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REPORT

ON THE

REVENUE ADMINISTRATION

OF THE

PUNJAB AND ITS DEPENDENCIES

FOR 1880-81.



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Published by Authority.

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LAHORE :

CENTRAL JAIL PRESS.

1881.

READ—

The Financial Commissioner's Annual Report of the Revenue Administration of the Punjab for the year ending 31st March 1881, submitted by the Secretary to the Financial Commissioner under his No. 1165 of 12th November.

REMARKS.—The report, which bears the date of the 11th of October, was received by Government on the 14th of November, the day before that fixed for its submission. The Lieutenant-Governor is glad to be able to notice its prompt despatch this year, and His Honor trusts that this will be maintained in the future.

2. The rainfall of the Province during 1880-81, though still falling far short of the average of late years, was nearly one inch heavier than in 1879-80. The winter rains of the previous year were unfortunately very poor, and the districts of the Peshawar, Rawalpindi and Derajat Divisions, which depend largely upon these, suffered in consequence; but in the other parts of the Province the spring crop of the year under review was a good one. The rainfall in June and July was very favourable, but the later rains in August and September were scanty, and the outturn of the autumn harvest proved ultimately much less than what was at one time hoped for, while a large area reserved for the ensuing spring crop remained unsown. The area recorded as under spring crops shows an increase of 80,000 acres as compared with 1879-80, and that under autumn crops an increase of 500,000 acres. Taken as a whole the year was a favourable one, as prices remained high and the seasons were healthy throughout the Province, which was not subjected to any special calamity.

3. The revenue of the year once more showed a steady advance, amounting, in the case of land revenue, to Rs. 1,65,702; of the local cess to Rs. 30,104; of excise to Rs. 1,01,707; and of stamps to Rs. 2,39,740. In the income from salt there was a falling-off of five lakhs of rupees, or about half the diminution shown last year; four-fifths of the decrease took place in the Delhi Division. The disturbing influences of the Afghan campaigns having now ceased, the proposals to raise the duty on Kohat salt have again been under consideration since the close of the year.

4. The fixed land revenue of the Province shows a further decrease of Rs. 1,65,756 as compared with the results of 1879-80. This is due, as in the previous year, to transfers made from the fixed to the fluctuating rent-roll caused by recent settlement operations, which were fully noticed in the review of the report for last year. The transfers this year have occurred chiefly in the Delhi, Mooltan and Muzaffargarh districts.

5. The collections of the fixed land revenue amounted to 99 per cent. of the demand, or 1 per cent. more than in the previous year. The suspensions and remissions of revenue were much smaller than in 1879-80, and the outstanding balances at the close of the year were only half of those shown at the end of 1878-79: this result is largely due, however, to the striking off of nominal and irrecoverable arrears. On the whole, the realisations of the current revenue have been very satisfactory, but the districts of Hoshiarpur, Bannu and Dera Ghazi Khan form an exception to the general rule.

6. Under the head of fluctuating land revenue there has been an increase of Rs. 3,14,000. One-third of this is due to the fact that the revised assessments of the Jhang and Jhelum districts could not be brought on to the regular rent-roll during the year, and the rest, as already explained, is caused by transfers from the roll of fixed revenue. Owing to the somewhat unfavourable action of the rivers since fluctuating assessments were introduced in riverain tracts, Government has been a loser rather than a gainer by the



system hitherto, especially in Bannu, Dera Ismail Khan and Mooltan. In the first two districts the action of the river Indus has been unusually capricious, though it is hoped that its worst effects have now been experienced, while in Mooltan the Sutlej and Ravi floods have been unsatisfactory. On the other hand, there has been an increase of revenue in Muzaffargarh. The subject of fluctuating assessments has been dealt with at some length by the Financial Commissioner in the present report, and the Lieutenant-Governor would wish to see this procedure maintained in future. It will be found convenient perhaps for some years to come to state in all cases the estimate of the income from the fluctuating assessment which was formed by the Settlement Officer, and the realisations in each previous year as well as in the year under review, in order that the exact loss and gain to Government from the time of its introduction may be clearly seen. This has already been done in some cases in the present report, and should be now extended to the others as well. Although the system of fluctuating assessment of land revenue in particular tracts has not hitherto been profitable to Government, this result is not to be regretted, for it is certain that under any other system much distress would have been caused by the attempt to realise a fixed assessment from villages which have suffered by river action.

7. The miscellaneous land revenue, which shows an increase of Rs. 3,400 only as compared with 1879-80, again includes the sums realised on account of fees levied on the certified copies of the entries in the settlement record of their holdings given to land-owners. With reference to this the Lieutenant-Governor would once more draw the notice of the Financial Commissioner to the remarks made in paragraph 6 of last year's review. Under existing rules, where any advances on account of these fees have been taken the whole of the proceeds are credited to Imperial revenue: it cannot be difficult to ascertain in what cases advances have been taken, and what sums remain over as net income; and unless these sums only are shown as receipts, the figures of the miscellaneous revenue will prove misleading. If the income under this head is omitted altogether, there is an increase in the miscellaneous revenue of Rs. 5,000 over the receipts of 1879-80, though the figures are still Rs. 40,000 below those of 1878-79. The falling-off has taken place principally under grazing dues, in which, however, there was a slight recovery during the year under review. The subject of the management of grazing in Government lands in the Mooltan Division is under the consideration of the Financial Commissioner, and a report is promised shortly; but the explanation called for in the reviews of two successive years on the changes in Montgomery has not yet been furnished, though it appears that the system has been changed once more during the present year. A report on the management of the Shahpur rakhs was submitted to, and approved by, the Lieutenant-Governor during the year; the Jhelum rakhs were also specially reported on in connection with the forest demarcation, and certain rules under the Punjab Laws Act for the management of the rakhs in Muzaffargarh, and which it is intended to extend to other districts hereafter, were submitted for the sanction of the Government of India. The Conservator of Forests has also been requested to furnish a brief account of the management of the grazing areas in each forest division, and this will be considered with the report which is expected from the Financial Commissioner, which the Lieutenant-Governor hopes will not now be longer delayed.

8. The number of coercive processes issued for the collection of revenue has fallen-off during the year, as have also the net income from process fees and the number of distraints of personal property; the number of persons placed in confinement was, however, somewhat larger than in 1879-80. There is still, it is evident, room for the careful supervision of the action of Tahsildars in these matters, and a proposal is now under discussion to alter the existing rules under the Land Revenue Act, so as to allow revenue to become an arrear against the individual landholders liable for payment before it becomes an arrear against the representative headman of the village.

9. In paragraph 29 of the report it is shown that the net loss to the state from the action of the Punjab rivers during the past ten years has been over Rs. 4,00,000, and that in the present year, for the first time since 1873-74, there has been a net gain to Government. The Lieutenant-Governor agrees with the Financial Commissioner that the manner in which the rules on the subject are generally carried out is capable of improvement, and that the full assessment to which Government is entitled by the improvement in the quality of new lands is seldom duly imposed. The subject is now engaging the attention of the Financial Commissioner, and the Lieutenant-Governor will be glad to learn the result of the enquiries which are being made, and to receive Mr. Lyall's proposals in connection with them. The destructive action of the sandy torrents or "chos" of the Hoshiarpur district has again necessitated a considerable reduction of revenue: the subject of the protection of the surface of the lower ranges of the hills in which the "chos" have their origin has been under the consideration of the Deputy Commissioner and Settlement Officer during the year, and His Honor hopes shortly to receive a report on the whole question.

10. The area irrigated by the Government canals during 1880-81 is returned at 1,408,068 and acres as against 1,284,656 in the previous year. The net increase is entirely due to the inclusion for the first time in the departmental statements of the area irrigated by the Muzaffargarh Inundation Canals; as, though there is a considerable increase shown in the area watered from the Bari Doab, there is again a large falling-off in the case of the Western Jumna Canal. This decrease is due, as explained in last year's review, to the operation of the system of the owners' rate recently introduced at the settlement of three of the principal districts irrigated by the Western Jumna Canal; and the Lieutenant-Governor agrees with the Financial Commissioner that the diminution in the amount of water taken will prove advantageous to the country. A loss of revenue will no doubt be caused for a few years to the Irrigation Department, but this will be quickly recovered when the distributaries of the newly aligned main canal are opened, and meanwhile the villages will enjoy an opportunity of recovering from the evil effects of many years of over-irrigation, and in some cases of swamping. Where the villages had been for a long time past excessively irrigated, it was not possible for Government to suddenly stop the supply, except at the risk of causing much injustice; but if this end can be gained indirectly, by the natural operation of the imposition of owners' rate, it will be a most satisfactory one both for the people and for Government. On the Bari Doab Canal water has from the first been distributed on a regular system which prevents any village from obtaining an unfair share of water, and the same arrangement will hold good on the Sirhind Canal when that is opened. In Muzaffargarh the working of the inundation canals during the year has been very successful, and a large area of new land has been broken up and brought under cultivation, which, in pursuance of the arrangements made at the late settlement, will become subject to assessment. The Lieutenant-Governor considers that the Executive Engineer, Mr. Sibold, and the Deputy Commissioner, Mr. O'Brien, deserve much credit for their efforts to develop canal irrigation. The Sutlej and Indus Canals, on the other hand, were affected by the unfavourable state of the floods during the summer, and the area irrigated by them has fallen-off to some extent.

11. The account given in the report of the canals under the management of District Officers has been made very full and complete, as requested in paragraph 10 of last year's review. In Ferozepore the canals have been put into thorough working order by Major Grey, and the Lieutenant-Governor has sanctioned the appointment of an Extra Assistant Commissioner to the special charge of them, in consequence of the great success which attended the introduction of a similar measure in Muzaffargarh. The area irrigated by the district canals in Shahpur was nearly double of that in 1879-80; these canals were inspected during the year by an officer of the Irrigation Department specially sent

to Shahpur for that purpose, and it is hoped that during the present cold weather it will be possible to remedy the chief engineering defects in them. Some of the private canals in Shahpur are said to have run well; the Lieutenant-Governor would wish to see noticed in future reports the area irrigated by these, which can no doubt be easily ascertained from the annual inspection papers of the patwaris. The success which has attended the efforts of the Deputy Commissioner of Dera Ismail Khan to extend and improve the irrigation from the hill streams has been very marked; and the Deputy Commissioner of Peshawar has done much to facilitate the development of canal irrigation in his district. The Lieutenant-Governor notices with approbation the work of Majors Grey and Macaulay and Messrs. Frizelle and Beckett in this direction; and His Honor will be glad to receive the report on the possibility of opening up irrigation from an old branch of the Tawi river in the Sialkot district.

12. The Financial Commissioner has remarked in paragraph 35 of the report in connection with leases of Government land granted for more than one year, that it is desirable that part of the rent should be taken in the form of an acknowledgment of the proprietary right of Government, so as to reserve the Government title in such a manner as to admit of no dispute. The Lieutenant-Governor concurs with this view, which, as far as His Honor is aware, has been generally acted on throughout the Punjab: in any districts where this has not been the case hitherto, careful observance of the rule should be enjoined for the future.

13. The sums taken by way of agricultural loans during the year amounted to Rs. 65,000 only, of which one-sixth consisted of advances for the purchase of cattle and seed. Of the whole amount taken nearly one-third was advanced in the Muzaffargarh District. Instructions were issued by the Financial Commissioner during the year, with reference to the recently sanctioned rules for advances, with the object of securing that applications for loans should be taken up and disposed of by officers while on tour in the cold weather. The Lieutenant-Governor hopes that these directions will have a good effect in inducing the people to apply more freely for advances. Under the new rules the terms of repayment and security have been made as little burdensome as it is possible to make them consistently with security to Government; the only point which appears to require alteration is the proximity of the date of the first instalment of repayment to the last payment on account of the loan, and regarding this the Government of India has already been addressed with a view to amendment.

14. The work of the patwaris during the year has been noticed in this year's report at greater length than usual. Unfortunately the demands made on the subordinate revenue establishment throughout the cold weather in connection with the census of the Province rendered it almost impossible for the patwaris to make a proper field inspection; in many districts this was not even attempted, and in consequence the crop returns of the year are less reliable than usual. The necessity of improving and strengthening the agency which supervises the patwaris, through whom all statistics relating to the material condition of the agricultural community are collected, is clearly shown among other proofs by the discrepancies found to exist between their record of transfers by sale and mortgage and that of the Registration Department. The primary and most important work therefore of the Agricultural Department, when that is created in this Province, will be to direct the supervision and control of the patwaris; and in the proposals for the creation of such a department which the Lieutenant-Governor has submitted to the Government of India since the close of the year, this point has been principally kept in view. The inefficiency of patwaris caused by want of proper direction and instruction has been severely felt in the case of several settlements recently started; and for Umballa, where they are particularly inefficient and backward, it has been found necessary to establish a special agency for their instruction in view of the approaching settlement operations.



The existing subordinate revenue establishment is strong enough to perform the work it is expected to do, and is usually of sufficiently good quality; the weak point at present is in the very scanty supervision which it is possible to bestow on it, and when this has been once amended, there is every reason to hope that its work will become both valuable and reliable.

15. A very great falling-off is shown in the areas recorded as sold and mortgaged during 1880-81, but, for the reasons explained above, full reliance cannot be placed upon the present statistics. The Lieutenant-Governor regrets that the Commissioner of the Derajat has not yet submitted the report called for on the excessively large area transferred by sale and mortgage in his Division during 1879-80, which attracted the attention of the Government of India. His Honor is disposed to agree with the Financial Commissioner that there is nothing alarming in the figures reported; but at the same time they are abnormal, and the causes at work require to be ascertained and recorded. The Lieutenant-Governor trusts, therefore, that the report called for will be submitted to Government very shortly.

16. During the year the number of tenants without a right of occupancy who were ejected in the Punjab again showed a large increase. The use made of the provisions of the Tenancy Act in this respect is especially marked in the Sirsa and Hissar districts, and a report on the subject by the Settlement Officer of Sirsa was submitted to Government after the close of the year, and has since been forwarded to the Government of India. The Lieutenant-Governor, while regretting that so large a number of evictions had taken place, was nevertheless not able to recommend any alteration in the existing law applicable to special localities. In the Sirsa district a large number of suits to evict was instituted by landlords at the time of settlement in order to maintain their property in the land unencumbered. There is no reason to suppose that rents will be unduly raised when the owners' right has been admitted. The difficulty of procuring other cultivators forbids such a result, even if the good feeling which has hitherto existed between owners and cultivators of land in that district does not prevent it. In the Karnal district it was found that difficulties existed in apportioning the payment of canal owners' rate between tenants with right of occupancy and the owners of land. The Financial Commissioner reports that tentative rules have been drawn up for the guidance of officers on the subject, and that after trial they will be submitted for sanction, and the Lieutenant-Governor will await their receipt with interest.

17. Throughout the year rinderpest continued fatally prevalent in Kulu and Kangra, and over 20,000 head of cattle are said to have perished from this disease. It also made its appearance in the northern districts of the Amritsar Division, but fortunately it has not shown any great tendency to spread there. Advice as to dealing with the cattle attacked was freely given to the villages affected, and isolation was carried out where practicable; but in the absence of special legislative powers on the subject very little is possible in this direction. The disease has been less virulent of late in Kangra, where it is gradually dying away.

18. The agricultural experiments of the year are recorded in paragraph 72 of the report. In the absence of an agricultural department capable of intelligently advising in these matters it is not possible to expect any great results from them. The experience gained of the Kaiser plough will no doubt prove useful, and it is satisfactory to observe that Behea sugar mills are becoming more popular. The experimental farm started at Hoshiarpur under the District Committee is an interesting attempt, and should it prove successful may serve as a model for similar undertakings elsewhere. The experiments made with bone manure at the Hissar farm were not of a character to allow any deductions to be safely drawn from them, as the bones were largely mixed with other substances before being used. Sericulture has made steady progress during the year in Hoshiarpur and Kangra, and seems to have been introduced with a prospect of success in Sialkot.

19. The Lieutenant-Governor cordially agrees with the Financial Commissioner in his view that a considerable portion of the income from the estates of Government wards should be spent on agricultural improvements, and His Honor considers that in the case of the estate of Umar Hyat Khan, Tiwana, in Shahpur, recommendations should at once be made either for suitable improvements to the property or for investments in land.

20. Proposals for the encouragement of arboriculture in the Punjab have been recently submitted to Government by the Settlement Commissioner through the Financial Commissioner, and permission has been given for the insertion of a clause in the village administration papers, where the people desire it, to facilitate the appropriation of common lands for tree-planting. In the Hoshiarpur district a proposal to encourage the planting of lands on the sides of the sandy torrents, by remitting one-and-a-half times the revenue of the land put under trees, has been sanctioned by the Lieutenant-Governor for the period of settlement; and it is hoped that this will induce the people to make voluntary efforts in this direction.

21. Before the close of the year operations were finally completed in all the settlements of the Province, which were commenced before 1878, except Kohat. The work in this settlement has been repeatedly delayed by unforeseen circumstances which it was impossible to guard against, but the Lieutenant-Governor hopes that steps will now be taken to secure its speedy conclusion, and the submission of the final report. As regards the other ten settlements, it would appear that the final reports of nine districts have been completed. The submission of these reports to Government should not be delayed.

22. In the more recently started settlements of Ludhiana, Hoshiarpur, Sirsa and Jullundur, good progress continued to be made, though during the cold months work was at one time brought almost to a stand-still by the operations of the census. Just before the close of the year the settlement of Rawalpindi was commenced, and sanction was obtained for the re-settlement of the small hill district of Simla. Over the operation of the Settlement Department, Major Wace, the Settlement Commissioner, continues to exercise an efficient and able control.

23. The business of the revenue courts of the Province has been disposed of with creditable promptness, and the enquiries made appear generally to stand the test of appeal well. The number of cases disposed of in the Financial Commissioner's Court was very large.

24. The Stamp Report for 1879-80 was submitted and reviewed separately this year for the first time, and this practice will, in pursuance of the recent orders of Government, be followed in future years.

25. The office of Government Advocate has been held throughout the year by Mr. Spitta, who has carefully conducted the cases in which the Government was concerned.

26. Colonel W. G. Davies, c. s. i., officiated as Financial Commissioner for three months during the summer; for the rest of the year Mr. J. B. Lyall held charge of the duties of his post. His Honor desires to record his sense of the services rendered by both these officers. In the ability and judgment evinced by Mr. Lyall in the discharge of his important duties Sir Robert Egerton reposes the greatest confidence, and his thanks are due for the report under review, which is an excellent one.

27. Mr. Lyall has been ably supported in the revenue administration of the Province by the Commissioners, Deputy Commissioners and Officers of the Settlement Department, to whom, at the close of his tenure of office, the Lieutenant-Governor tenders his cordial acknowledgments.

ORDER.—Ordered that the above Remarks be printed and circulated with the report as usual.

Also that they be published in the *Punjab Government Gazette*,

By order of the Hon'ble the Lieutenant-Governor of the Punjab.

W. M. YOUNG,

*Secretary to Government, Punjab.*



# ERRATA.

- Page 3, line 11 from top, for "patties," read "pattis."
- " 4, do. 17 " " "Kutbwale," read "Kutbwáh."
- " 4, " 4 from below, for "Macnabbwála," read "Macnabbwáh."
- " 4, table at foot for "Macnabbwála," read "Macnabbwáh."
- " 5, 3rd paragraph, line 5 from top, for "Macnabbwála," read "Macnabbwáh."
- " 5, line 15 from bottom, for "Landidal," read "Landidák."
- " 6, do. 6 do. do. "Joswan," read "Jaswan."
- " 9, " 2 from top, for "consists," read "consist."
- " 18, " 3 do. do. "report," read "reports."
- " 19, after "diminish," line 3 from bottom, for semi-colon, read full stop.
- " 19, do. do. 2 do. do. "a," read "A."
- " 22, line 2 from top, for "had," read "have."
- " 26, paragraph 65, line 25 from top, for colon, read full stop.
- " 26, do. 65, " 25 do. do. "up," read "Up."
- " 26, lines 17 and 18 from bottom, omit "1879-80 was a peculiarly bad year, and a comparison of years 1877-78 and 1878-79 scarcely bears out the remarks made."
- " 30, paragraph 71, line 3, for "Rs. 20,786," read "20,786."
- " 30, do. 71, do. 4, do. "42,10,794," read "Rs. 42,10,794."
- " 30, line 3, for "Rs. 37,239," read "37,239."
- " 30, do. 4, do. "1,25,73,780," read "Rs. 1,25,73,780."
- " 30, " 2 from bottom, for "their," read "there."

## *In Extracts from Reports.*

- Page 12, line 3 from top, for "one," read "One," and insert full stop.
- " 14, under "Coercive Processes," for "years," read "year."
- " 20, lines 2 and 3 from bottom, for "Jillalwah," read "Jalálwah."
- " 20, line 2 from bottom, for "Schakh," read "Shákh."
- " 21, do. 27 do. do. do. do. do.
- " 21, " 24 " "Jillalwah," read "Jalálwah."
- " 21, " 3 " "another," read "Another," and insert full stop.
- " 22, " 2 from top, for "dogar," read "Dogar."
- " 22, 3rd paragraph, fourth line, for "Schakh," read "Shákh."
- " 23, under "Canals," fourth do. do. "Shahpur," read "Station."
- " 27, do. do. second do. do. "Dhundun," read "Dhundar."
- " 31, just above Muzaffargarh district, for "Nanámad," read "Nauámad."
- " 32, under "Canals," third and fifth lines, for "Munka," read "Manka."
- " 35, " "Peshawar District," for "Becket," read "Beckett."
- " 36, " "Takavi," second line, for "Yusafzi," read "Yousafzai."
- " 36, " "Rainfall," third line, for "there," read "There," and insert full stop.
- " 36, " "Calamities of season," second line, for "off," read "of."
- " 111, Settlement Commissioner's Report, line 6 from top, for "girdáwar," read "girdáwari."

NO. 142 C.

FINANCIAL COMMISSIONER'S OFFICE,

Dated Simla, the 11th October 1881.

FROM

J. M. DOUIE, ESQUIRE,

Secretary to Financial Commissioner, Punjab,

TO

W. M. YOUNG, ESQUIRE,

Secretary to Government, Punjab.

SIR,

Revenue Administration Report for 1880-81.

I am directed to submit the Annual Report on the Revenue Administration of the Punjab for the year 1880-81.

2. The office of Financial Commissioner was held by Mr. J. B. Lyall, from the beginning of the year to 9th August, and from 15th November till the end of the year. Office of Finl. Commr. by whom held. During Mr. Lyall's absence on privilege leave, Colonel W. G. Davies, C. S. I., officiated as Financial Commissioner.

3. The only reports which were received in time were those of the Commissioners of Hissar, Rawalpindi and Amritsar, and those of the Deputy Commissioners of Hazara, Sirsa, Simla, Gujrat and Ferozepore. The following reports were received more than a month after the dates on which they were due :—

Commissioners' Reports.

Lahore, received... 20th July.  
Derajat, " ... 23rd "  
Jullundur, " ... 1st August.

Deputy Commissioners' Reports.

Delhi, received... 21st June.  
Dera Ghazi Khan, received... 27th "  
Dera Ismail Khan, " ... 5th July.  
Bannu, received... 26th "

The preparation of the Derajat Divisional Report appears to have been delayed by want of punctuality in the submission of the District Reports, and the Commissioner of Jullundur seems to have waited for returns which were being prepared by the Settlement Officer. The Deputy Commissioners of Dera Ismail Khan and Bannu were engaged in political work connected with the expedition against the Mahsud Waziris. The report of the Settlement Commissioner was received on 18th July, that of the Superintendent of Stamps on 16th July, and that of the Government Advocate on 29th August.

4. Total Revenues.—The following table shows the total receipts for 1880-81 under the various heads of revenue controlled by the Financial Commissioner as compared with those for 1879-80 :—

Heads of Revenue.	1879-80.	1880-81.	Difference.
	Rs.	Rs.	Rs.
Land Revenue (including fixed land revenue, fluctuating and miscellaneous land revenue plus tribute) ...	2,09,54,704	2,11,20,406	+ 1,65,702
Local rates (deducting the amount paid to lambardars and patwaris for collection) ...	17,65,872	17,95,970	+ 30,104
Excise ...	10,07,173	11,08,880	+ 1,01,707
Stamps ...	20,99,546	32,39,286	+ 2,39,740
Total ...	2,67,27,295	2,72,64,548	+ 5,37,253

The receipts from Inland Customs, now under the direct control of the Commissioner of Salt and Customs, were Rs. 52,57,795 as against Rs. 57,66,798 in the previous year.

5. Canal Revenue.—The statement of canal water rates for the year given below has been furnished by the Irrigation Department.

*Statement showing the realizations on account of rates on the Canals in the Punjab for the rabi of 1879-80, and the kharif of 1880-81.*

Name of Canal.	Year.	Area irrigated in acres.	Realizations on account of water rate.
			Rs.
Bari Doab Canal ... ..	Rabi, 1879-80	243,881	5,50,151
	Kharif, 1880-81	151,104	4,03,862
Upper Sutlej Inundation Canals ... ..	Rabi, 1879-80	42,488	7,746
	Kharif, 1880-81	80,225	7,090
Lower Sutlej and Chenab Inundation Canals ... ..	Rabi, 1879-80	148,129	9
	Kharif, 1880-81	161,910	71
Indus Canals ... ..	Rabi, 1879-80	47,726	...
	Kharif, 1880-81	121,075	...
Shahpur Canals ... ..	Rabi, 1879-80	2,621	3,921
	Kharif, 1880-81	5,705	3,676
Western Jumna Canal ... ..	Rabi, 1879-80	136,514	3,33,056
	Kharif, 1880-81	144,650	2,80,720
Muzaffargarh Canals ... ..	Rabi, 1879-80	...	...
	Kharif, 1880-81	122,040	...
Total ... ..	Rabi, 1879-80	621,359	8,94,883
	Kharif, 1880-81	786,709	6,95,419
GRAND TOTAL ... ..		1,408,068	15,90,302

The rabi of 1879-80 is the rabi reaped in 1880, and therefore corresponds to the spring harvest of the year under report. The decrease of the area irrigated, as compared with the previous year, is entirely due to the contraction of Canal Irrigation on the Western Jumna Canal. On the Bari Doab Canal, on the contrary, the area irrigated, and the revenue realized, have both largely increased. The figures relating to the Muzaffargarh Canals appear in this statement for the first time.

It does not fall within the scope of this report to give any very detailed account of the working of those canals which are under the charge of the Irrigation Department. The steady decrease in the irrigation from the Western Jumna Canal since the introduction of the new system of assessment in Delhi, Karnal and Rohtak is very noticeable. The area irrigated in 1878-79 amounted to 497,227 acres, in 1879-80 it had fallen to 368,244 acres, while in the year under report it was only 281,164 acres. The old system of assessment forced the people to take canal water, as it was only by doing so that they could hope to pay their revenue. There has, Mr. Lyall believes, been a considerable increase of irrigation in the present year, but it will be no matter for regret if there is a permanent decrease in the demand for canal water by the villages of the Panipat and Sonapat Tahsils, the lands in which, under the old system, were being swamped, greatly to the detriment of the permanent productiveness of the soil, and the health of the inhabitants. The Deputy Commissioner of Delhi reports that in canal villages in Sonapat, the death-rate greatly exceeds the birth-rate, and there can be no doubt that the decrease of population in that tahsil which was disclosed by the late census is largely the result of the unhealthiness caused by the excessive saturation of the soil. The water saved in the Panipat and Sonapat Tahsils could be profitably used in extending irrigation elsewhere. The dryness of the season and the fear of drought caused by the very uncertain character of the rainfall during the past few years made the zamindars in villages irrigable from the Bari Doab Canal eager to take water, especially in the Lahore District, where the increase in the area irrigated amounted to nearly 30,000 acres. The Deputy Commissioner of Gurdaspur complains that the Canal authorities have of late years made efforts to restrict the expenditure of water at the head of the canal, by substituting clay pipes for wooden mogas, and by refusing, in some cases, application for water. But, as the Commissioner of Amritsar points out, it is sound policy to restrict irrigation in a submontane district like Gurdaspur with a large rainfall, for the sake of extending it in the arid tracts at the tail of the canal.

Irrigation from the Bari Doab Canal does not yet seem to have had any prejudicial effect either on the fertility of the soil or the health of the people.

The canals in Mooltan worked fairly well, and the remissions of Canal Revenue granted amounted only to Rs. 8,991 against Rs. 13,422 in the previous year. On the other hand Rs. 3,799 were assessed on lands previously unirrigated. The management of the Muzaffargarh Canals has been very successful of late, owing to the energy of the Executive Engineer, and the hearty support which he has received from the district authorities.

The appointment of a native Deputy Collector to assist the Engineer has also had excellent results. The cher system is working well, and the people appear to be satisfied with it. The annual clearances have been thoroughly done, and new heads have been given to some of the canals. From what he saw in passing through Muzaffargarh during the past cold weather, the Financial Commissioner can corroborate the Deputy Commissioner's statement as to the excellence of the work done by the chers.



Mr. Gladstone thinks that irrigation can gradually be extended to the Thul lands, which form the backbone of the district, and at present are chiefly used as grazing grounds. A work which requires more immediate attention is the construction of better drainage channels between the different hills, which fill depressions extending from the Indus to the Chenab. The spills of the canals and the floods from the river Indus run into these hollows, and as the present drainage channels are scarcely sufficient, there is danger of the lands in the neighbourhood becoming water-logged, and of considerable damage being done to district roads.

Most of the canals in the Dera Gházi Khan District ran well, although the river Indus was very low during the month of July, when water was most necessary for the success of the kharif crops. But the Dhundi which was recently purchased by Government failed. It had a bad head and the channels had not been properly cleared. The result was that a great part of the crops in the patties acquired by Government withered, and large remissions have in consequence been made. New proposals for the management of lands on this canal belonging to Government have recently been submitted by the Financial Commissioner. The Massuwah, which is another canal bought by Government some years ago in this district, also seems to be working very badly. Mr. Lyall examined the accounts kept of the collection of the water rate in kind when he marched through the Sangarh Tahsíl.

6. Owner's-rate.—As has already been noticed the introduction of a dry assessment, plus owner's-rates instead of a wet assessment has had a very noticeable effect on the amount of irrigation from the Western Jumna Canal. This has apparently been most marked in the Sonapat Tahsíl of the Delhi District. The owner's-rate realized in that tahsíl in kharif 1879-80 was Rs. 44,250, and in kharif 1880-81 the demand was Rs. 24,997. In 1879-80 some of the kharif crops had been irrigated before the new arrangements were announced.

The revised Settlement was introduced into Tahsíl Pánapat from kharif 1878 and into Tahsíl Karnál from kharif 1879. The decrease of irrigation in Karnál can best be seen by the following table showing the amount of occupier's-rate realized in Karnál and Pánapat since 1876-77. The amount of owner's-rate, of course, varies with that of the occupier's-rate:—

			Pánapat.	Karnál.
			Rs.	Rs.
1876-77	...	...	1,00,580	54,040
1877-78	...	...	1,73,391	55,784
1878-79	...	...	1,50,061	68,043
1879-80	...	...	1,20,727	57,070

The Deputy Commissioner, Mr. Benton, is inclined to ascribe the decrease more to the character of the seasons than to the introduction of the new system of assessment, and he does not believe that any diminution now apparent will be permanent. He points out that 1877-78 and 1878-79 were years of drought and that canal water was consequently taken very freely. There is an increase in the demand as compared with that of 1876-77, which was an ordinary year. There has been a marked tendency in Delhi to abandon the cultivation of sugarcane, which pays the highest rates. This may, however, partly be due to the high prices of food grains which have ruled of late years. But whatever the cause, the change does not seem likely to be permanent, for a very large area has been put under sugarcane in the present year. The decrease of rice cultivation in Karnál has been noticeable, and its permanent restriction would not be a matter for regret. But no satisfactory conclusions as to the likelihood or otherwise of such a result can be drawn from the experience of a single year.

Delhi, Karnál and Rohtak are districts in which hereditary tenants, before the revised Settlements, usually paid to the owners nothing beyond the revenue assessed upon the land, and the cesses, or such revenue and cesses, plus a small "málikána" fee. At the revised Settlement in some cases the holdings of these tenants were again admitted to the new báchh and assessed at khewat rates of the same terms as before: in other cases the sums which they previously paid were taken as the rents which they were to pay in future. As, in the case of canal irrigated lands, the old revenue included the equivalent of owner's-rate and the new revenue is a dry assessment only, difficulties naturally arose in determining who should pay the owner's-rate. Some puzzling cases came into the courts and were referred by the Commissioners of Delhi and Hissar to the Financial Commissioner for orders. The confusion was also increased by the fact that Mr. Wood, when Deputy Commissioner of Rohtak, issued for the guidance of his Tahsildars some rules on the subject which were based on wrong principles. Mr. Lyall asked the Settlement Officers of Karnál and Rohtak to suggest general rules for the settling of disputes between owners and tenants as to payment of owner's-rate, and on the 1st of April he issued for general guidance, rules of a tentative character framed by Mr. Ibbetson. But as the question is a novel one in the Punjab he wishes to watch their working for a little before submitting draft rules under Section 41 of the Canal Act for sanction.

In Karnál, through the exertions of the Deputy Commissioner, amicable arrangements have generally been made between landlord and tenant, and in the past year not a single suit has been filed by either party. In some cases the landlord agreed to take the old revenue as rent and to pay the new revenue and the owner's-rate. In others the tenant agreed to pay the new revenue and the owner's-rate. These arrangements were made before receipt of the Financial Commissioner's rules but were founded upon similar principles.

7. **District Canals.**—Under the head of District Canals some remarks will be made on the working of canals more or less managed by the Deputy Commissioners of Districts.

There are small canals in all mountainous or submontane districts, and in some districts in the plains, but where, as for instance in Kangra and Hissar, no irrigation establishment is kept up and the management is entirely in the hands of zamindars, the Deputy Commissioner is not required to report specially on their working: but he should, of course, mention any remarkable alteration which may occur in their condition or in the area of irrigation in the same way as he notices variations of rainfall or other events affecting the agriculture of the district.

**Ferozepore Canals.**—When Major Grey left the Ferozepore District in the spring of 1877 there were 11 canals in working order, 3 in the Ferozepore Tahsil, 3 in the Zira Tahsil, and 5 in the Mamdot Estate. It was scarcely to be expected that every District Officer would bring to the management of the canals that special knowledge and energy which Major Grey possesses, and there is no doubt that the success of his schemes to promote irrigation suffered by his absence. Since his return to Ferozepore fresh vigour has been infused into the management. New heads have been given to the 3 canals in Zira and they have been thoroughly cleared. The work was heavy, for the annual clearances had apparently been neglected. In Ferozepore only ordinary silt clearance was required. In Mamdot, the Kutbwale, a new canal 27 miles in length, has been excavated at a cost of Rs. 5,000. The Jalalwah has been deepened and widened, and an extension of it, 20 miles in length, named the Shakh Nawab, has been dug. The Khanwah has been remodelled. All this has been done in addition to the ordinary clearances on the 5 Mamdot canals. The total cost of canal works in Mamdot has been Rs. 33,500, part of which has been paid out of the ordinary revenues of the Estate, and the rest from 3 takavi advances of Rs. 5,000 each.

The time of the patwaris was so entirely occupied with census work that the annual field inspection in Ferozepore was not begun till March. It was useless to attempt to measure the area for which water had been taken, and the Deputy Commissioner is therefore unable to furnish any statistics as to the extent of canal irrigation during the year. The canals in the Ferozepore Tahsil, which had been properly cleared, ran well, but those in Mamdot and Zira, which had been neglected, were not successful. Two in Zira failed entirely owing to a deficiency in the supply of water at these heads due to the action of the river in July. The people turned out in great numbers to do the excavation necessary to bring the river water back into the canals, but the Tahsildar appears to have been unable to direct them. The changes introduced recently into the management of the canals scarcely call for notice in a report for the year 1880-81, but the Financial Commissioner anticipates that in Ferozepore, as in Muzaffargarh, the appointment of an Extra Assistant Commissioner for the special work of managing the canals will be attended with the best results. Major Grey's remarks on the canals in his district will be found among the extracts appended to this report.

**Shahpur Canals.**—Mr. Frizelle, the Deputy Commissioner of Shahpur, has given a full account of the working of the Shahpur Canals in his report, and Colonel Hall's remarks on the same subject, which are mainly based on Mr. Frizelle's, have been printed as an extract. Of the 21 canals in Shahpur, 3 are maintained from Imperial and 2 from District or General Local Funds, while 16 are owned and managed by private individuals. The 3 canals maintained from Imperial revenues are nominally under the Irrigation Department, but are managed by the Deputy Commissioner. They are the Macnabbwala, the Station Canal, and the Sahiwal Canal.

The area irrigated, the receipts from water-rates, and the cost of management are shown below, the figures for 1879-80 being given for the sake of comparison. It must be remembered, however, that in 1879-80 the area irrigated was exceptionally small.

Canal.	Area irrigated.	Receipts.	Charges.
<i>Station Canal—</i>	<i>Acres.</i>	<i>Rs.</i>	<i>Rs.</i>
1880-81... ..	6,298	14,807	5,335
1879-80... ..	3,465	8,550	4,490
<i>Sahiwal Canal—</i>			
1880-81... ..	2,132	2,712	916
1879-80... ..	822	1,224	2,271
<i>Macnabbwala Canal—</i>			
1880-81... ..	687	916	809
1879-80... ..	200	311	1,360
<b>TOTAL</b> { 1880-81 ...	9,117	18,435	7,060
{ 1879-80 ...	4,487	10,085	8,121



The capital sunk in the construction of these canals is said to have been Rs. 41,484. If Rs. 1,866, which is the interest on this sum at 4½ per cent., were added to the amount shown under the head of charges, the total expenditure would appear as Rs. 8,926, and the profits as Rs. 9,509 or 23 per cent. upon the capital. The water-rates taken on these canals are heavy, considering the general character of the crops. They are generally considered to be equal to the value of one-fourth of the average produce. The area irrigated in 1878-79 was slightly larger than that shown for the present year, but the receipts for the year under report exceed those realized in any year since the canals have been at work.

The canals maintained from District and Local Funds are the Corbynwah and the Raniwah. The area irrigated, the receipts and the charges were as follows:—

Canal.	Area irrigated.	Receipts.	Charges.
	Acres.	Rs.	Rs.
<i>Raniwah—</i>			
1880-81... ..	5,296	13,706	4,321
1879-80... ..	3,625	9,305	6,264
<i>Corbynwah—</i>			
1880-81... ..	219	493	817
1879-80... ..	3,053	2,249	1,432
<b>TOTAL</b> { 1880-81 ...	5,515	14,199	5,138
{ 1879-80 ...	6,678	11,554	7,896

The Raniwah Canal appears to be earning a large profit after paying for charges of maintenance and interest on cost of construction, but the Financial Commissioner is not sure that the figures of income and expenditure given by the Commissioner can be accepted as showing the true state of the capital account. They would have to be further explained and examined before the interest which the canal is paying could be safely reduced from them. The Macnabbwala and the Corbynwah are at present of little use, but attempts have been made during the year to improve the latter and to extend it to the town of Khushab. It is now working at a loss, and the Financial Commissioner is afraid that it is never likely to pay interest on the capital expended on its construction.

The year was not a very favorable one for canal irrigation, as the Jhelum fell early and the supply of water in the canals during the month of August was very uncertain. The results are therefore very creditable to the Deputy Commissioner and also to the Darogha recently appointed to superintend the working of the canals.

Some of the private canals, the larger ones especially, work very well, but the others are not, generally speaking, well managed.

**Bannu Canals.**—The Bannu Canals are irrigation channels from the Kurram river, and are very interesting both from their antiquity and from the successful way in which they are managed, mainly by the people themselves in accordance with traditional rules. The Deputy Commissioner exercises a general supervision and has a small irrigation establishment paid from a cess levied for the purpose to assist him, but ordinarily speaking very little official interference is required. The Deputy Commissioner does not state what amount of land was irrigated in the past year, nor does it appear necessary to demand from him such statistics, as the supply of water from the Kurram is always pretty regular and the area of irrigation, which on an average is about 70,000 acres, must vary little, though in some years certain lands at the tails of canals do not get a full or continuous supply of water. On the advice of the Deputy Commissioner, the people have subscribed to provide masonry heads on the Kachkot and Landidal canals which are the largest in the district and the work will be completed in the present year.

**Dera Ismail Khan.**—The channels in the *Indus Valley*, which the Deputy Commissioner mentions under the name of Inundation Canals, do not properly deserve the title. They are natural channels which are occasionally excavated in one place and dammed up in another by the zamindars in order to extend and improve the river floods. The Tahsildars help the people to combine and give advice. Nor can the Tank, Luni and Takwara hill stream irrigation be properly called canal irrigation, though it is to a considerable extent under official supervision. Major Macaulay mentions that the irrigation from the hill streams was better than in the previous year, but one important dam on the Luni gave way by which some 20 villages in the Dera Tahsil lost their usual supply of water. Most of the hill stream irrigation depends upon these dams, and Major Macaulay takes great interest in their proper construction and makes his Tahsildars and Irrigation Daroghas actively assist and superintend. One advantage of the fluctuating assessment system is, that the District Officers and the zamindars have a common interest in the success of such works. This leads to a good feeling between them as well as to better management.



Major Macaulay's extension and improvement of the canal, which takes off from the Luni or Gumal stream where it issues from the hills, has proved a very successful work. This canal now irrigates much land in the Dera Tahsil and works water mills at the town of Dera Ismail Khan. It has quite changed the aspect of the barren lands round the city.

In Pesháwar much attention was paid during the year to the maintenance and improvement of canal irrigation. A full account of the works undertaken will be found among the extracts appended to the report. As in Bannu the canals are managed by the people themselves in accordance with customary rules, but the Deputy Commissioner assists and superintends with the aid of the Tahsildars, and of a small irrigation establishment paid by a cess. The Financial Commissioner thinks that great credit is due to Mr. Beckett, and to the Extra Assistant Commissioner, Kutb-din, whom he put specially in charge of irrigation work, for the improvements which they have effected.

In Siálkot there are traces of an old canal from the Taur river which, if restored, would water lands lying between the Chenab and the Siálkot and Wazirabad road. Mr. Beachcroft, when Deputy Commissioner, intended to have it surveyed with a view to re-opening it if possible, and Mr. Lyall hopes that his successor will have the survey made. But he considers that no such project should be actually carried out until it has been sanctioned by Government. A work of the kind might clash with other works which Government intends to construct, and in a country like Siálkot it might waterlog certain tracts if opened out without proper escapes and drainage channels being provided.

#### PART I.—FISCAL.

8. Fixed Land Revenue.—The demand, collection and balances for the year on account of fixed land revenue are shown below, the figures for 1879-80 being given for the sake of comparison.

YEAR.	Demand.	Collections.	Balances including balances of former years.	Collections on account of former years.	Total collections.
	Rs.	Rs.	Rs.	Rs.	Rs.
1879-80* ... ..	1,92,41,653	1,88,62,652	6,79,834	3,43,053	1,92,05,705
1880-81 ... ..	1,90,75,897	1,88,76,046	4,38,820	1,40,101	1,90,16,147
Difference... ..	- 1,65,756	+ 13,394	- 2,41,014	- 2,02,952	- 1,89,558

The percentage of the collections on the demand was 99, or 1 per cent. better than last year.

9. Causes of increase and decrease.—The decrease in the demand has no real significance, being due to changes in the system of assessment adopted in the recent settlements of Delhi, Mooltan and Muzaffargarh. In the two last districts about two lakhs of rupees have been transferred to the fluctuating land revenue roll, while in Delhi a decrease of Rs. 1,12,690 on account of revision of assessment is in part counterbalanced by the credit of owner's-rates to Canal Revenue. In Mooltan the demand on account of fluctuating assessments amounting to Rs. 81,774 was last year erroneously included in Statement No. I. But for this mistake the demand for the year under report would show a large increase owing to revision of assessment. In Dera Ismail Khan, on the contrary, Rs. 50,131 have been transferred from fluctuating to fixed land revenue. This sum represents the fixed portion of the assessment on submontane and riverain tracts, which the Deputy Commissioner erroneously excluded from the rent roll for 1879-80.

In Bannu the large decrease is due to the fact that the demand on account of fluctuating assessments, which in 1879-80 amounted to Rs. 56,836, was in that year shown as fixed land revenue. The net result of the recent settlement of Jhelum has been an increase of Rs. 1,10,279 in the demand.

In Montgomery Rs. 22,236, the jama of sixty villages on the Ravi which have accepted fluctuating assessments, have been struck off the fixed land revenue roll.

The increase due to progressive jamas is mainly in the districts of Dera Gházi Khan and Pesháwar.

The value of the revenue free grants which lapsed in 1879-80 was little in excess of that of the new assignments. The reductions from the revenue roll on the latter account were largest in Pesháwar, Dera Ismail Khan and Hoshiárpur. In Pesháwar and Dera Ismail Khan, valuable jagirs were granted to Bahádar Khan and Nawáb Ata Muhammad Khan. In Hoshiárpur the revenue of the *Joswan* jagir, amounting to Rs. 16,887, which was restored by order of the Government of India in 1877, was excluded from the rent roll.

The net decrease of Rs. 44,547, shown as the result of river action, does not really represent the effects of alluvion and diluvion during 1879-80. There had been delay in sanctioning some of the alluvion and diluvion assessments of previous years, and the changes could not be brought upon the rent rolls till the statements had been passed in the Financial Commissioner's Office.

10. Suspensions and remissions.—The figures as to suspensions and remissions show a great improvement, as compared with those of the previous year, as the following table will show:—

		1879-80.	1880-81.
		Rs.	Rs.
Suspensions on account of year under report	...	71,786	14,477
Ditto ditto of previous year	...	49,186	3,016
Remissions ditto of year under report	...	46,734	31,629
Ditto ditto of previous year	...	92,124	36,484
Total	...	2,59,830	85,606

The remissions on account of previous years were chiefly in the Pesháwar District, where Rs. 31,451 were remitted on account of inundation and the temporary stoppage of canal irrigation, due to the destruction of canal works by floods. In Mooltan Rs. 12,836 is shown as having been remitted. The greater part of this consists of ordinary remissions of canal land revenue claimable under the terms of settlement in consequence of failure of canals. The remission of Rs. 15,869 in Amritsar is apparently part of the remission granted to certain villages in the Ajnala Tahsil which had become waterlogged. The suspension of Rs. 5,584 in Sirsa was mainly due to drought in the Ghaggar valley. In Bahnu the payment of Rs. 6,229 was suspended on account of drought in the Lakki and Mianwali Tahsils, but the Deputy Commissioner has failed to show this item in Statement No. I.

11. Balances.—The balances for the last three years are as follows:—

		1878-79.	1879-80.	1880-81.
		Rs.	Rs.	Rs.
Balances of the year under report	...	6,13,496	4,08,941	2,01,181
Ditto of previous years	...	1,95,295	2,70,443	2,37,639
Total	...	8,08,791	6,79,384	4,38,820

The decrease during the present year is mainly due to the striking off of nominal and irrecoverable balances of past years. Of the balance due for 1880-81 more than half is shown as in train of liquidation and more than one-third is either nominal or irrecoverable. Of the balance of former years about three-fifths is nominal or irrecoverable, and will need to be remitted. The progress made during the year in the actual realization of balances has not been very great, for while Rs. 1,40,101 have been collected on account of former years, a balance of Rs. 2,01,181 has arisen in the year under report. But of this amount Rs. 62,162 comes under the head of nominal or irrecoverable. In Simla and Hissar the revenue of the year was collected in full, while in Rawalpindi, Jhelum and Ferozepore the balances are small and are either nominal or doubtful.

The districts in which the balances are largest are—

	Rs.		Rs.
Delhi	39,488	Montgomery	22,425
Gurgaon	56,165	Muzaffargarh	46,096
Karnál	14,768	Dera Gházi Khan	45,883
Hoshiárpur	33,200	Bahnu	58,351
Jhang	25,272	Pesháwar	17,407

In Karnál and Pesháwar the Deputy Commissioners made great efforts to reduce the heavy balances that had resulted from a succession of bad harvests. In Karnál fair progress has been made, Rs. 17,334 having been collected and Rs. 21,231 remitted. Mr. Benton's anticipation of being able to show "a clear balance sheet" in 1880-81 has not, however, been realized, as the rabi harvest failed in the unirrigated parts of his district. In Pesháwar the return of a large number of villagers, at the close of the war with the money they had saved when on service, facilitated the collection of arrears and Rs. 15,728 were realized. But the reduction of the balances is chiefly due to the remission of Rs. 33,948. In Delhi the greater part of the balance shown is nominal, and of the large outstanding balance in Gurgaon, Rs. 16,900 have been remitted since the close of the year, and the payment of Rs. 17,718 has been suspended.



In Hoshiarpur the balance shown as in train of liquidation is very large, but it has been greatly reduced since the close of the year. It appears that in some cases the Tahsildars irregularly credited current revenue in liquidation of the balances of former years. Of the total balance in Montgomery, Rs. 12,342 consist of revenue due by 60 villages on the Ravi at the time when they accepted fluctuating assessments, and this has been remitted in the present year. Nominal and irrecoverable balances to the amount of Rs. 9,507 in Jhang and Rs. 27,460 in Muzaffargarh have been struck off since the close of 1880-81. These balances had been caused chiefly by diluvion and revision of assessment. In Dera Ghazi Khan two-thirds of the balance is nominal or irrecoverable. In Bannu at the close of the year a part of the kharif instalment, amounting to Rs. 14,165, was still uncollected. This was due, the Deputy Commissioner says, to the fact that the patwaris were engaged in census work, and in supply arrangements connected with the Waziri expedition. The collection of Rs. 6,229 was suspended on account of drought in the Lakki and Mianwali Tahsils, and for the same reason the Deputy Commissioner intends to propose a remission of Rs. 10,129. The large balance on account of former years is due to suspension on account of hail storms and drought in 1878-79 and 1879-80, and will apparently have to be remitted. No report has yet been received in this office, and the Deputy Commissioner's remark that "excessive pressure of frontier work" has prevented the preparation of one, is a very insufficient explanation. The Deputy Commissioner promises to submit reports at once.

**12. Fluctuating and Miscellaneous Land Revenue.**—The collections on account of fluctuating land revenue for the last three years are shown below—  
(Printed.)

Fluctuating Revenue.	1878-79.	1879-80.	1880-81.	Difference between 1879-80 & 1880-81.
	Rs.	Rs.	Rs.	Rs.
Lapses ... ..	48,342	51,136	72,147	
Revision of assessments, &c. ... ..	92,046	61,089	1,26,263	
Assessment of Alluvial Lands temporarily off the rent roll ... ..	28,855	28,552	35,944	
Assessments of Waste Land ... ..	18,376	14,074	14,117	
Estates under direct management ... ..	50,430	56,303	41,728	
Water advantage revenue ... ..	3,32,541	3,03,999	3,11,592	
Fluctuating assessments of riverain and other lands ... ..	4,320	2,39,075	4,61,470	
Miscellaneous items ... ..	22,916	9,946	15,475	
<b>Total ...</b>	<b>5,97,826</b>	<b>7,64,174</b>	<b>10,78,736</b>	

**13. Revision of Assessment.**—In Jhang the sum of Rs. 69,073 on account of increase of assessment taken in revision of Settlement and not yet included in the rent roll, was collected as fluctuating revenue. It has been brought on the regular rent roll of the current year. Rs. 54,659 in Jhelum, shown as due to revision of assessment, is the addition to the kharif instalment of 1879-80 caused by the new Settlement. There was great delay in collection owing to the fact that the Settlement papers were not completed when the enhanced jama became due, otherwise this item would not have appeared in the accounts of 1880-81.

**14. Revenue off alluvial lands temporarily of the Rent Roll.**—In districts in which riverain or alluvial lands have been put under fluctuating assessments, i. e., under assessment varying with the annual area of collection, there is no revenue under this head. In other districts it represents the increased assessment put upon alluvial lands and not yet brought upon the fixed rent roll.

If the di-alluvion assessments made in the cold weather could be incorporated in the rent roll of the next financial year, the revenue under this head would be small, as only increased collection for the kharif harvest would appear under it. But this is prevented by the rule requiring the assessments to be first sanctioned by this office and consequently the increment in practice remains off the rent roll for 3 harvests, counting from the kharif in which it is first assessed. Moreover the practice as to collection of the increased revenue assessed differs materially in different districts. In many the increase (or the net increase after deducting the total decrement from the total increment) is collected from the kharif in which it is assessed and this, in the Financial Commissioner's opinion, is the right principle. In others the gross decrease, without deducting increase is remitted to the Estate from the kharif in which the measurements are made and the increase is only collected from the following rabi. This, in the Financial Commissioner's opinion, is wrong and is probably one reason why the loss by these assessments is on the average so much greater than the gain. The practice of different districts also varies in other respects. Inquiries have been made during the last two years, and orders will be issued with the view of securing uniformity. When an uniform system has been attained, the Financial Commissioner thinks that Commissioners should be allowed to sanction these assessments, as they do now in the North-West Provinces, reporting only the gross results for each tahsil and district for information and check of accounts to this Office.



15. Income from Kham Estates.—The only important estates now held Kham tahsil are in Dera Ismail Khan and consists of the villages in the southern half of the Gandapur country and of the Bhittani lands on the Tank border. The proprietors of these estates refused to accept the cash jamas which were offered to them at the late Settlement. They did not object to the amounts, but preferred the continuance of the system of payment in kind. The complexity of proprietary tenure in this part of the Gandapur country makes it very difficult for the proprietors to engage to pay a cash assessment, and as far as revenue is concerned the Government has no reason to regret the fact. The division of crop has been made without difficulty, and while the Settlement Officer only proposed to assess these villages at Rs. 17,972, the value of the share of produce paid as revenue last year was Rs. 45,732, although the crops had suffered from drought and the partial failure of the hill-streams. One-quarter of the revenue is assigned to the two chiefs of the Gandapur tribe. In the Bhittani villages, which are held Kham tahsil, the rabi harvest was a poor one, and the value of the Government's share of the crop was only Rs. 7,037 as against Rs. 12,338 in 1879-80. The revenue collected was, however, very nearly equal to the assessment proposed by the Settlement Officer. With the fall in the price of the grain which has now set in, the monetary value of the share of Government may decrease, but there is little doubt that, except in years of exceptional drought, it will be a gainer by the retention of grain collections. The five or six villages in Montgomery which were formerly held Kham tahsil have been brought under the system of fluctuating assessments recently adopted for the relief of a number of distressed villages in that district which are situated on the Ravi.

16. Water advantage revenue.—Water advantage revenue is only collected in 4 districts. The realizations for 1880-81 as compared with those for 1879-80 were as follows:—

					Collections, 1879-80.	Collections, 1880-81.
					Rs.	Rs.
Amritsar	...	...	...	...	70,791	82,017
Gurdáspur	...	...	...	...	27,450	30,509
Lahore	...	...	...	...	1,13,512	1,09,743
Montgomery	...	...	...	...	92,246	88,409
Total	...	...	...	...	3,03,999	3,10,678

The rainfall in Gurdáspur and Amritsar was very capricious, abundant in July, but exceedingly scanty in June and August, and there was in consequence a great demand for canal water. The decrease in Lahore is merely nominal, as there was a balance of Rs. 14,000 due at the end of the year, most of which was realized in April.

17. Fluctuating assessments.—All fluctuating assessments of river lands have now been excluded from the fixed rent roll, hence the large increase in the amount shown under this head.

In Delhi the lands bordering on the Najafgarh Jhil were for the first time brought under fluctuating assessments. In Gurgaon the demand from the lands surrounding the Kotla Jhil, which were formed into a separate chak at the last Settlement, fell from Rs. 9,060 in 1879-80 to Rs. 3,782 in the year under report. No stronger proof of the necessity for the change of system adopted could be offered. The area under cultivation is measured yearly and assessed at Rs. 2 the acre.

In 1880, sixty-six villages of the Montgomery District situated on the Ravi, which had suffered by failure of river floods, were allowed to accept fluctuating assessments on cultivation in lieu of the fixed demand imposed at Settlement. The payment of their revenue, which at last Settlement was assessed at Rs. 37,890, was much in arrears, and some of the most important villages were held Kham tahsil. Even in the villages under direct management it had not been possible to realize half the revenue. The Settlement Officer estimated that at his rates the apparent loss to Government in the first year after the introduction of the new assessments would be Rs. 15,254, and modifications in his rates, introduced with the approval of Government, tended to increase the amount. The actual demand from these villages on account of fixed and fluctuating revenue in the year under report was Rs. 19,039, so that the nominal loss to Government has been Rs. 18,851. It must be remembered, however, that the villages were completely broken down, and that there was no hope that the assessment fixed at the last Settlement could ordinarily be realized. If the floods were to return to these villages, the revenue would increase immensely. A few villages which got good floods this year paid more than they did under the old system. The Financial Commissioner marched through this tract in the course of his winter tour and made some small changes in the system to meet certain complaints as to its working which appeared reasonable. Some other distressed villages applied to be admitted to fluctuating assessments. In some cases it appeared necessary to accept these applications, and proposals to that effect have been submitted for sanction of Government.

The new Settlement did not take effect in all the tahsils of the Mooltan District till 1879-80. The collections on account of fluctuating assessments for 1879-80 were Rs. 81,773 and for 1880-81 Rs. 74,278, and the demand of the present year is Rs. 73,750. The results are not very favorable, for the floods, though very fair on the banks of the Chenab, have been poor on the Sutlej and very bad indeed on the Ravi. The Deputy Commissioner states that had the demand been fixed instead of fluctuating, the new assessments "would have broken down completely on the Ravi and have occasioned great distress on the Sutlej." He says that the system "is thoroughly understood by the people and is very popular." The Financial Commissioner passed through some of the Ravi villages while on tour, and the fact was patent that, owing principally to a change in the course of the river, a most ruinous failure of floods and consequent decrease of cultivation had occurred.

In Muzaffargarh the amount realized was Rs. 1,45,957. The demand for 1881-82, based on measurements made in the autumn of 1880, is Rs. 1,59,139. The Deputy Commissioner, Mr. Gladstone, says:—"The Tahsildars point out that, but for the fluctuating system, it would have been impossible to have collected all the revenue without inflicting hardship, so inferior have been the harvests of the last two years . . . . The system is doubtless an admirable one. It is the more creditable to the Tahsildars that though they all complain of the very great extra work thrown on them by the system, they all agree in praising it and have loyally worked to carry it out. It is a system that can only work with first-class Tahsildars and strict supervision on the part of the District Officer."

In Dera Ismail Khan the decrease shown is nominal. Rs. 50,131 of fixed were, as has already been stated, erroneously shown as fluctuating land revenue in the statement for 1879-80. In reality the assessments for 1880-81 were decidedly more favorable to Government than those of the previous year, and the demand for 1881-82 shows a further improvement. The following table exhibits the result of fluctuating assessments in the submontane and riverain tracts of the district compared with the estimate framed by the Settlement Officer. The figures are mainly taken from statements furnished by Major Macaulay. They include both khalsa and jagir revenue. These statements, and the letter with which they were forwarded, are printed among the extracts appended to this report.

		Settlement Officers' esti- mate.	1878-79.	1879-80.	1880-81.	1881-82.	Average.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Submontane tracts	...	61,710	71,297	34,390	62,166	...	55,951
Riverain tracts	...	2,01,889	1,69,661	1,62,777	1,75,728	1,92,633	1,75,200
Total	...	2,63,599	2,40,958	1,97,167	2,37,894	...	2,31,151

Major Macaulay has carried out the new system of assessment with much energy and intelligence, and his efforts to control and distribute the water of the hill-streams in Dera Ismail Khan and Kulachi, and to extend the benefit of the river-floods by the construction of dams in the smaller branches of the Indus which intersect the Bhakkar and Leiah Tahsils, have been very successful. The financial results of the fluctuating assessments still fall short of the estimate framed by the Settlement Officer, but the Deputy Commissioner does not appear to be too sanguine in thinking that Mr. Tucker's forecast will be more than realized at an early date, if the new system is worked honestly and intelligently.

Major Macaulay says—"There can be no doubt as to the system meeting with the approval of the zamindars as far as can be judged from the opinions at present held by them regarding it." Mr. Lyall had an opportunity, when on tour, of seeing the manner in which the annual inspection and measurements were effected, and though the Tahsildars are almost all Frontier Muhammadans of little training or natural aptitude for such duties, he was satisfied that the work was generally done with sufficient accuracy. The Tahsildar of Bhakkar, Ghulam Muhammad, appeared to have done his part very well.

The following table shows the financial results of the system in Bannu as compared with the forecast made by the Settlement Officer:—

Estimate of Khalsa and Jagir Revenue made by Settlement Officer based on mea- surements made in 1873-74	1878-79 jama.	1879-80 jama.	1880-81 jama.	1881-82 jama.	Average jama of 4 years.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1,02,348.	71,060	60,364	63,348	71,353	66,531

These figures include the assigned as well as the khalsa revenue. The serious difference between the estimated and actual results of the assessment is entirely due to the eccentricity of the river Indus. When the Settlement Officer made his forecast it was cutting away its high eastern bank, but it has now shifted several miles to the west, leaving on the Mianwali side a broad stretch of sand intersected in the flood season by shallow branches of the river. Two or three lucky floods may turn all this sand into fine culturable soil. When in camp in Bannu, last cold weather, Mr. Lyall arranged with the Deputy Commissioner that Pandit Sheoram, Extra Assistant Commissioner at Mianwali, should construct dams at favorable points in the smaller arms of the river, so as to spread the flood-water as much as possible. This work appears to have been done very well, and there is reason to hope that the assessments to be made in the autumn of the present year will be more favorable than any effected since the introduction of the new Settlement, and in any case Mr. Lyall agrees with the Deputy Commissioner in thinking that the river has now done its worst and that the change for the better shown by the assessments for 1881-82 is likely to be carried further.

18. Miscellaneous Land Revenue.—The collections on account of Miscellaneous Land Revenue as compared with those for 1878-79 and 1879-80 are shown in the following table :—

	1878-79.	1879-80.	1880-81.	Difference between 1879-80 and 1880-81.
	Rs.	Rs.	Rs.	Rs.
Surplus Talabána ...	20,324	15,120	13,014	- 2,106
Grazing-dues ...	4,09,264	3,70,895	3,83,304	+ 12,409
Sale of wood ...	40,339	47,285	50,259	+ 2,974
Sajji ...	19,338	21,097	15,965	- 5,132
Settlement parcha fees ...	...	1,21,735	1,57,142	...
Other items ...	74,377	67,352	61,440	- 5,912
Total ...	5,63,642	6,42,484	6,82,324	+ 3,433

The comparison between the results of the different years would be more satisfactory if the net, instead of the gross, income from Settlement fees were shown. But at present the Financial Commissioner has no means of knowing what portion of the collections under that head has been spent in repaying advances made during Settlements.

The progressive decline in the income from surplus talabána is a healthy sign. The receipts from the sale of wood are, as usual, chiefly derived from Mooltan. A revised scale of rates for this division has recently been issued. The rates have been pitched somewhat higher than those charged by Forest Officers, because it appeared advisable that fuel contractors should draw their supplies chiefly from the rakhs under the charge of that department.

Large collections on account of Settlement parcha fees were made in Delhi, Karnál, Rohtak and Jhelum. There was some little difficulty in the Delhi District in realizing these, as the demand from some villages exceeded Rs. 800.

19. Tirni.—The large increase in the receipts from grazing-dues in Shahpur was caused by the fact that all the rakhs not in charge of the Forest Department were brought under direct management and tirni levied by enumeration of cattle. In previous years these rakhs had been leased generally to the headmen of adjacent villages. The leases were really leases of grazing-dues, but the lessees often broke up land for cultivation or allowed other people to do so, and claims to proprietorship of the cultivated lands or of the whole rakhs began to be asserted by the squatters or by the villages whose headmen had held the leases for a number of years. The late Mr. Ouseley, when Financial Commissioner, suggested that, in order to assert emphatically the title of Government, some of the rakhs should be held under direct management. Acting upon this suggestion, the Commissioner ordered all the rakhs under the Deputy Commissioner to be so treated for the year under report. This action had the desired result and is on the whole not to be regretted, but it caused much excitement in the country. A number of villages sent deputations to Lahore to petition against it. The Financial Commissioner marched through the district in December and issued general orders on the subject after a careful enquiry. In regard to some minor points, the zamindárs' complaints were shown to be well founded. For instance, the tirni rates on certain kinds of cattle were found to be too high, and these, with the sanction of Government, were reduced and part of the demand remitted. Arrangements were made for the better regulation and restriction of cultivation in the rakhs and for the complete separation of leases for cultivation from leases of grazing-dues.

The demand for the year was Rs. 39,588, of which Rs. 33,998 were collected. The average income for the three years previous, during which the rakhs were leased, was Rs. 23,817. The increase of the income was, however, counterbalanced to a small extent by a fall in the value of the sajji leases. The Deputy Commissioner does not believe that the rakhs would have been as profitable in future years under direct management as they were in the year under report. The system was very



unpopular, and the zamindárs would probably, wherever possible, have refrained from sending their cattle into the rakhs at all. In the present year all but a few of the rakhs have again been leased; the lessees selected being generally influential zamindárs. Mr. Lyall intends to submit a full report on the tirni systems in force in the Mooltan Division as soon as a reply\* is received from the Commissioner, to a letter asking for detailed information regarding them. It is therefore unnecessary to say much on the subject here. In Montgomery the old system which has been re-introduced in supersession of the system of leases of chaks to contractors, is working well, and it is certainly more popular and not less financially successful than that which it superseded.

In Dera Gházi Khan, out of a demand amounting to Rs. 3,470, only Rs. 200 have been realized. The Deputy Commissioner, however, states that the balance is being collected. The camel tirni, which amounted on an average to Rs. 6,000 yearly, was remitted for the year 1878-79 in consideration of the loss of camels during the Afghan war. But the district authorities have also failed to collect the tax for the last two years. A special report on the subject has been recently submitted.

20. Balances of fluctuating and Miscellaneous Revenue.—The balance at the close of 1879-80, which exceeded a lakh of rupees, was nearly all realized during the year under report. There was, however, a large balance of Rs. 1,03,098, on account of 1880-81, outstanding at the beginning of the present year. The heaviest arrears were in the following districts:—

				Of the year under report.
Delhi	...	...	...	Rs. 13,363
Lahore	...	...	...	" 17,242
Dera Gházi Khan	...	...	...	" 12,445

The balance in Delhi was due to the difficulty, already alluded to, of realizing the large amount due for Settlement parcha fees. The greater part of it was collected early in the present year. In Lahore the arrears consisted mainly of water advantage rate. The Deputy Commissioner believes that this balance was caused by the fact of the "canal supply being cut off at a time when it was much required for ripening the crops." In Dera Gházi Khan sufficient care does not seem to have been taken to collect promptly the different kinds of income derived from rakh lands.

21. Local Rates Cess.—The demand under this head amounted to Rs. 19,68,227, and the collections to Rs. 19,53,388. An increased demand of course arose from the improvement in the land-revenue of the Province already referred to, but the percentage which the collections bore to the demand was also better than in the previous year, and the balances fell from Rs. 18,704 to Rs. 14,839, the greater part of which is recoverable. The fees paid to Lambardárs and Patwáris for collecting the tax amounted to Rs. 1,57,412, and the net amount credited to Government was Rs. 17,95,976.

22. Inland Customs.—The income from salt in 1880-81 as compared with 1879-80 is shown below—

DIVISION.					Receipts.	Disbursements.	Percentage of expenditure on receipts.
					Rs.	Rs.	°
<i>Punjab Mines.</i>							
1879-80	...	...	...	...	38,53,037	2,78,397	7.23
1880-81	...	...	...	...	37,29,216	2,64,999	7.11
<i>Delhi Division, Sultanpur and Nuh Works.</i>							
1879-80	...	...	...	...	19,13,761	1,08,675	5.68
1880-81	...	...	...	...	15,28,579	77,570	5.07
Total...							
{ 1879-80...					57,66,798	3,87,072	6.71
{ 1880-81...					52,57,795	3,42,569	6.51

There has been a very large diminution in the number of cases of smuggling in the Punjab Mines Division, and though the number of smugglers brought to trial in the Delhi Division has increased, the cases, to judge from the quantity of contraband salt seized, must have been of a very petty description. The report of the Commissioner of Salt and Customs has not yet been received.

23. Stamp Revenue.—The report of the Superintendent of Stamps has been submitted separately, but it has also been printed as one of the appendices to this Statement No. VIII. (Printed.) report. The stamp revenue continued during 1880-81 to exhibit the remarkable elasticity which has characterized it during the past 10 years. The receipts in 1879-80, which were considered extraordinarily large, were exceeded by more than two lakhs in the year under report. The gross income was Rs. 32,39,286. Charges rose from Rs. 2,65,035

\* The Commissioner's report has been received since the above paragraph was written.

to Rs. 2,77,624, but nearly half of the increase is the direct result of the improvement in the income. The fact that a larger sum has been spent on refunds is not, in Mr. Lyall's opinion, an unfavorable sign. The Stamp Law is one which it is difficult for the ordinary public to interpret and the Financial Commissioner considers that free use should be made of those provisions of Act I of 1879 which enable revenue officers to save people from the results of innocent mistakes.

24. Court Fees Labels.—The income from Judicial Stamps rose from Rs. 20,70,855 to Rs. 22,20,914. The increase under this head, therefore, amounted to more than a lakh and a half of rupees. It is not improbable that the increased litigation to which these figures point had some connection with the improvement in the condition of the Province, which began in 1879-80. When harvests are very bad, the money-lender has little hope of enforcing his claim against his debtor in a Court of law, and he is compelled to content himself with a renewal of his bond. The attempt to compare the statistics of the sale of Court fees stamps with those relating to litigation has not been very successful.

More than a quarter of the revenue derived from Court fees is obtained by the sale of 1-anna and 8-anna stamps which are mainly used for miscellaneous petitions to revenue officers and for complaints under the Criminal Procedure Code. The exclusion of the sale proceeds of stamps of these denominations, however, affects but little the result of the comparison of the receipts for 1879-80 and 1880-81, and there can be no doubt that the large increase of income is the fruit of greater activity in litigation. But the facts referred to by Mr. Trotter in the 4th paragraph of his report show that any detailed comparison of the two sets of statistics would be unprofitable. Large irrecoverable balances of stamp duty due on pauper suits were struck off during the year under report, but the amount still shown as outstanding appears excessive. The draft Court Fees Bill, which has lately been introduced, gives the Governor General in Council the power to determine whether the stamp used to denote any fee shall be impressed or adhesive, and it is probable that advantage will be taken of this provision to substitute impressed stamps for adhesive labels to denote all fees of Rs. 10 and upwards. The change will be more valuable when extended to stamps of lower denominations. In his report for 1879-80 Mr. Trotter suggested that stamped paper should be used for court fees of Rs. 5 and upwards. The stamp revenue in the Punjab has probably suffered little, if at all, by the sale of forged labels, but the use of adhesive stamps offers a temptation to fraud by the removal of labels from files, and it is difficult to devise any system to ensure that the stamps shall always be cancelled in such a way as to prevent their being used again. One case of the abstraction of Court fees stamps from files came to light in the course of the year. Mr. Trotter has suggested that punching machines should be issued by this office to all courts in the Province. Before taking any action on this suggestion, enquiries will be made as to the extent to which the courts have already supplied themselves with such instruments.

25. Revenue from non-judicial stamps.—The revenue under this head is also expanding rapidly. The receipts for the year under report were Rs. 10,18,372, of which Rs. 8,52,652 were derived from impressed stamps, Rs. 86,402 from receipt stamps and Rs. 52,472 from hundi stamps, the balance being the income from the sale of "foreign bill" and "share transfer" stamps. The sale of receipt stamps is increasing, but there is no doubt that the law prescribing their use is very largely evaded. Mr. Lyall does not think that the ordinary village traders have at present sufficient facilities for obtaining these stamps, and he proposes to make *patwāris ex-officio* vendors of receipt stamps. A report on the subject has been called for from Mr. Trotter. The law as to hundi stamps appears not to have been fully understood, and it may be hoped that the issue of the circular to which Mr. Trotter alludes will lead to its stricter enforcement. But probably no great increase of income need be looked for, as post office orders are to a great extent superseding hundis.

The returns furnished by the Inspector General of Registration show that the value of deeds of sale and mortgage and of ordinary bonds presented for registration was less in 1880-81 than in the previous year. But the large increase in the value of impressed labels sold appears to indicate that a greater number of bonds and deeds of mortgage for petty amounts must have been executed in 1880-81 than in 1879-80. The number of registered bonds is of course no criterion of the actual number of bonds executed.

26. Arrangements for vend of stamps.—Mr. Trotter is, on the whole, satisfied with the present arrangements for the vend of stamps, and the large amount of inspection duty done by him entitles him to speak with confidence upon the subject. Further facilities for the purchase of non-judicial stamps are about to be given by the appointment of sub-postmasters as vendors.

27. Offences against the Stamp Laws.—The number of convictions for offences against the Stamp Acts fell from 452 in 1879-80 to 298 in 1880-81. Nearly half of the prosecutions were in Rawalpindi, but the Deputy Commissioner has given no explanation of the large number of cases which occur in his district, though his silence was commented on last year. Probably Mr. Trotter is right in thinking that in some districts the law is not administered with sufficient strictness.

28. Cases of embezzlement of stamps.—Two cases of embezzlement of stamps took place during the year, one at Gujranwāla and the other at Jhelum. A full report as to the Gujranwāla case was submitted some time ago, and the Jhelum fraud will be reported upon shortly.

29. Alluvion and Diluvion.—The two Statements, No. X and No. XA, represent generally the result of the diluvion and alluvion measurements in 1879-80. For the first time for many years the action of the rivers has caused an increase in revenue. The facts brought out by the statements are summarized below—

		Increase.	Decrease.
		Rs.	Rs.
In alluvial chak districts ...		6,176	4,708
In other districts ...	New area	31,885	34,067
	Improved area	7,441	...
TOTAL ...		45,502	39,395

The net gain to Government is therefore Rs. 6,207. It may be interesting to note here the result of river action during the past decade :—

Year.	Net loss.	Net gain.
	Rs.	Rs.
1871-72 ...	12,968	.....
1872-73 ...	.....	18,717
1873-74 ...	.....	14,752
1874-75 ...	54,963	.....
1875-76 ...	84,210	.....
1876-77 ...	1,25,190	.....
1877-78 ...	69,474	.....
1878-79 ...	1,03,682	.....
1879-80 ...	18,646	.....
1880-81 ...	.....	6,207
TOTAL ...	4,69,333	39,676

Thus the net loss during the last ten years has exceeded four lakhs of rupees. The Financial Commissioner does not believe that the results would have been so strikingly or so persistently unfavorable to Government if existing rules had been fairly carried out. In the districts in which the chak system does not prevail, the area gained was 69,723 acres, and the average jama imposed was 7 annas 4 pies. Last year the assessment fell only at the rate of 4 annas 4 pies the acre. The average revenue per acre of the area lost was in the year under report 9 annas 8 pies as compared with 12 annas in the previous year. The assessment in the present year was probably a fair one for land newly thrown up, but such land increases in value year by year, and there is much reason to believe that the jama is often not enhanced as it should be in consideration of this progressive improvement. The remarks of the Commissioner of Lahore upon this subject, which will be found among the extracts, appear to Mr. Lyall to have much force.

30. Action of Chos.—In Umballa the mountain-torrents which issue from the Siwaliks generally do little damage, and in Jullundur their action during the year under report has not affected any village to a serious extent. But in Hoshiarpur the Deputy Commissioner has been compelled to propose a reduction of Rs. 1,873 in the assessments of 20 villages which have been injured by chos. These figures, however, do not really represent the extent of the damage done. There are above 100 villages in the district which are liable to cho action, but the 5 per cent. rule prevails and apparently only the more serious cases are taken up.

Mr. Coldstream has, during the year, devoted much attention to a consideration of the various means of coping with an evil which he truly calls "the scourge" of his district. In the plains efforts are being made to induce the villages to combine for the construction of embankments for their own protection, and Mr. Coldstream hopes by the planting of grass and reeds to effect something in the way of reclaiming the soil which has been overlaid with sand and of confining the channels of the torrents within narrower limits. Near the station of Hoshiarpur a very interesting experiment is being made as to the possibility of reclaiming the sandy bed of a cho. Grasses and reeds are being sown on an extensive scale with a view to bind the soil; and shisham trees, and eucalypti of the species known as *tereticornis*, both of which are found to flourish in sandy ground, have been planted. The experience gained by such experiments will be very valuable, but the results must be limited until an attempt has been made to strike at the root of the evil by the execution of some well-considered scheme for the reboisement of the catchment-basins of the torrents within the Siwaliks. Should this be accomplished, the waste stretch of sand which disfigure the district would become valuable pasture-lands, and in course of time be again fit for cultivation.



Mr. Coldstream made during the cold weather a very thorough examination of the Siwaliks and the villages in their neighbourhood, in order to obtain materials for a report on the demarcation of the range. A joint report has been lately submitted to the Commissioner of Jullundur by Mr. Coldstream and Captain Montgomery, the Settlement Officer, but it has not yet reached the Financial Commissioner.

31. Land taken up for public purposes.—The area of land purchased by Government and the amount of compensation paid to the owners were as follows:—  
Statement No. XI.  
(Printed.)

	Acres.	Compensation, Rs.
By private negotiation ... ..	1,235	56,787
By Collector's award ... ..	879	1,32,339
By award of Court ... ..	1	2,679
TOTAL ... ..	2,115	1,91,305

The average amount of compensation per acre was therefore Rs. 90-11-0 as against Rs. 40-5-0 last year.\* But one-third of the total amount was paid for 5 acres 28 poles taken up in Rawalpindi for the station of the Punjab Northern State Railway. The land belonged to Government, but the bungalows, &c., situated upon it were purchased at a very high price. No compensation was paid till after the close of the year for the lands taken up by Mr. Finlay in Rawalpindi for the Punjab Northern State Railway. In Jhelum a good deal of land was acquired for the Salt Line Railway.

The following statement shows the purposes for which land was purchased by Government and the average prices paid:—

Detail.	Area.	Average price per acre.		Total average price per acre.
		Land.	Trees and buildings.	
		Rs.	Rs.	Rs.
For roads ... ..	415	78	12	90
For canals ... ..	520	48	20	68
For railways ... ..	778	25	101	126
For miscellaneous purposes...	202	34	1	35

The cost of the land taken up in Dera Ghazi Khan for canals was nearly Rs. 158 per acre. The Deputy Commissioner, Mr. Thorburn, has pointed out the enormous discrepancy between the price paid by Government and the average price paid in the case of private transfers as noted in Statement No. XXXV. The Irrigation Department has for several years complained that the great cost of acquiring land in this district is an obstacle to the improvement of the canals, and when the statistics for several years are compared, it is difficult to resist the conclusion that the interests of the many have been sacrificed to those of a few fortunate landowners.

The Deputy Commissioner of Karnal, Mr. Benton, has pointed out an undoubted blot in the Land Acquisition Act. Section 15 directs the Collector to refer the case to the court of the Commissioner "if any person whom the Collector has reason to think interested does not attend." Mr. Benton says—"It is no uncommon thing in my experience for ten or twenty people to be summoned to arrange a matter valued at a fraction of a rupee, and yet unless each single individual appears, the Deputy Commissioner has no choice according to the Act, but to refer the matter to the court. . . . I have been in the habit of sending the Tahsildar to the villages to distribute the compensation after it has been settled with all who would appear on summons, and to take the receipts from all the sharers." All that is really required in the interests of the landowners is to see that each person concerned receives a summons under Section 9 to attend, and, if Section 15 were fully carried out, the only result would be that the Deputy Commissioner's registers would be cumbered year after year with land acquisition cases, or that the bulk of such cases in districts where the land is much sub-divided would be referred to Commissioners. The case shown in the Peshawar District as pending since 1872 appears to relate to land taken up for brick-kilns; only a small part of the purchase-money remains unpaid, and this will be disbursed as soon as the Executive Engineer supplies the Deputy Commissioner with funds.

\* NOTE.—In making these calculations the annual payment made for lands taken up in former years for Umballa Cantonments is omitted.

Statement No. XII.  
(Printed.)

32. Land-revenue assignments.—The following table shows the number of assignees of land-revenue in the Province and the value of the grants which they enjoy :—

1880-81.	No. of grantees.	Value of grants.
		Rs.
In perpetuity ... ..	55,863	18,99,143
For life ... ..	56,483	6,69,461
For more than one life ... ..	12,747	1,58,530
During maintenance of institutions ... ..	17,112	1,95,261
Pending orders ... ..	3,677	32,124
Total ... ..	145,882	29,54,519

Thus the revenue assigned to individuals is still about  $\frac{1}{10}$ th of the whole assessed land-revenue of the Province. The slight apparent decrease, as compared with the figures for last year, appears merely to be due to the fact that more cases were pending at the close of 1879-80 than at the end of the present year. As the year now under report was the last of a decade it may be interesting to compare the figures for 1880-81 with those of the year 1870-71 :—

Grants.	1880-81 Value of grants	1870-71 Value of grants.
	Rs.	Rs.
In perpetuity ... ..	18,99,143	17,64,324
For life or lives ... ..	8,27,991	11,03,877
During maintenance of institutions ... ..	1,95,261	1,70,850
Pending orders ... ..	32,124	1,65,605
Total ... ..	29,54,519	32,04,656

The decrease in the value of grants for life or lives during the past ten years is very marked.

33. Pensions.—The value of the pensions granted to individuals at the close of 1880-81 was Rs. 10,82,079 as compared with Rs. 10,40,465 at the end of the previous year. The amount of the pensions which lapsed was Rs. 47,642 and the value of new grants Rs. 91,523.

Statement No. XIII.  
(Printed.)

## PART II.—ADMINISTRATIVE.

34. Coercive processes.—There has been a progressive decrease in the number of warrants for the realization of land-revenue during the past two years. In 1878-79 the number exceeded 50,000, last year it fell to 46,356, while in the year under report only 41,994 were issued. The number still appears great, but it must be remembered that there were heavy balances to be collected.

The use of warrants in Rawalpindi was large for a year when, as the Deputy Commissioner reports, "the land-revenue was realized in full without any difficulty." But Major Lang states that a week's grace is usually given before dastaks are issued. The increase in Shahpur and Gujrat is satisfactorily explained by the occurrence of bad harvests, but it is probable that in Umballa and Ludhiāna, where the revenue appears to have been collected with ease, there was a too free resort to these processes by some Tahsildars.

The Deputy Commissioner of Amritsar states that the large number issued in his district was not due to the bad circumstances of the zamindars but to "delay, more or less fraudulent," on their part in making payment. The diminished use of warrants in the divisions of Delhi, Hissar, Jullundur and Amritsar is a sign of returning prosperity. The Financial Commissioner is disposed to think that in some districts warrants are still used too freely, being issued by Tahsildars without enquiry as reminders to the lambardars immediately on the revenue falling due.

In some districts, as for instance Gurdaspur and Siálkot, lambardars applied for warrants against defaulting shareholders, but a strong social feeling generally prevents headmen from calling in the aid of Government against their neighbours.

At present too the revenue is not due by the shareholder to the lambardar a moment sooner than it is payable by the lambardar to Government, and a headman, unless he were very prompt in making his application to the Tahsildar, would often find that a warrant had already been issued against himself. But, if a lambardar, who, when brought to the tahsil on a warrant, is willing to apply for the use of coercive processes against a co-sharer, is never himself detained, the hardship inflicted

is not very great, as he would have had to go to the tahsil to obtain a warrant in any case. The Deputy Commissioner of Jhang states that the postponement of the dates on which the rabi instalments are due in that district has been a decided boon to the people. The dates have also been altered in several other districts which have been recently under settlement. The change is a decided improvement and should result in a diminished use of coercive processes in ordinary years.

The proportion of expenditure to receipts was somewhat higher than in the previous year. The number of cases of imprisonment rose from 66 to 104. This is entirely due to the fact that 89 persons were put in confinement in Muzaffargarh. Severe measures appear really to have been necessary in that district, and the example made will probably ensure greater punctuality in payment for the future. The cases of distraint of personal property have fallen from 553 to 257. The three districts of Gurgaon, Amritsar and Muzaffargarh furnish four-fifths of the total number. There were large balances to be collected in Gurgaon, and the district has not yet recovered from the poverty caused by a succession of bad seasons. As to Muzaffargarh, Mr. O'Brien was too well acquainted with the people to have employed strong measures without necessity, and it is a fact of which the Financial Commissioner has personal knowledge that in this district it is sometimes the wealthy men from whom it is hardest to collect the revenue. In former years illegal means for enforcing the claims of Government were in vogue, and no doubt the people will soon realize that it is better not to force the district officer to employ coercive processes. In Amritsar the revenue was paid in all cases before it became necessary to sell the property distrained.

In Karnál Mr. Benton has been forced to take under direct management some villages whose revenue had been in arrears from year to year.

**35. Government Estates.**—The area of Government land is reported as 11,282,109 acres as against 10,463,800 last year. The increase is due to the inclusion in the Hazára statement for the year under report of village forest lands, half the produce of which belongs to Government, and to the fact that in 1879-80 the area in Gujranwála was erroneously shown as 54,095 acres instead of 154,095. A revised survey of the Gujranwála rakhs has also proved that their extent was formerly under estimated.

2,382,753 acres are reported to be under the Forest Department, 8,484,263 acres under the management of Deputy Commissioners, and 74,468 acres under other departments.

A full list of the districts in which the rakhs under the care of the Forest Department are situated was given in last year's report. The increased area now shown is due to the error in the returns for Gujranwála already referred to. 52,478 acres were entered as included in the jurisdiction of Forest Officers instead of 152,428 acres. The figures for the present year are 59,505 acres under district management, and 100,707 under Forest Officers. Twenty-six rakhs were handed over to the care of the Deputy Commissioner during the year. The receipts from grazing-dues, which are the chief source of rakh income, have already been noticed. During the year Rs. 77,122 have been derived from cultivating leases, the total area leased being 340,625 acres, of which 126,778 were cultivated. The average rent per acre was therefore 3 annas 7 pies or above 9 annas per acre under cultivation. In the case of all cultivating leases, except those in which the term is only one year, the Financial Commissioner thinks that part of the rent should be taken from the first in the shape of a proprietary fee or "hakk málikana." In this way the rights of Government are reserved in a way that can admit of no mistake, and experience has shown that some such formal assertion of title is required. In the spring of the present year Mr. R. M. Dane, Assistant Commissioner, was put on special duty to report upon the rakhs in the Lahore District. His enquiries brought to light some irregularities on the part of lessees, but his final report has not as yet been received.

**36. Kham Holdings.**—The number of villages reported as held Kham tahsil is 24; 23 of which are situated in Dera Ismail Khan,\* and 1 in Bannu. The collections were Rs. 53,178 or about double the jama fixed at Settlement. The results of the year, so far as they affect the Gandapur and Bhitanni villages in Dera Ismail Khan, have been fully described in para 15. Portions of 2 villages in Karnál were also held under direct management during part of the year, but the Deputy Commissioner has not entered these in Statement No. XV or the income realized in Statement No. III.

**37. Agricultural advances.**—The amount shown as advanced for agricultural improvements in 1880-81 is Rs. 65,029 as against Rs. 59,212 in the previous year. But in the figures for both years some special advances for the purchase of bullocks have been included. The amount lent to zamindárs under Act X of 1879, which has been shown in Statement XVI, was Rs. 10,640, and the actual value of the advances under Act XXVI of 1871 was Rs. 54,389. Nearly one-third of the total is contributed by Muzaffargarh. Since the conclusion of the Settlement, cultivation has been rapidly extending in that district, and advances have been readily taken. But the favorable results in Muzaffargarh must be largely ascribed to the efforts of Mr. O'Brien to make the system of Government loans known to and appreciated by the people. The large increase in Ferozepore is chiefly due to the grant to the Deputy Commissioner as Manager of the Mamdot Estate of an advance of Rs. 5,000 for the improvement of a canal.

\* Note.—In the statement for 1879-80 the Deputy Commissioner showed the number of villages as 46. No villages have accepted engagements to pay land-revenue in cash during the year, and the discrepancy must be due to some change in the principle of enumeration, which Major Macaulay has not explained.



The great apparent decrease in Amritsar is due to the fact that large loans which were made for the purchase of bullocks in 1879-80, were in the statement for that year mixed up with ordinary takavi advances. Many District Officers have in their report discussed the question why Government agricultural loans are not more popular. It seems useless to recapitulate criticisms, however able, most or all of which have often been urged before; especially as Mr. Lyall has lately offered his opinion at length on the whole subject in discussing that part of the report of the Famine Commission which deals with advances for agricultural improvements. The new rules which have been published during the present year, together with the exemption from stamp duty of instruments executed under the Land Improvement Act and the provision of a very simple method for the registration of such deeds, have, to a great extent, disarmed such criticisms, and if District Officers in cases of necessity freely move Commissioners to exercise the power to suspend the payment of instalments given to them by the rules, the complaint as to the rigidity of the system will lose most of its force.

In certain districts, for example Hissar, loans will never be largely taken for the simple reason that the sinking of wells, which is the chief agricultural improvement that a native ordinarily undertakes, is too expensive to be profitable. The delay which occurs in making advances is no doubt one great obstacle against which the system has to contend, but much would be done to obviate this if Deputy Commissioners and their assistants would, as far as possible, when on tour, take up takavi cases and themselves make the local inspections which the rules require. To do away with such inspections altogether, as the Deputy Commissioner of Ferozepore proposes, would hardly be safe, for there have been cases, especially in Pesháwar, in which loans have been taken, not for the execution of improvements, but for the liquidation of debt or for ordinary expenditure. Major Grey and Mr. Benton both think that the hypothecation of the grantee's land as security for repayment of the loan is unnecessary. Mr. Lyall is not at present disposed to concur in this opinion, he thinks the hypothecation is advisable to serve as a notice to the public even if it is not absolutely required for the Government as security. The rule which requires that the first instalment shall be repaid six months after the loan has been completely taken up is not an improvement on the old rule by which the first instalment fell due two years after the date on which the advance had been made. It might result in the demand for the repayment of a portion of the loan before the improvement in effecting which it was expended had yielded any profit to the grantee. But proposals for the amendment of this rule are at present before Government.

38. Advances for purchase of seed and cattle.—The amount advanced during the year under the provisions of Act X of 1879 was Rs. 10,640. The only districts in which such loans were made were Muzaffargarh, Lahore and Kangra.

No difficulty has been experienced in realizing the instalments of the large advances made in Gurgaon and Amritsar in 1879-80, which fell due during the year under report. A very simple set of rules under Act X of 1879 has recently been submitted for the approval of Government.

39. Revenue Business.—The number of cases instituted during the year was 269,395, and Statement No. XVII. 270,158 cases were disposed of. Thus the pending file which, at the close of 1879-80, showed 24,051 cases, was reduced by the end of 1880-81 to 23,288 cases. In Gurgaon the number of cases pending is much less than last year, which is creditable to the district officials, when it is considered that more cases were instituted in Gurgaon than in any other district in the Province. Special measures have lately been taken to facilitate the disposal of revenue business in Gurgaon, 3 Naib-Tahsildárs having recently been invested with the powers of a Tahsildár in regard to uncontested mutation and partition cases.

40. Revenue Appeals (Commissioners and Deputy Commissioners).—Including cases Statement No. XVIII. pending at the close of 1879-80, there were 1,046 appeals for disposal in the Courts of Commissioners, only 97 of which were undecided at the close of the year. The average duration of cases in Commissioners' Courts has risen from 55 to 58 days. This does not appear excessive, but in Pesháwar, Delhi and Jullundur the duration is much above the average: in Pesháwar it is clearly excessive and must be due to neglect of this branch of work, owing to the distraction of political duties.

There were 221 appeals to Deputy Commissioners, of which 208 were decided within the year. The average duration of these cases was 35 days. Mr. Gladstone, who wrote the report of the Muzaffargarh District, did not hold charge of it during any part of 1880-81, and accordingly no explanation has been offered of the tardy disposal of cases in that district.

74 per cent. of the orders appealed to Commissioners were confirmed, 18 per cent. were reversed and 8 per cent. were modified or returned for further investigation. These results prove that, generally speaking, revenue cases in the Courts of Deputy Commissioners have been decided after full and careful investigation. The proportion of the reversals of the orders of subordinate revenue officers by Deputy Commissioners is naturally considerably larger.

41. Revenue Appeals to Financial Commissioner.—At the close of 1879-80, 115 appeals Statement No. XX. were pending in the Financial Commissioner's Court and 307 cases were instituted during the year. The decrease in the number of institutions as compared with last year was due partly to the fact that fewer districts were under settlement and partly to the exclusion of the majority of ordinary suits relating to land from the jurisdiction of

Settlement Officers in districts recently brought under settlement. There were in all 422 cases to be disposed of, of which 365 were decided, leaving 57 cases pending at the end of the year. Of the orders appealed, 79 per cent. were upheld, 14 per cent. were reversed, 2½ per cent. modified, and 4½ per cent. returned for re-investigation.

The Financial Commissioner also disposed of 1,184 maaf cases, 291 miscellaneous cases and 52 petitions for review of judgment. Of the last only 1 was granted.

42. **Treasuries.**—The Treasuries were inspected by Commissioners when on tour, and the reports which they furnished to the Accountant General show that few irregularities of any importance were detected. The stamp frauds which occurred at the Gujranwala and Jhelum Treasuries have already been referred to.

43. **Coinage.**—The following table, the figures in which are taken from a statement furnished by the Accountant General, shows the number of coins cut in the Punjab during the year 1880 :—

WHOLE RUPEES.			8-ANNA PIECES.		
Worn out.	Counterfeit.	Tampered with.	Worn out.	Counterfeit.	Tampered with.
51,661	679	9,510	822	6	...

About 80 per cent. of the total is furnished by Delhi and Lahore, where the banks have the power of cutting light-weight coins. Several officers have referred to the hardship of the present system by which the loss involved in the withdrawal from circulation of coins which have lost more than 2 per cent. of their weight by fair usage, is thrown on persons paying money into the public treasuries. Although such rupees are at a discount at the Treasuries, they are received freely in the bazars at their nominal value, and the present orders cannot really have any effect on checking the sweating of coins. On the other hand, as the Commissioner of Mooltan points out, they must tend to keep short-weight coins in circulation, and the power of the treasurers to reject coins puts in their hands a weapon which may sometimes be used for the purpose of extortion. The Deputy Commissioner of Delhi, Mr. T. W. Smyth, says that the granting of the power of cutting light-weight coins, to the Agents of the Bank of Bengal and of the Delhi and London Bank caused great dissatisfaction among the mercantile classes in that city, and had a bad effect on the bidding for supply bills. The merchants preferred to obtain hundis at a higher rate of premium rather than to run the risk of loss on short-weight rupees. The orders relating to the withdrawal of shroff-marked coins from circulation were in abeyance throughout the year.

44. **Currency Notes.**—The following figures are taken from the return furnished by the Accountant General. The figures given in the report of last year are repeated for the sake of comparison :—

		1879-80.	1880-81.
		Rs.	Rs.
Notes received from the public in payment of Government dues.	Home Circle Notes ...	1,15,49,550	1,07,66,505
	Notes of Foreign Circles ...	58,79,420	23,60,625
Notes received from the public in exchange for silver ...		69,46,335	86,88,580
Notes issued to the public in payment of Government dues ...		...	1,75,75,945
Notes issued to the public in payment for silver ...		99,06,165	1,24,98,990

The Deputy Commissioner of Karnal complains that his Treasury was left without any supply of Currency Notes during the last four months of the year.

45. **Savings Banks.**—The rules published as Government of India, Financial Department, Notification No. 109 of 20th February 1880, raised the limit of deposits to Rs. 5,000 yearly, and the interest to 4½ per cent., the highest sum payable monthly as interest on any one account being fixed at Rs. 17½. At the same time the troublesome regulation requiring the personal attendance of depositors at the bank was rescinded. The new rules remained in force till October, and gave a great impetus to the business of the Savings Banks. In fact deposits increased to such an extent that it was feared that money which would ordinarily have been invested in private banks was being drawn to the Government treasuries. The rules were accordingly altered in October. While the rate of interest remained at 4½ per cent., the interest payable on any account monthly was limited to Rs. 10½, and the amount of money that might be deposited in any year to Rs. 500. The stream of deposits was at once checked, and as the rate of interest has been reduced to 3½ per cent., the business of the banks will probably rapidly diminish; a few instances of the enormous growth of the deposits during the year may be given. In Lahore there were, at the beginning of 1880-81, 347 depositors, and their accounts aggregated Rs. 1,42,166. During

the year 270 new accounts were opened, Rs. 2,17,189 being deposited as against Rs. 83,874 withdrawn. In Jullundur the amount in deposit in the beginning of the year was Rs. 32,824 as against Rs. 73,379 at its close, and in Amritsar the deposits increased fourfold during 1880-81. Special efforts were made to spread a knowledge of the Savings Banks system by circulating vernacular copies of the rules, but there is nothing in the district reports to show that any effect was produced on the agricultural classes. Most Deputy Commissioners omit to notice the classes to which depositors belonged. But in Peshawar and Amritsar, and no doubt in almost all other districts, they were either soldiers or Government servants.

46. Patwaris.—The patwaris were so largely employed during the cold weather on census work, that their proper duties were generally very much neglected. The annual papers were therefore filed very late, and there can be no doubt that the field inspection work was in most districts very imperfectly performed. In fact the girdawari in many cases must have been a merely nominal one, and the annual papers for the year under report are very unreliable. The Deputy Commissioner of Dera Ghazi Khan found that in some cases no girdawari had been attempted up to May, and wisely ordered that the pretence of making one should not be gone through. In several districts all the annual papers had not been received by the month of June.

47. Delhi Division.—Of the 225 patwaris in the Delhi District, 188 have passed, 2 have been exempted, and 35 have still to pass. Considering the number of passed men, and the fact that most of them have had training in the Settlement, it is scarcely satisfactory to find them described as "careless and dilatory in the performance of their duties." The fault is probably due to lack of supervision. There are 8 girdawars in the district in addition to the kanungos and naib-kanungos, and if these men are made to do their duty, there can be no reason why the Delhi patwaris should not prepare their returns with accuracy and punctuality.

In Karnal the patwaris are more favorably reported on. Mr. Benton says he was much pleased by the way in which those of the Panipat Tahsil, who had been trained in the Settlement, made the alluvion and diluvion measurements, and by the very exact maps which they prepared. The school in Karnal was abolished at the close of the year. It had been in existence for three years, and out of 222 patwaris, 62 had been passed after examination, 110 had been accepted as efficient on the strength of certificates granted by the Settlement Officer, and 42 had been exempted from examination. There are only 3 patwaris now in the district who have not passed or been exempted. In addition the school has provided 60 passed candidates, who will be available as vacancies occur. It is unfortunate that in the newly settled tracts the census followed immediately on the close of the Settlement. Mr. Ibbs made a girdawari of the Karnal Tahsil, but in Panipat no proper field inspection has been made for years. The Deputy Commissioner, however, is determined to remedy this in the present year. In Gurgaon Mr. Macauliffe reports the state of the patwaris as regards efficiency to be "truly pitiable." The annual papers were filed very late, but in commenting on this, the Deputy Commissioner does not appear to allow sufficiently for the effect of census operations, and in any case the system of indiscriminate fining which has been adopted is not likely to result in the production of honestly prepared returns. A strong staff of girdawars was appointed at the end of the Settlement, but the kanungos, who were generally inefficient, were not removed, and it may be necessary to get rid of some of them unless a distinct improvement is exhibited in the present year. A patwaris' school will soon be started, and if it is carefully managed, and the Deputy Commissioner insists on the girdawars performing fully the special duties for which they were appointed, Mr. Lyall hopes that a great improvement will soon be visible.

Hissar Division.—There is no school at present in the Hissar Division, but one will probably be opened next year in Rohtak. In Hissar most of the patwaris have passed, and new patwaris are not appointed permanently till they have fulfilled the prescribed tests.

In Rohtak, owing to the census there was no attempt at a girdawari. The Deputy Commissioner of Sirsa merely notes that the patwaris and kanungos are under the Settlement Department, but Mr. Lyall believes that Sirsa is one of the few districts in which a careful field inspection was made during the year under report.

Umballa Division.—The Deputy Commissioner of Simla is silent as to the working of the patwaris in his district, and the Deputy Commissioner of Ludhiana merely states that "all the patwaris are with the Settlement Department." The school in Umballa has been doing good work, and 20 men passed during the year. The census interfered here as elsewhere with the proper duties of the patwaris, but notwithstanding this the annual papers are said to have been better prepared than in previous years.

Jullundur Division.—In Jullundur and Hoshiarpur the patwaris are working under the Settlement Officers. In Kangra a school has been in existence since 1872. All the patwaris in the district have passed, and as there are also about 30 passed candidates it will probably be advisable to close the school for a year or two. The work of the patwaris appears to be actively supervised, and the Deputy Commissioner says that their records are in good order, and that the annual papers are punctually submitted. The Commissioner, Colonel Davies, as the result of his own observations, confirms what Colonel Jenkyns says as to the state of the records. The kanungos are assisted by girdawars appointed at Settlement, and the Commissioner says of the supervising staff generally, that it is very complete and composed of very intelligent men.

Amritsar Division.—Schools are maintained in all three districts of the Amritsar Division, and the results appear to be fairly satisfactory. The revenue records in Amritsar seem to have been carelessly

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prepared in past years, for the Deputy Commissioner reports that numerous plots of land broken up since Settlement and not shown previously have been entered in the papers of the last girdawari. In Siálkot there was no proper field inspection, as the patwáris were engaged from September to February in census work.

**Lahore Division.**—In Ferozepore and Gujranwála schools are maintained and the patwáris seem to be fairly efficient. In the former district two examinations were held during the year, and 21 patwáris and candidates succeeded in passing. Special measures have recently been taken to strengthen the supervising staff in Gujranwála. The remarks of the Commissioner as to the Lahore patwáris will be found among the extracts appended to this report. His unfavorable opinion seems largely to be founded on the late date at which the annual papers were filed, but in the past year Lahore has been no worse in this respect than many other districts.

**Rawalpindi Division.**—In Shahpur all the patwáris have passed or been exempted, except six who went up for examination in April last, with what result was not known when the Deputy Commissioner wrote. Mr. Frizelle says:—“The patwáris are exceedingly well trained and efficient at their work, but their conduct is not good, and they require more looking after than they receive.” The remedy obviously lies to a great extent in the Deputy Commissioner's own hands.

In Jhelum most of the patwáris hold certificates from the Settlement Officer, but a school has been, or will shortly be, opened. The supervising staff in Gujrat is very strong, as eleven girdawars were appointed at the last Settlement, and in Rawalpindi much greater care has recently been taken to ensure that the kanúgos and their náibs actually do their inspecting work in the field instead of merely checking the papers in the tahsils.

**Mooltan Division.**—There is no school in any of the districts of this division. Except in Montgomery the patwáris have just passed through the training which a Settlement affords. Probably a school is by this time wanted in Montgomery, and the Deputy Commissioner of Muzaffargarh, while acknowledging the excellence of the work done by his patwáris in a year when extraordinary demands were made upon them, thinks that a school should be opened in his district at once.

Mr. O'Brien, when Deputy Commissioner of Muzaffargarh, supplied the ordinary schools with instruments, in order that the boys might learn the elements of surveying early. The Deputy Commissioner of Mooltan proposes that a special class for patwáris should be opened in the chief Government school in each sub-division.

**Derajat Division.**—The patwáris of the Dera Ismail Khan District appear to be a very efficient class of men. The Financial Commissioner had an opportunity of inspecting their work in the riverain lands, which are under fluctuating assessments, and was satisfied that the annual measurements had been generally made with sufficient accuracy.

The Deputy Commissioner of Dera Gházi Khan reports that his patwáris are “inefficient and surprisingly independent.” This is a very unsatisfactory state of things to exist in a district where the alluvion and diluvion assessments are more than usually important, and where the measurements of canal irrigation are made through the agency of patwáris. The fact seems to be that the patwáris have never been compelled to reside within their circles, and no patwár-khánas have been provided for them. The revenue administration of the district has also undoubtedly suffered of late years from the absorption of the district officers in political work, arising from the war in Afghanistan and frontier complications connected with it. Mr. Thorburn intends at once to undertake the grading of the patwáris, a measure which was sanctioned several years ago. The construction of patwár-khánas in each circle should also be proceeded with, and when this is accomplished no hesitation need be felt in dismissing patwáris who refuse to fulfil the condition of residence.

**Peshawar Division.**—The Deputy Commissioner of Hazára says that the patwáris and kanúgos in his district “are, as a body, intelligent and smart men.” 94 patwáris have been exempted from examination, on the strength of certificates granted by the Settlement Officer, but besides these, there are only 12 patwáris who have not yet succeeded in passing the examination and they had been required to fulfil the prescribed test by May of the present year. 36 heirs of patwáris and kanúgos are studying either under patwáris or in Government schools. There is a patwár-khána in each circle. The Deputy Commissioner of Kohát, Mr. Tucker, who wrote his report very soon after he received charge of the district, says nothing as to the character of the work done by his patwáris. There is a school in Peshawar, but during the war it was difficult to secure regular attendance. This obstacle has now disappeared, and 14 patwáris and 1 candidate passed during the year under report. The education of the heirs of kanúgos is properly attended to.

The description of the working of the patwáris given in the district reports is not on the whole unsatisfactory. But in respect to the number shown to have passed the examination the picture is probably a flattering one. It is proved by experience gained in the most recent Settlements that many completely ignorant men contrive to satisfy the examiners. There can, however, be no doubt that substantial progress has been made of late years in increasing the efficiency of this class of officials, and this progress should be greatly accelerated by the creation in the Punjab of a department, one of whose chief duties will be the improvement of agricultural statistics.

47. **Wards' Estates.**—Thirty-six estates are shown as under the management of the Court of Wards at the close of 1880-81, but two or three of these have been erroneously included in the

statement, as they were handed over to their owners in the course of the year. Three of the estates belong to persons whose property has been taken over because they had proved themselves incapable of managing it.

The following table shows broadly the result of the administration of the estates:—

Cash in hand on 1st April 1880.	Income during 1880-81.	Liquidation of debts.	Expenditure investments.	Other expenditure.	Cash in hand on 31st March 1881.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
2,38,384	5,83,085	47,537	1,45,514	3,34,297	1,88,852

The most important estates now under the Court of Wards are those of Sardár Bakhshish Singh Sindhanwalia, the Nawáb of Mamdot, and Malik Umr Hyát Khan Tiwana. The management of Sardár Bakhshish Singh's affairs has financially been successful, but there has been considerable difficulty in arranging for the young Chief's education. It has, however, been recently arranged that, in addition to the home instruction which he will receive from his English and Native tutors, he will attend the junior classes of the Lahore Oriental College. The estate of the Nawáb of Mamdot appears to be the only one on which any part of the income has been spent on agricultural improvements. The amount set aside for this purpose in the Budget estimate furnished for 1880-81 was Rs. 13,200, but the actual expenditure was, Mr. Lyall believes, considerably in excess of this amount. The improvements which Major Grey projected were somewhat neglected in his absence, but the work has been vigorously resumed since his return to Ferozepore. Since the estate was taken under the management of the Deputy Commissioner, several canals have been excavated and sixty wells have been sunk. The work of improving and extending the canals is being actively carried on, and Major Grey intends to make 177 additional wells at a cost of Rs. 30,824. In the Budget for the present year Rs. 20,000 have been allotted for wells, Rs. 25,000 for canals and Rs. 25,000 for mortgages of land. There are in the Mamdot estate some 10,000 acres of land belonging not to the Nawáb, but to other proprietors who have mortgaged them beyond hope of redemption. The mortgagees are, in fact, proprietors in all but name, for they enjoy the produce, and pay the revenue. In 1876 Major Grey proposed to pay off the debts of the proprietors, and to accept mortgages of part of their land as security. The result of such a measure would be the immediate restoration to the owners of a portion of their land free from burden, and Major Grey calculated that the Nawáb would realize high interest on the amount he had advanced by letting the lands mortgaged to himself.

The scheme was sanctioned, but its execution was in abeyance during Major Grey's absence. A full account of the improvements recently undertaken will be found among the printed extracts from district reports.

The estate of Umr Hyát Khan Tiwana is very wealthy. The income during the year was Rs. 94,065, and nearly a lakh of rupees was invested in Government funds. The assets exceed 7½ lakhs. As the ward is only between six and seven years of age, he will, on attaining his majority, succeed to what will be for this country an enormous fortune. The policy of making very large investments in the purchase of Government paper is a doubtful one in the interests of the wards themselves. The result is that they obtain an unlimited command of money at an age when their characters are not fully formed, and the accumulated savings of their minority sometimes disappear in a few years of dissipation.

The Financial Commissioner considers that in future a considerable part of the income of their estates should, in accordance with the principle laid down in the report of the Famine Commission and in a recent resolution of the Government of India, be spent on agricultural improvements of a kind whose utility has been established. The only estate under the care of the Court of Wards which is much involved is that of the Guru of Kartarpur. Debts amounting to Rs. 14,438 were paid during the year, but the liabilities still exceed 2½ lakhs. The Guru, though an intelligent man, is quite incapable of managing his own affairs.

On the death of Rana Sahib Chund, who was a man of weak intellect, the Manaswal Estate was handed over to his brother, Rana Lehna Singh. In the 8 years during which the property was managed by the Deputy Commissioner of Hoshiarpur, the debt upon it was reduced from Rs. 24,468 to Rs. 1,214.

The progress of the wards as regards education appears fairly satisfactory when it is remembered that they mostly belong to families which are more likely to breed soldiers than scholars.

## PART III.—SETTLEMENTS.

48. Working of the Punjab Tenancy Act.—Statement XXXIX is imperfect, as Deputy Commissioner appears to have overlooked the instructions contained in Circular No. 11 of 1879 as to the inclusion of suits brought in Settlement courts. The Deputy Commissioner of Delhi has indeed included 65 suits brought in the Settlement courts, but expresses himself unable, owing to proper registers not having been made over by the Settlement Officer, to give the details showing the result of these suits. From Statement XXI it appears that 208 suits for enhancement were disposed of in the Settlement courts, of which 200 were in the Jhelum District; and these must be added to the 462 cases shown as disposed of in Statement XXXIX, making a total of 670 cases decided. In 273 of these, *i. e.*, those decided in the Settlement courts, the results are not stated; in 316 out of the other 397, the landlords obtained decrees for enhancement of rent; in the majority of cases the decrees were based on ground three of Section 11 of the Tenancy Act, the comparison with rents paid by tenants-at-will. The tenants whose rents have been enhanced in these cases, paid before enhancement, including the revenue assessed, Rs. 4,423; this has been enhanced to Rs. 5,715, or by 29 per cent. In Rohtak and Gurgaon, immediately after the announcement of the new assessments, enhancement suits were very numerous, and in 1878-79 the institutions numbered 484 in Rohtak and 331 in Gurgaon, but during the last two years the statements have been blank for Rohtak, and in Gurgaon last year no suits and this year only 20 suits were brought for enhancement. It is noteworthy that in Karnál, Mooltan, Jhang, Muzaffargarh, Dera Ismail Khan, Bannu and Kohát, all districts recently assessed, no enhancement suits were brought during the year under report. In Karnál the Deputy Commissioner notices that a large number of suits was expected in consequence of the difficulties arising from the introduction of the owner's-rate system, but that the endeavours to bring about an amicable settlement were so successful that not one suit was brought. In Delhi the number of suits brought was large, a consequence of the recent re-assessment of the district. The only districts not recently under settlement in which landlords show a tendency to avail themselves to any great extent of the powers given them by the Act, are Amritsar and Hazára; in these districts the suits for enhancement brought during the last three years have been—

	1878-79.	1879-80.	1880-81.
Amritsar	83	80	73
Hazára	66	86	53

The Deputy Commissioner of Amritsar does not think that the cases are at present so numerous as to cause any uneasiness, and the Deputy Commissioner of Hazára offers no special remarks on the subject. Some remarks by the Financial Commissioner on the working of the enhancement provisions of the Tenancy Act were recently submitted to Government with reference to the Report of the Famine Commission.

49. Ejectment of tenants with rights of occupancy.—As usual the entries in this statement are very few; only 13 decrees for ejectment of occupancy tenants were given during the year.

50. Ejectment of tenants without rights of occupancy.—Notices of ejectment are increasing in number year by year, as will be seen from the following figures. This shows that the law requiring such notices is becoming better known, but does not necessarily imply that evictions are more numerous than formerly:—

## Number of notices of ejectment issued.

	1878-79.	1879-80.	1880-81.		1878-79.	1879-80.	1880-81.
Total	4,780	5,782	7,995	Ferozepore	211	312	364
Hissar	606	1,347	3,116	Delhi	264	356	336
Sirsa	366	1,031	1,189	Rawalpindi	319	307	291
Gurgaon	762	556	477	Amritsar	100	251	286
Rohtak	292	213	385	Jullundur	412	155	266
				Karnál	119	140	209

In Hissar Major Parker states that the increase in the number of ejectments is due to the same cause as that noticed in previous reports, *viz.*, the fear that at the approaching termination of the present Settlement the tenants may claim a superior status from length of possession. The area from which tenants were ejected in Hissar was very large, 43,168 acres, and the Hissar statement is remarkable also for the fact that only in 34 cases did the landlord apply for assistance in ejecting the tenant, and only 1 case was brought to contest the liability to ejectment. The working of the Act in Hissar has altogether been very peculiar and the close attention of the local officers should be directed to the subject. A special report has been lately submitted to Government on the working of the Tenancy Act in the Sirsa District; in this district, of 780 cases brought to dispute liability of ejectment, 324 were decided in favor of the tenant.

In Gurgaon the number of notices issued is gradually decreasing, but in Rohtak there has been a great increase as compared with last year. In the whole of the Mooltan Division only two notices were served, and in Kohát and Pesháwar no recourse was had to this procedure, although in the latter district 57 decrees for ejectment of tenants-at-will were obtained. The general opinion seems to be that as the Act becomes better known, landlords will make more use of their powers; and this will be



more especially the case where the population begins to press on the means of subsistence and the tenants have hitherto been in an exceptionally favored position as regards their customary terms of tenure and rent.

51. The statement shows 301 suits instituted and 354 for disposal during the year; in 54 the plaintiff was referred to a suit for right, in 120 decrees were granted, in 159 decrees were refused, and 21 were pending at the end of the year. Strictly speaking, suits under this section can be brought only after the record has been sanctioned by Government, but the statement shows suits brought and decrees given in Delhi, Mooltan, Jhang, Muzaffargarh, Bannu and Kohát, where the new record has not yet been sanctioned by Government. In other districts the period of limitation for these suits, six years from the date of the sanction of the record, as determined by the Chief Court in judgment No. 79 of 1879, Punjab Record, has evidently been overlooked. As in consequence of this decision the operation of the section has been much limited, the Financial Commissioner has proposed to amend the form of the statement, so as to include all suits for the amendment of the record brought by parties in possession of the rights claimed.

52. Districts under Settlement.—The districts under settlement during the year were—

- |                  |                           |
|------------------|---------------------------|
| 1. Delhi.        | 8. Kohát.                 |
| 2. Karnál.       | 9. Ludhiána.              |
| 3. Rohtak.       | 10. Hoshiarpur.           |
| 4. Jhelum.       | 11. Sirsa.                |
| 5. Mooltan.      | 12. Jullundur.            |
| 6. Jhang.        | 13. Rawalpindi.           |
| 7. Muzaffargarh. | 14. Siba Jágir in Kangra. |

The Settlements of the first seven of these districts were completed during the year, and the Settlement of Rawalpindi was commenced. At the close of the year Settlement operations were in progress in 6 districts and in the Siba Jágir in Kangra. This last is a summary Settlement, and is under the Assistant Commissioner of Kulu: the work is now approaching completion.

53. Final Reports.—The final reports of the Bannu and Dera Ismail Khan Districts have been printed and are before the Financial Commissioner; the printing of the Gurgaon final report has been completed since the close of the year, and it has been submitted to the Commissioner of Delhi for review; that of the Rohtak District has also been printed and was received from the Commissioner of Hissar in March last; Mr. Maconachie's final report for Delhi has nearly passed through the Press and will then be reviewed by the Commissioner of Delhi; Mr. Ibbetson has not yet submitted his final report for Karnál, but it is understood that he will do so shortly; the final reports of the Mooltan, Muzaffargarh, Jhang and Jhelum Districts are before the Settlement Commissioner; the final report of the Wáziri Rupi Jágir in Kangra was submitted to Government during the year, and the assessments were sanctioned, but sanction to the record of rights was withheld until certain entries relating to the forest lands had been made.

54. Statement No. XXII, which shows the progress made in Settlements during the year, is submitted for the Sirsa, Ludhiána, Jullundur, Rawalpindi, Jhelum, Jhang, Muzaffargarh and Kohát Districts. Of these, all but the Kohát Settlement are under the Settlement Commissioner, and his very complete report on the progress of the year will be found printed among the appendices. Mr. Lyall's acknowledgments are due to Major Wace for the efficient character of his control. Major Wace is very anxious to improve the registration of the annual crop areas, and has issued instructions on the subject, which will be found detailed in his report; these the Financial Commissioner has recently embodied in a draft circular which has been submitted for the approval of Government.

55. Muzaffargarh.—The work was completed in July 1880; the total cost of the Settlement to Imperial Revenues has been Rs. 3,97,450. The fiscal result of the Settlement was noted in last year's report.

56. Jhang.—This district also was completed by the end of September 1880; the increase of the Government revenue was noted in last year's report as Rs. 74,000, the cost has been Rs. 4,31,917.

57. Jhelum.—The work of this Settlement, as distinct from the Forest Settlement work, was also completed by the end of September; the cost has been Rs. 4,84,261, and the increase of revenue Rs. 1,10,000. Forty suits for enhancement of rent were instituted in the Settlement courts during the year, and Major Wace anticipates that such suits will be very numerous during the next two or three years.

The Settlement Commissioner explains the causes which have delayed the progress of the Forest Settlement work: the orders of Government were received on the proposals made as to the rakhs of the Jhelum Tahsil during the year under report, and on the report for the Chakwál and Talagang Tahsils in June 1881. As the question of the management of these rakhs has been lately fully reported to Government and orders have been received, it is unnecessary to at present do more than note the general concurrence of the Financial Commissioner in the views expressed by Major Wace in para. 6 of his report.

58. Ludhiana.—The progress shown in this Settlement is—

Areas and field maps passed	...	...	...	529 villages.
Assessment returns prepared in vernacular	...	...	...	568 "
Attestation completed by munsarims	...	...	...	621 "
" " by Deputy Superintendents	...	...	...	460 "

The revenue rate report for the Samrála Tahsíl was submitted by Mr. Walker during the year and is now before the Financial Commissioner. The arrangements made for attestation appear to be very good, and the progress of the work has been generally satisfactory; it is hoped that the Settlement will be completed by October 1882. The delay caused by the census work which devolved on the Settlement staff was minimised as far as possible, but it is estimated that the Settlement operations will be prolonged for two months on this account.

59. Hoshiarpur.—In the Una Tahsíl and the parts of the Dasúya and Garhshankar Tahsils, where the present Settlement does not include a revision of the record of rights, the Settlement Officer hopes to complete the Settlement in December next; the revenue rate report was received by the Financial Commissioner in February, and orders on it have been communicated to the Settlement Commissioner; in the other tahsils the work is still in the measurement stage. The Settlement Commissioner is satisfied with the progress in all four tahsils.

The delay caused by the census operations is estimated as follows:—

In tahsíl Hoshiarpur	...	...	...	3 months.
" Una	...	...	...	4 "
" Garhshankar	...	...	...	2 "
" Dasúya	...	...	...	2 "

The judicial work in this district is somewhat heavy, and the number of cases under the Tenancy Act large. Major Wace regrets that Settlement Officers have no longer the power of summarily re-adjusting the rents of occupancy tenants.

60. Sirsa.—In this district also the case work is heavy, owing to the unsettled character of the relations between landlords and tenants; a separate report on the subject has been lately submitted for the consideration of His Honor the Lieutenant Governor, and it is therefore unnecessary to further refer to the subject here. The progress of the Settlement during the year has been very satisfactory; measurements have been completed, and the revenue rate report for all three tahsils is now under the Financial Commissioner's consideration. It is hoped that the work will be completed by the end of 1881-82, or in little more than two years from its commencement. In this district the delay caused by census work is estimated at about a month.

61. Jullundur.—The progress shown in the statement is only in the first stage, *i. e.*, the boundary survey. This stage was completed in 1,111 villages during the year under report, leaving 114 remaining. This progress, Mr. Purser writes, represents the progress of 5½ months only: of the rest of the year 4½ months were taken up by census operations and 2 by crop girdáwaris. The great delay in the progress of Settlement work is much to be regretted, and the Financial Commissioner is not sure that Mr. Purser might not have prevented it in some part without injury to either Settlement or Census work, but on the whole he concurs with Major Wace in accepting Mr. Purser's explanation as sufficient.

If Mr. Purser's arrangements were in any degree in fault, the fact is probably attributable to his particular dislike of loose inaccurate work, and to his habit of carrying out to the letter any instructions given to him, such, for instance, as those directing that the Patwáris should do the mapping themselves, and those directing an annual inspection of the crops.

It is to be regretted that the Settlement Officer was obliged to have recourse in so many villages to the provisions of Section 22 of the Land Revenue Act, in order to ensure the erection of village boundaries. When Major Wace wrote his remarks on this subject he had before him only the very curt explanation which Mr. Purser gave in the first instance. Since then Mr. Purser has written at greater length. He says that orders were in the first instance issued to both zaildárs and lambardárs and that it was only after it had been fully proved that the zaildárs were unable to make the villages combine, and when it became urgently necessary to have the pillars erected at once, so as to allow the survey to begin, that the work was made over to contractors.

Major Wace is, however, still of opinion that Mr. Purser did not use or manage the zaildári agency sufficiently, and in this he is probably right; there is, however, reason to believe that there is less power of concerted village action in Jullundur than in most other districts, and that the zaildárs also have not much influence at present.

62. Rawalpindi.—This Settlement was commenced on the 15th October 1880, but owing to the employment of the establishment on census work, but little had been done up to the end of the year. The statements show boundaries demarcated in 24 villages and preliminary statements of holdings completed in 10.

63. Kohat.—This Settlement has practically remained stationary during the year, pending the issue of orders on the Hangu reference. This question has now been decided and Major Plowden has promised to wind up the Settlement and submit the final report within four months from the date of his return to duty.

64. Current Settlements.—The Settlements of the Umballa and of half the Karnal District expired in 1880, and these districts will probably shortly come under re-settlement. The Settlement of the small Simla District has been commenced since the close of the year under report, under the immediate supervision of the Settlement Commissioner. The term of the Shahpur Settlement has just expired; the Kangra Settlement has only a few more months to run, and the Hissar Settlement expires in 1883.

#### PART IV.—STATISTICAL AND MISCELLANEOUS.

65. Rainfall and Crops.—The winter rains of 1879-80 were not unfavorable, and heavy showers in February greatly improved the prospects of the rabi harvest of the year under report. But no rain fell in March, and the outturn suffered accordingly. The crops were however good in all Cis-Sutlej Districts, and

Statement XXIV.  
(Printed.)  
in the Amritsar, Jullundur and Lahore Divisions. But in the frontier districts and in the Rawalpindi and Mooltan Divisions the damage done by the drought in March was serious. The districts of the Peshawar Division suffered most, and the harvest there was a very poor one.

The average rainfall for all districts in the Province during 1880-81 was 23.9. This was slightly in excess of the fall in 1879-80, but much below the average of previous years. The rain in June was sufficient, and in July abundant, and at the end of the latter month there seemed reason to hope for an excellent autumn harvest. But during August and September much injury was caused to the crops by drought, especially in the Delhi, Hissar, Rawalpindi and Lahore Divisions. The failure of the autumn rains had, of course, a very unfavorable effect on the sowings for the rabi harvest, and in many cases no attempt was made to cultivate barani lands. In the middle of February prospects in the Rawalpindi and Peshawar Divisions appeared very gloomy. The crops on unirrigated lands were withering, and, as the people were already impoverished by a succession of bad harvests and the dearness of all the necessaries of life, consequent on the war, it was feared it might become necessary to open relief works. But these apprehensions were dissipated by the heavy showers which fell in February and March. These, which were general throughout the Province, secured an abundant harvest upon well-irrigated and sailaba lands, but the crops on unirrigated lands had in many places been irretrievably damaged by the long continued drought. On the whole, however, the spring harvest of the present year has been an excellent one.

Delhi Division.—The rabi harvest of 1880-81 was good throughout the Delhi Division, except in the high unirrigated tract in Karnal known as the Nardak, and in parts of the Kaithal Tahsil, where the failure was serious and led to the granting of large suspensions; up till the middle of September the prospects of the kharif harvest were very bad in the Delhi Division. But heavy rain fell in the latter half of September, and in canal-irrigated lands a fair crop was secured. But in Karnal the rice grown in the unirrigated tracts had been damaged beyond redemption. Mr. Benton remarks that the past rabi has been the first tolerable spring harvest which he has seen during the four years in which he has served in the Karnal District.

Hissar Division.—The spring harvest of 1880-81 was excellent throughout the Hissar Division, but it was followed by a very poor kharif. In fact the crops failed completely except on the canal-irrigated lands. The past rabi harvest has been a good one.

Umballa Division.—The spring crops in 1880-81 were good throughout the Umballa Division, but the autumn harvest was somewhat below the average. 1879-80 was a peculiarly bad year, and a comparison of years 1877-78 and 1878-79 scarcely bears out the remarks made.

Jullundur Division.—The year was a prosperous one in the Jullundur Division. The outturn of both harvests was excellent; the area under kharif crops was 14 per cent. greater than in the previous year.

Amritsar Division.—The crops of both seasons in Gurdaspur and Amritsar were good, but the deficiency of rain in the summer months injured the kharif in Siālkot, especially in the Raya Tahsil, where the rainfall was very scanty and where irrigation from the Degh Nallah also failed.

Lahore Division.—The spring harvest of 1880-81 was a good one throughout the Lahore Division. The division had during the year less than half its average rainfall and the failure of the rains in August and September did much harm to the autumn crops on unirrigated lands both in Lahore and Ferozepore. In Muktsar the kharif crop failed entirely. In the past rabi, however, an excellent harvest was reaped, though the gram crop in Lahore, which promised to be a bumper one, was injured by the attacks of a caterpillar called "sundi."

Rawalpindi Division.—The rabi of the year under report in the Rawalpindi Division was a very indifferent harvest. The rainfall during the summer months was scanty and the kharif was no better than the harvest which preceded it. The spring crops of the present year were only saved by the heavy showers which fell in the end of February and during March.



**Mooltan Division.**—The accounts of the crops given by the Deputy Commissioners in this as in most other divisions are very meagre. The rabi of the year under report was a very poor harvest, but the kharif, except in Montgomery, was good. The canals, both in Mooltan and Muzaffargarh, ran well, and in the latter district no remissions of canal-revenue were necessary. The rabi of the present year has been all that could be desired. In Muzaffargarh cultivation has extended rapidly since the termination of Settlement operations, and jungle lands in the neighbourhood of villages are being rapidly brought under the plough. Great energy has been shown in improving the canals and in keeping the channels in proper order, and the prospects of the district are altogether very hopeful.

**Derajat Division.**—The spring crops of 1880-81 in the Derajat suffered much from drought.

The rainfall of the year under report, though better than that of the previous year, was much below the average. In Bannu only six-tenths fell between the end of August 1879 and the middle of June 1880, and the summer rains came so late that a much smaller area than usual was put under kharif crops. In Dera Ismail Khan and in the canal irrigated tracts of Dera Ghazi Khan the autumn harvest was a very fair one, but the cultivated area in the submontane tracts of the latter district was much smaller than usual. This was chiefly due to the failure of the torrents in consequence of drought in the hills, but the Deputy Commissioner also thinks that the people were afraid to cultivate as they had lost their crops in the previous year when the sowings were very extensive. Whatever the cause, the unirrigated area under cultivation in the Dera Ghazi Khan District fell from 410,000 to 220,000 acres. The spring harvest of the present year has been an excellent one throughout the division.

**Peshawar Division.**—The year was a very unfavorable one in the Peshawar Division. The high prices consequent on the war continued, and the spring crops failed especially in unirrigated tracts. The outturn of the autumn harvest was fairly good. But the winter rains were very scanty, and here, as in Rawalpindi, severe distress was only averted by the heavy showers which fell in the latter part of February and in March.

66. **Crops cultivated and area under cultivation.**—As the annual field inspection in many districts was very imperfect in consequence of the patwaris being employed on census work, the figures for the kharif harvest given in Statement No. XXIX (Printed.) cannot be accepted as very reliable. The entries as to the Kohat District are merely a copy of those of the previous year, as there was no attempt to make a girdawari. The area returned as under rabi crops is 11,622,036 acres as against 11,539,648 in the previous year. Of the total, 57 per cent. was under wheat, 16 per cent. under barley and 15 per cent. under gram. Thus these 3 crops occupied 88 per cent. of the whole area cultivated in the spring harvest. The area under kharif crops was 10,376,342 against 9,874,521 in the previous year. 62 per cent. of the total was under the different millets, 9½ under peas, 7¼ per cent. under rice, and 7½ per cent. under cotton.

The districts showing the largest increases and decreases are—

	1879-80.	1880-81.	Difference.
	Acres.	Acres.	Acres.
Hissar ... ..	1,372,522	1,228,048	- 144,474
Umballa ... ..	982,684	1,078,816	+ 96,132
Ludhiána ... ..	780,359	1,566,031	+ 815,672
Rawalpindi ... ..	904,424	725,719	- 178,705
Jhelum ... ..	950,011	797,856	- 152,155
Dera Ismail Khan ... ..	395,131	531,824	+ 136,693

The increase in Ludhiána is enormous. In the statement for 1879-80 the figures for 1878-79 were merely repeated. The year 1878-79 was an exceedingly bad one in Ludhiána, but part of the increase now shown is probably nominal, being due to the greater accuracy of the returns, which this year were prepared in the Settlement Department. In Rawalpindi and Jhelum the rainfall was very deficient, and as the prospects of agriculture were not bright, and high wages were, while the war lasted, to be earned in the transport service, many cultivators must have abandoned their ordinary pursuits. The kharif crop of 1879-80 in Dera Ismail Khan was a very small one, and though the figures for the present year show a great improvement in both harvests, the area under crop is still very much below what it was reported in the year in which the Settlement measurements were made, when more than 7½ lakhs of acres were entered as cultivated. There is, however, good reason to believe that the area returned as under cultivation in the year of Settlement measurements was in excess of the true area for that year. The figures for Dera Ismail Khan as given in the patwaris' papers may be taken as fairly accurate, for the character of the assessment throughout a great part of the district renders the making of an accurate girdawari absolutely necessary.

67. Prices.—The prices of the chief agricultural products in 1880-81 were somewhat lower than those which prevailed in 1879-80, but still greatly in excess of those ruling in the Punjab before a succession of bad harvests, beginning with the kharif of 1877-78, and the drain of food grains out of the Province for the support of the armies serving in Afghanistan, had rendered all the necessities of life excessively dear. In the frontier districts there was little improvement, and in Pesháwar especially grain continued to be sold at famine prices. Cotton was the only staple the price of which rose much during the year. Salt also was dearer than in 1879-80. Since the close of the year the in-gathering of a good spring harvest and the prospect of an abundant kharif have had a marked effect on the prices of food grains in the Province.

68. Cattle.—There was a good deal of foot and mouth disease in Gurgaon in the beginning of the year, but it was not of a bad type. In the summer of 1880 cattle disease of various kinds was rife in the Rawalpindi Division and rinderpest broke out in Shahpur, but fortunately it did not spread much.

In Kangra and Kulu rinderpest was fatally prevalent throughout the year, and out of 19,907 head of cattle attacked, 17,645 are reported to have died. Mr. A. A. Anderson, the Assistant Commissioner of Kulu, who has studied the subject very carefully, says that the disease appears to be enzootic in Thibet and is rarely entirely absent from the Kulu Valley. It broke out with great violence in January 1880, and has raged there ever since. Of late, however, there has been some abatement of its violence, and a vigorous effort is being made by the Assistant Commissioner of Kulu to enforce quarantine. The potentilla was proposed as a remedy by Mr. Lennox, a tea planter in the Kangra Valley, and he succeeded in curing some diseased cattle by administering pounded strawberry leaves. But in these cases the disease must have been rather ordinary diarrhoea than rinderpest, for which there is no known remedy. Mr. Nunn, Veterinary Surgeon, visited the Kangra Valley in December last and submitted a very interesting report as to the measures to be used in checking the spread of cattle plague, and it is at his suggestion that a rigorous system of isolation has been adopted. The disease appeared in the Simla District in February and was very fatal while it lasted, but it happily died out in the month of May. It has broken out in Siálkot and Gurdáspur since the beginning of the present year, but in these districts it appears, for the present at least, to have abated. There has been a decrease in all kinds of cattle in the Pesháwar District owing to the war, and, owing to the scarcity of transport animals and the high price of provisions, it has been necessary to propose special hire as a temporary measure both in the Pesháwar and Rawalpindi Divisions. Breeding with Hissar bulls has been very successful, but the Hissar rams are not generally popular, and since orders have been passed requiring District Committees to pay for the rams indented for, it is evident that the attempt to improve the breed of sheep by the introduction of foreign blood will be confined to a very few districts.

69. Cattle Fairs.—Twelve cattle fairs were held during the year under report and they were generally very successful. The fair at Rohtak which was held in the spring of 1880 as well as the spring fair of 1881 is included in the statement. The total number of animals exhibited, rose from 203,997\* to 308,788, and the amount of fees realized from Rs. 43,868 to Rs. 49,040. The value of the prizes awarded was Rs. 5,635 and the charges were little in excess of Rs. 6,000, so that there was a large surplus creditable to provincial funds. Some of the fairs are of merely local importance, but those held in the Hissar Division and the Dasahra and Diwáli fairs at Amritsar attract purchasers from various parts of the Province. Separate reports on the more important fairs have been submitted.

70. Land sold.—There is a large decrease, both in the number of sales shown in statement Statement No. XXXV No. XXXV and the area transferred, as the following table will indicate:—  
(Printed.)

					1879-80.	1880-81.
NO. OF SALES	{	To agriculturists	...	...	12,247	6,142
		To non-agriculturists	...	...	3,699	3,332
		Total No. of Sales			15,946	9,474
ACREAGE SOLD	{	To agriculturists	...	...	122,306	98,872
		To non-agriculturists	...	...	50,498	45,794
		Total in acres			172,804	144,666
AMOUNT OF PURCHASE MONEY.	{	To agriculturists	...	...	Rs. 20,30,219	Rs. 15,94,437
		To non-agriculturists	...	...	10,12,109	10,46,708
		Total			30,42,328	26,41,145

\* These figures do not agree with those given in last year's statement, in which 3 horse fairs were erroneously included.

But in comparing the figures for the two years it must be borne in mind that the proper work of the patwars in 1880-81 was perforce much neglected and that no proper field inspection was made in many districts. The Province is gradually recovering from a period of agricultural depression, and the Financial Commissioner does not doubt that with returning prosperity the number of sales will decrease. But the registration returns do not support the conclusion that there was any striking diminution during the year 1880-81. In the review of the revenue report for last year, the great discrepancies which existed between the revenue and registration returns of sales and mortgages were pointed out, and a special report on the subject was recently submitted. A comparison between the returns of the two Departments for 1880-81 brings to light still more startling differences. According to the report of the Inspector General of Registration the number of sales to agriculturists was 10,373 and the value of the land was Rs. 43,86,419, but only 6,142 sales are shown in Statement No. XXXV and the amount paid is entered as Rs. 15,94,437. The differences between the two returns as regards sales to non-agriculturists are still more glaring.

It is obviously impossible to ground any definite conclusion on the revenue statements alone, when it is found that in the case of Delhi, for example, only 58 sales are recorded, while the registration returns, which do not profess to include all cases, show 1,183. There is no district in which the discrepancy is as large as in Delhi, but there are a good many in which the number of deeds of sales registered exceeds the number of mutations effected on account of sales in the proportion of three or four to one.

It has always appeared to Mr. Lyall absurd that the Registration and Revenue Departments should in this matter work in entire independence of each other, and as His Honor the Lieutenant Governor has expressed a general concurrence in this view, a very simple scheme has been suggested which the Financial Commissioner thinks will ensure in most cases the mutation of names in the revenue records when a sale or mortgage effected by a registered deed has been actually followed by a transfer of possession. In para. 11 of His Honor the Lieutenant Governor's remarks on last year's report, the great increase shown in the area sold and mortgaged in the Derajat was noticed and further explanation was requested, that given in the report being considered not sufficient. The Commissioner has been asked to report on the subject. In respect to the huge area shown as mortgaged in Bannu last year, Mr. Lyall expects that in addition to the explanation before given, *viz.*, disposal of arrears of mutation cases in the year, it may also be found that the Settlement brought to light a great number of old mortgages and that some of these have been wrongly shown as mortgages of the year.

In regard to the sales in Dera Ismail Khan they are probably in large part sales of superior proprietary right (A'la Milkiyat). This right is often of small value, and is frequently sold or mortgaged for small sums: the right extends over large areas and its transfer would therefore have an imposing effect in the returns. Frequent sales of certain kinds of inferior proprietary right were also to be expected in the first years after Settlement, for many of the men upon whom such rights were conferred in the Settlement have a status not much superior to that of occupancy tenants, and no great attachment to their holdings. They would be ready for small cause to sell part of their holdings to other men of their class or to the superior proprietors. The determination of title at Settlement would of itself promote sales for a time, as formerly titles were often too vague to satisfy the requirements of purchasers. The Financial Commissioner does not think that there is any reason to be alarmed at the figures of sale and mortgage in Dera Ismail Khan, given in the returns for the last and the present years. In the present year the area sold is less, but still looks exceedingly large. In both years the transfers are in much the larger part to agriculturists. The returns are probably more complete in Dera Ismail Khan than elsewhere.

The adoption of fluctuating assessments throughout a great part of the district has necessitated the making of a very careful girdawari, and the Deputy Commissioner thinks that on this account few cases of voluntary transfer escape record, an assertion which could not be made in regard to most districts. Dera Ismail Khan is one of the very few districts in which the number of mutations exceeds that of the registered deeds of sale.

In Dera Ghazi Khan the area sold was 18,395 acres, which is even larger than that shown last year. The Deputy Commissioner has offered no explanation, but the Commissioner has been asked to report fully as to the causes of the large transfers which appear to have taken place in Dera Ghazi Khan during the year under report, and the previous year. Sales and mortgages with or without pressure of debt have always been very common in Dera Ghazi Khan, but the statistics of the last two years for this district certainly seem to the Financial Commissioner to indicate the prevalence of poverty and distress among a section of the agricultural population. The extraordinary increase in the area sold in Muzaffargarh is due to a single sale of 12,406 acres of jungle land, which was only assessed at Rs. 104.

The average price of land sold to agriculturists fell from Rs. 17 to Rs. 16, while that of land sold to non-agriculturists rose from Rs. 20 to Rs. 23. It is of more importance to notice that the average price of the land sold, whatever the class to which the vendors are stated to have belonged, rose from Rs. 17-9-0 to Rs. 18-4-0. For there is no doubt that landowning shop-keepers are often returned as agriculturists. Perfect accuracy is scarcely to be looked for in classifications of the sort, but the Financial Commissioner is about to issue instructions which he hopes will ensure sufficient correctness in the statistics to make it safe to base conclusions upon them. The price of land was highest in the Jullundur Division



and lowest in Hissar and the Derajat. In Jullundur the average price of land sold to agriculturists was Rs. 90, while in Sirsa it was Rs. 3 and in Dera Ismail Khan Rs. 4. The low price in Dera Ismail Khan is probably due in part to the fact that the sale is often of the superior proprietary right only.

71. Lands mortgaged and redeemed.—The following table shows the number and value of mortgages according to the Registration and Revenue returns :—

	Revenue.	Registration.
Number of cases ... ..	Rs. 20,786	Rs. 37,239
Total value of mortgages ... ..	„ 42,10,794	„ 1,25,73,780

The revenue returns, taken by themselves, would lead to the conclusion that there had been a very marked decrease in mortgages. But turning to the registration statements we find that while there is a slight decrease in the number of deeds registered, there is a very noticeable increase in the total value of the mortgages. The area mortgaged is shown as 230,327 acres. The districts in which the largest amount of land was alienated, were Mooltan, Dera Ismail Khan and Dera Gházi Khan. In the first, 21,423 acres were mortgaged mainly to agriculturists, but these agriculturists are often also money lenders. The Muhammadan landowners of Mooltan are as a class improvident and are often deeply in debt. Besides they frequently mortgage their old lands to raise money to buy new estates. Some estates on the Ravi have suffered from the repeated failure of river floods, and in Lodhrán some zamindárs have been impoverished by failure of canals. As to Dera Ismail Khan and Dera Gházi Khan the remarks made above in regard to sales will apply. In Siálkot also the area and jama of land mortgaged was large, and it is a bad sign that the transfers were mainly to non-agriculturists. The Financial Commissioner has more than once reported that for one reason or another a large number of zamindárs in this district are not prosperous, though the assessment is light.

In Pesháwar and Hazára also bad seasons explain the largeness of the areas hypothecated as security for repayment of debts. It is a curious fact that the average sum per acre for which land was mortgaged during the year was the same as the average price per acre of the land sold. No doubt the zamindár is much more ready to mortgage than to sell his best lands. The number of cases of redemption and area redeemed were much smaller than last year. The decrease has probably a very intimate connection with the diminution in the number of sales recorded, for unfortunately redemptions are in very many cases merely accompaniments of sales.

72. Agricultural experiments.—The attempts to introduce new staples have not been very successful. Reana luxurians was cultivated by a number of the officers of the Irrigation Department. Most of the experiments failed, but the excellent results obtained by one or two officers show that, in some localities at any rate, Reana, if cultivated with proper care, will yield a very heavy crop. In one case the produce on one-quarter of an acre lightly manured was 1 maund  $4\frac{1}{2}$  sérs of seed and 173 $\frac{1}{2}$  maunds of fodder. But the comparative slowness of its growth and the fact that it cannot be used as dry fodder render it very doubtful whether Reana will ever be preferred to jowár by the ordinary zamindár.

Sorghum Saccharatum.—The experiments made in cultivating this fodder plant were not generally successful, the failure being in part due to the late date at which the crop was in many cases sown. But in Gurdáspur where sorgho was sown on 2 roods and 3 poles of land, as late as the middle of July and where the crop was not reaped till November, the produce was 3 maunds and 30 sérs of seed and 40 maunds of fodder, which is equivalent to an outturn of 7 $\frac{1}{2}$  maunds of grain and 77 maunds of fodder per acre. The value of the crop was Rs. 40 and the cost of cultivation Rs. 18-8-0. No doubt had the seed been sown earlier, the produce would have been much greater. In Jullundur 9 kanáls of unirrigated land were sown with 12 sérs of seed in July, and the produce was 20 maunds of fodder per kanál. The latter experiment was made by a native zamindár.

Lieutenant Pogson at Kotgarh also cultivated sorgho successfully.

Guinea grass.—Guinea grass was grown successfully in Rohtak and Dera Gházi Khan, and in the latter district the crop in the Government gardens at Rájanpur was sold to natives at a high price. Perhaps it is more likely to become a popular fodder plant than either reana or sorgho. The points in its favor are its great hardiness and rapid growth. It withers for a few months in the coldest part of the year, but during the 8 or 9 months in which it flourishes it can, if well watered, be cut down 7 or 8 times for fodder. It requires a good deal of water, but drought does not kill it, and it can be propagated at will by division of the roots. If zamindárs would cultivate a few kanáls of it near wells in shahi-nahri lands, they would probably find it a very useful fodder crop, and in the more rainy parts of the Province it would possibly require little or no artificial irrigation.

Kaisar plough.—Five kaisar ploughs were obtained from the Director of Agriculture and Commerce, North-West Provinces, during the year. One of these was sent to the Secretary to the Agricultural Society at Lahore, 2 to the Deputy Commissioner of Jullundur and 2 to the Deputy Commissioner of Hoshiárpur. In Hoshiárpur the value of the plough was carefully tested and the natives took great interest in the experiment. The plough as received from Cawnpore was not found to work steadily. The District Engineer, Mr. Faddy, however, made a plough on the model of the "Kaisar" but with certain modifications. In the kaisar plough the short beam was attached by a rope to the yoke and there is no doubt that there was some difficulty in guiding the bullocks. In the modified plough the beam was lengthened and fastened to the yoke in the usual way by a wooden peg, a modification which

will certainly be an improvement in native eyes. The handle also is attached to the share at a right, instead of at an obtuse angle. The modified plough was found to work admirably. In the Agri-Horticultural Society's Garden at Lahore, the Cawnpore plough worked well without any alterations being made in its construction. A winnowing machine received from Cawnpore was also used with success. In Muzaffargarh Mr. Gladstone took great pains to interest the zamindars in the kaisar plough. He found that the plough, as received from Cawnpore, was of too light construction to work well in heavy soil, and had a plough made on the same pattern, but with better wood and iron work. This plough worked very well. Mr. Gladstone says:—"It cut through the hard soil to a depth of about 9 inches, inverted huge slices of earth with the roots of the 'drab' cut off at a length of from 8 to 12 inches and completely turned over."

Mr. Gladstone received 17 applications for kaisar ploughs, 15 being from natives who had witnessed the experiment. These ploughs were to be made up in the district. At the suggestion of His Honor the Lieutenant Governor, copies of Mr. Gladstone's memorandum, which is a very practical and interesting one, are about to be sent to all district officers. The saving of labour which results from the use of the kaisar plough in the case of crops, like sugarcane, which require the ground to be carefully prepared, is so immense, and the plough itself is so light, cheap, and simple in construction, that there is great reason to hope that it, or some other plough made on very much the same pattern, will become really popular in the Province.

**Behea Sugar Mill.**—Four of these mills were purchased in Karnál during the year. In Bannu they have fairly established their popularity and many are apparently imported yearly from Bengal, independently of the authorities. In Shahpur Mr. Frizelle procured one for use on the estate of Umar Hyát Khán Tiwána, and the Financial Commissioner saw it working there with considerable success when he visited the estate in January. They are also in general use in the four eastern tahsils of Umballa. In the present year efforts are being made to introduce them into other districts.

**Sericulture.**—A report recently submitted on the exhibition of silk cocoons showed that the rearing of silk worms promises to become an important branch of industry in Kángra and Gurdáspur. Among the extracts will be found one relating to the attempts made by Mr. Coldstream, Deputy Commissioner of Hoshiárpur, to domesticate the tassar worm.

**Experimental farm at Hoshiárpur.**—An experimental farm has been started by the District Committee of Hoshiárpur. The more intelligent native landowners of the place are associated with the District Engineer in its management, and under Mr. Coldstream's superintendence an undertaking of the kind will have every chance of success.

**73. Government suits.**—Mr. Spitta has officiated as Government Advocate throughout the Statement No. XXXVI. year. There has been a great decrease in the amount of Government litigation as compared with last year when the number of suits was swelled by the presentation of 59 separate claims for small plots of land which had been occupied by a tea planter in the Simla District.

Two very important suits were filed by Government during the year. The one, "Deputy Commissioner of Delhi *versus* the heirs of Haji Kutb-ud-din and Muhammad Takíh," is interesting as being the first suit relating to a public charity brought in the Punjab under Section 539 of Act X of 1877. The other, "Secretary of State *versus* Lorinda Mal," is a suit against a Commissariat Agent employed at Kandáhar during the late war. The amount claimed is two lakhs of rupees which it is alleged the defendant misappropriated. Both these cases are still pending. In the latter it has been very difficult to obtain the evidence of the witnesses who reside at Kandáhar. It is unnecessary to do more than refer to these suits as a full description of these and of all others in which Mr. Spitta has appeared on behalf of Government is given in his report, which has been printed as Appendix B. Fair progress has been made in the execution of decrees passed in favor of Government.

There has been a slight increase in the number of legal references made to the Government Advocate.

**76. Commissioners' tours.**—*Delhi.*—Colonel Birch was in camp for 25, and Major Gordon Young for 45 days, and every tahsil in the division was visited by one or other of these officers.

*Hissar.*—Colonel Minchin made a very extensive tour. He was in tents from the 3rd of November till the 4th of March, and visited all parts of his division.

*Umballa.*—Mr. J. W. Macnabb was in camp for about 6 weeks in all, and inspected every tahsil in Ludhiána and Umballa with the exception of Jagráon.

*Jullundur.*—Colonel Davies made 3 long tours in the course of which he visited nearly every tahsil in the division.

*Amritsar.*—Mr. Burney inspected the Tahsils of Siálkot, Gurdáspur, Tarn Taran, and Ajnála. Colonel McMahon relieved him in the end of December, but was only able to make a short tour in the Amritsar District and a brief visit to Siálkot.

*Lahore.*—The Viceregal Durbar interfered with camping in the Lahore Division, but Mr. Elsmie was on tour from the 17th of January to the 28th of February and visited the Kasur, Chunián, and Ferozepore Tahsils.



*Rawalpindi.*—Colonel Hall was in camp for more than 2 months, and visited all parts of his division.

*Mooltan.*—There were several changes in the incumbency of the Mooltan Commissionership during the cold weather, and this is alleged as a reason why none of the officers who held the appointment left their head-quarters. The excuse is in some degree a valid one, but Colonel Birch was in charge for more than two months during the marching season and might have spent part of that time in camp.

*Derajat.*—Colonel Ommaney in December marched along the border from Mullazai to Chandhwan and inspected the Tank and Kulachi Tahsils. In January he visited Bannu and in March he went along the frontier, marching southward from the Kurram post to Pezu. Owing to the expedition against the Mahsud Waziris he was not able to visit Dera Ghazi Khan till the month of May.

*Peshawar.*—Colonel Waterfield held charge throughout the cold weather, but he was only in camp from the 13th to the 23rd of October. No doubt urgent political work detained him at Peshawar. Mr. Cordery visited Kohat for a week soon after he relieved Colonel Waterfield.

76. The thanks of the Financial Commissioner are due to all Commissioners and to the following district officers for the specially careful and interesting reports which they have submitted :—

Major Grey.—Deputy Comr., Ferozepore.  
Mr. Coldstream.—Deputy Comr., Hoshiarpur.  
Mr. Beachcroft.—Deputy Comr., Sialkot.

Mr. Gladstone.—Deputy Comr., Muzaffargarh.  
Mr. Benton.—Deputy Comr., Karnal.

I have, &c.,

J. M. DOUIE.

*Secy. to Finl. Commissioner, Punjab.*



# EXTRACTS FROM COMMISSIONERS' AND DEPUTY COMMISSIONERS' REPORTS.

## DELHI DIVISION.

### EXTRACTS FROM COMMISSIONER'S REPORT.

(MAJOR G. GORDON YOUNG.)

\* \* \* Demand.—This diminished demand of the Delhi District is chiefly due to revision of assessment, which, while it gave an increase of Rs. 38,856 in certain villages, resulted in reductions in others aggregating Rs. 1,51,545; this being almost wholly due to the system of assessment adopted, which treated canal lands in their dry aspect only. It is believed that this will be no real loss to Government in the long run, as what is given up as land-revenue may be expected to be paid as canal-revenue. The decrease is also partly due to the exclusion from the demand of *zaildars'* and *ala lambardars'* fees, these amounting to Rs. 13,620 for the year under report.

\* The reduced demand of the Karnal District is also due mainly to revision of assessment, which caused a loss of Rs. 13,479, with a gain of only Rs. 1,252.

\* \* \* Balances.—Though the figures for Gurgaon do not exhibit as favorable a result as those for Delhi, yet they are a great improvement on the previous year, when the amount in balance at its close was Rs. 48,758. The balances of previous years have also been greatly reduced, viz., by a sum of Rs. 33,887, leaving Rs. 34,655 still outstanding, but proposals for the remission of several items amounting to Rs. 16,900 are now before the Financial Commissioner.

Nearly the entire balance of the Karnal District is in train of liquidation, viz., Rs. 9,877; of this amount Rs. 8,359 were recommended for suspension before the close of the year, but the Financial Commissioner's sanction thereto was received only very lately; meantime, Rs. 560-8-0 had been paid up voluntarily, reducing the amount to be suspended to Rs. 2,798; of the remaining balance (Rs. 7,079) Rs. 6,166 were recovered before the submission of the Deputy Commissioner's report, so that the actual balance may be put down at Rs. 923, which is very satisfactory and due to Mr. Benton's careful supervision. The balances of previous years have been reduced from Rs. 43,615 to Rs. 4,550, Rs. 17,834 having been realized during 1850-51, and Rs. 21,231 remitted by sanction of the Financial Commissioner.

\* \* \* Land Acquisition Act.—Mr. Benton complains of the Land Acquisition Act being unworkable as regards land owned by many sharers (as in the case of the common land of a village or *patti*) being taken up under the Act. For one *rajbáha*, for instance, thousands of persons would have to appear before the District Officer, while the interests of many in the land to be acquired is perhaps infinitesimal.

\* \* \* Warrants applied for by Lambardars against Pattidars.—Mr. Benton notices the extreme reluctance with which *lambardars* apply for the issue of warrants for distraint of person against their co-sharers, preferring rather to go to jail themselves: nor will they make any use of the provision entitling them to the issue of process for attachment of personal property. I have frequently drawn attention to what I think is a grave imperfection in the law, by which the co-sharers are only liable to be declared in *arrears*, and to be liable to the prescribed penalties, on the same day as the *lambardar*; this does not give the *lambardar* time to apply for and obtain a warrant, if he desires to do so, before he is himself arrested and taken to the *tahsil*. The *kist* should certainly be legally demandable from co-sharers 10 days before the date fixed for payment by the *lambardars*.

\* \* \* Suits for enhancement of rent in Karnal.—It is a very peculiar feature of the year in the Karnal District that not a single suit was brought for enhancement or reduction of rent, though the Deputy Commissioner says he dreaded there would be a rush to the courts to adjust rents in consequence of the introduction of the owners'-rate; Mr. Benton must be given the credit for this, for the influence brought to bear by him, in arranging for the payment of the owners'-rate by agreement, has saved any litigation.

\* Calamities of season.—In Delhi, as already noted, there was nearly an average *kharif* with a bumper *rabi* harvest, and in Gurgaon much damage was not done, though the rain was somewhat deficient and unseasonable; in Karnal the untimely cessation of the summer rains of the previous year had injuriously affected the sowings for the *rabi* of 1879-80, which was a failure throughout the unirrigated portion of the dis-

trict, and considerable suspensions of demand became necessary. The result, however, for the year under report was very favorable, and I hope this district may be considered to have emerged from the cloud under which it has been shrouded for four years past.

Crops.—The Deputy Commissioner of Karnál remarks that the figures of the return under this subject are, however, not to be implicitly relied on, the patwáris not having been able to complete the girdáwári for all their villages, mostly owing to census work. The kharif crop of this district was almost an average one throughout; while the rabi of 1880-81 is declared by the Deputy Commissioner to be the first tolerable crop of its season that he has seen in the district during four years.

\* \* \* Agricultural experiments.—The “Beheea” sugar mill was tried experimentally at Karnál by the District Committee, but the result of competition with the ordinary native kohlú was not favorable. General Parrott is an agent for Messrs. Thomson and Mylne and is doing all he can to popularize the machine.

#### EXTRACTS FROM DEPUTY COMMISSIONERS' REPORT.

##### (DELHI DISTRICT.)

(T. W. SMYTH, ESQUIRE.)

Canals.—Great trouble was experienced, resulting in delay, in realizing canal revenue, owing to the disputes between the owners and cultivators as to which of them should pay the owners' rate. This question has been settled by recent orders as far as jágirdárs and mafidárs are concerned, and it is hoped that disputes will be less frequent in future as soon as effect has been given to the instructions recently issued by the Financial Commissioner for determining the liability of owners and cultivators respectively, in respect of the payment of owners' rate.

The canal villages continue in a very unhealthy state, especially in the Sonepat Tahsíl, and no doubt this accounts for the decrease in population in this tahsíl as shown by the recent census. Not only is the death-rate in these villages high, but it largely exceeds the birth-rate.

Indian Coinage Act.—The power which was recently conferred on the Agents of the Bank of Bengal and of the Delhi and London Bank to cut or break light coin, has naturally caused great dissatisfaction among mercantile classes in the city. The exercise of this power by the Bank of Bengal injuriously affects the bidding for supply bills put up for sale from time to time by the Treasury Officer.

Patwaris.—The Tahsildárs do not report very favorably of either the work or the qualifications of the patwáris. The qualifications of some are said to be fair and of others only average, which is not saying much for men who have been employed and trained in settlement work. They are reported to be careless and dilatory in the performance of their duties and require constant looking after.

##### (GURGAON DISTRICT.)

(M. MACAULIFFE, ESQUIRE.)

Canals.—The extent of canal irrigation for each year depends on the nature of the season.

In rabi 1879, when there was a scarcity of rain, the area irrigated from canals was 26,930 acres, while in rabi 1880, when there was abundant rain, the area irrigated from canals was only 5,175 acres.

In kharif 1879, when rain fell plentifully, the area irrigated from canals was 5,834, and in kharif 1880, when there was less rain, the area irrigated from canals was 9,814.

Canal demand of 1880-81.	Collections.	Balances.
55,023	43,248	11,775

This considerable balance is principally due in the Palwal Tahsíl. The cultivation has been principally in canal irrigated land.

Cultivation on well and baráni land has been generally impracticable, and the people have had to maintain themselves out of the produce of their canal irrigated land.

**Takavi.**—I have often in my Revenue Reports referred to the reason why takavi is so sparingly taken or applied for. It is simply because such applications cause trouble to the tahsil staff, and they are therefore discouraged. Greater efforts will be made to grant reasonable takavi advances in the present year, and efforts will be made to further explain to the people the instructions contained in Financial Circular Memo. No. 2556, dated 14th April 1881. Of the special advances for seed and bullocks made in 1878, Rs. 15,061 have been realized during the year. A balance of Rs. 8,552 is still outstanding, the result of an indifferent kharif in 1880. It is hoped that this balance will be realized before long.

### ( KARNAL DISTRICT. )

( A. H. BENTON, ESQUIRE. )

**Effect of owners'-rate and the new Settlement.**—In order to ascertain exactly what the effect of the owners'-rate and of the new settlement has been for the past year, I propose to take the rent-roll of 1878-79 and to eliminate from it all other causes of increase and decrease, so as to find what, independent of them, would be the amount of rent-roll if the old settlement had continued, and to take the difference between it and the new rent-roll, so that I may arrive at the amount which is to be ascribed to the owners'-rate, and that I may be able to compare the owners'-rate with it for the past year as follows:—

						Rs.	A.	P.
Rent-roll for 1878-79	...	...	...	...	...	6,78,594	3	4
						Rs.	A.	P.
Increase due to other causes from 1879-80 to 1880-81						590	11	4
Decrease	"	"	"	"		1,443	11	6
Net decrease	...	...	...	...			853	0 2
Balance	...	...	...	...			6,77,741	3 2
Rent-roll for 1880-81	...	...	...	...	5,80,264	14	2	
Add owners'-rate for 1880-81	...	...	...	...	83,185	10	4	6,63,450 8 6
					Difference		14,290	10 8

This is the net result due to the new settlement and to the introduction of owners'-rates for the past year if the Government had retained the owners'-rate in jágirs; but as it has been given up to the jágirdárs to the above amount, there is to be added the jágirdár income from owners'-rate for the past years, viz., Rs. 12,172-15-0, which gives a total loss of Rs. 26,463-9-8 due to the new system.

**Restriction of Irrigation.**—Although there is diminished income, I do not think that it is at all certain that there will be any large permanent restriction of irrigation. As far as I can learn the irrigation of the current year, barring peculiarities of the coming season, is likely to reach, if not exceed, the figure of former years.

There is no movement towards sinking new wells or repairing old, observable. On the contrary two villages have got permission to irrigate land irrigable from wells on condition of paying owners'-rate, although according to law such rate could not be exacted from them.

**Diluvion.**—I was much pleased by the excellent manner in which the work was done in Pánipat, and by the very exact maps which had been prepared to show the position of the river in each succeeding year by the patwáris trained in the settlement.

**Advances.**—Throughout my tours I have been informing the zamindárs that I had Rs. 5,000 at my disposal for takavi, that I was anxious to expend it and would inspect any work they proposed to execute by means of an advance on the spot. They generally promised to think over it but I received no application.

The new orders have made a step in the right direction in extending the period for repayment, but I humbly think they ought to go much further, and perhaps it would be sufficient to depend on direct management of the mortgaged land for recovery of the advance, sufficient care being taken to see that it was adequate.

With the period for repayment extended to 15 years say, the interest reduced to the lowest figure to which Government could consent and the process for recovery made as mild as possible, advances I believe would be taken. Until such changes are made, evidently they will not be taken to any great extent.

**Protective pattas.**—They would doubtless have been granted if they had been applied for, but there were no applications. The Tahsildárs have now been instructed to apply for pattas in case of



wells built by takavi, and to instruct patwáris to report wells that have been built from private resources, that pattas may be granted.

**Savings Banks.**—The customers of the Savings Banks are all Government servants. The amount deposited has increased from Rs. 3,048 to Rs. 10,018, but the result is due almost entirely to two depositors having placed large sums in deposit during the year. This would not be possible under the revised rules published in October.

**Patwaris.**—The patwáris' school was established in May 1878 and was abolished on the 31st March 1881.

The following statement gives the result of the work done by it. In addition to training the patwáris of the district it has furnished a large number of trained men from whom it will be possible to select patwáris for several years:—

Name of Tahsil.	No. of Patwáris.	No. passed.	No. exempted.	Passed by Settlement Officer.	Remaining.				REMARKS.					
					No. absent after first examination.	No. gained in last examination but failed.	Totally absent.	No. of circles without patwáris.						
Pánipat ...	75	3	3	69	...	...	...	...	The School was established in May 1878 and abolished on 31st March 1881. 136 persons were admitted in school as under—					
Karnál ...	92	27	18	40	1	1	1	4						
Kaithal ...	55	32	21	1	...	...	...	1						
									Admitted.	Passed.	Failed.	Obtained one other chance.	Absent owing to sickness and census work.	
									Patwáris ...	65	62	1	1	1
									Relatives of patwáris...	37	35	2	...	...
									Candidates	34	25	9	...	...
Total ...	222	62	42	110	1	1	1	5	Total ...	136	122	12	1	1

I regret to state that owing to census work, which almost completely absorbed all the patwáris' time from the month of September to the end of February, the annual patwáris' papers have generally not been filled up to date.

It was unfortunate for the newly settled tract that the census should have come at the time it did. The Settlement Officer made a girdáwari of Karnál pargana, but for Pánipat there has been none for any number of years, and the new settlement papers are very much out of date. The subject will demand strenuous attention in the current year.

**Tenancy Act.**—The Statement XXXIX A is blank, no suits having been brought to enhance or to reduce the rent paid by occupancy tenants. I dreaded that there would be a tremendous rush to the courts to obtain an adjustment of rents in consequence of the introduction of the owners'-rate. I used all the influence I could bring to bear to prevent this by arranging for the payment of the owners'-rate by agreement, and the result is that not a single suit has been brought. I could wish that we had not been quite so successful, as a few suits would have done no harm and they would have served to settle the landmarks. The business has been settled, on the whole, not unsatisfactorily, on the principle that where the landlord takes the old rent or father revenue he pays the new rate, but where the tenant only pays the new revenue he also pays the owners'-rate.

In a few cases the question has been settled on the principle embodied in Section 41 of the Canal Act, of the landlord and tenant paying proportional shares of the owners'-rate according to their respective interests in the land.

**Prices.**—Grain and produce of every description show a downward tendency as compared with previous years when drought and scarcity prevailed. Sugar is the one exception. The high price of grain was one reason why people should have sown more grain and less sugarcane, so that the price of the latter rose, but I believe there were other reasons.

# HISSAR DIVISION.

## EXTRACTS FROM COMMISSIONER'S REPORT.

(COLONEL C. C. MINCHIN.)

\* \* \* **Rohtak Settlement.**—In Rohtak, notwithstanding the inadequate rainfall and other causes, only a small sum of Rs. 981 remained outstanding, which speaks well for the assessments as fixed at the late revised settlement, the more especially when it is borne in mind that by this settlement there has been an annual increase of revenue amounting to Rs. 1,66,000

**Water-advantage Revenue or owners'-rates.**—The water-advantage or owners'-rate has been sanctioned for the Rohtak District only. Owing to non-receipt of orders in 1879-80, nothing was realized on that account that year, but under the orders published in Notification No. 576½ of 25th June 1880, owners'-rates were directed to be realized for the year 1879-80, and the amounts so collected were as follows:—

				Rs.	A.	P.
Khafif 1879-80	...	...	...	60,868	9	0
Rabi 1880-81	...	...	...	27,501	0	10

Although the canal officers understood that only the rates for the rabi were to be collected, some mistakes regarding the share of mafi dues appear to have been made, and a detailed report is now being made by the Deputy Commissioner of Rohtak under the instructions received with your letter No. 3228, dated 9th May. Major Harcourt has submitted two statements showing the extent of canal irrigation and the produce from kharif 1878 to rabi 1880, showing a large decrease in cultivation.

This decrease in canal cultivation in the Rohtak District was due to the misapprehension on the part of the zamindars of the principle introduced in the new settlement of charging unirrigated rates on the land, &c., making those who take the water pay the owner's-rate as well as the canal rates. They could not understand the three separate charges. It has now been clearly explained to them, and already a large increase in cultivation has taken place. They do not like the system of pipes, as it does not give a sufficient supply in a short time, but it has only been introduced on one Rajbaha, and I do not think it is suitable to such sandy tracts as Rohtak. There are no villages suffering from over-irrigation in either of the districts, but the check to irrigation in Rohtak has done no harm, and has given the lands a rest.

In the Hissar District, although the owners'-rate has not been introduced, a sum of Rs. 47,439 has been estimated as the annual credit from the land-revenue for the Canal Department.

In Sirsa there is no canal, but a branch of the Sirhind Canal is being extended to a portion of the district which, if completed during the settlement operations now in progress, will introduce the water-advantage rate there also.

**Canals.**—At para. 15 of my report for the previous year, I noticed the former and present condition of the branch of the Western Jamna Canal, which passes through portions of the Hissar and Rohtak Districts. Further improvements are being made by Mr. Phelan, the present Executive Engineer. The tortuous channels are being removed wherever this is practicable at a small cost; the canal is being widened, the embankments raised and strengthened, so that the deposit of the silt will not be so large as it used to be, and with a full supply of water or drainage after a heavy fall of rain, overflowing is less likely to take place and a larger supply of water can be brought down the canal.

During the year under report the supply was regular and fair; the area under cultivation in Hissar increased; but in Rohtak it was less, because the owners'-rate had alarmed the people, and the introduction of irrigation by pipes on No. 12 Rajbaha experimentally had caused dissatisfaction; the yield was more, complaints few; revenue realized in full; measurements were made by the canal patwaris, and the Pachotra, except in one instance, was paid in full.

**Rainfall.**—The rainfall during the three years was—

		1878-79.		1879-80.		1880-81.	
		Inches.	Tenths.	Inches.	Tenths.	Inches.	Tenths.
Hissar	...	19	8	12	5	14	5
Rohtak	...	20	8	21	9	16	7
Sirsa	...	23	3	11	5	8	8

The average for five years was in—

		Inches.	Tenths.
Hissar	...	18	7
Rohtak	...	20	9
Sirsa	...	17	2



The scantiness of the fall is marked throughout.

Hissar, however, fared better than the other two districts. Sirsa suffered the most, where the fall was *less than half* of the average of the last 5 years.

In Rohtak the summer rains were *not* seasonably distributed; in June the fall was very scanty: this was followed by a copious fall in July; in August there was not a drop, and the winter showers were both tardy and scanty.

**Calamities of Season.**—Overflooding of the villages bordering on the Ghaggar in Sirsa, and Fatehabad and Barwala Tahsils of the Hissar District, drought more or less severe throughout are noticed under the head Calamity of season. Besides these, in Rohtak, a grub of a greenish color called "Sundi" attacked the gram crops.

\* \* \* **Prices.**—The prices had a downward tendency; and except in the matter of firewood, all were favorable. Fuel is becoming dearer, and is likely to become dearer still when the Railway passes through this division. The reason for this scarcity is that owing to increased area under cultivation, jungle and brush wood are disappearing, and the indigenous khar and other trees are cut down for agricultural implements and other purposes. On the other hand, the soil is arid, rainfall precarious and scanty, means of artificial irrigation few, and necessarily the growth of trees either none, or very backward.

#### EXTRACTS FROM DEPUTY COMMISSIONERS' REPORT.

#### HISSAR DISTRICT.

(MAJOR W. J. PARKER.)

**Canal Irrigation.**—There has been a good supply of water in the canal during the year. No complaints were made of scarcity of water.

The area irrigated during the year was 65,609 acres, while that in the preceding year was 60,985 acres, the increase is owing to a larger area of land having been brought under cultivation.

The assessment of water rate for rabi and kharif crops was Rs. 1,91,715, of which Rs. 60,700 was on account of Jhind territory for rabi 1880-81, that for kharif having been included in the Rohtak District, and Rs. 1,041 on account of Bikanere. The entire demand was realized.

Canal irrigation has not been found to have a deteriorating effect on the quantity or quality of the produce. On the contrary it is said to be beneficial.

The health of the villages on the canal suffers more than that of the villages situated on barani lands.

**Number of coercive processes issued.**—No difficulty was experienced in realizing the revenue demand; only 71 warrants were issued during the year for the collection of land revenue against 86 the year before. No other coercive measures were resorted to. No warrants were issued for the collection of other revenue.

**Advances for construction of wells.** The reason why zamindars do not apply for advances.—No advances were applied for or granted during the year. The reason why the people in this district do not apply for advances for the construction of wells is, firstly, that water is found at such a great depth below the surface that the cost of sinking wells is very considerable, generally from 2,000 to 3,000 rupees, and wells of such a depth would be useless for agricultural purposes, even if the people could afford to sink them, as they would require bullocks of more than ordinary strength to work them. There are, however, 98 villages on the canal, where well irrigation is used, but here the water level is higher and wells can be sunk at a cost of 300 to 400 rupees. Secondly, the punctuality with which the instalments of the takavi advance have to be repaid, deters the zamindars from availing themselves of it,—they say they prefer to go to their village bankers who allow more time for payment and that even if they accept takavi they are ultimately driven into their village banker's hands and have to mortgage their lands in order to pay up the Government advance when it falls due. These are the reasons given by the people and are probably the correct ones; they point to poverty or there should be no difficulty in repaying advances by easy instalments. Still by a less stringent working of the rules this difficulty might be removed. I do not, however, think there would ever be many applications in barani villages, owing to the expense attending the sinking of wells.

**Application for ejectment of tenants and cause of increase.**—The number of applications during the year for service of notice for ejectment of tenants without right of occupancy under Section 23 of Act XXVIII of 1868 was 2,975, against 1,570 in the previous year. The increase is due to the same cause as that noticed in last and the previous years' reports, namely, the approaching termination of the present settlement, when it is feared that such tenants may claim a superior status from length of possession.

**Patwaris how selected.**—None but well qualified persons are now appointed patwaris; they are first appointed on probation and are not confirmed in their appointments until they have passed the prescribed examination. The annual papers of patwaris are carefully prepared and filed. The Naib-Tahsildar tests 10 per cent. of the entries and subsequently the Tahsildar tests 5 per cent. Finally the Sadr kanungo compares them with the mutation files and register of deaths; any errors found are explained to the patwaris concerned and the papers rectified.



State of Patwaris' records, &c.—The patwaris' records and maps are in good order; they are examined every year. The patwaris in this district are as a whole an efficient body of men, and every effort is made to keep them up to the mark.

Price of fuel.—The most notable change is in the price of firewood, which has risen from 3 maunds to 2½ maunds per rupee, and there is every prospect of its rising still further, owing to the absence of forests or waste lands available for plantations. I may here mention, however, that it is in contemplation to reserve the Harbi Bir for this purpose on the expiration of the present lease. This will render some 2,000 acres available for planting out, and as the Railway is about to run through Hissar, some such provision will be very necessary in order to supply the increased demand for fuel.

## ROHTAK DISTRICT.

(LIEUTENANT-COLONEL A. H. P. HARCOURT)

Owners'-Rate.—While touching on the subject of owners' rates, I should refer to the complication which has lately arisen between the proprietors and tenants regarding the payment of these rates. A case in point was referred by me through the Commissioner to the Financial Commissioner, and the rules laid down by the Financial Commissioner will, I think, clear away the difficulties that have arisen. I must confess it puzzled me no little in mind here to find proprietors who could get no rent for their lands, they moreover being expected to pay the owners'-rate when they benefited not in the least from the crops the tenant might choose to sow, and indeed it is hard to comprehend how such a state of affairs could have ever come into existence. The owners are now in a state of expectancy and are quite prepared to sue for their rights if the hereditary tenants—"the occupancy tenants" as they are called here—will not come to terms. I have taken every opportunity of explaining to the people that the owners are entitled to rent, and that they cannot be expected to pay any portion of the owners'-rate unless they receive rent, and I have strongly urged on those whom I have spoken to, to endeavour to arrive at some friendly understanding among themselves. It will be interesting to watch the course of events during the year, and the report for 1881-82 will show whether the people have determined to fight out their disputes, or have agreed to come to an amicable understanding.

Irrigation by means of pipes.—In Sampla Tahsil the facts in so far as I have been able to ascertain are as follows: In villages where lands have been watered by means of pipes from the canal the amount of irrigation has been small. The zamindars state that one pipe kept open from morning to evening is only capable of irrigating 7 or 8 bigahs of land. The Tahsildar of Gohana reports that although the new system of distribution of water by means of pipes from canals has been introduced, the zamindars have not discontinued taking water from the canal. He states, however, that a sufficient supply cannot be obtained. So long as water is to be had the zamindars apparently have no objection to take it, but payment of the owners'-rate will operate somewhat oppressively if supplies are cut short; the defective supply not merely resulting in injury to the crops, but entailing also a reluctance on the part of the cultivators to apply for water. It is urged that a pipe from the canal with a diameter of only 4 inches can only irrigate 2 bigahs of land in a day and a night. This it is pleaded is very inadequate. The reluctance to irrigate on the part of the zamindars is daily decreasing, as the fear of the heavy payments which had to be made at the commencement for the owners'-rate is now passing away.

## UMBALLA DIVISION.

### EXTRACTS FROM COMMISSIONER'S REPORT.

(J. W. MACNABB, ESQUIRE.)

Land-Revenue.—The Government demand on account of land-revenue and commutation tax for the year was Rs. 15,87,386, being in excess of the preceding year's demand by Rs. 3,543; of this aggregate demand only a sum of Rs. 1,749 remained unrealized at the close of the year. Of this balance Rs. 1,218 was on account of diluvion, Rs. 308 on account of lapses of rent free tenures, and Rs. 223 on account of lands taken up for the Sirhind Canal in the Umballa District.

Coercive measures for realization of revenue.—Compared with the proceedings of the preceding year, the number of warrants issued for realization of revenue was slightly less in the Umballa District, and a trifle more in the Ludhiána District, and barring this coercive measure, the Government revenue was realized without difficulty.

No process of any kind was issued in the Simla District.

Agricultural Advances and Protective Pattas.—No takavi advances were made in the Umballa and Ludhiána Districts, nor were any pattas for new irrigation works granted in the Umballa District. In the Ludhiána District 27 pattas were granted by the Settlement Department; 3 new wells were constructed by the aid of advances in the Umballa District and 27 in the Ludhiána District.

Owing to the unsatisfactory subsoil water-supply in Umballa, I do not think that any new well can be sunk with advantage, but much might be done in this direction in Ludhiána.

### EXTRACTS FROM DEPUTY COMMISSIONERS' REPORTS.

#### UMBALLA DISTRICT.

(T. W. H. TOLBORT, ESQUIRE.)

The "Cho" question has also been under discussion. I do not think that the damage caused by mountain torrents in this district is very great. The geological formation of the lower hills in Umballa is different from that of the Hoshiárpur Siwálks.

#### LUDHIANA DISTRICT.

(F. D'O. BULLOCK, ESQUIRE.)

Agricultural experiments.—The experiments with Sorgho show the following results:—20 sérs of seed were sown in 6 bighas 3 biswás of well land; the outturn was 12 sérs of "gur" which sold for six annas, and the straw fetched 12 annas, which was no compensation for the cultivation. I think the total of results shows that these experiments may just as well be discontinued.

## SIMLA DISTRICT.

(MAJOR R. P. NISBET.)

**Savings Bank.**—There is a very large increase as compared with the preceding year, due, as stated in report for 1879-80, to the enhanced rate of interest and the privilege of crediting Rs. 5,000 instead, as formerly, Rs. 500 during the year, allowed by Government during 1880.

The following statement shows the working of the Savings Bank during the year under report as compared with the preceding year—

Years.	Opening balance.		New deposits.		Total.		Withdrawals and lapses.		Closing balance.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
1879-80 ... ..	103	17,773	44	24,142	147	41,915	1	11,079	146	30,837
1880-81 ... ..	146	35,099	116	89,823	262	1,24,922	88	53,779	174	71,143

The difference in the amount shown as the closing balance of 1879 and the opening balance of 1880-81 is owing to the amount of transfers from other stations having been excluded in 1879-80.



# JULLUNDUR DIVISION.

## EXTRACTS FROM COMMISSIONER'S REPORT.

(COLONEL W. G. DAVIES, c. s. i.)

**Balances.**—The balances have been reduced from Rs. 47,951 in 1879-80 to Rs. 22,488 in 1880-81, or by Rs. 25,463. The largest balances, as in the year preceding, were in the Hoshiarpur District, where they amounted to Rs. 17,421; of which Rs. 13,261 is shown as in train of liquidation, Rs. 1,436 doubtful, and Rs. 2,724 nominal. The largest balance (Rs. 11,053) was again due from the Hoshiarpur Tahsil, owing, as it is explained by the Deputy Commissioner, partly to some villages therein having suffered considerably from "cho" action and deposit of sand, and partly to the Tahsildar having in some instances credited current revenue to the liquidation of former balances, a very improper proceeding and strictly prohibited by standing orders. Of the balances in train of liquidation, a sum of Rs. 7,724, has been since recovered, leaving a sum of Rs. 5,537 still to be realized. There were no irrecoverable balances in any of the districts of the division.

**Coercive Processes.**—Owing to the progressive improvement in the character of the seasons during the past two years, there has again been little difficulty in realizing the revenue, and resort to coercive processes has proportionately fallen off. The number of warrants issued was nearly one-third less than in the year before, the number being 5,681 against 7,691 in 1879-80. The diminution in this respect is most marked in the Kangra District, where the number decreased by more than half. Another satisfactory feature of this branch of the revenue administration in this district is, that there were no cases of personal imprisonment or of distraint of personality. In the Jullundur District, too, there was a marked diminution in the number of cases of distraint of personality. On the other hand, the number of such cases slightly increased in Hoshiarpur, though it is satisfactory to note that it was not found necessary to resort to personal restraint.

**Takavi.**—The unwillingness of zamindars to avail themselves of advances of this nature is generally attributed to the rigidity of the rules under which they are made and recovered. They are ordinarily only required for the construction of wells, and wells are little used in either the Hoshiarpur or Kangra Districts.

In the Jullundur District, where they are more used, advances have been sparingly taken, and when the settlement is completed applications will doubtless come in more freely.

**Savings Banks.**—It is only in the Jullundur District that these institutions seem to be at all popular, and here, since the raising of the rate of interest on deposits, the system has, the Deputy Commissioner reports, "received an enormous impetus."

This indeed is manifest from the fact that, while at the commencement of the year under report the amount of deposits was only Rs. 32,824-6-0, the balance at the close of it, after deducting the interest paid, amounted to Rs. 73,379-0-9. The interest on these deposits has since been again reduced to  $3\frac{1}{4}$  per cent., and the sums paid into the Government Savings Banks will doubtless decrease as rapidly as they have increased.

**Rainfall.**—In both the plain districts the rainfall was nearly twice that of the previous year. In the Kangra District it was somewhat less. The distribution of the rainfall was, however, far from good; an excessive fall in the month of July was followed by a long cessation which lasted nearly throughout the month of August, and seriously injured the sugarcane crops in the plain districts. On the whole, however, the kharif throughout the division was a good harvest; on the other hand, prospects of the rabi were seriously endangered by the almost total failure of the winter rains, and the spring crops were only saved by heavy falls of rain in March.

**Crops and Produce.**—This subject was noticed at great length in my report last year. I had reason to question the correctness of the figures of rent and average produce in Statement No. XXIX A, and instructions were issued for the more correct preparation of the return in future. This year these statements for Jullundur and Hoshiarpur have been prepared in the Settlement Department, and those for Kangra have been carefully revised, and the figures will, I think, be found more reliable.

**Cattle Fairs.**—These fairs, while tending to encourage the breeding of stock, are stated to be a great boon to the people of the Jullundur District, who are thus enabled to provide themselves with cattle without the trouble and inconvenience of leaving home. The wanton slaughter of cows in the Jullundur District seems to continue, but on this subject I shall not add anything to the remarks I made in my report for 1879-80.

Cattle disease was again unhappily prevalent during the year in all parts of the Kangra District. Out of 19,907 seizures, the large number of 17,645 is reported to have succumbed, though such remedial measures as are possible were duly taken.

The disease, which was most prevalent in the Kulu sub-division, has lessened somewhat since the hot weather set in, and special precautions are being taken by the Assistant Commissioner to prevent its spreading.

Prices.—The Deputy Commissioner of Jullundur has not noticed the subject of the fluctuations of prices during the year. But they would appear to have varied little either in this or the neighbouring district of Hoshiarpur, notwithstanding the seasonable rains and the improvement in the harvest. The reverse, however, was the case in the Kangra District, where there was a fall in the price of almost every article except cotton, ghi and wood. The failure of the winter rains had a very decided effect in checking the tendency to a fall in prices which was apparent after the kharif harvest was cut.

\* \* \* \* \* Experimental farm, Hoshiarpur.—An experimental farm has been established at Hoshiarpur under the supervision of the District Engineer, assisted by the Tahsildár and a Committee of land-owners, and it will be interesting later on to learn the result of the experiments which it is proposed to make with various cereals and fodders, which certainly will here receive a fair trial. \* \* \*

Kaisar plough.—The "Kaisar" plough was tried in both the plain districts but it was found not to work well till modified in the way described by Mr. Coldstream. Instructions have, however, been recently issued for a further trial to be made with the original plough, and the result will be reported in due course.

Tours of Officers.—With the exception of the Deputy Commissioner of Kangra, who was laid up for three months by a severe accident, the District Officers of this division made very complete tours throughout their charges. Mr. Coldstream devoted a great part of the cold season to thoroughly examining the Siwaliks, preparatory to submitting with the Settlement Officer joint proposals for carrying out in detail the experimental measures for arresting the destructive action of the "chos," which have been sanctioned by Government.

#### EXTRACTS FROM DEPUTY COMMISSIONERS' REPORTS.

#### JULLUNDUR DISTRICT.

(COLONEL E. P. GURDON.)

\* \* \* \* \*

Chos.—It is only in the Jullundur Tahsil that any of these exist; some 80 villages or more are affected more or less by Chos, and surface-drainage coming from the Hoshiarpur District and hilly tracts.

During the year under report no fresh damage to speak of has accrued, but the condition of the village of Sikandarpur continues the same, much of the land of the village having been rendered unculturable by sand.

\* \* \* \* \*

Warrants for collection of Land-Revenue.—Much of the system objected to is no doubt owing to the want of acquaintance of our Tahsildárs with the actual financial condition of the revenue-paying community as to who is solvent or not. If these officers spent more time in the villages of their tahsils and enquired more carefully, some time before the kists fall due, as to what proprietors are likely to be defaulters, lambardárs might be enabled to take some action beforehand and obtain the assistance of the Collector under Section 43 against their asámis.

Nevertheless it must not be lost sight of that Section 43 is intended to be put in force when an arrear of land-revenue has accrued.

Now, an arrear cannot be said to have accrued until the date has arrived when, according to the orders of Government, the kists are payable, *e. g.*, in this district for the rabi or spring harvest 15th June, 15th July, and for the kharif or autumn harvest 1st December and 1st February. If a farseeing lambardár, trying to realize from his asámis in good time, tried to take out a dastak against any before the specified dates, legal quibbles might easily be raised that the appointed date for the kists not having arrived "no arrear as yet existed." Such an excuse would be within the letter of the law no doubt, and the dastak would be illegal. I have directed all the Tahsildárs to make enquiries in all their villages as regards the likelihood of non-payment by any of the proprietors, and have told them to direct village headmen to bring to notice betimes as to who are likely to be defaulters amongst their constituents; still, as said before, however much we may try to avoid it, the lambardárs must be looked to in the main as responsible for the revenue, unless the latter is allowed to fall utterly into arrears, involving a regular chaos in the system of administration, which could not be tolerated.

Agricultural Advances.—Takavi is only taken for the construction of wells, Rs. 1,235 were advanced for 9 wells during the year, as compared with Rs. 1,035 for 8 wells last year. With reference to this subject and Financial Commissioner's Circular Memo. 2556 of 1881, dated 14th April, enclosing the remarks



of His Honor the Lieutenant Governor on the subject of the backwardness of zamindárs to avail themselves of the benefits of the Land Improvement Act, it is difficult to assign any very satisfactory reason for this disinclination, one of the four tahsildárs gives as a reason that the zamindárs fear that the jama will be enhanced at the settlement now being made and hence they scruple to have "bagáni" land entered as "chahi." Another sub-collector says the Agricultural Community regard the Government terms for loans harder and more irksome than those afforded by private capitalists, this reason is obviously quite untenable as they are allowed 7 years for their instalments to extend over. No doubt the true reason for not taking loans from Government is that there would be less scope for dishonesty than with the village "Sháh" as the numerous subterfuges and stratagems resorted to in counteracting his exactions could not be taken advantage of with Government; punctuality in payments and the restrictions imposed by Government for its own security are no doubt distasteful to the zamindár's mind, and he prefers to borrow at ruinous rates of interests and trust to the chapter of accidents and fate to provide a loop hole for eluding the grip of the money lender.

**Indebtedness of Zamindárs.**—Although there is no prescribed return to show the indebtedness of the people of the district, the following figures and statistics may not be without interest, though the calculations are of course to a great extent only approximate.

It is estimated that the total amount of the zamindárs' debts in this district aggregate approximately Rs. 62,49,730, viz., on simple bonds Rs. 36,17,128, deeds of mortgage and sale Rs. 26,32,602.

The land mortgaged and sold for debts amounts to 77,740 bigahs. Divided over classes I may also state the following details of indebtedness :—

<i>Rajpúts</i> , debts on simple bonds	...	...	6,62,116 Rupees.
Do. Mortgage and sale deeds	...	...	4,02,224 "
Land sold or mortgaged	...	...	11,207 Bigahs.
<i>Játs</i> , debts on simple bond	...	...	15,85,874 Rupees.
Do. mortgage and sale deeds	...	...	11,64,786 "
Land sold or mortgaged	...	...	33,995 Bigahs.
<i>Arains</i> , debt on simple bond	...	...	5,76,350 Rupees.
On mortgage and sale deeds	...	...	5,85,264 "
Land mortgaged or sold	...	...	15,171 Bigahs.
<i>Other classes</i> , simple bond debts	...	...	9,92,789 Rupees.
mortgaged debts	...	...	4,80,327 "
land mortgaged, &c.	...	...	13,024 Bigahs.

The above figures have been ascertained by the Tahsildárs through the zaildárs and also through the registration offices. The figures of course are only approximate, but there is sufficient information to show how very indebted the people of the district are.

## HOSHIARPUR DISTRICT.

(W. COLDSTREAM, Esquire.)

\* \* \* **Forests.**—A large part of the outer range of Siwaliks (locally termed Katardhar) is more or less covered with chil (*pinus longifolia*), and there is one small area of 500 ghomáos or so demarcated and wholly preserved. Except this area (called Ban Bادهرا, opposite Una) the rest of the area is open to the villagers and indeed forms their "Shámilat," Government claiming only the right to the chil trees and to the protection of chil tree seedlings. It is all managed by a couple of chaprasis, and the income is very small, a few hundred rupees per annum, as there is little demand for the chil wood.

\* \* \* **Chos.**—The "chos," or sandy torrents, are the scourge of the district and many a fertile acre do they bury in sandy desolation. At the Settlement Officer's suggestion I am seeing what can be done to stave off ruin in certain villages by bands and grass planting. Assistance will be given from District Funds, and I hope that the Tahsildár proceeding to the spot will be able to effect something here and there by collecting the villagers to carry out works for their own protection. An experiment on the effect of planting out grass and reeds of various species with a view to moderate cho action, and favor the consolidation of the soil, is being tried on an extensive scale at Hoshiárpur under the superintendence of the District Engineer. It is wonderful how parts of the sandy cho beds can be reclaimed if care is taken, and they are sufficiently protected from the action of the torrent. The shisham tree grows wonderfully well on some of the chos where little is visible but sand, and I find also that the *Eucalyptus tereticornis* is likely to thrive in the same situation. I have had a number of the latter planted out on the cho plantation near Hoshiárpur.



It is possible, and I think not unlikely, that when intelligent efforts are hereafter directed to reboisement on the one hand and on the other to confining the bed of the torrents to a narrow area, the vast areas of Cho waste which blot the fair plains of this Doab will become most valuable ground for plantations and preserves. Nothing short of afforestation of the low hills, however, will be a sufficient agency to cope fully with this gigantic evil and to strike fairly at its root. A special report on this subject is now under preparation.

**Agricultural experiments.**—An area of about 9 acres has been secured by the District Committee close to the station of Hoshiarpur for the purposes of an experimental farm. It is under the direct management of Mr. Faddy, District Engineer, and he is assisted by a Committee of the more intelligent landowners of the place and by the Tahsildar. The Deputy Commissioner and Assistant Commissioner also attend meetings of the Committee when matters of importance are discussed.

The rest of the land, however, will bear good crops without irrigation, and will be useful for experiments. Italian Rye grass, Sorgho, Reana, American Field corn (prolific American varieties) and many other cereals and fodders will be or have been sown, and care is observed in carrying out a system of manuring and the details of cultivation of each crop in an intelligent manner; also to interest the native landowners in the experiments and to secure their intelligent co-operation. The scheme is just begun, and will, I hope, prove useful.

**Kaisar plough.**—The Kaisar plough of the North-West Provinces, Agricultural Department, has been tried but has not been found to work well. It has been modified by alteration of the angle between beam and share, and by running the beam right up to the yoke, dispensing with the rope altogether. With the rope the plough was very unsteady and apt to run into the bullocks' heels. All the ploughing work on the experimental farm has been done with this modified Kaisar plough, and it has been found an efficient implement. It costs about Rs. 5 and it has certainly met with some approval from the natives who have seen it at work and tried it.

**Tassar silk.**—Experiments in the semi-domestication of this worm are in progress. A small plantation of young bér trees has been formed and netted over, so as to protect the moths and worms, when they come out, from their numerous enemies. A separate report on this subject will be afterwards submitted.

## KANGRA DISTRICT.

(COLONEL C. V. JENKINS.)

**Patwaris.**—The patwaris' school was established in this district in 1872, and is working well; 13 apprentices for patwariship attended the usual annual examination held in April 1881, of whom 8 have passed. All the patwaris, *i. e.*, 177, actually employed in the district have passed the prescribed test. There are about 30 passed apprentices for patwariship without any employment.

I think that considering the large number of passed candidates available and the fact of the small number remaining for tuition in the school, *viz.*, only 5, that it would be advisable to reduce the salary of the teacher from Rs. 25 to 15.

During the last two years I have noticed that the number of pupils attending at the school has considerably decreased, and I, for this reason, recommend the reduction of salary of the teacher as above.

The patwaris are supervised well in their work by Kaiths and kanungos as well as by the Tahsildars, and their records are reported to be in good order and their annual papers are submitted punctually. I enter these remarks in accordance with Financial Commissioner's Circular Memo. No. 2555, dated 16th April 1881.

# AMRITSAR DIVISION.

## EXTRACTS FROM COMMISSIONER'S REPORT.

( COLONEL C. A. McMAHON. )

**Canals.**—The diminution in the supply of water and the refusal to give water to some villages noted by the Deputy Commissioner of Gurdáspur hardly calls for remark. It is doubtless sound policy to reduce the supply from the canal to districts near the mountains which receive a comparatively large rainfall, in order to give more to villages at the tail end of the canals; and the only cause for regret is, that this policy was not adopted from the first.

**Coercive Processes.**—The issue of dastaks has fallen as follows :—

			Year under report.	Previous 1878-79, years.	
Amritsar	...	...	2,216	2,532	} Not known.
Gurdáspur	...	...	1,726	2,594	
Siálkot	...	...	2,439	3,366	
					5,083

I think there is probably room for a still further reduction, especially in the Siálkot and Amritsar Districts. In the latter district dastaks were principally issued, the Deputy Commissioner states, in the "tahsils of Amritsar and Tarn Tāran, which are in most parts irrigated by the Bari Doáb Canal," and the large issue of warrants in those tahsils was owing, the Deputy Commissioner asserts, "not to the bad circumstances of the zamindárs, but to delay more or less fraudulent in making payment." I think Deputy Commissioner should discourage, as far as possible, the excessive issue of dastaks and see that they are resorted to only when coercion is really necessary, and not as reminders to lambardárs to pay up punctually.

\* \* \* **Agricultural Advances.**—Doubtless a lazy Tahsildár is anxious to save himself trouble above all things, but in districts like Amritsar and Gurdáspur, in which canal irrigation is to a large extent available, the necessity for sinking new wells must be limited; and even in Siálkot, as we have been giving advances for making wells year by year since annexation, we can hardly expect the demand for takavi to continue to be as brisk in the future as in the past.

The Deputy Commissioner of Siálkot thinks that the village "sahukárs" raise the greatest difficulty of all in the way of takavi advances, and exercise pressure to prevent their clients getting loans from Government, but I very much doubt if this cause operates to any extent.

**Patwaris.**—I think the suggestion of the Deputy Commissioner, Siálkot, that the amount recovered in fines from negligent patwaris should be expended in rewards to those who have done well, is a good one and deserving of consideration.

**Tenancy Act.**—Tenants were actually ejected from 1,487 acres in Amritsar District.

"	"	718	"	Gurdáspur	"
"	"	183	"	Siálkot	"

Cases under the Tenancy Act rarely come before me in appeal, and there seems at present in this division to be little litigation between landlord and tenant.

**Cattle Fair.**—The Amritsar Cattle Fair seems to grow in importance year by year. The last Baisákhí Fair was the largest on record. I was much struck with the fineness of the cattle brought to the fair, and especially with those that gained prizes.



## EXTRACTS FROM DEPUTY COMMISSIONERS' REPORTS.

## ( AMRITSAR DISTRICT. )

( C. R. HAWKINS, ESQUIRE. )

\* \* \* **Agricultural Advances.**—In a district like Amritsar takavi advances would, I think, be freely taken if the rules were less rigid and, I believe, with equal safety to Government, so long as a Government loan remained a first lien on real property. At present the delay in communication of the sanctioned amount of loans to be granted in each district causes great inconvenience, and one cause of inconvenience and delay no doubt deters many from making applications for loans.

**Agricultural Experiments.**—In June 1880, one maund of sorgho seed was received from the Superintendent of the Government Farm, Cawnpore, under the instructions of the Director of Agriculture and Commerce, and made over to the Superintendent of the Rámábágh, and Secretary Municipal Committee, and the Tahsildár of Tarn Taran, in order to make a careful experiment with the seed so as to fairly test the capabilities of the crop both for fodder and grain.

The experiment has not been a success in the Tarn Taran Tahsil, because the outturn of grain was very scanty, and the people do not appreciate the crop for use as fodder only. A detailed report will be submitted on the subject as soon as the replies of the Superintendent of Rámábágh and the Secretary of the Municipal Committee are received; but as far as is known, the crop has no such points of superiority to ordinary chari as to lead to its general adoption, and it requires the same care as chari.

**Savings Bank.**—The increase of the rate of interest has had a very marked effect. The number of depositors has been four times what it was in the previous year.

During the year under report, a large number of deposits was made by the Officer Commanding 28th Punjab Native Infantry in the name of certain privates. The Regiment was on service in Afghanistan and the money was remitted to this Treasury for deposit. Most of these deposits have been withdrawn. With the exception noted above, the class of depositors has not altered. It is still composed chiefly of Government servants. The convenience of the public has been much increased by the daily opening of the Savings Bank and by the relaxations of the rules requiring personal attendance in all cases.

## ( GURDASPUR DISTRICT. )

( COLONEL F. J. MILLAR. )

**Fluctuating Assessment.**—The system of fluctuating assessment is being gradually introduced in the villages situate along chambs and which are liable to inundation. The people did not at first like the change, but when they were distinctly made to understand that Government would not in future sanction any remission for deterioration of their land caused by excessive moisture, or by the overflow of water from the marsh, they seemed to appreciate the benevolent intention of Government and the benefit likely to be derived from the fluctuating assessment.

The system has not however been at work for a sufficient length of time to admit of an opinion being formed as to its results.

**Coercive Processes.**—The number of warrants issued during the year was as follows:—

	1879-80.	1880-81.
Against lambardárs ...	1,770	1,287
On the application of lambardárs ...	700	424
jágirdárs ...	34	15
	<u>2,594</u>	<u>1,726</u>



It will be seen that a comparatively small number of dastaks were issued during the year. I made it a rule not to sanction the issue of dastaks until the revenue had actually fallen overdue, as it is unjust and impolitic to saddle the zamindárs with the cost of dastaks when they are willing to pay the Government demand.

**Agricultural Advances.**—In this district the necessity of granting advances for irrigation works does not seem to exist to any great extent. The Pathámkot Tahsíl is intersected with natural streams and the people do not care to sink wells. In the Shakargarh Tahsíl well irrigation in the Tibba land is not feasible, water only being found at a great depth, and then not to any great extent, while the Bet land does not require any watering.

Artificial irrigation is almost wholly confined to the remaining two tahsils, *viz.*, Batála and Gurdáspur, but even here large tracts of land are watered by the Bari Doáb Canal. During the past five years 32 wells were constructed in this district, of which 17 in the Batála and 11 in the Gurdáspur Tahsíl were made with the aid of takavi.

### (SIALKOT DISTRICT.)

(F. P. BEACHCROFT, ESQUIRE.)

**District Canals.**—There are no district canals worked, but there is an old canal which extended from the Taur in the Jammu territory in the direction of Sohdera and watered a large tract of land between the Chenab and the Siálkot and Wazirabad road. I think it possible that this might be cleaned out and made available again, and I intend to have it surveyed and reported on by the Engineer who has been engaged by the District Committee. Till this is done I cannot say whether it is a work that it will be within the means of the District Committee to carry out, or whether the benefits to be derived from it will be commensurate with the cost. The head is in the Jammu territory, and some arrangements would probably have to be entered into with the State to allow the necessary repairs to be made in their territory, and to prevent the water being diverted. The canal was made by Ali Mardan, and has not been in working order since.

**Warrants issued at the request of village headmen or shareholders.**—With reference to the remarks of His Honor the Lieutenant Governor on the Revenue Report of the year 1879-80, para. 7, I notice that, in the year under report, 197 warrants were issued at the instance of village headmen against shareholders. Orders were issued to the tahsildárs not to issue warrants against lambardárs until they had ascertained who were the actual defaulters. Though the number of warrants issued at the instance of lambardárs is very much larger than in previous years, it bears a small proportion to the total number issued, *viz.*, 2,413. This perhaps arises from unwillingness on the part of lambardárs to incur the odium of having coercive processes issued. The matter will receive attention during the present year.

**Protective Pattas.**—During the year under report and the five preceding ones, no applications appear to have been made for protective pattas for wells. It is probable that the people generally are not aware that such pattas are granted, or of the benefit to be derived from them. If, for every well made from advances received from Government, a patta were given without application, it would be an inducement to the people to apply for takavi. I have directed the Tahsildárs to make the advantages of such pattas known.

**Patwarís.**—There was no proper "girdáwári" this year; at the time this most important work should have commenced, the men were busily engaged in supervising the preparation of the preliminary census records. The "girdáwári" was made very late in the year, and is consequently not reliable, for the annual papers were necessarily prepared and filed long after the prescribed date. Little supervision over the work of the patwarís could be exercised by any one, as not only the patwarís but the whole supervising staff and District Officers were engaged on census duties.

**Scarcity of draught Cattle.**—Throughout the district there is a lack of good draught cattle. Owing to the continued drought of late years, cattle have been overworked and on account of scarcity of fodder partially starved. A large number have consequently perished, prices have risen, and the people have not, generally speaking, the means to purchase.

**Improvement in Cattle.**—Hissar bulls for improving the breed of cattle have been procured by the District Committee from the Government cattle farm and are distributed over the district. The tahsildars report that they are much appreciated by the people and the produce is very favorably spoken of.

**Cultivation of Cuzco Maize.**—The experiment made this year with this maize in the Government garden was eminently successful. The cuzco produced were infinitely superior to the indigenous variety and the grains closely set and of much larger size, a kanál of this crop was valued at Rs. 7 or Rs. 56 per acre, which is Rs. 24 per acre more than the value of indigenous indian-corn. The crop was very favorably looked upon by several zamindars to whom it was shown, who expressed a desire to have some seed for experiment. A quantity of seed was saved for distribution. This maize, however, requires higher cultivation and more frequent hoeings and waterings than the common indian-corn.

**Sericulture.**—This branch of industry has attracted the attention of the people in this district, there are now five or six persons rearing silk worms. Of the zamindár class only one person has as yet taken an interest in it, viz., Lál Singh, Zaildár of Daska.

The District Committee is giving the enterprise all the encouragement it can; last year some eggs were procured and a quantity of worms were distributed in February last. Persons have been allowed the use of mulberry leaves from roadside trees at a nominal price, and provision has been made in the Budget for prizes. Two persons have already made plantations of the China Mulberry, and a large number of plants will again be ready for distribution next spring. 1,000 plants were given gratis from the district gardens last February.



# LAHORE DIVISION.

## EXTRACT FROM COMMISSIONER'S REPORT.

( R. T. BURNEY, ESQUIRE. )

\* \* \* Canals.—The area irrigated in the Lahore District was 234,587 acres or 29,896 acres more than in the year 1879-80, the revenue being Rs. 4,58,817 or Rs. 55,856 in excess of the amount of the preceding year. One of the causes assigned by the Deputy Commissioner for this increase is dryness of season.

\* \* \* There were no complaints of sickness in canal-irrigated villages.

\* \* \* Alluvion and Diluvion.—The Deputy Commissioner of Ferozepore says that the tendency on the average must be towards loss, as the land taken away by river action is usually better than that which is thrown up. This is probably the case. At the same time it is doubtful whether the land which is improved by deposit is sufficiently heavily assessed.

\* \* \* But the figures in the Lahore statement show that, whereas in the last four years the area gained by alluvion amounts to 10,814 acres, the revenue of the land affected has decreased by Rs. 1,968. Judging from these figures it would seem probable that either the light assessment which is invariably made on land newly thrown up, or newly rendered culturable, is generally allowed to stand and is not sufficiently often enhanced in subsequent years, or that the land is too lightly assessed in the first instance.

The Deputy Commissioner, Ferozepore, states that in his experience more land is improved than spoiled by deposit. If this is really the case the difference should scarcely be on the side of loss.

Warrants.—The remarks of the Deputy Commissioner Ferozepore deserve attention. He says that dastaks are issued too freely, and that the revenue could be collected without issuing any processes, "but the Itlak navis must be paid." In another part he says that, notwithstanding the prosperity of the district, the number of warrants increased, that the revenue officials delight in them, and that lambardars think the revenue is not due till they receive a warrant.

If the Deputy Commissioner really means that he could always get in his revenue without a single warrant, I cannot agree with him. Notwithstanding that there is probably no officer who knows his district as well as the Deputy Commissioner, Ferozepore, it may safely be said that he could hardly collect his revenue without the issue of some dastaks. In all districts, however prosperous they may be, there must be some unthrifty unpunctual lambardars and zamindars who will not pay till the last moment, either because they will not take the trouble to collect the money, or because they have to borrow it from the baniah and put off the evil day till the last moment. Upon such people it is certainly most fitting that warrants should be served, and it is of course no sign of mal-administration when warrants are issued in moderate numbers. If the Tahsildars were directed to abstain from issuing warrants it is probable that they would send their chaprasi without a regular warrant to stir up the lambardar. Besides which there must be many cases in which the lambardar requires assistance in collecting the revenue from individual defaulters. It is impossible for a Deputy Commissioner to do much towards decreasing the issue of warrants applied for by lambardars.

However, the figures show that in Ferozepore warrants have been issued more than in the other districts, and it is possible that they have as a rule been issued without sufficient discrimination, which is probably all that the Deputy Commissioner means.

At the same time the Gujranwala statement shows not much more than a tenth of the number of warrants that were issued in Ferozepore. If these figures are correct, and if there has been no irregular billeting of chaprasis and ummedwars on unpunctual villages, without their being shown in the statements, as I have known to be the case in other districts, the result is extremely creditable to the District Officers concerned.

\* \* \* Agricultural Advances.—I do not altogether agree with what the Deputy Commissioner says about the extortion which is practised at the tahsils, being the main reason which deters the zamindars from taking takavi advances or protective pattas. There are of course some reasons which induce zamindars to prefer to borrow from the baniah rather than from the Government. The zamindar in the first place is bound to the baniah by the chain of hereditary debt. If he borrows from anybody else, the baniah will sue him at once. The zamindar is of course on easier terms with the baniah, can get loans in small amounts from him, can put him off easier by promises or by paying a part only of the instalments fixed, and can always look forward to getting some of the interest cut down in a court of law, or perhaps to defraud the baniah altogether.

On the other hand he fears the Government, as he knows that if he does not pay his instalments he will be pressed for payment at once, and that a claim from Government cannot be resisted like a claim brought by a baniah.



But the terms on which Government lends are so infinitely more moderate than those exacted by a baniah that I believe the fear of having Government as a creditor will wear off considerably when the zamindárs come to understand and to have more confidence in Government.

**Patwaris.**—There seems to be a marked contrast between the manner in which patwáris' work is inspected in Ferozepore and in Lahore. Owing to the vast amount of miscellaneous work at the Sadr, which is expected from the Deputy Commissioner of Lahore, it is impossible that he can supervise patwáris as is done by the Deputy Commissioner Ferozepore. But the large amount of annual papers which the patwáris of Lahore had not sent in at the date when the Deputy Commissioner of Lahore wrote his report, speaks very badly indeed for the Tahsildár and the kanúngo and his náib. Annual papers can scarcely be of much use when they are not ready till June.

Now that the Lahore School has been abolished, it is difficult to understand how a supply of qualified candidates can be kept up, or what change there is, when patwáris die, of their sons being found ready to take their places at once. The arrangement prevailing in Gujránwála of appointing girdáwár kanúngos has been lately the subject of correspondence with the Financial Commissioner. It is hoped that these men will only be allowed to retain hereditary rights to the post of patwári and not to the post of girdáwár kanúngo. The latter office should be kept entirely as a reward for the best patwáris.

As these posts are of new creation there seems no reason why they should be considered hereditary. A case has already arisen in which hereditary claims were advanced by the son of a deceased girdáwár.

**Rainfall.**—The rainfall was deficient in all three districts. The failure of rain during August and September is said to have been seriously felt in the baráni tracts of the Lahore District, and in Ferozepore the deficient rainfall during those months was very serious, the promising crops of July having mostly perished in the Muktsar Tahsíl and elsewhere on unirrigated lands. In the Gujránwála District, however, the deficient rainfall seems not to have had any very injurious effect on the crops.

#### EXTRACT FROM DEPUTY COMMISSIONERS' REPORTS.

#### LAHORE DISTRICT.

(COLONEL C. BEADON.)

**Canals.**—The following table shows the area irrigated and the amount of water-rent derived at each canal running in the district, as compared with previous year :—

DIVISION OF CANAL.	AREA IRRIGATED.		REVENUE.	
	1879-80.	1880-81.	1879-80.	1880-81.
	Acres.	Acres.	Rs.	Rs.
B. D. Canal, 1st Division ... ..	...	17,782	10,956	41,585
" 2nd " ... ..	177,101	184,316	3,79,240	4,00,994
<i>Inundation Canals.</i>				
Katora ... ..	12,760	17,665	5,380	8,832
Sohag ... ..	4,607	3,893	2,304	1,946
Khanwah ... ..	10,163	10,931	5,081	5,460
Total ... ..	204,691	234,587	4,02,961	4,58,817

It will be observed that there was an increase in area irrigated of 29,896 acres during the year, due partly to the extension of irrigation from the 1st Division Bari Doáb Canal, and partly to dryness of season.

There was an uncollected balance of Rs. 35,069 at the close of the year, of which Rs. 16,439 were realized in April 1881, and the remainder is being collected. It is believed that the balances accrued through canal supply being cut off at a time when it was much required for ripening the crops which suffered more or less in consequence.

**Leases of rakh land.**—The area held under cultivating leases was 30,561 acres, of which 15,316 is cultivated.