor, in writing on this subjet, has said that he regards this drainage project as not less important than the work of realignment of the canal itself.

CHAPTER II.

Mineral products and vegetable and animal kingdoms treated of in this chapter.

13. The mineral products of the district and the vegetable and animal kingdoms and the prevalent soils are treated of in Chapter II.

Minerals.

14. The minerals, with the exception of stone and kankar, are unimportant: the yield of chalk is small, while the crystal mines have been abandoned for some years past.

Trees, wild animals, snakes and birds.

15. The paras. which treat of trees of the district and the wild animals, snakes, and birds are probably not exhaustive.

Fish not mentioned in settlement report; gives a list of fish procurable from the Jumna.

The fish have not been mentioned at all; but as they abound in the Jumna, the Canal, and Najafgarh jhil, and form an important item in the food supply of the district, I append a list of the local names, compiled from reference to the fishermen of the town. I regret I cannot give the scientific equivalents, and, as the persons from whom the information has been derived are uneducated, some of the names are perhaps wrongly spelt :—

1. Rahu.
2. Mahser (a barbet or carp.
3. Selundha.
4. Kalbáns.
5. Bám (eel).
6. Singhára.
7. Bosa or Katila.
8. Bachwa.
9. Gúnch (fresh-water shark).
10. Saur.
11. Ghirái.
12. Malli.
13. Gwáli.
14. Chilwa
15. Anwari (grey mullet).
16. Singhi.
17. Naráin.
18. Dare.
19. Pungási.
20. Gagra.
21. Jhinga (shrimp).
22. Kowa.
23. Paphta.
24. Rái.
25. Bhágiyán.
26. Gallar.
27. Katér.
28. Phanga.
29. Kanghi.
30. Bhór.
31. Sinan.
32. Tengra.

Local names of classes of soil.

17. The local names for the three sorts of soil principally met with are dakar (clay), rausli (loam), and bhúr (sand). The equivalents as in vogue in Gurgaon, the Rechna Doáb, and Montgomery are given in a footnote, to which I may add that in the North-West and Oudh these soils are termed respectively matyár, domat, and bhúr.

Distribution of soils.

18. The Settlement Officer has given a table at page 25 showing the distribution of these several soils as classified for settlement purposes. This is a branch of settlement work which demands the most careful discrimination, where the revenue rates are applied on this classification of soils as directed by Government in this case. No doubt, in the assessment of the Delhi district, the soil rates were only one of several elements, which were all duly compared and considered; but in my experience they exercise a very powerful influence on the mind of the officer framing the assessment; and the amín or patwári, as the case may be, who makes the first classification, may thus materially influence the final result. Mr. Maconachie notices in para. 214 that a good many complaints of wrong classification of villages or soils were received and punishments dealt out, so that the matter doubtless received attention at the time, and as no complaints have been received on the subject since the assessments have been in operation, I conclude this portion of the work was on the whole fairly done.

CHAPTER III.

Agricultural products of the district.

19. It is unnecessary to follow the Settlement Officer para. by para. through Chapter III., which describes the agricultural products of the district and gives tables showing the area under such crop at time of measurement, and his own estimate of the average produce per acre of the principal crops. Mr. Maconachie has noticed how extremely difficult it is to arrive at any thing like a correct result from experiments made in the field, and the steps he took to check results thus obtained by the opinion of intelligent zamindárs. Each of these methods is valuable to a certain extent, but the varying circumstances of soil and climate, the description of cultivation, largely dependent on the class of cultivator, are so infinite as to render such average estimates of but a secondary value.

Cultivation of principal crops.

20. The tabular statement at pages 34 to 39 is a useful one: it gives the date of sowing the principal crops, the amount of seed used, the number of ploughings customary, the harvest month, estimate of produce to be expected, rotation usually observed, and the description of weather desirable; and the succeeding pages, to the

end of the chapter, giving particulars of agricultural operations, proverbs relating to the same, customs, description of agricultural implements, and some remarks on cattle keeping, will all be read with interest, as instancing something of the domestic life of the agriculturist.

Explains the custom of "rora-nikálna."

21. With reference to the custom of "rora-nikálna," or casting out of plagues of various sorts by means of incantation and charms, I may observe that this ceremony is one which occasionally leads to serious results, as the infected village, in getting rid, as it believes, of its own disease, is supposed to be likely to convey it to its neighbour, within whose bounds the vessels and other instruments of incantation are thrown. This measure is therefore liable to be resented warmly, and I had lately before me a case of riot thus brought about, in which a man was mercilessly slain—half of the village standing by—for interposing to prevent the "rora" being cast into the bounds of his village and the plague thus communicated.

CHAPTER IV.

Sources of irrigation.

22. The fourth chapter of the report describes the sources of irrigation available and the extent to which wells, *bands* (*i. e.*, irrigation embankments), and canals, severally protect the district from the effects of drought. It appears that 15 per cent. of the cultivated area is watered from wells, 4 per cent. from *bands* and 18 per cent. from canals; total 37 per cent. Thus, one-third of the district may be regarded as "secure" within the meaning of Government Resolution No. 58R, dated 12th October 1882. An interesting description is given of the several sorts of wells in use, the method of sinking them, and their relative efficiency; and the latter half of para. 60, descriptive of well cultivation in a Ját village, is a very pleasing picture and indicative of the friendly appreciation of the agricultural classes felt by the writer. The information regarding the *bands* is of special value, and will assist the district officer in determining which of these works claim restoration at his hands: it is a satisfaction to be able to state that one at least of these important ancient irrigation works has this year been restored, *viz.*, the *band* at Chattarpur. If this is a success, it is contemplated to take the others up in turn of importance.

Drainage schemes in connection with the Najafgarh jhíl.

23. The history of the draniage schemes proposed for the Najafgarh jhíl, the extent to which they have been carried out, and the result, as far as it can be estimated, have been noticed at length in paras. 70 and 71. A special system of assessment, whereby the lands annually submerged are measured and assessed at special rates varying with the crops grown, was introduced with success, and, if carefully watched, should work with equal benefit to Government and the people concerned.

Evils attending irrigation from the old Western Jumna canal.

24. The vexed question of the benefits and grievous disadvantages also, which have attended the system of irrigation from the old Western Jumna canal, need hardly be entered upon here. It has long since been admitted that much harm has been done in the past, and enormous expense has lately been incurred in the endeavour to put this to rights for the future. Many persons competent to judge hold the opinion that, with good drainage lines once provided, and some moderation in the irrigation which the introduction of the system of owner's rate may be expected to lead to, much of the area deteriorated by "shir" and water-logging will recover its original fertility; but I shall recur to this subject later on.

CHAPTER V.

Tenure of land.

25. The only peculiarity presented in the district as regards the tenure of land is that there are a few villages in which superior and inferior proprietary rights are recognised; the so-called superior proprietors receiving a malikána only of 5 or 10 per cent. on the jama, and the settlement being made with the inferior proprietors, with one exception. There are only six such cases in all, and the statement at pages 73 and 74 gives the particulars of each. The distribution of villages according to the usual nomenclature of tenure is—

Zamindári ...	Landlord	26
	Communal	70—96
Pattidári	Perfect	25
	Imperfect	314—339
Bhaiachára ...	Perfect	4
	Imperfect	371—375.

But Mr. Maconachie has sub-divided his 339 pattidári villages again into three sets, so as to show how far the primary division between the "tarafs," "pattis," or "panas," is followed up by equally absolute separation of interests within these sub-divisions, as between the several proprietors; and in this way he shows that the complete form of pattidári tenure, whereby the ancestral share is recognised throughout, is to be found in 189 villages, a bhaiachara tenure within the primary pattidári division in 147 villages, and "zamindári bilijmal" in three villages whose primary division is pattidári. No doubt the internal relations within the several pattis is of quite as much importance, and requires recognition to the same extent as the primary relations between the several pattis; and unless this is understood, partition of village common may be made on a wrong principle and involve the community in needless litigation.

Erroneous interpretation of N. W. P. Sadr Board's Circular 17 of 1856.

26. At the time Mr. Maconachie penned his 78th para., an idea, long since corrected by the Chief Court, was prevalent that, under N. W. P. law, occupancy rights accrued from 12 years' possession prior to annexation of the Delhi district to this province. This view was soon exploded, and the principle affirmed that the Circular 17 of 1856 of the Sadr Board of Revenue, N. W. P., which had been relied on as giving occupancy rights merely by reason of 12 years' continuous possession, when properly construed gave no such permanent right of occupancy; that it merely protected a cultivator who had had possession continuously from *summary ejectment* by the order of a revenue court, but left the question of his title to occupancy rights to be determined by the ordinary civil courts in accordance with local custom.

27. The cases therefore in this district were thereafter dealt with on these lines. Inquiry was directed as to whether occupancy rights had accrued by reason of any local custom prevalent in the Delhi district generally, or in the particular village or circle of villages, or if not, whether such rights had arisen under any of the provisions of the Punjab Tenancy Act.

A more liberal rule observed in the case of Government villages.

28. In the case of Government villages in the Ballabgarh tahsil, confiscated for misconduct in the Mutiny, however, a more liberal rule was intentionally adopted of recording all those who could prove uninterrupted holding from 12 years prior to annexation of this province as entitled to a right of occupancy in their holdings.

In many cases tenants-at-will only pay the revenue and cesses on their holdings.

29. The remarkable but well-established fact in this and neighbouring districts is noted in para. 80, that in many cases (20,000 is the figure given) tenants-at-will have heretofore paid nothing beyond the revenue and cesses on the lands they hold. It is hardly possible to believe that this state of things can prevail much longer, now that in many cases the Government demand has been raised, and we have an active and increasing bar at hand to explain the bearing of Act XXVIII. of 1868 on the relations between landlords and tenants.

"Ijara" rents in Sonepat.

30. The prevalence of "ijara" rents in pargana Sonepat, as noticed in para. 80, is remarkable, and has not previously come under my observation.

"Dholidár" and "Bhondadár" tenures.

31. The tenures described in para. 82 as that of "dohlidár" and "bhondadár" are to be found in the Jalandhar Doáb and other parts of the Punjab, where they are called, what they are in fact, *zamindárs' máfis*. They are given for "piejao" services (or "chábils," as they are locally termed; probably "sabil" is the correct word), for providing travellers with drinking water, looking after takiyás, temples, dharmsálas, and so forth.

Wood-preserves.

32. The wood-preserves, to whatever origin their preservation is attributable, are a pleasing incident found both here and in Gurgaon; and it is sincerely to be hoped that the superstition which has led to their being regarded as sacred hitherto, may not in these utilitarian days come to be regarded as old-fashioned, and that thus the thirst which after settlement usually sets in for partition of common land, may in these cases at least remain unexcited, and these valuable grazing grounds may be preserved.

CHAPTER VI.

Statistics of population.

33. The statistics of population given in Chapter VI. of the report are those of the census of 1868. As the census papers of 1881 have now been compiled, I take the opportunity of giving the later figures.

34. These figures give the whole population of the district as 643,515 instead of 621,675 as given in the report; and for the city and suburbs of Delhi 173,393 instead of 154,417, showing an increase in the district within the last 12 years of 21,840 souls or 3·50 per cent., if the

figures of 1868 are to be trusted. It is difficult to compare the late figures with the statistics of the former regular settlement of 1842, as there have been so many alterations in the component villages of the district, some having passed into Karnál and Gurgaon, some into the North-West Provinces, and many having come over from neighbouring districts and independent states.

Distribution of tribes and castes with table showing the population according to the census of 1881.

35. Mr. Maconachie has given a full account of the distribution of tribes and castes, with instances of characteristic proverbs appertaining to them. This distribution is illustrated in a map (not yet received) which shows also the zaildárs' circles. The statement given at page 92, I reproduce according to the figures of the census of 1881 :—

Particulars.		*Figures.*
Total population		643,515
Total males		344,016
Total females		299,499
Hindus	Males	260,046
	Females	223,286
	Total	483,332
Muhammadans	Males	77,938
	Females	71,892
	Total	149,830
Sikhs	Males	847
	Females	123
	Total	970
Others	Males	5,188
	Females	4,195
	Total	9,383
Area in square miles		1,276
Number of villages or townships		701
Number of enclosures		...
Number of houses		118,983
Total population		643,515
Average calculated from preceding columns.	Persons per square mile	504·31
	Villages or townships per square mile	0·55
	Persons per village or township	917·99
	Enclosures per square mile	...
	Persons per enclosure	...
	Houses per square mile	93·24
	Persons per house	5·41

Chapter VI.] Statistics of Population.

Census statistics not analysed, as the census report will deal with the matter.

36. I do not attempt any elaborate analysis of these figures, as they will receive full attention in the census report. Broadly, it is apparent that the Hindus are almost four times as many as the Muhammadans. The incidence of population per square mile is 504·31 and per cultivated acre 1·21. The extent of land held by the principal agricultural tribes will be found in Appendix VI., from which I extract the following prominent figures :—

			Acres.		*Rs.*
1.	Jats	hold	361,075	and pay	4,03,494
2.	Gujars	,,	83,535	,,	57,748
3.	Brahmins	,,	59,249	,,	65,554
4.	Tagas	,,	39,338	,,	39,001
5.	Rájputs, including Chohán	,,	32,575	,,	32,925
6.	Ahirs	,,	31,744	,,	35,927
7.	Gorwahs	,,	19,499	,,	22,302
8.	Sayads	,,	17,474	,,	21,075
9.	Taga (Mussalman) ...	,,	17,370	,,	17,698
10.	Neos	,,	14,744	,,	14,839

The other tribes, none of them hold any considerable area. The Hindus as a body hold 678,891 acres and pay Rs. 7,34,154, and the Muhammadans 98,104 acres and pay Rs. 1,02,864. In addition to these tribes *Christians* are recorded as holding 38,690 acres and paying Rs. 27,726. I have ascertained that the Government of India is intended to be described under this nomenclature. !

History of some of the towns of the district.

37. The remainder of the chapter treats of the founding and history of the various towns in the district, of which the principal are Ballabgarh, Sonepat, and Faridabád, though Mr. Maconachie has particularized many more which are hardly more than large villages. The account of the Jat zamindárs, who founded Ballabgarh and subsequently attained to the dignity of Raja, holding pargana Faridabad in virtue of the office of Foujdár of the environs of Delhi and Killadar of the fort of Ballabgarh, is of much interest. The last Raja, Nahar Singh, was implicated in the Mutinies of 1857 and executed, the State being confiscated. The dowager Rani spoken of has transferred her rights in the mahal of Ballabgarh, re-acquired by purchase from the Government, to the Raja of Faridkot and his wife, her daughter.

CHAPTER VII.

38. Chapter VII., descriptive of the appearance, habits, mode of life and social customs of the people, is written in an attractive style, and is full of information not possessed by most English officers, and tells of intimate acquaintance with the domestic life of the people.

Chapter VII. illustrates the domestic life of the people.

CHAPTER VIII.

39. The description of the administrative arrangements of the district in Chapter VIII. does not require particular notice ; but *àpropos* of what is said in para. 163, I cordially endorse the proposal that the country traffic should be allowed to make use of the road on the canal bank, and I regard it as a special hardship that this is not permitted. It is possibly necessary to maintain one of the banks for canal traffic proper ; but, if so, the other bank might be opened to district traffic, and no doubt the district committee would gladly bear the cost of repairs of the roadway of any convenient reaches of such canal banks thus opened. This question will be discussed with the Deputy Commissioner and Superintending Engineer.

Administrative arrangements of the district.

40. The fairs of the district are wholly connected with semi-religious observances, and are not for purposes of trade. Some of them are very largely resorted to, especially at the bathing festivals on the Jumna. It would seem possible, with a little tact and energy, to convert some of these gatherings into useful opportunities for purchase and sale of cattle.

Fairs of the district.

PART II.—THE SETTLEMENT.

CHAPTER IX.

41. Chaper IX. is full of interest, but does not require to be followed para. by para. The Settlement Officer has put together a number of notes obtained from a variety of sources bearing on the revenue administration from the earliest days of British rule, with a brief historical summary of the leading events from 1803 down to the present day. The extracts from the reports of Messrs. Fraser, J. Lawrence, Edmonstone, and others are curious, as illustrating their views of the policy and practices of the time rather than of value as a standard of comparison from a settlement point of view.

Revenue administration of the district in the past.

Chapter IX.] Previous Fiscal administration of the District.

Old system of short settlements.

42. The plan in those early days of short settlements for two, three and five years, appears to have been that the Government should take all that it could get without regard to the best interests of the villages or the Government itself, and, when these settlements broke down, yield so much as would enable some farmer to stagger on for a further period and then take the estate under "kham" management.

No valuable comparison in the rates of the several settlements possible.

43. It is very difficult to compare the rates of the several settlements of the district made between 1817 and 1872, as the areas of the several tahsils as existing down to 1857 and thereafter differ so greatly: as before noted, villages have come in from Pánipat in one direction and Ballabgarh and Rohtak and Jhajjar in the other, while others on the left bank of the Jumma have passed over to the North-West Provinces.

Mr. Maconachie draws some comparisons, but they are not clear without the help of fuller information and maps.

44. Where comparisons have appeared usefully possible, Mr. Maconachie has drawn attention to them; but I must admit that in the absence of fuller information and of maps, I have not been able to gather any clear idea of what particular area paid what particular amount at each successive so-called settlement.

The Mutiny as affecting this district.

It would have been impossible to have omitted altogether from the settlement report of the Delhi district some account of the scenes of anarchy and bloodshed enacted in 1857, without giving undue prominence to the matter. Mr. Maconachie has briefly told the story so far as Delhi is concerned, and I am glad that the opportunity has thus been afforded of putting on permanent record the noble services of Mir Hidáyat Ali, the zamindár of Ishakpur, Bhure Khán, and the zamindárs of Rohtak and Kailana, who at immense risk to themselves in each case, sheltered and protected European lives. The names mentioned in the text do not form a complete list, however, of all those of the Delhi district who did good and loyal service: a further fuller list will be found in Appendix XIV., though this indeed contains a record of good-service grants made in the Delhi district, whether the services were actually rendered in Delhi or in other parts of India. Simlarly, many persons, residents of the Delhi district, have obtained rewards in other parts of the province.

CHAPTER X.

Authority for the settlement.

45. To turn now to the history of the present settlement. The district was put under settlement by Government Notification No. 119, of 29th January 1872, simultaneously with the district of Gurgaon and part of Karnál.

Settlements placed under the supervision of the Commissioner.

46. The settlement establishment and general control were placed under the supervision of the Commissioner of the division, as at that time the Settlement Commissioner was fully engaged with the preparation of the reports "of districts which have long been settled, but never reported." (See Secretary to Government, Punjab, No. 704, dated 13th October 1871, to the Secretary to the Government of India, Department of Revenue, Agriculture and Commerce).

One of the reasons for placing the control of the settlements under the Commissioner.

47. One of the reasons given for thus putting the superintendence of these settlements under the Commissioner was "the probability of an early separation between the judicial and executive branches of the service which will leave the Commissioners sufficient leisure to superintend the settlements progressing within their respective divisions." Ten years have passed since these words were written, during all which period the settlements have been under the Commissioner's supervision, while judicial work has steadily increased, and the separation anticipated between the judicial and executive lines has not been realized.

Several Commissioners who held charge of the settlements.

48. The several Commissioners under whom the settlements were conducted were Colonel Cracroft during a period of three years, Colonel Davies for three years, Colonel Waterfield for three months, Major Gordon Young from 1st February 1879 to 10th October 1879, and again from 1st November 1880 to the close. Lieutenant-Colonel Birch held charge from 11th October 1879 to 31st October 1880.

Messrs. Wood and Maconachie's share in the work.

49. Mr. Maconachie has explained exactly the extent to which Mr. Wood and he were respectively concerned in making the settlement, and I need not repeat this. I may, however, state that in my opinion it was undoubtedly a mistake to give Mr. Wood the supervision of the settlements of Gurgaon and Karnál as well as the direct charge of the Delhi settlement. This was more than he could be expected to supervise efficiently, and contributed greatly to the protracted period that was taken in bringing the present settlement of the Delhi district to a conclusion.

Chapter X.] History of the operations of the present Settlement.

Settlement officers invested with Judicial Civil powers with reference to only a portion of the district.

50. It is as well to note here that the Settlement Officers of the district were not invested with judicial powers as civil courts, except in those villages, 134 in number, which came under settlement for the first time. These villages principally appertained to the confiscated territory of the Rája of Ballabgarh, the Nawáb of Jhajjar, the jágír of Mirza Mughal Beg and other rebels, and to the King's private estate.

Principle of the assessment.

51. The Settlement Officer has quoted at length the instructions of the Local Government under the Punjab Land Revenue Act as to the principle of the assessment, and prescribing that the revenue rates reports were to be rendered for each tahsil. The manner in which these instructions were followed, and how the assessments were eventually framed, will be noticed further on.

Genealogical tables furnished by Settlement Officer.

52. The genealogical tables drawn up after hearing the traditions of the family "bháts" are very useful records: they seem generally to give satisfaction, and are of great assistance to the civil courts in cases connected with proprietary rights in land.

Preparation of khasras or field registers.

53. In the preparation of the khasras or field registers a good deal of discretion was, perhaps inevitably, left to the subordinate establishment; and the note on page 170 indicates that the Settlement Officer is disposed to think that in the matter of estimating irrigation this was somewhat too wide and to be regretted. I concur in this view, and the remarks already offered regarding the classification of soils apply equally to the classification of irrigation.

Work delayed by the patwaris' inefficiency.

54. The whole of the measurements were made by the patwáris, and as many of them were inefficient, this no doubt delayed the work, as stated in the report, though the experience gained by the patwáris may be set off against this. The arrangement also was some guarantee for the work being done *bonâ fide*, as the patwári could at my time be got hold of and made responsible in a way not possible with foreign amíns, here to-day and there to-morrow. The arrangement was therefore on the whole beneficial to the best interests of the district and the people.

Settlement and survey measurements.

55. The agreement between the ultimate results of the village measurements and those of the revenue survey, showing only a difference of 1·6 per cent., is as

close as can be expected. The causes which lead inevitably to slight differences are well known and need not be explained.

Attestation of record of rights.

56. In the matter of attestation of the record of rights, the several plans of attesting at the head-quarters of the tahsil, at certain selected central villages adopted as temporary head-quarters in each tahsil, and finally in the several villages themselves, were all tried with the result that the last, which is undoubtedly the best and only reliable system, was eventually adopted and held to. I agree with the Settlement Officer that, on the whole, the work of attestation was fairly done.

System of recording rights of tenants.

57. The system described in para. 202, under which the rights of tenants were recorded in the papers, appears to me to be right, and specially so in cases where a tenant was recorded as an occupancy tenant under the old settlement record, in which instances it was not attempted to do more than repeat the entry without attempting to interpret under what clause his tenancy would fall for purposes of enhancement under the Tenancy Act. Mr. Maconachie doubts if this was right, and writes of having met with "very great authority to the contrary effect," seeming to mean that it was the Settlement Officer's business to classify each tenancy under Act XXVIII. I do not, however, thus read section 19 of Act XXXIII. of 1871. I think this matter should be left to the civil court when the issue arises between the parties.

The administration paper.

58. The administration paper was drawn up, on a pattern approved by the Financial Commissioner, from which speculative provisions were excluded; but the order and number of subjects was uniformly observed, a note being made that such a section was not required in any village to which the subject did not apply, thus guarding against the idea that it had been inadvertently overlooked.

The provision regarding Kankar, how recorded in the administration paper.

59. The provision regarding "kankar" in the village administration paper is to the effect that Government is entitled to dig it when required, merely paying compensation if the surface soil of culturable or cultivated land is cut up. I think this a better way of dealing with the subject than that pursued in Gurgaon, where the corresponding clause was to the effect that no one is to dig for kankar except with the leave of the Deputy Commissioner. In the absence of legal power to punish an infraction of

this rule, the Deputy Commissioner is left in a somewhat undignified position when attempting to enforce the condition.

Land Revenue Act on kankar quarries.

60. The Land Revenue Act declares that the produce of all quarries shall be presumed to belong to Government, except in cases where the same has been taken into account in making the assessment. This source of income has in no case been taken into consideration in this district in framing the assessment, so that if the matter of title ever comes before the Civil Court, Government will start with the presumption in its favor; but there seems to be no means at present of preventing the landowners from allowing others to dig as well as the Government, or from digging and selling themselves.

Fairing of settlement records.

61. The fairing of the copy of the settlement record to be deposited in the Collector's Office after the first copy (or the patwári's copy) had been faired from the roughly attested record was done by contract—a system no doubt more economical and expeditious than that of copying it by a regular establishment, and the Settlement Officer considers the result was satisfactory. Everything here depends on the care with which the second copy is *compared*, and though in the course of judicial investigation mistakes are sometimes come across, the work has, I think, been fairly done on the whole.

Preservation of the rough record or "chitta."

62. In view of the probability of discrepancies in the several copies, and as explanatory of differences in the entries in the "khewat khatauni" between the old record and the new, I strongly advocated that the "chitta," or rough copy, should be preserved (Mr. Maconachie was opposed to this); and in my No. 1018, dated 19th April 1879, to the Financial Commissioner, I gave my reason for this, instancing the case of Hoshiárpur, where the preservation of these "chittas" on more than one occasion in my own experience had proved of signal value in helping to determine the genuineness of the entries and the reasons why they differed from those of the old record. The subject was fully discussed by Major Wace, the Settlement Commissioner, and the opinions of most Settlement Officers taken, with the result that under the Financial Commissioner's instructions (see his Secretary's No. 4894, dated 10th July 1879, to Commissioner, Delhi) the rough records were directed to be sent to the Collector's Office for preservation *for a period of six years*

from the date of the sanction of the revised record by Government, while if the Financial Commissioner's recommendations are approved by Government some of them, *viz.*, the "fard baddr," the files of summary inquiries into the rights of occupancy tenants, owners, mortgagees, or other special classes of rights; the file of the preparation of the "wájib-ul-arz" and "misl tafrik," or file of the distribution of revenue in complicated cases, will be preserved for the whole term of settlement. The final orders of Government have not yet been received on this point: they can conveniently be awaited until the record is sanctioned.

Village note-books.

63. The No. II. Statements, constituting the village note-books, are very well got up and substantially bound. If the Deputy Commissioner adds to the remarks from time to time well-ascertained information as to the working of the settlement, these volumes should make future assessment a comparatively easy task. The information they contain is very full, and some of the notes recorded by the several Settlement Officers are of great value.

Use of these note-books.

64. The note-books should always be referred to when questions of the pressure of the assessment, propositions for remission or suspension, and the like, are under discussion.

Why no record of irrigation has been prepared.

65. The re-alignment in progress of the Western Jumna canal rendered the preparation of any record of irrigation rights therefrom inexpedient, and none has consequently been made.

Maps of village site.

66. In para. 211 Mr. Maconachie makes a suggestion I should be very glad to see acted on, *viz.*, that at his leisure each patwári might usefully prepare a map of the abádi, or village site, for all villages in his circle. If this were done with care and on a fairly large scale, say 100 feet to the inch, it would be of material assistance to the civil courts when dealing with disputes regarding houses, enclosures, and waste plots: as it is, no such maps have been prepared for the Delhi district.

Cost of the settlement.

67. The cost of the settlement, from first to last, appears to have been Rs. 6,23,312, of which the Government paid Rs. 4,81,699 and the people Rs. 1,41,613. I have taken these figures from the statement on pages 187 and 189 respectively, only deducting from the total given on the latter page items Nos. 2, 4, and 7, which do not fairly enter

into the account, being receipts on account of *fines on establishment, mutation fees*, which were leviable in any case, and sale of waste paper, &c. Speaking in round numbers then, the cost amounted to the large sum of six and a quarter lakhs and the work extended over a period of nine years. The financial result, *including the Settlement Officer's estimate of receipts from owner's rate*, which is now credited to the Canal Department, is an increase in the total demand of Rs. 47,765 (Major Tighe's estimate of what might be expected from a revision was Rs. 1,01,146) : it will thus take twenty-five years for the settlement to repay the gross cost, adding five per cent. interest on the capital expenditure from date of the close of the operations, and after taking credit each year for the estimated increase ; but as only a sum of Rs. 4,81,799, or say five lakhs, was paid by the Government, their expenditure will be recouped in a less time than this—say twenty years.

68. I will not attempt to balance the account and decide how far the results attained have been worth the sum shown, and the nine years expended on the work, with all its accompanying expense to the people over and above what is exhibited in the report ; but it is at least doubtful, if all the facts had been foreseen, whether it would have been deemed desirable to undertake the re-settlement on the elaborate scale adopted, though doubtless we have secured a good and reliable record of rights, always a most important matter, and especially so in the case of this district, as the old records were destroyed, and those reconstructed from the patwári's copy were at least unsatisfactory.

CHAPTER XI.

The work of assessment.

69. In Chapter XI. the Settlement Officer has given a very full account of the work of assessment, and has explained exactly what portion of the work is his own and what that of Mr. Wood, who preceded him : he shows that on the whole the work was done in about equal shares by Mr. Wood and himself, though as the officer in charge at the close, and with opportunities of revising his predecessor's proposals, he accepts the ultimate responsibility for the jamas announced.

Revenue rates reports.

70. The revenne rates reports were submitted by Mr. Wood for tahsils Delhi and Ballabgarh, and by Mr. Maconachie for tahsil Sonepat. All these reports were elaborately reviewed and submitted to the Financial Commissioner by Colonel Davies as Commissioner. In every case the Financial Commissioner approved of the amendments and suggestions of the Commissioner and sanctioned his proposals. The exact degree in which these differed from the proposals of the Settlement Officer have been given in a comparative table on page 198 for tahsil Ballabgarh, and on page 216 for tahsil Delhi: in the case of tahsil Sonepat, where there were only two "chaks," the information has not been given in the same tabular form, but will be found in the letter press in paras. 256 and 261. As the reports were dealt with by so able an authority as Col. Davies, and accepted by the Government after being reviewed in detail by the Financial Commissioner, I shall hardly be expected to discuss them at length or do more than indicate the general result.

Principle of assessment.

71. The general principles of the assessment prescribed by the Local Government under Act XXXIII. of 1871 have been given at length in para. 191. The Government demand for land revenue was not to exceed the estimated value of half the net produce: great care was to be directed to produce estimates where *produce rents* prevail, and, in framing the assessment, the Settlement Officer was enjoined to consider "all circumstances directly or indirectly bearing upon the assessment, as the habits and character of the people, the proximity of marts, facilities of communication and incidence of past assessments, grazing profits, and the like."

Revenue rates on soils.

72. The revenue rates on the various soils were to be deduced from the gross assessment of each circle arrived at on the principle above indicated, and the proposed gross assessment and proposed revenue rates were then to be reported for sanction; and, when passed, were to form the basis of the assessment of particular estates in each circle: though in fixing the ultimate amount to be adopted in each case, latitude was given for full consideration of the special circumstances of each estate. How far these instructions were acted up to will be seen on reference to the elaborate review of the revenue rates report by Colonel Davies. He did not regard Mr. Wood's produce estimates as at all reliable, and little or no attempt was made to work out a *rent rate* and thence a revenue rate. In the case of tahsil Sonepat, for which the revenue rates

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report was submitted by Mr. Maconachie, he writes on this subject as follows :—"The assessment, though partly based on produce estimates, depends in a great measure for its justification on a comparison of the present with the former assets and resources, and on the results which Mr. Edmonstone's assessment has produced on the condition of each particular village as ascertained by careful inspection throughout the tahsil."

Prevalence of bhaiachára tenure.

73. The general prevalence of the bhaiachára tenure, which is to be found not only in villages so classed as a whole, but within the several constituent "pattis" of most of those villages classed as imperfect pattidári, must needs have rendered the task of deducing revenue rates one of more than ordinary difficulty, to quote from Mr. Edmonstone's report on the assessment of Pánipat in 1842:—"In the first place rent rates are unknown, and except in those villages which are leased in farm, every payment made either by proprietor or cultivator is regulated by the proportion which the extent of his possession in bighas bears to the amount of the Government demand, and not by the fertility or local superiority of the land which he cultivates. Each minute portion of land yields to its individual occupant the only profit and means of subsistence which he can anticipate, and inflicts upon him the only loss which he can, under ordinary circumstances, apprehend." In point of fact, in a vast number of instances no rent at all is paid, either in cash or kind. See the table at page 76, from which I extract the following information :—

The total number of tenants of both sorts, *i.e.*, occupancy tenants and tenants-at-will, is 54,030, holding 34·67 per cent. of the cultivated land of the district. Of these 54,030, no fewer than 33,890 pay *at revenue rates only*, while 4,938 more pay merely a small malikána over and above revenue rates, and 12,114 more pay by what is called "chakauta," or a consolidated sum supposed to represent revenue and a certain amount of rent, but which may be, and actually is, sometimes less than the revenue and cesses applied at soil rates.

Revenue rates as deduced from rent rates.

74. These figures show that it must have been almost impossible to prepare revenue rates from *rent* rates, for rent does not as a rule exist, either in cash or in kind, on a scale sufficiently large from which to make any safe deductions, though such rates would have been some check. As a matter of fact, Mr. Wood and Mr. Maconachie

trusted to careful village-to-village inspection for the amount of their jamas, and however the revenue rates were arrived at, it was certainly not by the manner prescribed in the Government instructions as quoted in para. 191 of the report. The produce estimates which Mr. Wood tried to frame were so faulty that he was himself obliged to declare them not to be depended on. Colonel Davies prepared an amended estimate, and with the notes made after inspection of each village, this was the main basis of assessment (*vide* para. 250).

Prices.

75. The general rise of prices within the last 20 years is very marked, and, so far as I can judge, is not less than 25 per cent. in almost all staples; but it is noticeable, as was remarked by Colonel Davies, that the greater portion of this rise took place just after the lapse of the first quinquennial period of the 20 years immediately before settlement, and that for 15 years prices have been comparatively stationary. It thus comes about that whereas two-thirds of the net produce was the basis of the Government demand on the occasion of the former settlement, and one-half is now fixed as the limit, bearing this rise of prices in mind, the net result to Government should not greatly differ now from then.

General result of present settlement.

76. Thus there need be no surprise that the general result of the revision of assessment has only been to raise it from Rs. 9,22,166 to Rs. 9,69,931, or an increase of 5·19 per cent. including the estimated average receipts from owner's rate.

Increase of cultivation.

77. The increase of cultivation has already been given as 9·23 per cent. It is 5·67 in Delhi, 11·49 in Ballabgarh, and 11·17 in Sonepat; but some allowance must be made for more accurate measurement at the present settlement: probably the actual increase has been less, and bears a nearer proportion to the increase in the demand. The room still left for expansion is given at 21 per cent. for the whole district, and varies from 26 per cent. in Sonepat to 11 per cent. only in Ballabgarh. But as the best lands are always broken up first, probably the actual area which can be said to remain for profitable expansion, and taking into account the necessity for grazing grounds for cattle, is considerably less. There will, however, still remain an area of no inconsiderable extent which may be expected to develop under a moderate assessment.

Appeals from assessments.

78. There were only 41 appeals from the assessments eventually announced, of which 33 were accepted with a resulting reduction of Rs. 2,770, and on review a further sum of Rs. 1,370 was similarly reduced. A few complaints have since reached me from the Ballabgarh tahsil, and have been referred to the Deputy Commissioner for examination and report. Meantime the revenue has been paid without difficulty, and I think it extremely probable that the petitioners in the instances cited were stimulated to try their luck by what they have witnessed during the past year in the immediately neighbouring tahsil of Palwal in the district of Gurgaon, where it has been found necessary to re-consider the assessment in some instances. Ballabgarh tahsil is a tract principally dependent upon rain for the success of its crops and, as less well-protected than other parts of the district, it will always be a locality which will demand special watchfulness on the part of the Deputy Commissioner.

Area of district.

79. The area of the district may be thus classified :—

	Acres.
Revenue free	11,909
Waste	140,860
Culturable	136,069
Fallow	633
Groves and gardens	2,557
Irrigated naturally and artificially	102,689
Unirrigated	416,728

Incidence of assessment on cultivated area.

80. The incidence of the assessment on the cultivated area is Rs. 1·13 per annum inclusive of the estimated demand for owner's rate in canal-irrigated villages. As one-third of the district is irrigated, the incidence does not seem unduly high.

Village inspection.

81. Much pains were expended by both Mr. Wood and Mr. Maconachie in the village inspections, and I think the revenue has been distributed evenly with reference to the varying circumstances of each circle.

Khalsa revenue.

82. The full khalsa revenue now imposed, and exclusive of the estimated owner's rate, amounts to Rs. 8,41,254 for the first year of the new settlement. But ultimately it will reach Rs. 8,47,269, adding the jama imposed on Government gardens and the civil station, and a sum of Rs. 21,020 which will at the end of 20 years fall due on well lands protected for various periods up to that limit. These figures, it is to be noted, include Rs. 53,189, assigned revenue, from which, as the

Protective pattahs.

grants lapse from time to time, small increments will fall in. A detail of these assignments will be found on page 240.

Incidence of land revenue.

83. The incidence of the land revenue proper and including owner's rate, respectively, in each tahsil is as follows:—

	Land revenue proper.	*Including owner's rate.*
	Rs. A. P.	Rs. A. P.
Ballabgarh	1 7 0	1 8 0
Delhi	1 9 0	1 14 0
Sonepat	1 13 0	2 3 0

Cesses.

84. The cesses imposed are the ordinary ones: they amount to Rs. 19-13-4 per cent., Rs. 20-1-4, and Rs. 20-5-4 in tahsils Sonepat, Delhi and Ballabgarh, respectively, the difference being due to four annas more having been imposed in Delhi and eight annas more in Ballabgarh than in Sonepat for the patwári's cess. No orders have yet been received as to whether cesses are to be paid on the owner's rate or not, but they are being levied at present.

Distribution of jamas.

85. The jamas were distributed mostly by the people themselves, and in the case of 556 villages out of 810 were made at one all-round rate. Mr. Maconachie thinks this to be on the whole a not inequitable mode of distribution. I am not of this opinion. As long as an assessment is paid without difficulty as being really light, and harvests being good and plentiful, it will answer well enough; but the minute reverses come, and the shoe begins to pinch, those whose lands were really below the average are very quick to show the inequality of the arrangement and to clamour for a re-adjustment. I think that in many cases the subordinate settlement officials use a certain amount of pressure to induce the people to vote for this all-round system of distribution, which saves them much trouble, and that the people give a very unintelligent consent in many cases.

Objection to system of all-round rates.

86. There is also this very forcible objection to the system, that where, as is so often the case, the village bania in time comes to hold all the best lands, either on mortgage or purchase, and only the poorest lands are left with the zamindárs, the money-lender pays much less for his lands than is right, and ten chances to one the assessment on the poorer lands breaks down. I therefore distrust and dislike these all-round rates save in exceptional cases. The most intelligent system seems to me to distribute "kismwár," or on shares where these are well recognised.

Kists.

87. The revenue is payable in four instalments, two for the spring and two for the autumn harvest, which range between half and half and four annas and twelve annas, according to the circumstances of the case. An inquiry was lately directed, under Financial Commissioner's orders, in order to ascertain if the date fixed for the first rabi instalment, *viz.*, 15th May, was felt to be too early. The answer from all districts of the division was that this was not felt to be the case.

Máfis.

88. The system on which the rabi investigations were made has been fully noticed in para. 266 *et seq.* The results are given in the abstract on page 240, from which I extract the following information :—

There are 939 such grants in all : of these

298	are lands assessable at less than			Rs.	5		
210	at between			Rs.	5	and Rs.	10
188	,,	,,	...	,,	10	... ,,	20
126	,,	,,	...	,,	20	... ,,	50
36	,,	,,	...	,,	50	... ,,	100
42	above		...	,,	100		
37	are of barren land not assessable at all.						

With reference to the remark in para. 266, that certain of these cases have been reported for orders of Government, it is to be noted that these cases have now all been finally disposed of.

Progressive jamas.

89. In the case of ten villages of Ballabgarh tahsil, progressive jamas have been allowed, and the special considerations which prevailed with the Financial Commissioner and led to this being sanctioned are fully given in para. 237. The principle admitted would seen to be that where there is a hope that the proprietors will be able to pay an enhanced demand in time, and approached by moderate stages, though unable to meet a largely enhanced demand at once, such system is justifiable and not otherwise.

Short settlement of certain canal villages.

90. In Government letter No. 767, dated 15th July 1881, to the address of the Secretary to the Financial Commissioner, special allusion was made to the case of certain canal villages which, owing to swamping and bad drainage, had been assessed at something *less* than a true dry assessment, and His Honor intimated that he considered that such villages should be liable to revision of assessment after five years in the interests of Government, and desired that the number requiring to be thus dealt with should be specially noticed

in forwarding the final settlement report for orders. Mr. Maconachie has given a list of 20 such villages, one in Delhi and 19 in Sonepat ; and in taking the proprietors' engagement, this arrangement ought to have been provided for : it, however, appears to have been overlooked. Presumably the orders had not reached before the settlement misls were completed and handed over to the district office. The matter can, however, now be remedied, and the omission supplied, as the records have not yet been sanctioned. Authority to supply the deficiency is now solicited.

Villages assessed at more than a true dry assessment.

91. The case of certain canal villages has been noticed in para. 264, in which the assessment has been made at *more* than a true dry rate. The Settlement Officer, however, has expressed the opinion that even if canal irrigation is restricted or denied to such villages, it is almost certain they would sink wells and be therefore very soon in as good a position as ever : consequently he does not make any present recommendation that under such circumstances there should necessarily be any revision of the assessment ; but contents himself with giving the names of such villages that the district officer's attention may be specially directed towards them, and leaving it to him to deal with such cases on their merits when interference seems called for. I think this course is the best to pursue, and that provided the district officer keeps a careful eye on the estates indicated, and steps forward at once with proposals of relief in case of their being really required, it is undesirable to remove the stimulus to exertion which would probably be called out by the occasion if it ever arises.

"Kohi" and "Zer Kohi" circles.

92. In Government letter No. 751, dated 9th August 1880, and which deals with the Financial Commissioner's reference forwarding the revenue rate report of the Delhi tahsil, it was remarked that with reference to the "Kohi and Zer-Kohi" circles the rates were only provisionally sanctioned, and subject to a further report regarding the lands flooded by the Delhi and Gurgaon water-works. The Lieutenant-Governor's remarks, as indicated above, were called forth by a remark in the review of the revenue rate report by the Additional Financial Commissioner, to the effect that if the water rate of Rs. 0-6-4½ per acre, levied by the Canal Department when the Gurgaon water-works were under that department,

continued to be taken, the rate recommended might be too high. Such rate, however, is only taken in one village, and is declared by the Settlement Officer to be perfectly fair.

Irrigation from *bands*.

93. The extension of a system of irrigation from *bands* is a subject that has been commended and brought to notice repeatedly. It was advocated in the report of Mr. John Lawrence, written in 1844; and, as indicated by Mr. Maconachie, it is sad to see the remains of many magnificent works of this class lying in ruins in the midst of lands only awaiting their repair to become doubly fertile. As noted in an early part of this report, the subject is one which would well repay the attention of the district committee. Something has been done, and the subject shall not be lost sight of.

Transfers.

94. The table of transfers of land between 1861 and 1874, by sale and by mortgage respectively, and divided into two periods of seven years as given in Appendices Nos. XII. and XIII., exhibits some very remarkable features. Between 1861 to 1867, it would appear that land sold at Rs. 10 per annum on the average, and, roughly speaking, at 8 years' purchase of the jama; while on mortgages Rs. 9-10 per annum was raised at approximately the same number of years' purchase of the demand on the mortgaged land. In the succeeding period of seven years, from 1868 to 1874, the land sold brought an average of Rs. 30 per annum, upwards of 23 years' purchase of the revenue demand; while on mortgages Rs. 29 per annum was borrowed, being twenty-nine times the demand on the lands thus transferred. These figures mark unmistakably the rapidly increasing value of land in the district, about 200 per cent. The whole amount of money charged on mortgages in the 14 years between 1861 and 1874 was Rs. 4,21,000, or about half a year's revenue of the whole district; and the area thus encumbered amounted to 4·19 of the cultivated area; while the area sold was 3·22 per cent. of the same. The highest percentage in each case was in tahsil Sonepat, where it reeched 8·3 on mortgages and 9·7 by sales. Except in the case of this tahsil the figures do not indicate any serious pressure of assessment, nor special agricultural calamity, though the period embraces the year 1868, which was one of famine, or at least of great scarcity and high prices.

Increase in jama.

95. The apparent increase in the jama of this tahsil, as lately settled, is 2·85 per cent. including owner's rate,

and is fully justified by the fact that cultivation has increased in this tahsil by 11·7 per cent. In point of fact the pressure now is less than before.

Estimate of owner's rate.

96. The Settlement Officer's estimate of owner's rate to be expected is Rs. 1,22,662, calculated at half the abiána of the last 10 years' average, but for various reasons, explained in para. 263, he thinks this estimate will not be realized at first, but that the new method of assessment will lead to much less water being taken until the zamindárs find they cannot do without it. I join with the Settlement Officer in the hope he expresses that the cases of men who renounce water at first will, when they come forward again as suppliants for it, be generously dealt with. Since the Settlement Officer's report was rendered, I have reported in my No. 1773, dated 21st July 1882, on the working of the owner's rate system in this and the Karnál district. The rapid falling off in the area irrigated from the Western Jumna canal during the first year after the introduction of the system, and which was fully expected, only lasted for one year. The zamindárs quickly apprehended that they could not do without taking the water, and I have no doubt that there will be little or no appreciable diminution in the canal revenue in the course of a year or two; and that Mr. Maconachie's estimate of the owner's rate will be speedily realized to the full. The more valuable crops, especially sugar-cane, which is daily becoming a more popular crop, and to which the introduction of the improved sugar mills from Bihia has lent an important stimulus, cannot be grown without water, and the area under this crop shows a tendency to increase year by year. Under these circumstances, but little can be expected, in the direction of curing swampage and over-irrigation, from the zamindárs themselves. The best cure for the former will be found in the drainage project in conjunction with the re-alignment of the new branch. For the latter, I know of no remedy but the development of scientific agricultural knowledge—as yet, I fear, far off.

Working of the system already reported.

Figures for past three years prove what has been advanced.

97. The subjoined figures, giving the demand for owner's rate for the three years since settlement, illustrate forcibly what I have stated above, and show how quickly matters are recovering themselves, and that the demand for water will rapidly attain its normal dimensions:—

	Rs.	Total Rs.
Kharif 1879	44,250	57,408
Rabi 1880	13,158	
Kharif 1880	38,053	45,840
Rabi 1881	7,787	
Kharif 1881	51,991	74,153
Rabi 1882	22,162	

The system of charging separately for canal revenue and owner's rate was only introduced for the first time during the kharif 1879 and was not fully understood until 1880, when the effect is very marked.

The rabi harvest will be the one likely to be longest affected by the change in system, as, if favorable rain falls, the crops are to a greater extent independent of the canal than the sugar-cane and rice crops which demand it or fail.

Ratio of owner's to occupier's rate.

It was decided after much discussion that the owner's rate should be taken at a fixed ratio of the occupier's rate, and not at rates differing to suit the varying circumstances of different villages; and half the occupier's rate having been already fixed as a suitable ratio in the case of the Pánipat and Karnál tahsils, the same proportion was fixed on for this district, for it was found, as lately noted in the review of the Rohtak report by His Honor the Lieutenant-Governor, that one-half was the nearest simple fraction of the occupier's rate, which would represent the difference between the wet and dry assessment of canal villages.

Area on which assignees receive owner's rate.

Under the rules sanctioned by Government, the assignees of 3,257 acres will receive the owner's rate, their lands having been irrigated before the regular settlement, and they having heretofore enjoyed the full irrigated rate.

Zaildárs.

98. Forty-four zaildárs were appointed with an average inám of Rs. 193 each, which is deducted from the jama; and with reference to Government letter No. 751, of the 9th August 1880, I may remark that these allowances are *bonâ fide* reductions from the jama assessed independently of the cess, and that the amount was not, as in Rohtak, first added to the jama and then allowed as a drawback.

In selecting the zaildárs, due regard was had to the instructions of Government to connect these representative men with the tribes, clans, and other local ties, so far as was consistent with a proper distribution of circles.

The appointments made were, I think, on the whole, judicious and the men are useful; though here, as in most other matters of district administration, it rests with the

Deputy Commissioner to bring out the good qualities and fully develop the use of these persons : they should not be allowed to deteriorate into the mere hacks of the deputy inspector of the nearest thána, though their services in the suppression and detection of crime should, of course, be freely used.

Ala lambardárs.

99. Ala lambardárs were appointed in all villages in which there were three headmen andare paid,like the zaildárs, by a deduction of one per cent. from the jama. Paras. 307 and 308, and the statement at page 269, give full information regarding these appointments.

Patwaris.

100. The Settlement Officer has explained fully the system on which the patwáris were appointed and how they are paid. The scheme appears a careful one : it was worked out and fully reported on in a separate reference, and has been duly sanctioned. There are 224 patwáris with graded rates of pay ranging from Rs. 10 to Rs. 14.

Girdawárs.

101. On an average all through the district each patwári is responsible for 2,318 acres, comprising something less than 5,000 fields, and has to do with the collection of Rs. 3,754 of revenue. These figures point to compact circles, which should be well within the capacity of every patwári to inspect thoroughly every year, the record being maintained with regularity and precision. To ensure this important work being thoroughly done, eight girdawárs, on a salary of Rs. 20 each per mensem paid from savings from the patwári's cess, have been appointed in addition to the existing staff of one kanungo and one assistant in each tahsil. With a fairly efficient staff of patwárís to start with, the Deputy Commissioner will have little excuse if he fails to keep himself thoroughly posted in the condition of every village in the district and preserve an accurate record of changes. The degree of perfection to be looked for on the part of the patwáris has certainly not been attained up to the present, for last year's girdawári was very indifferent ; but the census work no doubt seriously disorganised the whole agency.

Government villages.

102. The question of how best to deal with the Government property in the district is before the Financial Commissioner. Complete registers exhibiting the extent of the Government interests in all villages in which there are co-proprietors with Government, and all the necessary information in the case of whole villages the property of

Government, were submitted with my No. 243, dated 7th February 1881, together with proposals for dealing with each estate. I advocate their being disposed of as soon as possible, or, if retained, that a competent official be specially appointed to look after them. The subject is dealt with in paras. 313 to 318 in the report, including what is known as "taiúl," or what was formerly the private property of the King.

Subjects requiring orders.

103. In the Settlement Officer's covering letter submitting the report, mention is made of ten several subjects on which the special orders of Government are required. These subjects have since mostly been disposed of: final orders have been passed in the case of Nos. 1, 2, 4, 5, 6 and 7. They are still required in the case of No. 3 (Treatment of Government property), No. 8 (Levy of cesses on owner's rate), No. 9 (Provision for revising the assessment of certain canal villages quinquennially), No. 10 (Credit of revenue of chak jhil to the Canal Department).

Believes the settlement will work well.

104. I believe the settlement will work well, subject to the one or two cautionary remarks offered in the Settlement Officer's report and in this review. I have every confidence in thinking the assessment will be paid without difficulty, and recommend its sanction for a period of 30 years from the rabi harvest of 1880 A.D., except in the case of the 20 villages of which the demand is subject to revision after five years.

Notice of officers.

Mr. Maconachie.

105. I have already commended the report as an excellent one, and Mr. Maconachie deserves all credit for the energy, diligence, and skill which he brought to bear on the work of settlement at a time when it was much in arrears, and there were a good many difficulties to be encountered owing to the state of laxity and slackness of the subordinate staff, begotten in part, no doubt, by the protraction of the operations which had been permitted under Mr. Wood. Mr. Maconachie brought the work to a conclusion with commendable promptitude within two years from his appointment, and has earned the thanks of the Government as well as the confidence and liking of the people.

Mr. Wood.

106. Mr. Wood, as I have already stated, had more entrusted to him at the outset than he could be expected thoroughly to fulfil. He was a painstaking and conscientious officer, popular with the people, and with considerable

experience in settlement work. His village inspections were patient and thorough; but he lacked the faculty of controlling his subordinates, and did not get as much work out of them as was to be expected. He was perhaps past the time of life when energy can be looked for to the same degree as in a younger man; but he has done much faithful work for which he deserves credit.

Rai Ajudhia Parshád.

107. The work of Rai Ajudhia Parshád has earned the praises of the Settlement Officer, as has also that of Fakir Burhán-ud-din; and I concur in the praise he bestows on each, as both are well known to me.

Chandan Lál and Aziz-ud-din, Superintendents.

108. Chandan Lál and Aziz-ud-din are also well spoken of by the Settlement Officer, but I have little personal knowledge of these officers.

Apology for length of review.

109. In conclusion, I must apologise for the undue length of this review, which, however, I have not seen my way to condensing further.

Village note-books.

110. The village note-books are in the same form as those of Karnál and Gurgaon, which have, on more than one occasion, been before the Financial Commissioner, and as they are very bulky and are constantly required for reference, I do not now resubmit them, but they can be sent at a day's notice if required.

I have, &c.,

G. GORDON YOUNG,

Commissioner and Superintendent.

Proceedings of the Hon'ble the Lieutenant-Governor of the Punjab in the Revenue Department, No. 126, dated 23rd June 1885.

READ—

The Final Report of the revised settlement of the land revenue of the Delhi District, compiled by Mr. R. Maconachie and submitted to Government under cover of the letter of the Senior Secretary to the Financial Commissioner of the Punjab, No. 1157, dated 10th October 1884.

REMARKS.—The Delhi District is bounded on the south by Gurgaon, on the west by Rohtak, on the north by Karnál, and on the east by the Jumna river. It contains an area of only 1,258 square miles, and, with the exception of Simla, is the smallest district in the Punjab. Though in point of extent of cultivation it ranks only twenty-third, in point of population it ranks twelfth, and in point of assessment of land revenue eighth; while the incidence of revenue per acre of cultivation, *viz.*, Rs. 1-13-6, places the district in the very first class in the Punjab. Its position as regards population is due to the presence of the City of Delhi, which contains 173,000 inhabitants, and its prosperity, as indicated by its cultivated area and assessments, is owing largely to the natural advantages of its situation for trade, and to a large area irrigated from wells and from the Western Jumna Canal. The average rainfall is 23 inches, and the area protected by irrigation amounts to 37 per cent. of the whole area cultivated. Half of the Delhi District is therefore fairly secure in the sense of the Resolution of the Government of India in the Revenue Department, No. 58 R. of 12th October 1882.

2. The district is less than 20 miles broad in most parts, and, as in the case of nearly all riverain tracts in North India, is divided roughly into two portions—the low Khádir lands lying near the river, and the higher Bángar lands now removed from the influence of the floods of the Jumna. The district is further divided into two halves by the hills rising in the neighbourhood of the City of Delhi, and by the low-lying Dábar lands situated to the west of the hills round the Najafgarh Jhíl. Much of the upper Bángar is intersected by old drainage lines leading to the Khádir, the stoppage of which by the Western Jumna Canal has been attended by disastrous results in some cases. The hill tracts are full

of ravines and channels from which water was formerly obtained for irrigation purposes by the construction of weirs and embankments. An account of these works is given in paragraphs 67—69 of the present Report. Some of them have been recently restored by the Deputy Commissioner under the directions of Mr. Maconachie, and a memo. by that officer on the whole subject has been lately published and circulated for guidance in other districts of the Province (*vide* letter to Senior Secretary to Financial Commissioner, No. 171 of 3rd June 1885). For administrative purposes the district is divided into the three tahsíls of Sonepat, Delhi and Ballabgarh.

3. The soil of the district consists for the most part of a good loam called rausli, with a small admixture of stiffer and lighter soils in parts. The area under cultivation is 519,000 acres. The principal crops are jowár, wheat, wheat and other crops mixed, bájra, barley, gram, sugarcane and cotton. The number of wells used for irrigation, including unlined wells, is 8,841, of which more than half are situated in Sonepat, and nearly half in the Khádir tract of that tahsíl. The real spring level is about 70 feet below the surface in the Bángar, but the depth to the water in the Khádir is not usually more than 20 feet. The area irrigated by wells is 77,000 acres, and by canals nearly 79,000 acres. The latter area, however, has been subject to considerable fluctuations according to the character of the season since the system of assessing all lands at dry rates, and of imposing an owners' rate over and above the dry assessment on lands actually irrigated by canals, was introduced at the recent settlement, as may be seen from the following figures :—

Year.	*Area irrigated by canals.*
1877-78	96,552 acres.
1878-79	92,700 „
1879-80	51,783 „
1880-81	62,206 „
1881-82	50,902 „
1882-83	65,073 „
1883-84	96,685 „

Of the area irrigated by the Najafgarh Jhíl an interesting account is given by the Settlement Officer in paragraphs 70-71, 223 and 244 of his Report. Four per cent. of the total area under cultivation is protected by irrigation from the

jhíl or from bands. The Lieutenant-Governor is glad to observe that protective leases have been granted to 98 wells, involving a deferred payment of revenue to the extent of Rs. 902 per annum. Since the conclusion of the settlement considerable sums have been advanced for agricultural improvements in the Delhi District, and the subject will doubtless continue to occupy the attention of the Deputy Commissioner. Situated as it is on the eastern verge of the tract skirting the north of the Rájputána desert, which is periodically subject to drought and famine, the area protected by irrigation is a very important factor in the agricultural prosperity and revenue administration of the Delhi District. This may be seen from the circumstance that the district has suffered five times from severe drought or actual famine since 1860, and though, as above stated, nearly one-half of the area may be considered secure, the other half will always call for careful and considerate treatment in seasons of prolonged or severe drought.

4. The agricultural population of Delhi consists chiefly of Játs, who own nearly half the area of the district, Gújars, Brahmins, Ahírs and Tagas,—an area of 98,000 acres only being held by all classes of Mussalmáns. The Játs and Ahírs rank among the best cultivators in the whole of India. The Brahmins are perhaps better husbandmen than is usually the case with this tribe; but the Gújars are indifferent cultivators, and bear a very indifferent reputation. In the Delhi District, as elsewhere throughout the old Delhi territory, the number of village menials is very large. The Chamárs are more powerful in number than any other tribe or class in the district except the Játs. The incidence of population per square mile of cultivation, excluding the population of the city of Delhi, is 561. The people are distributed for the most part into large and very strong village communities; the tenures of the country are in consequence principally of a communal nature, and the revenue is paid in most instances by an all-round village rate, by which differences of soil and cultivation are ignored. The size and strength of the village communities, many of which were founded centuries ago, forms the most striking feature in the constitution of native society throughout the Delhi territory. They were described as follows by the late Lord Lawrence when Collector and Settlement Officer of Delhi, and though the inevitable tendency to individualism and separation which accompanies

the march of progress in India has not been without its effect on these communities, the description is for most purposes and intents as true now as it was in 1844 :—

"Bound together by the ties of blood, connection, and, above all, common interest, like the bundle of sticks, they are difficult to break. Droughts may wither their crops, famine and disease may depopulate their houses, their fields may be deserted for a time, but when the storm blows over, if any survive, they are certain to return. If an accident happen to any individual, he is assisted and befriended by his *bhybunds*, but above all the grand advantage, in my mind, of this tenure over the zemindári is that the entire profits are their own, and not that of a stranger. In the hands of the biswadár the rent becomes capital, which directly or indirectly goes to improve his property, or is available on future occasions; while that of the zemindári is too often a mere revenue serving to support a position in the adjoining town to keep up idle servants, horses, elephants and *sawári*."

The area comprised in communal and other estates of the district is not recorded by the Settlement Officer, and the statement of tenures annexed to the Revenue Administration Report of the Punjab for 1883-84 follows a different classification to that shown by Mr. Maconachie. According to this statement 732,000 acres are included in pattidári and bhyachára estates of an imperfect type, and 52,000 acres in the 96 zemíndári estates of the district. The large number of estates of the last class is accounted for by Lord Lawrence in the report above mentioned by the circumstance that "in former times from vicinity to the imperial seat of Government parties were able to oust the ancient inhabitants and appropriate their lands, partly from the extensive system of farming that has prevailed, and also from individuals occupying and settling lands which had from various circumstances been deserted." In six villages of the district there are superior as well as inferior proprietors. Details of these are given by the Settlement Officer at pages 73-74 of the Report.

5. Of the total area under crops 65 per cent. is cultivated by the owners and 35 per cent. by tenants. The area held by tenants with a right of occupancy is 57,000 acres. On the greater part of this area no real rent is paid, but only the Government revenue and cesses. More than half the area cultivated by tenants is held on these terms, one quarter being subject to lump cash rents, called *chakauta*, and less than one-sixth to rent in the shape of payment of a pro-

prietary fee over and above the revenue assessed upon the land. A change, however, is slowly taking place in this respect, and the payment of rent in some form or another will doubtless become common during the next thirty years. Rents in kind are realized on 13,000 acres only, the usual rate being one-third of the produce. The reason why the relation existing between landlords and tenants points to an unexpected backwardness in general development is that the tenants belong largely to the same classes as the owners of the soil, and are often related to them by marriage or have acquired the possession of their lands under special circumstances. All these causes of exemption are, however, likely to disappear as the land becomes more sub-divided and the pressure of population upon it more intense. The average holding of each tenant is less than $3\frac{1}{2}$ acres; the average area owned by each landlord is not stated by the Settlement Officer.

6. The annals of the past fiscal administration of the district are given by Mr. Maconachie in Chapter IX of his Report. In common with that of the adjoining districts, the early revenue history of Delhi is one of short and severe settlements, frequent breakdowns, and constant recourse to farming. It is stated by Mr. Maconachie that practically three summary settlements took place in the two northern tahsíls between 1817 and 1842-44, when the regular settlement was made. The Ballabgarh villages were for the most part settled after 1857, when the estate of the Rája was confiscated for treason. The Settlement Officer has recorded his opinion that the regular settlement was fair in the Khádir of the Sonepat tahsíl, but has proved hard in the Bángar owing to the abuse of canal irrigation; that in the Delhi tahsíl the assessment was moderate; and that in the Ballabgarh tahsíl it was light. A reduction of Rs. 23,000 was made between 1844 and 1873 in the Sonepat Bángar in consequence of the development of saline efflorescence (*shor*), but elsewhere the alterations of the revenue-roll have been unimportant. The Settlement Officer has not noticed the suspensions of revenue granted to the district as a whole during the currency of the regular settlement.

7. The general advance made by the district since 1842 may be summed up as follows:—Communications have been improved to an extraordinary extent by the extension of

railway communication which has directly connected the great market of Delhi with all the principal markets of India. In consequence prices have risen to a degree which it is not easy to estimate exactly, but which may be safely put down at from 25—35 per cent., and the danger to the district from drought or famine has been greatly minimised. The area under cultivation has increased from 475,500 acres to 519,500 acres, or by 9·23 per cent., and though a falling-off is shown under the area irrigated, this is probably more apparent than real. Population and cattle have also increased considerably in numbers; exact figures of the advance cannot be given owing to the circumstance that so many changes have occurred in the constitution of the district since the regular settlement was made and the earliest censuses were taken. Between 1868 and 1881 the population of the whole district increased by 3·50 per cent. The people are on the whole comfortable and free from debt, and the area sold and mortgaged has not been large. According to the statement prepared by the Settlement Officer, the area sold between 1861 and 1873 amounted to 3·22 per cent. of the total area under cultivation, and the area mortgaged to 4·19 per cent. During the same period sale and mortgage prices rose by nearly 200 per cent.—a fact which of itself attests the progress made by the district and the moderate standard of the revenue demand. On the other hand, it must be remembered that much of the new cultivation has taken place in poor soils; that some of the old cultivation has deteriorated from over-cropping, or still more from over-watering; that in some parts the population is almost too heavy for the land to support; and that the margin left for extension of cultivation is much smaller than before. This area is shown indeed as 136,069 acres, or 21 per cent. of the whole, but it consists largely of reserved village grazing lands which it is most important for the people to retain. Finally, it must be borne in mind that at the present settlement the standard of assessment has been reduced from two-thirds to one-half of the net profits derived from cultivation.

8. The revised settlement was made in accordance with the instructions by which all recent settlements in the Punjab have been regulated: these are quoted by the Settlement Officer at paragraph 191 of his Report. In the chapter treating of the new assessment, Chapter XI, Mr. Maconachie has dealt with his subject for the most part by

tahsíls and by assessment circles framed within the tahsíls, and it is, therefore, somewhat difficult to obtain a broad view of the effect of his assessment upon the principal physical tracts or upon the district as a whole. The Khádir and Bángar tracts above noticed are persistent throughout the three tahsíls, and constitute the whole of the Sonepat tahsíl. To these assessment circles have been added in the Ballabgarh and Delhi tahsíls (1) a circle including the low-lying lands irrigated by the Sáhibi floods and natural drainage lines from the hills, and known as dahri or dabar; (2) two circles named Kohi, Zer-Kohi, which include the hill tract lying to the south-east of the City of Delhi; and (3) Khandrat, which contains the estates situated among the ruins of the old sites and suburbs of the imperial city and from their position possessing unusual market facilities. As will have been gathered from the brief account of the tenancies of the district given above, no sufficient data of rental were forthcoming to enable the Settlement Officer to found his assessment upon the profits received by landlords from their tenants. Produce estimates were therefore framed, as is usual in the Punjab, to form the basis of the proposed assessment. Unfortunately these were not prepared with sufficient care in the first instance, and they were ultimately used by the Settlement Officers only for the purpose of checking the results of the method of assessment adopted by them. This was practically to assume that the revenue rates fixed at last settlement, and which had since worked satisfactorily on the whole, were generally fair, and to apply them to the increase in cultivation and irrigation in each estate, the results being corrected in accordance with the local knowledge of the Settlement Officers and the past history of the estate. The actual rates for assessment were then modified slightly with reference to the results as above ascertained and by comparison with those adopted in the adjoining districts of Gurgaon, Rohtak and Karnál, then under settlement, the rise in prices being practically set off against the lowering of the standard of assessment. The want of a produce estimate based upon reliable data is to be regretted, as in its absence it is difficult to apply any independent test to the work of the Settlement Officers; but apart from this, the plan followed in Delhi is to all purposes and intents that which has been adopted in most of the revised settlements of the Punjab, and corresponds in the main with the system put forward by the Government of India in the Resolution of the Home Depart-

ment, No. 540 R. of 15th May 1883. Fortunately the present Financial Commissioner of the Punjab, Colonel Davies, was as Commissioner of the Delhi Division able to apply from his own local knowledge a full test of the assessment proposed by the Settlement Officers; and the Lieutenant-Governor has therefore no doubt that it is generally appropriate, especially as it corresponds pretty closely in its pitch with the assessment framed in the adjoining districts.

9. The revenue rates were carefully examined by Colonel Davies and the Financial Commissioner at the time when the assessment reports were submitted, and were generally approved by Sir Robert Egerton. Under these circumstances, and in view of the facts above stated, Sir Charles Aitchison does not propose to examine them at length on the present occasion. The reasons for adoption of each class of rates will be found in full in the Reviews of the Assessment Reports printed in the Proceedings of this Government which are noted in the margin, and are briefly summarised by Mr. Maconachie in his present Report. The following comparison of the rates adopted in tahsíl Sonepat at the regular settlement and on the present occasion may prove interesting for the remaining two tahsíls; information regarding the revenue rates of the regular settlement is not forthcoming :—

No. 10A., Revenue, of March 1878.
No. 6A., Revenue, of August 1880.
No. 12A., Revenue, of July 1881.

Name of Circle and Soil.	Former Rate.		Present Rate.	
Bangár.	Rs.	A.	Rs.	A.
Canal	3	2	2	15
Well	2	12		
Dakar and rausli ...	1	10	1	8
Bhur	1	0	0	12
Khádir.				
Irrigated	2	6	2	12
Dakar and rausli ...	1	6	1	6
Bhur	0	12	0	12

From this table it would appear that the proper revenue rates for the northern tahsíl of the Delhi District at least may now be considered as fairly settled, and that such alterations as may be called for hereafter will depend practically on the rise in prices. The annexed statement shows that the standard

of assessment adopted in the Delhi District is not lower than that fixed in the adjoining parts of the Province :—

Assessment Circle and Soil.	Tahsíl Ballabgarh.	Gurgaon District.		Tahsíl Delhi.	Rohtak District.	Tahsíl Sonepat.	Karnal District.
		Tahsíl Palwal.	Tahsíl Gurgaon.		Tahsíl Sámpla.		Tahsíl Pánipat.
	Rate per acre.	Rate per acre.	Rate per acre.	Rate per acre.	Rate per acre.	Rate per acre.	Rate per acre.
Khádir.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
Well ...	2 12	2 8	...	3 4	...	2 12	2 14
Dakar ...	1 6	1 6	...	1 8	...	1 6	1 8
Rausli ...	1 6	1 6	...	1 8	...	1 6	1 8
Bhur ...	0 14	...	...	0 14	...	0 12	0 8
Bángar.							
Canal ...	3 4	2 12	...	3 0	2 12	2 15	2 12
Dakar ...	1 8	1 6	...	1 8	1 4	1 8	1 6
Rausli ...	1 8	1 6	...	1 8	1 3	1 8	1 6
Bhur ...	0 14	0 14	...	0 12	0 12	0 12	0 12
Dahri.							
Well ...	3 0	2 12	3 0	3 0	2 12	...	...
Dahri ...	2 8	2 4	2 8	2 8	2 0	...	...
Dakar ...	1 10	1 5	1 8	1 6	1 6	...	...
Rausli ...	1 10	1 1	1 4	1 6	1 4	...	...
Bhur ...	1 0	0 13	0 10	0 12	0 12	...	...

10. The net result of the revision of settlement as compared with the average revenue demand of the five years preceding the commencement of the recent operations is in each tahsíl as follows :—

Tahsil.	Former average demand.	New Assessment.		
		Fixed revenue.	Owners' rate.	Total.
Ballabgarh ...	202,312	229,889	...	229,889
Delhi ...	318,546	279,113	48,158	327,271
Sonepat ...	401,308	338,267	74,504	412,771
Total ...	922,166	847,269	122,662	969,931

Progressive assessments were sanctioned in the case of ten villages only. Including the sum leviable as owners' rate, to which reference will be made further on, the demand on account of land revenue in the Delhi District has been raised from 922,166 to 969,931, or by 5·19 per cent. according to the report of the Settlement Officer. As a fact, however, the average sum collected on account of owners' rate during the past four years has been only Rs. 83,000, so that the actual increase of revenue due to the recent settlement has so far been only Rs. 8,000 per annum. In view of the facts stated in paragraph 7 above, this increase can hardly be considered other than moderate, though, having regard to the liability of the unprotected parts to drought, and to the high place which the district holds in point of incidence of land revenue among those in the Punjab, the Lieutenant-Governor is not disposed to consider that a much larger increase could have been safely taken. The decrease in income from the owners' rate is not altogether to be regretted, as it is notorious that under the old system the people were often tempted to ruin their lands by over-irrigation. Since the introduction of the new assessments the district has passed through several years of unfavourable seasons, and one (1883-84) of almost actual drought. In consequence it has been found necessary to grant suspensions of the land revenue, and the total sum of which the collection has been deferred from time to time has been Rs. 54,000. Of this sum Rs. 549 have been remitted, and Rs. 16,600 are still outstanding. The suspensions have been made, and the sums still due are owing almost entirely in the Delhi and Ballabgarh tahsíls. Considering the nature of the trial to which the settlement has been subjected, the Lieutenant-Governor is disposed to consider these results satisfactory as showing that the general pitch of assessment is moderate, and that the revenue has been fairly distributed. Subject, therefore, to the approval of the Government of India, His Honor is pleased to sanction the assessment for a period of 30 years from 1st April 1880, except as regards the 20 villages mentioned by the Settlement Officer in paragraph 264 of his Report, in which the dry assessment is at present below a true assessment. This sanction is accorded in the case of unirrigated estates on the same understanding as that on which the Rohtak Settlement was approved, *viz.*, that "the revenue assessed is one which is to be paid in full in ordinary years, but which Government does not expect to realise at

once during severe or long-continued droughts." If these conditions are duly observed there would appear to be no reason why the prosperity of the Delhi District should one be at least as great under the new settlement as it was under the old, and Sir Charles Aitchison sincerely trusts that this will prove to be the case.

11. At the first regular settlement of the district all lands irrigated by the Western Jumna Canal were assessed at irrigated rates without regard to their dry aspect. At the present settlement it was determined to impose an owners' rate under Sections 37—39 of Act VIII of 1873 (The Northern India Canal and Drainage Act), and to assess all lands in the first instance at unirrigated rates. In order to facilitate the collection of the owners' rate, and to restrict its realisation to lands actually irrigated each season, it was further determined to make the owners' rate a simple fraction of the occupiers' rate. It is unnecessary in the present place to follow the course of the correspondence which took place on this subject in the Delhi, Karnál and Rohtak Districts. The outcome of the discussion is summarised in the letter of the Punjab Government to the Financial Commissioner, No. 1171 of 30th October 1879; and by Notification No. 576½, dated 25th June 1880, it was declared that until further orders an owners' rate should be assessed on the lands watered by the Western Jumna Canal at one-half of the occupiers' rate leviable on such lands, provided (1) that lands irrigated by wells and assessed at irrigated rates should be exempted from payment of the owners' rate; and (2) that such rate should not exceed the sum which might be assessed on the land on account of the increase in the annual value thereof caused by canal irrigation. Well lands assessed at well rates and receiving canal water were, as far as possible, marked off on the village maps, and a book credit has been allowed to the Irrigation Department for the amount of the owners' rate which would otherwise have been due from them. The owners' rate itself has, under the orders of the Government of India contained in the Resolution of the Department of Finance and Commerce, No. 2141 of 18th August 1879, been credited in the public accounts as direct revenue of irrigation works instead of as land revenue. Considerable correspondence took place on this subject between the Local and Supreme Governments, but in the end the above

orders remained unaltered. Rules for the enjoyment of the owners' rate by jágírdárs were sanctioned by the letter of the Government of India in the Department of Revenue and Agriculture, No. 228 of 27th May 1880. Under these rules the revenue assignees of 3,257 acres receive the owners' rate levied upon the lands of which the revenue is enjoyed by them, a book credit for an equivalent sum being taken by the Irrigation Department. The question of the levy of cesses on the owners' rate proved to be one of considerable difficulty. It will be sufficient to note here that the levy of the road, school and post cess, now included in the local rate cess, has been provided for under Act XX of 1883, and that it is proposed to deal with the levy of the patwári and lambardári cess by amendment of the Canal Act, of which the revision is now under consideration.

12. Two further difficulties which arose in connection with the assessment of the owners' rate are noticed by the Settlement Officer at paragraph 264 of his Report. It was found in the case of certain estates which were badly affected by swamp and saline efflorescence that, having regard to their capabilities as a whole and to the sum which they must necessarily pay as owners' rate in order to obtain the water on which the cultivation of their soil depended, it was impossible to fix an adequate dry assessment for them. It was known, however, that the condition of such estates was likely to be improved by the drainage works which were about to be undertaken by Government, and it was foreseen that under these circumstances Government was liable to become a considerable loser by fixing their assessment for the full term of 30 years. Accordingly orders were issued that these villages should be called upon to engage for five years only, and under these orders one village in the Delhi tahsíl and nineteen in the Sonepat tahsíl, of which a list is given on page 233 of the present Report, have been allowed to engage for five years only, and their assessment is sanctioned by the Lieutenant-Governor for this limited period.

From a statement furnished by the Deputy Commissioner of Delhi it appears that the dry assessment of these 20 villages is Rs. 21,210 according to the revenue rates sanctioned by Government, and that the assessment actually fixed by the Settlement Officer is Rs. 18,928. The collec-

tions on account of owners' rate in the villages during the last six years have been as follows :—

	Rs.
1879-80	... 9,116
1880-81	... 6,611
1881-82	... 7,793
1882-83	... 9,052
1883-84	... 13,134
1884-85	... 13,478

From this it would appear that the canal irrigation of these estates has increased by one-half during the last two years ; and it may be hoped that this increase is due in the main to improvement in their condition.

The second difficulty arose with regard to estates which were probably somewhat over-assessed in their purely dry aspect. In the case of these it was decided that the fact should be carefully noted in the village note-books, and that if it should so happen that water were withdrawn hereafter, allowance should if necessary be made in the dry assessment. The Settlement Officer reports that there are only four villages, all in the Sonepat tahsíl, which fall under the above class, and it is not likely therefore that any practical difficulty will arise with regard to this question in the Delhi District.

With reference to the concluding remarks of paragraph 263 of Mr. Maconachie's Report, it may be noticed that under orders conveyed in the letter of the Punjab Government to the Financial Commissioner, No. 1028 of 23rd October 1880, the sudden withdrawal of water from estates which have long enjoyed irrigation is prohibited, except with the previous sanction of the Local Government to be obtained through the Financial Commissioner. The extent to which the area of canal irrigation has fluctuated during the past four years at the will of the irrigators may be judged from the figures stated above in paragraphs 3 and 10.

13. Five villages lying on the borders of the Najafgarh Jhíl, and of which the lands are apt to suffer from excessive floods, have as regards such lands been placed under a

simple system of fluctuating assessment at the present settlement. The rates levied are—

Rs. 6 per acre on each crop of sugarcane which comes to maturity;

„ 1-8 per acre for melons and spring jowár;

„ 3 per acre for other crops.

This system has so far worked satisfactorily in the Delhi and Gurgaon Districts, and the Lieutenant-Governor is now pleased to accord his formal sanction to it. The revenue derived from the lands placed under a fluctuating assessment should, following the orders already issued in the Gurgaon case, be credited to the Irrigation Department. An occupiers' rate of 6 annas $4\frac{4}{5}$ pie per acre is levied from one village in the Dahri chak of the Delhi tahsíl, as explained by the Settlement Officer in paragraph 249 of his Report.

14. The distribution of the new revenue over the various estates, and over the holdings inside estates, appears to have been carefully carried out. As already noticed, the great majority of estates preferred an all-round rate for the distribution of their assessment, and the Lieutenant-Governor agrees with Colonel McMahon in considering that in the case of strong village communities there is no objection to this system if the people dêsire it. Most of the villages have elected to pay their revenue by equal instalments at the autumn and spring harvests, a certain number, situated chiefly in the Khádir and Dahri tracts, preferring to pay $\frac{6}{16}$ in the autumn and $\frac{10}{16}$ in the spring. The dates fixed for the instalments of revenue are 15th May, 15th June, 15th November, and 15th December. These are considered suitable; but if at any time the local officers may see reason to do so, they are at liberty to represent the matter for further consideration. The cesses imposed at the late settlement were as follows:—School and road 1 per cent. each, post $\frac{1}{2}$ per cent., local rate 3-5-4 per cent. (these have now been amalgamated in the single cess of the local rate which, under Notification No. 2690 of 28th November 1883, has been fixed for the Delhi District at 5-6-8 per cent. on the annual value, or 10-13-4 per cent. on the land revenue), village headmen 5 per cent., and village accountants at $4\frac{1}{4}$ per cent. in tahsíls Delhi and Sonepat, and $4\frac{1}{2}$ per cent. in tahsíl Ballabgarh. All these cesses are hereby duly sanctioned by the Lieutenant-Governor. The remu-

neration of zaildárs and ála lambardárs forms a charge against the Government revenue. Sir Charles Aitchison trusts that the local officers will take full advantage of the creation of this agency in the revenue and criminal administration of the district. The apprehensions with which the appointment of zaildárs was at one time regarded fortunately proved to be as unfounded in Delhi as in the other districts of the Province.

15. The special attention of the Deputy Commissioner is invited to the weak points in various estates of the Ballabgarh tahsíl noted by the Settlement Officer in paragraph 239 of his Report. Similar notes have doubtless been made in the village note-books regarding the other tahsíls of the district. With regard to the realisation of the revenue of unirrigated lands in seasons of severe or prolonged drought, the Lieutenant-Governor deems it necessary to call attention once more to the principles laid down in the Resolution of the Supreme Government, No. 58 R. of 12th October 1882, in the Department of Revenue and Agriculture, on this subject, and to the following remarks made in reviewing the Settlement Report of the Rohtak District, which received the approval of the Government of India :—

"In such seasons suspensions will be freely given ; and it is the duty of the District Officer to bear this in mind and to submit prompt proposals for the suspension of the demand when its immediate realisation would entail hardship on people afflicted with failure of crops. The point which the Lieutenant-Governor desires to impress upon the local officers is that they should observe with vigilance the working of the assessments of the unirrigated lands in all seasons of scanty rainfall. It is meant that relief shall be afforded whenever it is required; and the responsibility for bringing material facts to notice rests with the Deputy Commissioner."

16. The late Commissioner of the Delhi Division, Lieutenant-Colonel G. G. Young, has stated his opinion that the records prepared at the late settlement were good and reliable, and the Lieutenant-Governor is glad to accept this testimony to their character. The village measurements showed a variation of only 1·6 per cent. from those of the revenue survey, and this result must be held to be satisfactory. The attestation and fairing of the record of rights is considered by the Commissioner to have been good generally ; and, taking all these facts into account, the Lieutenant-Governor is

pleased to sanction the record of rights as a whole. His Honor observes that the Commissioner has stated that the village note-books have been well prepared and are full of useful and valuable information, and he trusts that no pains will be spared by the District Officer to complete and keep them up to date. The value of these records when properly maintained is very great, and all District Officers will in future be held strictly responsible for their proper maintenance. The Lieutenant-Governor will not discuss in this place the desirability or otherwise of the temporary preservation of certain rough settlement papers to which the Officiating Financial Commissioner has alluded in paragraph 13 of his review.

17. Settlement operations lasted from 1872 to 1880, or for eight years. Mr. O. Wood held charge of the work from the commencement till the end of 1877, and Mr. Maconachie from that date till completion. The period occupied was unusually long, and the cost of the settlement has therefore been abnormally great. The share of total expenditure falling upon Government was Rs. 4,81,000, which will be recovered from the enhanced revenue of the district in a little more than ten years if the estimate of receipts from the owners' rate framed by the Settlement Officer is realised hereafter. At the rate of the actual annual increase, hitherto as shown in paragraph 10, the cost will not be recovered for 60 years. The responsibility for the slow work and excessive cost rests principally with Mr. Wood, who has now retired from the service. After Mr. Maconachie assumed charge operations were pushed on with great vigour, and that officer is entitled to much credit for the manner in which he completed the settlement. The expenditure entailed upon Government in the present instance has been very serious, and the inconvenience caused to the people by the protraction of operations cannot have been inconsiderable. The Lieutenant-Governor therefore trusts that no pains will be spared to keep the new settlement record up to date and to obviate the necessity of any elaborate and formal revision of it in future. With a view to strengthening the subordinate revenue agency of the district, eight girdáwars were appointed by the Settlement Officer, and will now be constituted field kanúngos under the scheme which has recently received the sanction of the Secretary of State. The patwári cess is paid into the Government Treasury, and the pay of the

patwárís, who are graded according to their capabilities, is disbursed regularly therefrom, as in the case of most districts recently settled in the Punjab. The charge of each patwári appears to have been carefully fixed, and it may be hoped that they will be found thoroughly efficient in future in maintaining the record of rights up to date.

18. The Lieutenant-Governor has read with interest the account of the village wood preserves in paragraph 38 of the Report, and he trusts that all possible encouragement will be given to the people to protect these areas. It is also interesting to note that the great success of the Bihia sugar-mill has had a decided effect in re-extending the contracted area of canal irrigation. His Honor agrees with the Officiating Financial Commissioner in the opinion expressed in paragraph 24 of his review regarding the assessment of newly-formed alluvial lands. Instructions to this effect have recently been approved in the case of the rules for the assessment of such lands on the Sutlej in the Hoshiárpur and Jullundur Districts.

19. Enquiry will be made of the Irrigation Department whether it is not possible to allow country traffic to make use of one of the roads on the banks of the Western Jumna Canal on the understanding that the cost of repairs is accepted by the District Committee. The Deputy Commissioner should be requested to report further regarding the want of bridges and ferries on the Agra Canal, to which the Settlement Officer refers in paragraph 222.

20. The orders issued by the Financial Commissioner with regard to the treatment of nazúl lands (*vide* paragraph 22 of the review by the Officiating Financial Commissioner) are in accordance with the instructions laid down by the Government of India in the Resolution of the Department of Finance and Commerce, No. 2128 of 31st December 1879. The questions connected with the treatment of the taiúl property of Government and the lands owned by the State in the Ballabgarh tahsíl are under separate consideration, and will receive separate orders where these have not already issued.

21. The Lieutenant-Governor concurs with the Financial Commissioner and Commissioner of the Division in the praise which they have bestowed upon Mr. Maconachie's work as