

EXTRACTS FROM DEPUTY COMMISSIONERS' AND SETTLEMENT COLLECTORS' REPORTS.

PART II.

FIXED LAND REVENUE (INCLUDING TRIBUTE).

DERA GHAZI KHAN DISTRICT.

(Remarks by A. H. DIACK, Esquire, Settlement Officer).

One of the chief features of the new settlement is the conversion of the whole of the assessment of the riverain tract and a large portion of that of all canal-irrigated land from a fixed into a fluctuating demand. The orders on the Assessment Reports allowed the realization of the new demand with effect from Kharif 1896, and these orders have been carried out, but it was not found possible to obtain sanction before the end of the agricultural year to the comparative demand statements for all four tahsils. The demand Rs. 3,34,357 entered in the statement is consequently that sanctioned by the Financial Commissioner on the basis of the old fixed assessment, and the disparity between the demand and the collections (Rs. 1,86,613 or 56 per cent.) is therefore misleading. The true fixed demand for 1896-97 was approximately Rs. 2,48,000, of which Rs. 2,11,000, or 86 per cent., had been realized before the end of October 1896. The outstanding balance Rs. 37,000 is still considerable, although it includes a sum of Rs. 9,000 which is under suspension. It is nearly all due in the sadr tahsil, and no difficulty is anticipated in its realization, though remissness on the part of the tahsil staff and the prevailing fever prevented its being collected in time.

REMISSIONS AND SUSPENSIONS OF FIXED LAND REVENUE.

HISSAR DISTRICT.

(P. D. AGNEW, Esquire).

The total amount of revenue suspended during the year was Rs. 3,83,134-8-5 as detailed below:—

							Rs.	a.	p.
Bhiwani tahsil	...	...	...	...	...	...	26,951	14	1
Hansi	...	...	...	...	...	...	98,465	13	0
Hissar	...	...	...	...	...	...	76,628	0	0
Fatahabad	...	...	...	...	...	...	98,035	13	4
Sirsa	...	...	...	...	...	...	83,053	0	0
Total	...	...	...	...	...	...	3,83,134	8	5

Crops partially failed last year owing to scanty rainfall, and suspensions amounting to Rs. 17,222 were granted, and the circumstances changed from bad to worse this year owing to the failure of both harvests.

Statement No. XVIII B gives particulars of Captain Dunlop-Smith's suspensions during the year under report. It is almost pathetic to note that the statement has had to be extended to 124 columns. In a district where only about 8 per cent. of the cultivated area is irrigated, a dry year such as this following a former unfavourable one, must always necessitate large suspensions.

The suspensions allowed this year are the largest upon record. During the famine of 1860-61, which was severely felt in the old Hissar and Sirsa districts, suspensions amounting to 33 per cent. of the then revenue in Hissar and 45 per cent. in Sirsa were granted. The amounts were Rs. 1,90,542 in all. In the acute famine of 1869-70 suspensions amounted to Rs. 1,01,927. Compare these results with our total of Rs. 3,95,423 for the year under report, and some estimate of the severity of the calamity as well as the clemency of Government will be formed. The suspensions were very scarefully made by Captain Dunlop-Smith, and they were made with careful regard to (1) the automatic rules laid down by Mr. Anderson as Settlement Officer and printed in the selections of the records of the Financial Commissioner's Office; (2) the

differential system of suspensions first proposed by Mr. Thorburn, Commissioner of Ráwalpindi. Enquiries are now being made as to the net amount gained by Government owing to observance of this principle, and the result will be separately reported.

I may remark however that, probably owing to the immense amount of ground to be covered, the differential system does not appear to have been applied in its entirety. It was only possible to have regard to the whole or large portions of villages held by wealthy proprietors. A holding by holding enquiry would not have been possible in a year such as this.

I should remark that a large proportion of the balance under suspension ought to be recovered with the next rabi instalment. This kharif zamindárs have to pay back their seed and rent. Takávi plus half the takávi for purchase of bullocks, and that is as much as can be managed. But though Hissár is not a rabi district, if I may use the term, the present rabi crop will, if it comes to maturity, be a record one for area and cash paying capability.

(Remarks by R. CLARKE, Esquire, Commissioner and Superintendent, Delhi Division).

Of course the revenue demand is low, and with a good crop even in the rabi we shall be able to get in some considerable portion of the suspended revenue. But even if some has to be carried on to kharif 1898, we shall not have any reason to complain. If next rabi and next kharif are good, the suspensions will be easily cleared.

UMBALLA DISTRICT.

(CAPTAIN C. G. PARSONS).

It is hard on the petty jágirdárs to suspend their revenue as they have sometimes little else to depend on, but it is impossible to avoid it. The number of mixed khálsa and jágir villages is very large, and as in this district we follow the advice of the Settlement Officer and suspend either half or the whole or (but less often) a quarter of the demand for a harvest, the jágirdárs have to take the chances. When hundreds of villages have to be considered, it is hard enough to get the amount of suspension fixed in time without any elaborations, and the principles enunciated by the Commissioner of Ráwalpindi, which somewhat aimed at a holding to holding suspension system seemed full of difficulty. Moreover, they were quite at variance with the advice given by the Settlement Officer here as to the desirability of suspending half, a whole, or a quarter of the demand so as to avoid complicating village accounts.

The importance of getting out suspension orders very early is great, as often lambardárs begin collecting a month before the date fixed for payment. If suspension orders issue after they have made part collection, they are tempted to misappropriate the money. One noticeable case like this occurred and was investigated, and others were believed to have occurred.

LUDHIANA DISTRICT.

(H. A. ROSE, Esquire).

It is necessary to explain at some length the reason for suspending Rs. 1,532 in the di-alluvion villages. Under the di-alluvion assessment rules sanctioned at settlement, land thrown up is, if cultivated the first year, assessed at one-fourth, next year at half, then at three-fourths, and in the fourth year at the full rate on cultivation, without allowances being made for its quality. The result was that in several villages land, which owing to its having been once cultivated, had come to bear the full assessment under the rule, though it had actually ceased to be cultivated, having proved to be unfit for cultivation. The matter was made the subject of a separate reference, and meanwhile the revenue due on all such lands which had become unfit for cultivation was suspended. The reference has resulted in an amendment of the di-alluvion Rule 2 in Revenue Secretary to Punjab Government's No. 142, dated 11th August 1897, to the address of the Secretary to Financial Commissioner.

GUJRAṬ DISTRICT.

(Remarks by A. F. D. CUNNINGHAM, Esquire, C.I.E., Commissioner and Superintendent, Ráwalpindi Division).

The burden of accumulated suspensions is very great, and will become intolerable if further suspensions are made from the kharif demand of 1897, as threatened, specially in those villages in Phália in which the demand for every harvest from and including

Rabi 1896 has been suspended. Mr. Thorburn recognized this, and in June last suggested to the Deputy Commissioner that the time had come to consider whether or not any portion of this suspended revenue should be remitted. The Deputy Commissioner has yet to report on this matter.

SYSTEMS OF FLUCTUATING ASSESSMENT.

JHANG DISTRICT.

(CAPTAIN P. S. M. BURLTON.)

There are two such systems in force :—

- (1). The fluctuating sailáb assessment on the whole or part of certain river villages which vary with cultivation: these villages are detailed at pages 22 and 23 of the Settlement Commissioner's letter appended to the Settlement Report: and
- (2). The fluctuating well assessments described in paragraphs 186—96 of the Settlement Report.

Both these systems are working well, and are very popular with the people. Twelve villages of the Rajoya circle in the Chiniot tahsil and seven villages of Bár circle in the Jhang tahsil in which the fluctuating well assessment was in force received canal water from the Chenáb Canal in rabi season of 1896-97, and the revision of their assessment was necessitated in consequence. This formed the subject of correspondence in this office Nos. 116, dated 4th May 1897, and 149, dated 8th June 1897. After some correspondence the following decision was passed by the Financial Commissioner in Secretary to Financial Commissioner's No. 68 C., dated 19th June 1897 :—

- (a) All lands which have been shown in the khasra girdáwari for the last four years for any crop as cháhi will pay the fixed settlement ábiána on the well, + 8 annas per acre for any land irrigated by canal.
- (b) All other areas attached to a well, but which have not been shown as above will pay Re. 1 per acre.
- (c) All báráni and sailáb land will continue to pay as heretofore.

This new decision has been received by the people with some disapprobation as they hoped to get irrigation from the canal without any additional rate. However as the orders were if they did not agree, they would get no water, they soon came to terms. As above stated the system of fluctuating well assessment is very popular. One feature of this system is that a new well is free from revenue for three years and an old well renewed is free for one year, so that the people are induced to defraud Government by leaving old wells and building new ones from the same materials, but I believe that the practice is not common.

DERA ISMAIL KHAN DISTRICT.

(H. W. GEE, ESQUIRE).

The Dáman system of assessment, viz., one-fourth fixed and three-fourths fluctuating, has been partially superseded by a purely fluctuating system. As noted in previous reports, 27 villages have been brought under a purely fluctuating system of assessment. The working of the system continues to be satisfactory. It is found necessary to post the best patwáris to these fluctuating circles, and their girdáwaris are generally carefully done.

The Tahsil Khám system is admittedly defective, but is working as satisfactorily as can be expected. It is not probable that the Usteránás and Bhattannís will wish for any change in the system at the coming settlement, but in the case of the Gandapurs when the tribal lands have been partitioned the Dáman system will become suitable for those villages which rely entirely on hill-torrents for their irrigation.

DERA GHAZI KHAN DISTRICT.

(Remarks by A. H. DIACK, ESQUIRE, Settlement Officer).

The systems of fluctuating assessment, which have been this year introduced in the district under the new settlement, are as follows :—

- (1). On the land irrigated by canals in the Sanghar, Dera and Jampur tahsils, and in two villages of the Rajanpur tahsil, a rate (not a differential crop rate) per acre of all crops, matured with the aid of canal water. The rate differs in the four tahsils, and is taken in addition to a fixed assessment which has been imposed on the land in its unirrigated

aspect. In Sanghar the fixed assessment has been confined to well estates; elsewhere it has been put on all lands commanded by the canals. The demand for the year for the land under this system was Rs. 1,02,193, of which Rs. 99,543 were due to Government, and Rs. 2,650 assigned. The average demand as estimated at settlement was Rs. 1,04,000. The bad working of the canals in September explains the deficiency this year.

- (2). On land watered by river flood throughout the district, and in Rájanpur on such canal-irrigated land also as lies within the tract liable to river flood, a scale of differential crop rates. The demand for the year and the estimate framed at settlement were Rs. 89,947 and Rs. 95,285, respectively. The river floods were equal to the average of the five years on which the estimate was based, but there was much crop failure owing to the deficiency of the winter rains.
- (3). In three villages of the Sanghar tahsil, rates of Re. 1 per acre of wheat and nine annas per acre of other crops raised with the aid of hill-torrent water, or of rainfall alone. This system was offered to all such villages in the Pachádh circles of the four tahsils as lie at the tails of the hill-torrents and the distributaries from them, and are consequently very uncertain of their supply of water, but was accepted only by the three villages above referred to, all the others preferring the fixed assessments which were announced to them. The year was not a good one in the part of the Sanghar Pachádh in which these villages lie, and the demand was only Rs. 18 as compared with the estimate of Rs. 455.

MISCELLANEOUS LAND REVENUE.

HISSAR DISTRICT.

(P. D. AGNEW, ESQUIRE).

The increase under this head is chiefly due to the forfeitures of lambardárs' fees owing to the non-payment of owner's rate and Government revenue by due date, as generally occurs in season of scarcity. The forfeitures are not a matter for congratulation. At the same time I know that Captain Dunlop-Smith in many cases allowed time to lambardárs in difficulties. But the rules as to collection of owner's rate at least give the Collector no power to refrain from forfeiting the lambardár's percentage if the sum due be not paid by due date, however much the lambardár may be deserving of commiseration.

ALLUVION AND DILUVION.

DELHI DISTRICT.

(CAPTAIN H. S. P. DAVIES).

It is under consideration to apply for sanction to introduce the di-alluvion rules of Karnál-Umballa to this district as the working of the existing rules has not been found a success, as revenue is demanded and paid by persons whose lands have been washed away and full rates have in cases been collected on re-gained lands. The system bears hardly on the people, but it has the authority of the village administration papers.

HOSHIARPUR DISTRICT.

(MAJOR E. INGLIS).

The result of alluvion and diluvion action during the year under report in this district is shown below—

			DILUVION.		ALLUVION.		GAIN OR LOSS.	
			Area.	Jama.	Area.	Jama.	Area.	Jama.
			Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
Chos. Sutlej. Beds.	1895-96	...	1,790	2,932	1,979	1,408	+ 189	— 1,524
	1896-97	...	1,831	2,712	1,746	1,975	— 85	— 737
	1895-96	...	448	612	2,442	472	+ 1,994	— 140
	1896-97	...	1,378	1,237	1,481	795	+ 103	— 443
	1895-96	...	2,379	5,145	1,614	2,185	— 765	— 2,960
	1896-97	...	8,197	15,456	5,061	5,316	— 3,136	— 10,140

As compared with 1895-96 the rains in 1896-97 were not heavy, and hence di-alluvion on the Beas river was less. On the Sutlej river the area gained was only grazing land, whilst the revenue was reduced for cultivated lands lost or deteriorated by floods. Thus more land has been re-gained, but there has been at the same time a remission of revenue. The great reduction in the revenue of cholands is owing to the effect of amended *urár ret* rule.

The special inquiry and field to field inspection made in 1895-96, and the alteration in the rules have caused a fall in the revenue demand. There were 780 villages under di-alluvion inquiry both for river and chos. This year 106 cases were filed, as the increase or loss did not reach the minimum limit, and action was taken in the remaining cases. The Revenue Assistant was deputed to inspect the whole work in March and April 1897 in four tahsils, and was not given any assistance, as it was deemed better to keep the di-alluvion work referring to the chos in the hands of one man this year when the amended rule regarding *urár ret* came fully into force, so as to ensure uniformity throughout.

There could not be any doubt about the destruction of cultivated land by sand, and remissions were granted accordingly. But cases of deterioration of soil are not so easy to decide.

The Revenue Assistant did not grant remission to doubtful sandy soils, *i.e.*, which appeared to have been affected by sand, but bore a good crop. Such cases were reserved for the consideration of one or two harvests more. All cases of deterioration of soil were inspected by the Revenue Assistant. In cases of doubt he compared the present class of the soil with the classification at settlement, and examined the crop register to ascertain whether inferior or superior crops were grown in past years, and had the soil dug in places to see the position and quality of the original soil, and of the sandy upper surface, and also compared the standing crop with the surrounding crops on different classes of soils. All superior classes of land that had deteriorated by admixture of sand were granted remission. But inferior classes of soils, such as *maira-retar*, *chal-retar* and *sir* were not treated so liberally. Remissions were granted to them, when the least shadow of doubt did not exist.

Maira-retar deserves consideration when its component part of sand begins to exceed 75 per cent. in proportion, and if it can show a past history of kharāba and poor harvests, and compares unfavorably with surrounding *maira-retars*, so far as actual out-turn or standing crops are concerned, then it certainly demands remission. All doubtful cases were rejected by the Revenue Assistant in his inspection. Thus all the inferior sandy soils recorded as deteriorated in the special inquiry did not obtain remission, but they will be considered from harvest to harvest on the principles above mentioned, which were clearly explained to the subordinate establishment and illustrated on the spot. It is never safe to form an opinion in such cases on the inspection of a single harvest.

Majra-retars and *chal-retars*, which did not get remission before, were allowed relief, for the reasons mentioned at length in the cho report of 1895-96.

The area affected by chamb water in the Sirwál tract which used not to be brought on the remission list was considered this year.

Remission under amended rule for sand drift (more than half of the net loss this year by chos) amounted to Rs. 5,490. Damage by cho floods depends upon the amount of rainfall, which varies from year to year, but damage by sand drift, it is feared, will go on increasing with the hot winds of each summer season.

(Remarks by COLONEL C. F. MASSY, Commissioner and Superintendent, Jullundur Division).

This subject is fully dealt with in separate correspondence on the subject of modification of the rules under which remissions are made for damage by cho action, and on the general subject of protection of the district from cho encroachments. I need only here note that Major Inglis and his Revenue Assistant Lāla Ganga Sahāi have given most careful personal attention to the subject; and that remissions have been made only when this course was unavoidable.

LAND REVENUE ASSIGNMENTS.

LUDHIANA DISTRICT.

(H. A. ROSE, Esquire).

It is an almost invariable condition of an assignment that it cannot be alienated. But no law exists which prohibits the attachment of jāgír revenue in execution of a decree. The Pensions Act XXIII of 1871 does not protect any one of the jāgírs in this district.

The consequences are disastrous. A *jágírdár* cannot hypothecate his *jágir* and borrow at reasonable interest, but when he has borrowed at the exorbitant interest charged on bad security, his creditor can always obtain a decree and attach his *jágir* in (practically) perpetuity, so that the *jágir* is to all intents and purposes alienated in contravention of the conditions of the grant. This is one of the results of piecemeal legislation. At the present moment certain important *jágirs* in this district are at the mercy of the money-lender. In a few years several will have become *de facto*, if not *de jure*, the property of the holders of decrees against the *jágírdárs*.

Another device often resorted to to evade the condition against alienation is to give the creditor a power-of-attorney to collect the assigned revenue. The only disadvantage (to the creditor) is that the power can be cancelled at any moment. As a matter of fact, however, the device results in a substantial amount of assigned revenue going direct into the pockets of the money-lender.

It seems to me that all this is worthy of consideration. It was surely not the intention of Government in making or continuing these assignments that the land-revenue of the country should become the private property of the capitalist classes.

(Remarks by COLONEL C. F. MASSY, Commissioner and Superintendent, Jullundur Division).

How can we artificially protect the *jágírdár*? The ordinary agriculturist is entitled to have as much consideration as the assignee of Government revenue. Both require protection.

GENERAL RE-ASSESSMENT.

MOOLTAN DISTRICT.

(Remarks by E. D. MACLAGAN, Esquire, Settlement Officer).

The Settlement Officer joined the district in October, and arrangements for remeasurement commenced towards the end of the year, when the *patwáris* had got rid of *girdáwari* and *cher* work. Beyond remeasurement there is no particular progress to record in the matter of re-assessment proceedings. The system to be followed in canal assessments was under discussion towards the end of the year, and a report on the subject will be submitted to the Settlement Commissioner.

MONTGOMERY DISTRICT.

(Remarks by P. J. FAGAN Esquire, Settlement Officer).

The work of measurement was practically complete in *Pákpattan* by the end of the year, only one estate remaining to be completed. In *Dipálpur* the measurements of 48 estates were still incomplete; but work is in progress in all of them, and they will be finished by the end of 1897, or very nearly so. Final inspection work at the end of the year was fairly well up to date, except on the part of *Tahsildárs*, more especially in *Dipálpur*, but in this connection I invite special attention to the fact that no Settlement nor Extra *Tahsildárs* have been sanctioned for this district. Our *Tahsildárs* have, I think, worked very fairly hard, but burdened as they are with both district and special settlement work, it has been difficult for them to keep pace in their final inspection work with that done by the special staff. The absence of Settlement or Extra *Tahsildárs* has hampered operations all through. Detailed *jamabandís*, in accordance with the new maps, have still to be prepared in 224 estates. This work will be completed in the course of the cold weather by the *patwáris* collected at the *tahsils*. During the first two quarters of the year under report, I carried out the detailed inspection for assessment purposes of 489 estates in the *Sutlej tahsils*; these comprised nearly all those of the *Dipálpur tahsíl*, and some in *Pákpattan*.

In November, a report containing proposals as to the system of assessment to be followed in regard to lands irrigated by the *Sutlej Inundation Canals*, together with a new schedule of water-rates, was submitted and orders on it were received in the course of the year. The Assessment Report of the *Dipálpur tahsíl* was submitted in June last; it is at present before Government. The result of the proposals made therein is an enhancement of Rs. 70,000 per annum, including estimated fluctuating canal-advantage and *sailáb* land revenue. Since the beginning of the current quarter I have inspected some 100 estates in the *Pákpattan tahsíl*, and hope to submit the Assessment Report by the middle of December, or very shortly after. An enquiry into the method of distribution over holdings of the new assessments which will be announced, has been undertaken in both *tahsils*, and considerable progress has been made in *Dipálpur*, the method to be adopted having been determined in 76 estates.

JHELUM DISTRICT.

(Remarks by W. S. TALBOT, Esquire, Settlement Officer).

The year under report was the second of the general re-assessment operations ordered by Punjab Government Notifications No. 221 and 222 of 3rd December 1895.

Survey operations have been in progress throughout the year, but have been a good deal hampered by the prevailing scarcity. It is impossible to undertake remeasurement in villages at all seriously affected, and many cases occurred in which survey operations already in progress in a village had to be stopped. In the Jhelum tahsil it was practically only in the riverain villages that measurements were possible for the greater part of the year, and the Pind Dádan Khan Thal was hardly touched—all this caused a good deal of interruption of work. A certain number of patwáris and kánúgos were also employed for short periods on relief works.

Over one-quarter of the total area of the district was surveyed, but of the rest nearly one-seventh consists of Government rakhs, generally uncultivated hill waste, the measurement of which so far as necessary will take comparatively little time. The percentage on total cultivated area re-measured is a good deal larger. Making all allowances for various interruptions, the outturn of work is somewhat small. The choice is really between accuracy and rapidity, and the former seems to be preferable. In a large part of the district rapid progress is impossible, the fields owing to the conformation of the ground being of the most irregular shapes, and taking each at least three or four times as long to map as an ordinary field in a level plain.

Measurements are almost always on the square system, and experience here seems to show that this system is the best even in rough and hilly country where at first sight square laying would be thought out of the question. Measurements on the square system are unquestionably far more accurate than plane table measurements, even in such broken country, and this more than compensates for the trouble and loss of time involved by them.

As noted last year convenient areas in each tahsil are being surveyed on a common base line, there is one base line for instance for the whole of Talagang practically, and another for the Pind Dádan Khan plains, and so on.

The system works satisfactorily on the whole, though disliked by subordinates, as it involves greater trouble than the system of giving each village a separate base line.

No assessment report has yet been sent in, but that for the Pind Dádan Khan tahsil will now be submitted within a few days, the report for Chakwál and Talagang will probably be submitted about July next, and that of the Jhelum tahsil about five months later; this will allow ample time for the introduction of the new jamás from Kharif 1899, when the present settlement terminates.

DERA GHAZI KHAN DISTRICT.

(Remarks by A. H. DIACK, Esquire, Settlement Officer, Dera Gházi Khan).

The distribution of the new land-revenue of the Sanghar tahsil, which had been commenced in the previous year, was completed in the year under report. The orders of Government were received during the year on the assessment of the other three tahsils, and the new fixed demand was distributed, and had in great part been collected, by the end of the year. The new assessment of date revenue was also sanctioned and brought into force. The new records-of-rights were completed and filed in the tahsils; there is no room for them at present in the district office. The administration papers were revised, and, in accordance with the orders of the Financial Commissioner, a supplementary vernacular Riwáj-i-ám was prepared to form the basis of a volume of the series on Customary Law. The investigation of revenue-free tenures was completed, and another work involving considerable expenditure of time was the revision of leases of land from Government rakhs which are very numerous in this district. Proposals have been framed for the re-organization of zails and patwáris' circles. The field establishment was transferred to the new Muzaffargarh Settlement at the end of the year, and the work remaining to be done is the incorporation of the new demand in the rent roll, the completion of máfi registers, and the preparation of the Final Report and Gazetteer. This work will, it is hoped, be concluded in January or February 1898. The enhancements secured in khálsa land-revenue and in water-rates are estimated at Rs. 85,000 and Rs. 30,000, respectively, and the cost of the settlement has been 3½ lakhs.

(Remarks by COLONEL J. A. MONTGOMERY, Settlement Commissioner, Punjab).

The Settlement is now practically completed. The establishment has been transferred to Muzaffargarh, and it only remains for Mr. Diack to finish the work noted in this paragraph. Mr. Diack has done all this work with conspicuous ability and industry.

COERCIVE PROCESSES FOR COLLECTION OF LAND REVENUE ON APPLICATION OF VILLAGE HEADMEN.

KARNAL DISTRICT.

(J. F. CONNOLLY, ESQUIRE).

Where, in a village with several lambardárs, each lambardár is responsible for the collection of the revenue of his *thula*, and gets his pachotra on that revenue, little difficulty arises. The lambardár cannot throw the work on to anybody else, and, if a biswadár is dilatory in paying, the lambardár should be encouraged to apply for coercive process at once. Year by year the number of such processes must increase, as the influence of the lambardár is fast on the wane; above all, in the Jat villages.

Where in a village there are eight or nine lambardárs, all jointly responsible for the collection of the whole revenue, and all receive the same amount of pachotra, the position in the matter of unpunctuality of payments is becoming intolerable. In such cases the Collector should be empowered to allocate to each lambardár the duty of collecting the revenue of his *thula*, and to receive pachotra in proportion to that revenue. Several lambardárs have asked me to do this, as they cannot agree amongst themselves to do it; there will always be two or three lambardárs who receive more pachotra under the present system than they would receive under the proposed one. Until something like the proposed system can be put in force, dilatory payments in the villages in question are bound to be of more frequent occurrence.

In many of the wealthiest villages of the district, the lambardárs this year lost their *ábiana* owing to the non-payment of canal revenue within the prescribed period. For this they blame me, as I would not give them tahsil chaprásís to collect the revenue for them.

SURVEY AND BOUNDARY DEMARCATION.

JHELUM DISTRICT.

(H. A. CASSON, ESQUIRE).

Besides the ordinary petty boundary cases between individual owners, of which 291 were instituted, and 260 decided during the year, progress has been made towards the settlement of some important disputes between villages of this district and villages of Shahpur on the river Jhelum. All the outstanding disputes between the two districts were settled some years ago by a strong Revenue Assistant on the Shahpur side, and a weak one on the Jhelum side, in a manner very unfavourable to the interests of the Jhelum villages. In most cases of course the decision cannot now be questioned, but in one or two important mistakes have been found which have necessitated the re-opening of the cases.

Petty boundary cases between individuals now receive more attention than heretofore.

DERA GHAZI KHAN DISTRICT.

(Remarks by H. A. DIACK, ESQUIRE, Settlement Officer, Dera Gházi Khan District).

Mr. Watson, Assistant Commissioner, settled during the cold weather a number of long pending disputes regarding the boundary between the district and Baháwalpur, and no part of the boundary as shown in the new field maps is under dispute. To prevent the accumulation of disputes in future under the shifting boundary rule, it is very necessary that a Sub-Surveyor should be sent every two years to assist the Assistant Commissioner of Rájápur in demarcating the boundary at disputed points. Several disputes regarding the boundary between the district and Muzaffargarh were also settled during the year, and the boundaries shown in the field maps of villages in this district are now in agreement with the corresponding boundaries shown in the field maps of the adjacent villages of Muzaffargarh. A Gazette notification has been published declaring the boundary between such villages to be the boundary between the two districts. The boundary between the district and Dera Ismáil Khan was also similarly adjusted. This gave less trouble because the boundaries in the maps of the two districts had been reconciled at regular settlement. In the case of Muzaffargarh this had not been done.

REVENUE RECORD ROOMS.

HOSHIARPUR DISTRICT.

(MAJOR E. INGLIS).

The copying agency was introduced in this district in January 1895. Out of 17,253 applications for copy since October 1876, 12,086 have been made through the copying agent. This system is getting popular, and even the Hoshiárpur towns-people in 11 cases obtained their copies through the agency.

(Remarks by COLONEL C. F. MASSY, Commissioner and Superintendent, Jullundur Division.)

The copying postal agency has been a great success in this district. Major Inglis has just applied to be allowed to spend the surplus savings in improving some of the temporary buildings (used by suitors) in the Kacheri compound.

AMRITSAR DISTRICT.

(A. E. MARTINEAU, Esquire.)

The income is divided equally amongst all the copyists.

(Remarks by COLONEL J. B. HUTCHINSON, Commissioner and Superintendent, Lahore Division.)

As a matter of fact in no district are the rules strictly followed as laid down by the Chief Court. In those rules no provision is made for a head copyist, but without a head copyist the work could not be properly carried on, and he must receive some remuneration. By the rules each copyist ought to receive nine-tenths of the copying fees paid for each copy that he makes. The general system followed is that the fees for the month are collected and kept by the head copyist; at the end of the month he receives a certain share, and the rest is distributed among the copyists. In some districts they are classified, in others the distribution is made in equal shares to all.

The Chief Court rules certainly ought to be modified so as to allow of the appointment of a head copyist.

DERA GHAZI KHAN DISTRICT.

(CAPTAIN C. P. THOMPSON.)

The total number of applications for copies during the year under report was about 3,600, of which 2,700, 75 per cent., were made through the copying agency.

(Remarks by H. A. ANDERSON, Esquire, Commissioner and Superintendent, Derajat Division.)

This is very satisfactory, and the figures show that the scheme is popular and successful in the Dera Ghazi Khan District.

PROCESS-SERVING ESTABLISHMENT.

JULLUNDUR DISTRICT.

(LIEUTENANT-COLONEL A. DEC. RENNICK.)

Thirty-four process-servers were employed during the year, as in the previous year, for the collection of land revenue. These men are employed only as processes are issued, and are paid according to the number of days they are actually employed: they are, as a rule, apprentice chaprásís of tahsils.

(Remarks by COLONEL C. F. MASSY, Commissioner and Superintendent, Jullundur Division.)

See my remarks in the Revenue Report of last year. I have been doing my best to check the habit of taking on hungry men as temporary servants, and in most districts in this division the matter is now carefully watched by Deputy Commissioners. Taking Jullundur, the average of processes served by each of the 34 men temporarily employed was only 32. Probably half the number of men would have done the work quite as efficiently, and the people would have had so many less mouths to feed.

LAHORE DISTRICT.

(Remarks by COLONEL J. B. HUTCHINSON, Commissioner and Superintendent, Lahore Division.)

It is interesting to note the variations in this work in the different districts of this Division.

District.	No. of temporary process-servers.	No. of processes served.	Average No. of processes served by each man.	Average cost of service of each process.		
				Rs. a. p.		
Lahore	63	1,454	23	0	3	1
Amritsar	107	1,494	14	0	2	2
Gurdáspur	102	4,789	46	0	4	2
Mooltán	640	3,237	5	0	4	6
Jhang	18	1,253	70	0	1	0
Montgomery	29	1,512	53	0	0	7

It is difficult to account for these variations. In Mooltán, it is true, the distances are great, but that would hardly account for the necessity of putting on too many men, and the cost in that district is higher than any other, while in Jhang and Montgomery the distances are also great, and in these districts fewer men were employed, and the cost was very small. As regards size of district, Lahore, Gurdáspur and Amritsar do not vary much, but the cost in service varies from Re. 0-2-2 to Re. 0-4-2.

Probably in Mooltán a man was sent out with only one or two processes to serve at a time, while in Jhang and Montgomery each man was sent out with a large number requiring service in one direction at one time. It is quite clear from the above table that with care and discretion a Tahsildár may reduce the cost of service of processes to a very small sum. The matter is one requiring attention of Collectors.

OTHER MATTERS UNDER THE LAND REVENUE ACT.

KANGRA DISTRICT.

(R. SYKES, Esquire.)

Rents payable to mortgagees generally take the form of a fixed amount of produce; details of the area on which rents are paid in this form are given in Statement No. XII. Mortgagees in such cases often bring suits for the recovery of rent on the allegations that the produce has been divided and left in deposit with the tenant, and the suit is brought not for the recovery of rent, but for the value of goods left in deposit, and is instituted in the Civil Courts. It is difficult in such cases to say that the case is one triable by a Revenue Court.

HOSHIARPUR DISTRICT.

(MAJOR E. INGLIS.)

The amount of land-revenue remitted through the Post Office was Rs. 29,876-5-0 against Rs. 37,006 in the preceding year. About $\frac{9}{10}$ of the money thus sent came from Una tahsil, where in the rainy season owing to floods in Fohan stream it is more convenient to pay the June and July instalments by money order.

This system is very popular where small remittances have to be made, or the journey to tahsil is troublesome. In the case of large sums a headman spends less in

going to, and returning from, tahsil than by paying the money order commission, and at the same time attends to his odd jobs at the Court or the market. Excepting Una tahsil, which is a long narrow strip of country with its head-quarters far from the extreme ends, the head-quarters of all other tahsils are within one day's journey from the furthest limit. The money order system will always gain favor with the Una people, but will, I think, never be used to a great extent in other tahsils.

MOOLTAN DISTRICT.

(J. G. M. RENNIE, ESQUIRE.)

Rent cases give much trouble in this district owing to the fact that rents are almost all fixed in kind. Nothing is more unsatisfactory than the trial of such cases either as original cases or an appeal, as landlords have a habit of waiting till the period of limitation has nearly expired and then suing, and it is hopeless to attempt to find out what any particular land may have yielded three years back.

(Remarks by COLONEL J. B. HUTCHINSON, Commissioner and Superintendent, Lahore Division).

If the owners choose to put off suing till limitation is nearly up, they must run the risk of not being able to prove how much is due to them. I notice that the Collector has dismissed some claims on the ground that it lies with the owners to prove how much is due to them.

SIALKOT DISTRICT.

(MAJOR F. W. EGERTON.)

The preparation of the arz-irsál by patwáris was found not to answer as explained last year, and the system has not again been reverted to.

I note with some surprise in the review on the Revenue Administration for 1895-96, that the system is considered a success in other districts where it has been tried. I did not decide to abandon the system without full reflection, and the complaints against it were very general. I need hardly say that my conclusions were not arrived at in consultation with the wásil báki návis.

On the other hand, the remittance of revenue by postal money order promises to prove a great success. Rs. 17,040 was remitted in this way in the year under report, which is an increase of nearly Rs. 10,000 on last year's figures.

The system of supplying copies by value-payable parcel also promises to be a success, and should no doubt be generally adopted. This system was only introduced last year.

(Remarks by A. F. D. CUNNINGHAM, ESQUIRE, C.I.E., Commissioner and Superintendent, Rawalpindi Division).

Payment of revenue without pre-audit by the wásil báki návis was denounced last year as a failure in Sialkot. It does not seem to have become popular anywhere in the Division. I have no doubt that the system got a fair trial here.

Payment by money order of the Government demand has revived. Last year it seemed to be losing popularity. It is unfortunate that even this system does not save the zamindárs from black-mailing. Though 1896-97 shows a revival, still the amounts sent through the Post Office are not large in themselves. I confess that I do not think that the time has yet come in many districts in which we should seek to discourage the old custom of payment at the tahsil. It is no great hardship for a lambardár to go to the tahsil two or three times a year, and when a Tahsildár is new it is a distinct advantage that he should visit the head-quarters of the pargana.

The only defect in the system of supplying copies by value-payable parcel is the possibility of some applicants refusing copies sent them. This is a matter under consideration, and is easily obviated. However, here it seems to be growing in popularity. It is too soon yet to express a decided opinion on the subject.

EJECTMENT.

UMBALLA DISTRICT.

(CAPTAIN C. G. PARSONS.)

I do not know in how many cases of ejectment mortgagees were the ejecting parties, but I think that they must have been such in the majority. In most of the cases which come up before me on appeal mortgagees appear as the parties trying to evict the true proprietors. The number of applications for ejectment this year (*viz.*, 347) though greater than last year, is not remarkable. There were 355 in 1894-95. The number of ejectments actually made is not half as great as the number of applications, and I do not think this is a matter for regret. I presume that no Revenue Officer can view with equanimity the spectacle of a true owner being turned out by an usurer. Procedure in this department of work is rather slackly followed. Very often the notices of ejectment contain no specification of the land in question.

HOSHIARPUR DISTRICT.

(MAJOR E. INGLIS.)

I remarked last year that a distinction between Sections 41 and 40 was advisable when noting the *status* of mortgagor's possession, for zamindárs, whose only resource is produce of the land, in transferring that area, are under the impression that they are parting with proprietary rights (*haq-i-milkiyat*), and not with cultivating possession (*haq-i-kásht*). They think they cannot be ejected so long as they pay rent (Section 41). But the patwári indiscriminately notes all mortgagors under the mortgagees as *ghair-maurusi* (Section 40). I am glad to say that tahsil officers in sanctioning mutations of mortgages in compliance with my instructions, made out where the conditions of Section 41 existed. The note of the Revenue Officer about the intention of the mortgagor is a good proof of the meaning when the transaction is fresh, which otherwise two or three years later would not have been believed against the patwári's records. Another good that has been done is, that the mortgagor is put on his guard from the beginning, and can take measures for his protection.

TRANSFERS OF TENANT-RIGHT.

UMBALLA DISTRICT.

(CAPTAIN C. G. PARSONS.)

There were 10 suits by landlords to set aside transfers made of rights of occupancy in the year, as against 22 in the previous year. All the 10 cases were disposed of in the year. The consent of the landlord is very rarely sought in the regulation manner; so that landlords almost always win their objection cases. But very many transfers take place without objection being lodged. It is doubtful whether the mass of the landlords understand that their consent must be obtained. Sometimes they find it out suddenly, and then bring objections against transfers passively condoned for years.

HOSHIARPUR DISTRICT.

(MAJOR E. INGLIS.)

There were two applications during this year against three last year on behalf of occupancy tenants to serve notice of intended transfer, under Section 53 or Section 54 on the landlord. There were 85 suits against 79 last year on behalf of the landlords to dispossess the transferees of occupancy rights. In such cases decrees are not passed against the tenants. The transferees always plead consent or acquiescence of the landlord to the transfer. Sometimes it is also stated that occupancy tenants can alienate without this permission of the landlord. The clearest evidence is demanded to prove acquiescence by subsequent ratification. It is not customary, however, for the occupancy tenants of the district to inform the landlords of the intended transfer through the Court, otherwise the number of applications under Section 76 (1) (c) and (f) would have increased greatly. Comparing the number of suits by the landlords with the number of transfers by the occupancy tenants, the opposition to such transfers on behalf of the proprietors appears to be small.

NORTHERN INDIA CANAL AND DRAINAGE (No. VIII OF 1873.)

KARNAL DISTRICT.

(J. F. CONNOLLY, Esquire.)

The completion of the main line of Sarsuti Canal, which was undertaken by the District Board, was pushed through, thanks to the exertions of Bábú Tej Rám, Sub-Divisional Officer of the Irrigation Department, whose services were temporarily lent to me, and 20,000 bighas were irrigated in 1896, securing to many of the Naili villages sufficient grain to last out the famine. In spite of the dry year, there was ample water to irrigate three times this area, indeed much more, but the villages commanded could not all be reached, as water-courses had to be constructed, and it was at first thought that the canal could not be completed before June 1897. The villagers were also suspicious as to the supply of water available. I entertain great expectations from this canal and from its proposed extensions, and believe it will be possible eventually to irrigate from it all the tract south of the Sarsuti, up to the present limit of irrigation from the Sirsa Branch. The Kaithal people would, of course, prefer irrigation from the Sirsa Branch, which, if water were sufficient, is possible in many villages, and were inclined to sneer at an inundation canal like the Sarsuti, but after the present year's experience—one village, Tháná, had 7,000 bighas of rice (*ziri*), yielding 8 maunds to the kachcha bigha—they are now convinced that it will be of great benefit to them. The rates at present in force are very low, rice being charged with Rs. 2-8-0 an acre only, with no owner's rate, and this rate I can safely raise to Rs. 4.

(Remarks by R. CLARKE, Esquire, Commissioner and Superintendent, Delhi Division.)

We are still in the experimental stage as regards this canal, but I am sanguine that it will be a great success.

MOOLTAN DISTRICT.

(J. G. M. RENNIE, Esquire.)

The following table furnishes the particulars of working of the five canals mentioned in last year's report, viz., the Sidhnái, Koránga, Fázil Sháh, Abdul Hakím and Barkat Ali Khán issuing from the Ravi:—

Tahsil.	Name of Canal.	Area irrigated in previous year.			Area irrigated in year under report.			Difference.	
		Kharif.	Rabi.	Total.	Kharif.	Rabi.	Total.	Increase.	Decrease.
Mooltán ...	Sidhnai ...	22,757	13,364	36,121	26,067	10,730	36,797	676	...
Kabírwála ...	Do ...	36,563	30,606	67,169	58,420	30,985	89,405	22,236	...
	Total ...	59,320	43,970	1,03,290	84,487	41,715	1,26,202	22,912	...
Kabírwála ...	Koránga ...	869	1,746	2,615	1,686	2,238	3,924	1,309	...
	Fázil Shah ...	3,598	3,389	6,987	6,667	4,911	11,578	4,591	...
	Abdul Hakím ...	2,006	1,519	3,525	4,563	3,174	7,737	4,212	...
	Barkat Ali Khán ...	76	104	180	20	21	41	...	139
	Total ...	65,869	50,728	1,16,597	97,423	52,059	1,49,482	32,024	139

The large increase is the result of all the canals working well throughout the year.

For the Inundation Canals the statistics in the table appended furnish details of working.

Tahsil.	No. of Canals.	Area irrigated in acres.		Difference.	REMARKS.
		1895-96.	1896-97.		
Mooltán	8	77,036	1,42,768	+65,732	
Shujabád	8	64,463	56,797	-7,666	
Lodhrán	17	81,363	64,790	-16,573	
Mailsi	11	60,926	87,448	+26,522	
Kabírwála	3	1,985	1,521	+464	
Total	47	2,85,773	3,53,324	+67,551	

On the whole there is an improvement in the area irrigated of 67,551 acres.

The private canals in the district are the same as last year; their working is shown in the table subjoined.

Tahsil.	No. of Canals.	Area irrigated in acres.		Difference.	REMARKS.
		1895-96.	1896-97.		
Shujabád	4	1,249	1,779	+530	
Lodhrán	3	200	267	+67	
Mailsi	1	6,810	6,814	+4	
Kabírwála ... ..	...	1,238	1,079	-159	
Total	8	9,497	9,939	+442	

Here too the figures have improved, showing an area of 442 acres irrigated over the area of last year.

PESHAWAR DISTRICT.

(Extracts from a Report by C. E. BUNBURY, ESQUIRE).

Kábul River Canal.—The Canal remained throughout the year in charge of Sheikh Sher Muhammad, Khan Bahadur, under the control of the Deputy Commissioner. * * * The Canal worked admirably during the year, and was only closed for 15 days during the year as shown below :—

March 1897 ...	6 days—Breaches of Kafoor Dher and Shahi Nalas.
May 1897 ...	2 days—Breaches of Shahi Nalas.
August 1897 ...	3 days—Maira Kachori.
September 1897 ...	4 days—Mullazai.
Total ...	15 days.

* * The income from the mills has amounted to Rs. 22,805, as against 13,135 in 1895-96.

* * * The annexed table shows the area irrigated and the total amount due as water rates for year kharif 1896 and rabi 1897, with the gross collection as shown in the treasury accounts and the area irrigated and demand for the kharif 1897 for purposes of comparison. The capital expenditure on the canal has been up to date Rs. 4,47,697.

The gross income for kharif-rabi 1896-97 was as follows :—

	Rs.
Water rates	89,579
Mills rent	22,805
Total income	1,12,384

The cost of establishment actually maintained and of repairs executed during kharif-rabi 1896-97 are shown below :—

Post.	Rate.	Actuals, kharif-rabi 1896-97.	Sanctioned for 1897-98.	Budget for 1898-99.	REMARKS.
	T. A.	Rs. a. p.			
Assistant Engineer ...	350 +	5,462 6 0			
1 Zilladár	65 and 80	855 0 0			
2 Sub-Overseers	32-8 and 45	1,016 11 6			
Draftsman Clerk	35	464 6 0			
Do. Simla Allowance ...	...	24 14 0	10,440	10,440	
Munshi	15 and 20	205 12 0	10,000	10,000	
Jamadár	15	187 12 0	...	...
	15	180 0 0	...	...
	15 and 20	205 0 0	...	...
	15	120 0 0	...	...
	10	40 0 0	...	...
	10	50 0 0	...	...
Guage-reader	10	70 0 0	...	...
	8	64 0 0	...	...
	10	40 0 0	...	...
Chaprasis	7	322 0 0	...	...
Beldars	6	1,920 0 0	...	...
Total Rs. ...		11,227 13 6			
Deduct paid out of District Board.		1,200 0 0	Establishment	Establishment	
Balance		10,027 13 6	Repairs	Repairs	
Repairs		10,157 8 0			
Total Rs. ...		20,185 5 6			

Deducting cost of maintenance and establishment during 1896-97 from the gross income, the net profit was Rs. 92,199, or 20·6 per cent. on the capital expenditure. Net profits of the last four years are given below for comparison :—

1892-93	...	0·34
1893-94	...	4·9
1894-95	...	6·1
1895-96	...	8·7
1896-97	...	20·6

This sudden and large increase is mostly due to the introduction of the new differential crop rates. In September 1896, Mr. L. W. Dane when writing the revenue report of this Canal anticipated a net profit of 17 per cent. The income this year has more than fulfilled his anticipation. The water was plenty for the area irrigated, and crops have been good everywhere.

Zilladár Sikandar Shah has continued to do good and valuable service during the year. He was promoted from Rs. 65 to Rs. 80 on 1st April 1897, which he well deserved. He has made himself popular amongst the people by his tact and energy, and by his just treatment with all classes, poor or rich.

Sheikh Sher Muhammad, Khán Bahádúr, in addition to holding charge of this Canal, generally supervised the District Minor Canals, and his management was in every way satisfactory and successful.

The total cost of maintenance and establishment of this and the Doába Canal has been as follows:—

Canal.	Maintenance.	Establishment.	Total.
	Rs.	Rs.	Rs.
Michni Dallazak Canal	1,391	1,889*	3,280
Doába Feeder Canal	†587	176	763
Total	†1,978	2,065	4,043

* Including Rs. 1,200 of Sher Muhammad's pay.

† Includes Rs. 389 for iron gates and gearings.

Total income during the year has been—

	Area irrigated.	Water rates.
	Acres.	Rs.
Kharif 1896	1,315	4,666
Rabi 1897	1,722	1,505
Total	3,037	9,681

Deducting cost of maintenance and establishment of Michni Dallazak Canal the net profit is Rs. 6,401, or 25 per cent. on the capital outlay. And deducting cost of maintenance and establishment of the Doába Canal charged to District Board, the net profit is Rs. 5,638, or 22·5 per cent. on capital.

Doába Feeder Canal.—This Canal worked steadily till the 17th August 1897, when it was silted up by the heavy flood of the cross drainages. The zamindárs preferred to clear their old channel "Ichri," and did not turn up to clear this even on payment. Labour could not be had at a moderate rate owing to the frontier disturbances. The clearance is, however, now in hand, and will be finished in about 10 days.

Iron gates and gearings have been received for the Regulator of the Doába Canal, and will soon be put in.

Shabkader Branch.—This branch was constructed just in time to put in kharif 1897. Therefore there has been no income from it during the financial year under report.

KOHAT DISTRICT.

(T. H. HOMAN, ESQUIRE).

A mirab cess at Re. 1 per cent. on the land revenue of the villages irrigated by springs and on the Toi in this district is levied, from the proceeds of which (estimated at Rs. 850 per annum) an establishment, costing Rs. 840, is kept up. The cost of establishment originally sanctioned was, however, Rs. 660 and the surplus income was utilized for improvement of irrigation works in the district. This establishment was found insufficient, and the annual cost was therefore gradually raised to Rs. 840, the income and expenditure now being about equal. The present establishment is, however, inadequate for the various duties required of it, which are mostly done by the tahsil establishment to the detriment of their other work. It was accordingly proposed during the year under report, to enhance the mirab cess of the district, and to entertain an additional establishment, but as there is no clear provision of the law under which this can be done until the expiry of the present settlement of the district, the matter was dropped.

LAND ACQUISITION ACT (No. 1 OF 1894.)

JHANG DISTRICT.

(CAPTAIN P. S. M. BURLTON).

The provisions of the law are not strictly followed by the Canal Department, and generally possession was taken before a notification appeared in the Government Gazette.

LAND IMPROVEMENT LOANS ACT (No. XIX OF 1883.)

UMBALLA DISTRICT.

(CAPTAIN O. G. PARSONS).

The subject of advances under the Land Improvement Loans Act has to be taken up as a speciality owing to the complicated procedure required by the Accounts Department, and only those Deputy Commissioners who are in charge of fairly light districts can bestow the sustained personal attention necessary for success.

JULLUNDUR DISTRICT.

(LIEUT.-COLONEL A. DE C. RENNICK).

Rs. 6,220 were advanced during the year, against Rs. 29,400 in the previous year. The falling-off was owing to further advances having been stopped. Large sums have been advanced in this district under this Act, and have been as a rule put to good use, but the recent scarcity of rain has proved the necessity of more wells in *bārāni* lands, and I anticipate that advances will be eagerly sought for when Government is prepared to allot the money.

MONTGOMERY DISTRICT.

(KHAN ABDUL GHAFUR, *Khan of Zaida*).

I think the system is popular with the people, but the loans I should think, are seldom faithfully applied. In almost every instance time is given two or three times for the completion of the work. In majority of cases the borrower is warned for completion of the work. The obvious inference therefore is that the money is applied to some other purposes than that on which the advance is made, and the work is completed by money raised elsewhere.

AGRICULTURISTS LOANS ACT (No. XII OF 1884.)

HISSAR DISTRICT.

(P. D. AGNEW, ESQUIRE).

As stated under head 5 of the report the loss of cattle was terribly heavy in this district, and very many zamindárs were left without plough-bullocks with which to under take agricultural operation. It was expected that there will be a heavy demand from all parts of the district for agricultural loans, and to avoid delay which ordinarily occurs in the completion of preliminary takávi proceedings, all Tahsildárs were ordered to prepare lists village by village for their respective tahsils, showing the names of persons actually in need of takávi loans, and this was accordingly done. It is most probable that a full report in the distribution of advances under the Act will be made by Captain Dunlop-Smith in his Famine Report. Statement No. XXVII gives absolutely no idea of the real extent of the operations. In all Rs. 4,83,887 were distributed as takávi, but the sum shown as finally adjusted before the close of the year is Rs. 89,131 only. This is of course a mere matter of account, and most of the sums technically unadjusted have since been cleared. But it is to be regretted that the Revenue Report should not show the extent to which these loans were granted, for it is no exaggeration to say that the loans saved the district from ruin. The takávi grants were most carefully and wisely made. A grant of five lakhs was sanctioned by Government, and the sum nearly all taken up. As said above, the Tahsildárs prepared preliminary lists of those requiring takávi. When these were ready the district was divided for purposes of distribution between Messrs. Butler, Stephen and Lála Sansár Chand. These officers proceeded to convenient centres and distributed the loans then and there. Confidential instructions were given to each officer by Captain Dunlop-Smith as to the principles to be observed in making the grants. At the same time the liberal grant of Rs. 2,35,000 made by the Lahore Famine Committee was distributed by these officers. It was used chiefly as a supplement to Government takávi, and granted chiefly to those whom the conditions for loans under the Act debarred from its benefit or to those whose needs were not solely agricultural. The whole subject, however, will no doubt be dealt with in the Famine Report. This important task, it is reported, was carefully and expeditiously accomplished.

DELHI DISTRICT.

(CAPTAIN H. S. P. DAVIES).

The majority of the advances were made on the spot. Allotments were made to officers proceeding on tour in those parts of the district where assistance of this kind appeared most necessary. The people were saved the trouble of attending the tahsíl or sadr, and the actual circumstances of each case were heard on the spot.

UMBALLA DISTRICT.

(CAPTAIN C. G. PARSONS).

The system of sending an officer into camp with a treasure chest was adopted. The loans were thus issued with great facility. The Revenue Assistant (Lála Bishambhar Diál) issued almost all the loans out in the villages. Munshi Fakír Ali issued some. The system is far preferable to the stereotyped system of expecting a man to come into the sadr, and I recommend it for permanent adoption. A Deputy Commissioner cannot be expected to personally attend to a great number of petty subjects which require great attention to detail; and when a Revenue Assistant is reliable it is best that he should dispose, on approved lines, of these loan cases, obtaining the Deputy Commissioner's signatures to the papers as the Regulations require.

SIALKOT DISTRICT.

(MAJOR F. W. EGERTON).

The total advances made in 1896-97 amounted, under Act XII of 1884, to Rs. 77,776 against Rs. 16,920 in 1895-96. Of these, Rs. 42,941, was advanced for seed, and Rs. 27,470 for the purchase of cattle, and Rs. 7,365 is unexpended but will be spent. I have no hesitation in saying that the prompt advance of takávi in the Bet Bela and Charkhri, 2nd Circle, and some other poor tracts averted famine which was staring the people in the face. The sabúkars absolutely refused seed for sowing except to their own special clients on good security and at outrageous interest. The result of these prompt advances was in some cases to make the baniás open their grain stores and so the crisis was passed. The loans which were for sums under Rs. 50 for seed were to bear no interest if repaid in the next harvest. It will be of the greatest advantage in subsequent bad years that the people should realize the fact that they are independent of the bania for seed provided that they can give reasonable security for an advance from Government. It will also be a lesson to the baniás not to be too churlish in advancing seed for sowing.

(Remarks by A. F. D. CUNNINGHAM, ESQUIRE, C.I.E., Commissioner and Superintendent, Rawalpindi Division).

This subject was fully noted on last year. Had it not been for the timely intervention of Government with advances for purchase of seed, many would have been driven to the baniá, a step which experience shows the average peasant is rarely able to retrieve. The surmise in last year's note that possibly baniás were holding back stocks to drive good bargains seems to have been a near guess at the truth. The saving of interest to the borrowers in cases of prompt repayment is undoubtedly a boon. The sums disbursed to individuals, if those entered in this report are correct, seem high, compared with those advanced during distress in other districts, where the object was to induce as many peasants as possible to sow in order to get some return, rather than to encourage only the holders of large areas.

INDIAN FOREST ACT (No. VII OF 1878).

SHAHPUR DISTRICT.

(LIEUTENANT A. C. ELLIOTT).

The forest settlement of the district was finished by Mr. Wilson, during the year 1895-96. In the beginning of March 1897, a new Forest Division was constituted, the Shahpur Division under a Deputy Conservator, and all the rakhs which were formerly under the Collector's management have been transferred to the Forest Department.

All Government rakhs have now been demarcated by *pacca* pillars and all questions of encroachments by zamindárs have been settled fully and compensation paid where

necessary. The area under the Forest Department is now 753,284 acres. The demarcation of rakhs by accurate measurements has caused a decrease of 4,183 in Khusháb tahsíl and an increase of 298 acres in Bhera tahsíl, to lands apart from the forest lands.

There were no forest fires of importance. During the year under report all rakhs in tahsils Bhera and Shahpur were thrown open to grazing on the *amáni* system. This was intended as a measure to benefit the zamíndárs at small cost to themselves. But it was found that the peasant agriculturists of the Bhera and Shahpur Bár preferred to get their grazing free. Accordingly a regularly organized campaign under a certain ringleader was initiated—the village cattle were turned into the rakhs as soon as grass was sufficient, no tickets for grazing being taken. A strong body of young men was put in charge and as soon as any cattle were arrested they assembled, organized an attack, beat all officials in charge and rescued the cattle. On one occasion this was done under the eyes of the Deputy Conservator of Forests, and District Superintendent, of Police. This was soon put a stop to—the rakhs were closed and sold by auction to the highest zamíndár bidder, sale to Khattris being avoided in every case, and the result has been to put an end to these lawless proceedings. The pity is that the zamíndárs who aided the ringleader have all been punished, though lightly, as they were easily led to commit an offence which no doubt was a good joke to them, while the "*fons et origo malorum*" is at large pending decision of an appeal he has made on the grounds of being unable to obtain justice in the district.

The result has been an alarming increase in cases under Section 24, Act I of 1871, and much consequent trouble to district officials.

(Remarks by A. F. D. CUNNINGHAM, Esquire, C.I.E., Commissioner and Superintendent, Ráwalpindi Division.)

The matter of the settlement of the Bár rakhs in Bhera and Shahpur is pending before the Financial Commissioner. One point strongly insisted on in the settlement was that the grazing arrangements should be made directly with the local zamíndárs, all speculating bania thikadárs being rigidly excluded. When the zamíndár would not engage, the rakhs were to be managed on the *amáni* system. The system came into force in 1895-96, and being in a sense a revolution was probably not comprehended by the peasants with the results now complained of by the Deputy Commissioner. A report was made of this circumstance in the course of the year and the Deputy Commissioner practically recommended a reversion to the contract system which had been condemned in the settlement. This was refused, and the Deputy Commissioner was told to use the law against the agitators who wanted to take free grazing by force. This he has done apparently with the most satisfactory results. It seems likely that if the Deputy Commissioner will take and maintain a firm attitude, matters will soon right themselves. I am a little sceptical about the possibility or even need of keeping out the Khatri from the leases of these rakhs. In Hazára we insisted on the Forest Department selling at a fair price to the local landowners. Leases were not sold to highest bidder at auction. Not unfrequently we found that the lambardárs had re-sold their lease to a contractor from Ráwalpindi.

HAZARA DISTRICT.

(CAPTAIN H. S. FOX-STRANGWAYS).

Again during the year under report it became necessary, owing to continued abuse of the village waste land by wasteful fellings, to withdraw the privileges conferred by Rule II of the Rules under Section 16, Regulation IV of 1893, from 8 villages in the tahsils of Abbottabad and Mansahra for two, three and four years and for good.

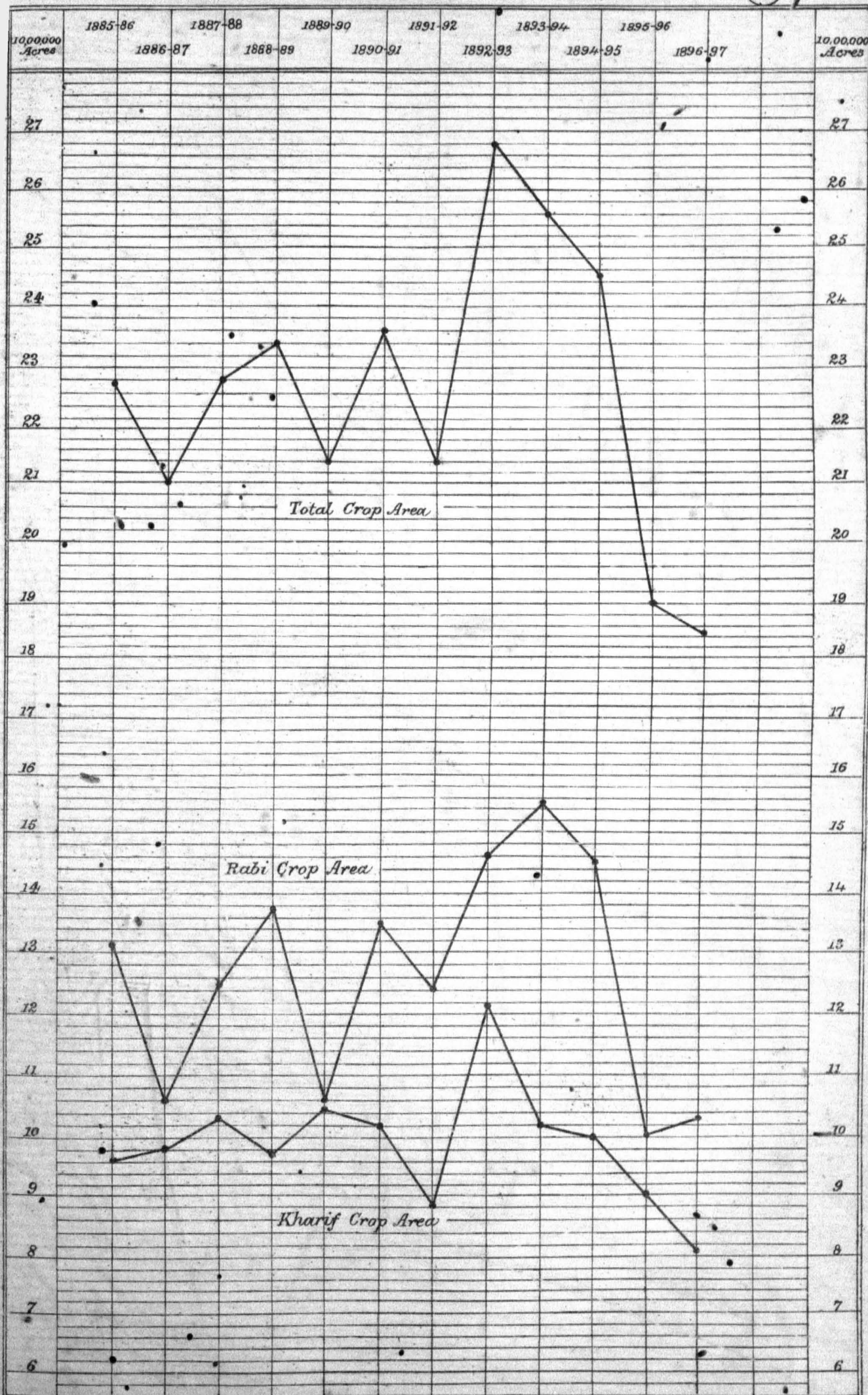
Forest fires only occurred over an area of :—

						Acres.		
						1896-97.	1895-96.	1894-95.
Reserved Forests	...	...	...	...	..	1,764	6,616	15,548
Protected Forests	...	...	...	...	...	6,991	8,938	19,800
Unprotected Waste	...	...	...	...	...	4,092	2,940	6,096

There was a very considerable decrease under reserved forest area burnt, as compared with last year, but a very much greater difference if compared with the year previous. It is hoped that this means that the deterrent punishments are having effect, but the drought too may have acted as a check. Fires are only started to burn off the pine needles to enable the grass to spring up, and since there was no great likelihood of a copious rainfall it was scarcely worth while to burn the needles; although as my predecessor remarked last year this was the year for forest fires since they occur every alternate year, and last year was comparatively free from forest fires. These remarks would also apply to the decrease under protected forests and also to the increase under unprotected waste since there is less supervision, and there was greater need in these tracts. The fire fines in reserved forests aggregated Rs 2,791 on 18 villages out of 32 villages as compared with Rs. 5,589 on 49 villages out of 92 villages during last year and Rs. 11,446 on 81 villages out of 132 villages during the preceding year. As usual the fines did not exceed the annual land-revenue and the incidence per head of cattle did exceed the cattle-pound fine. Of the total fines, Rs. 477 were awarded as compensation to the Forest Department, as compared with Rs. 1,895 last year and Rs. 4,084 during the year previous. Eleven villages out of 14 were fined Rs. 955 under Sections 27 and 22, Hazára Forest Regulation, for abuse of rights in village waste lands and protected forests. No person was imprisoned during the year, as last year all these forest cases were enquired into by Rai Bahádur Dilbágh Rái, Revenue Extra Assistant Commissioner, with the powers of a Deputy Commissioner, under Section 27 of the Regulation. At present the question of restricting the sale of brushwood in the Khánpur iláka is under discussion. The Deputy Conservator of Forests is of opinion that that tract will in a very short time become absolutely denuded, and that it is advisable that the term "brushwood" should be so defined in the Rules under the Hazára Forest Regulation as to obviate this result. A separate report will be made on this subject, which is not unimportant.

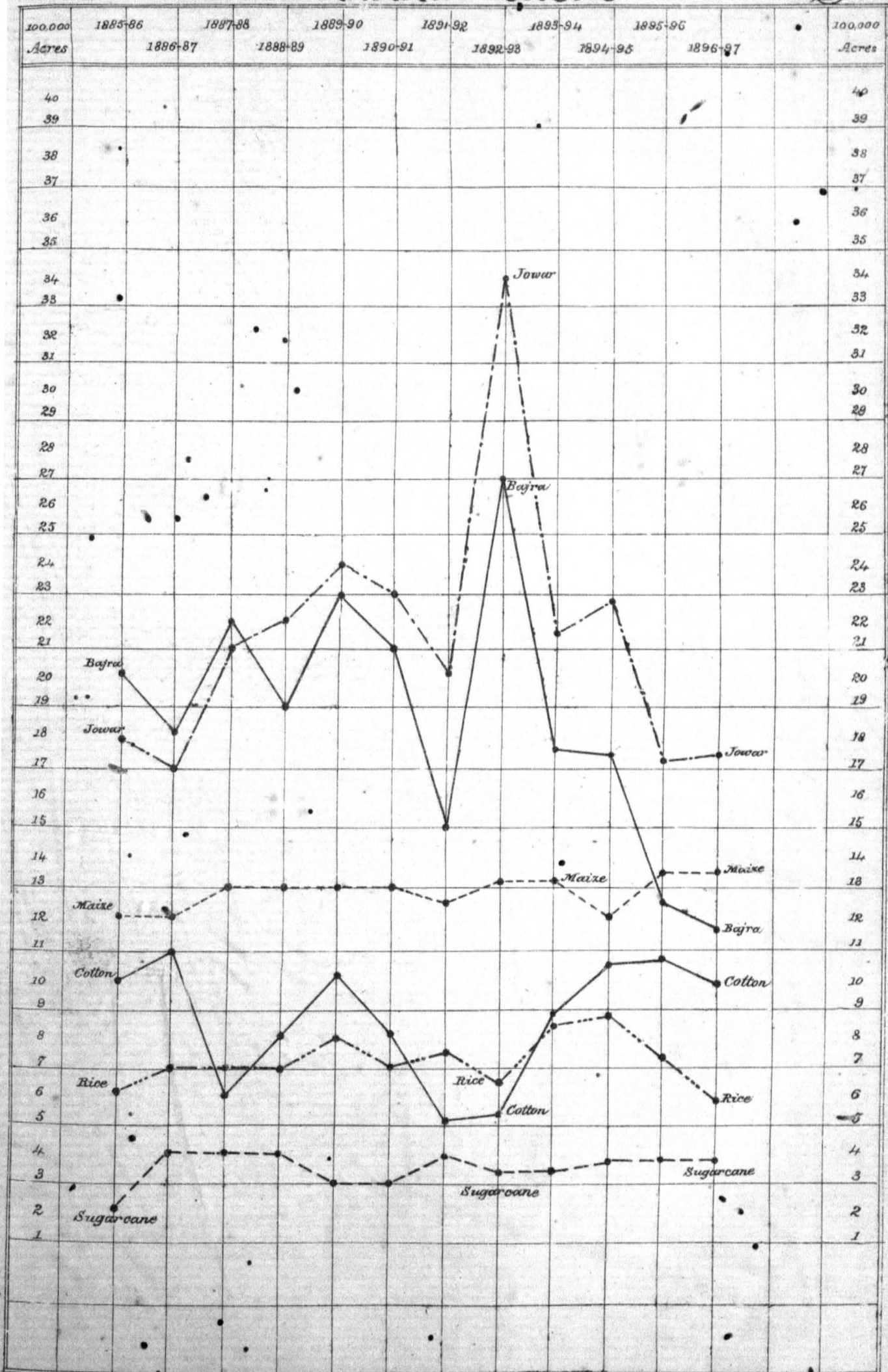
TOTAL AREA

(A)



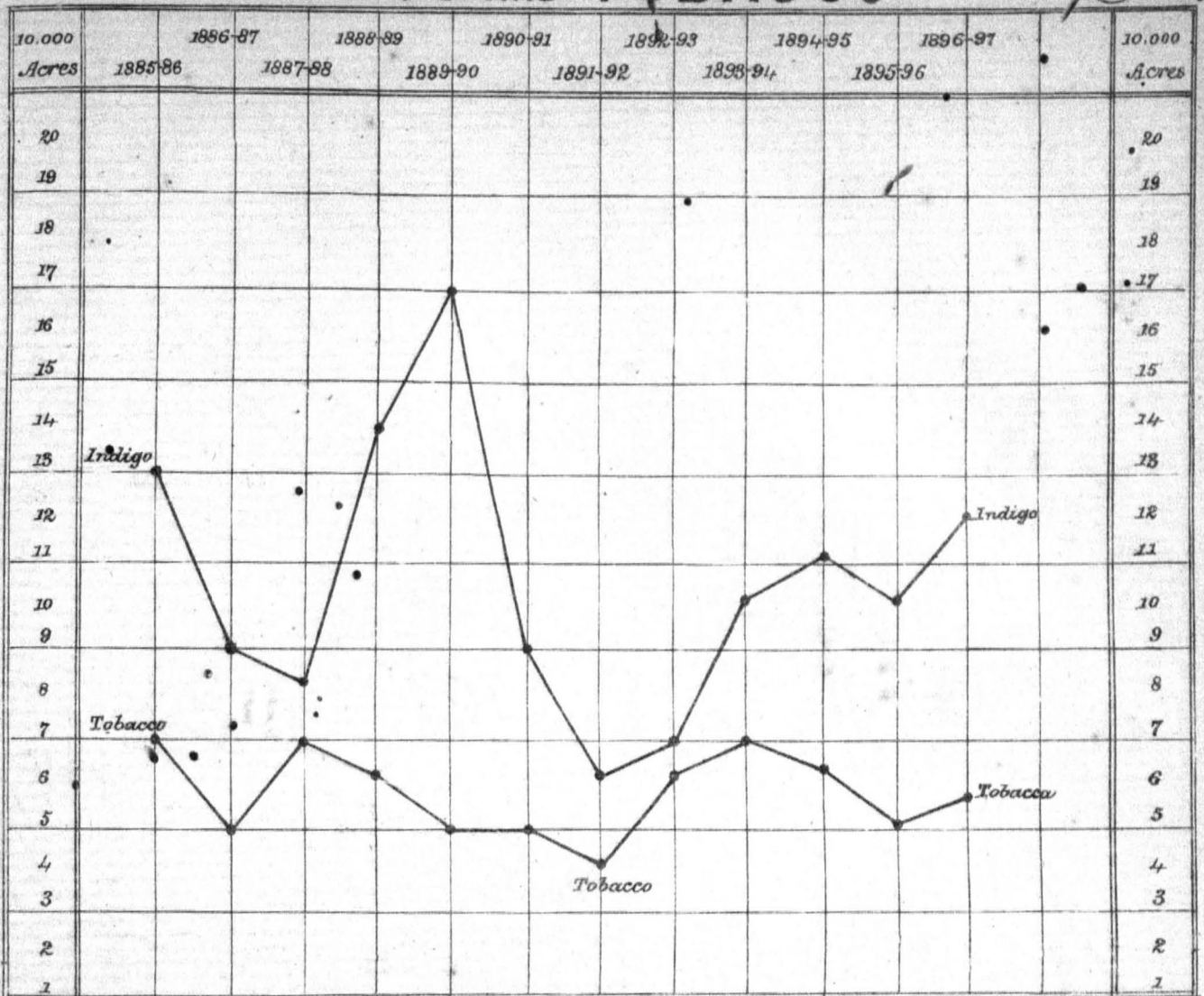
KHARIF CROPS

(B)



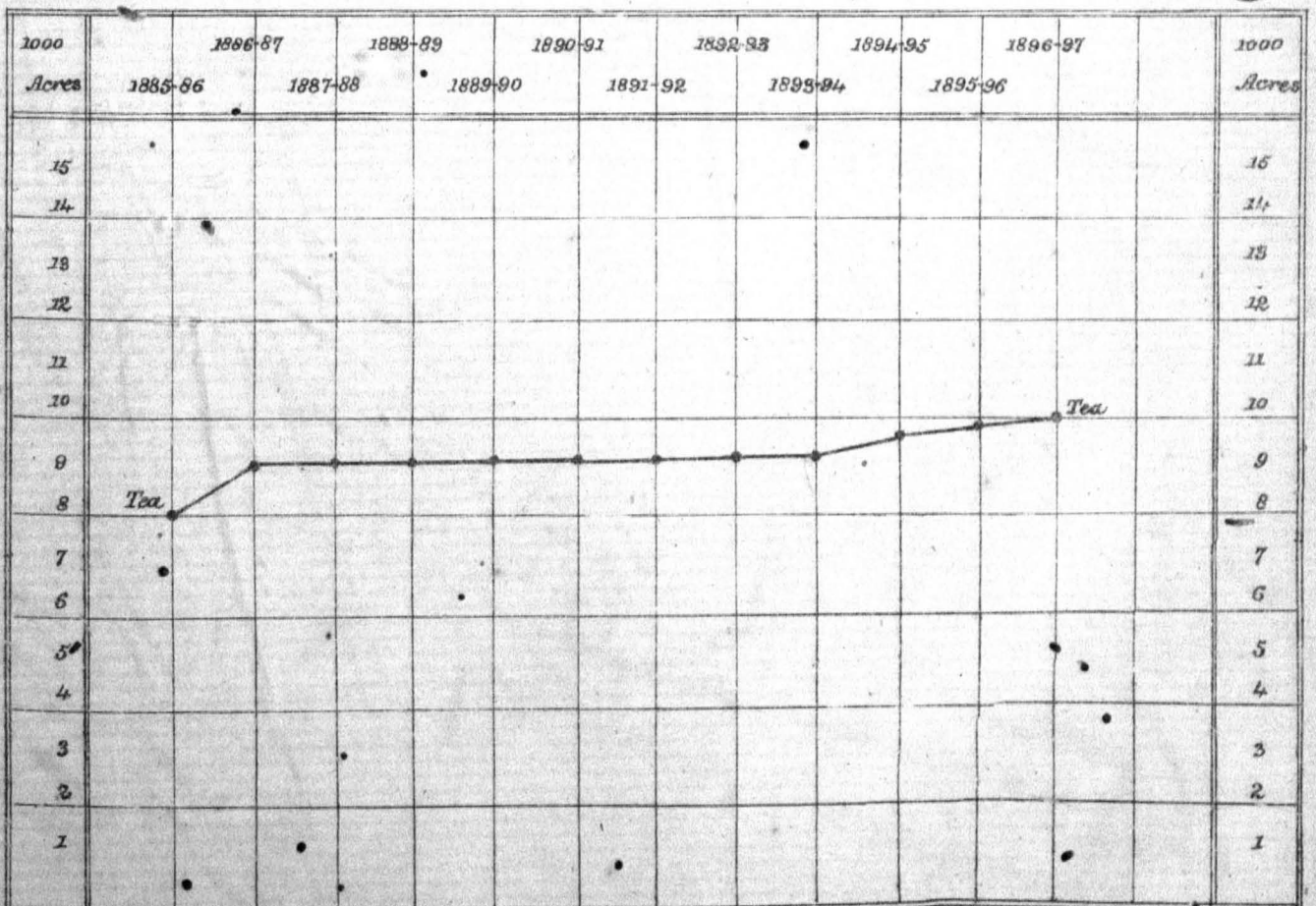
INDIGO AND TOBACCO

(C)



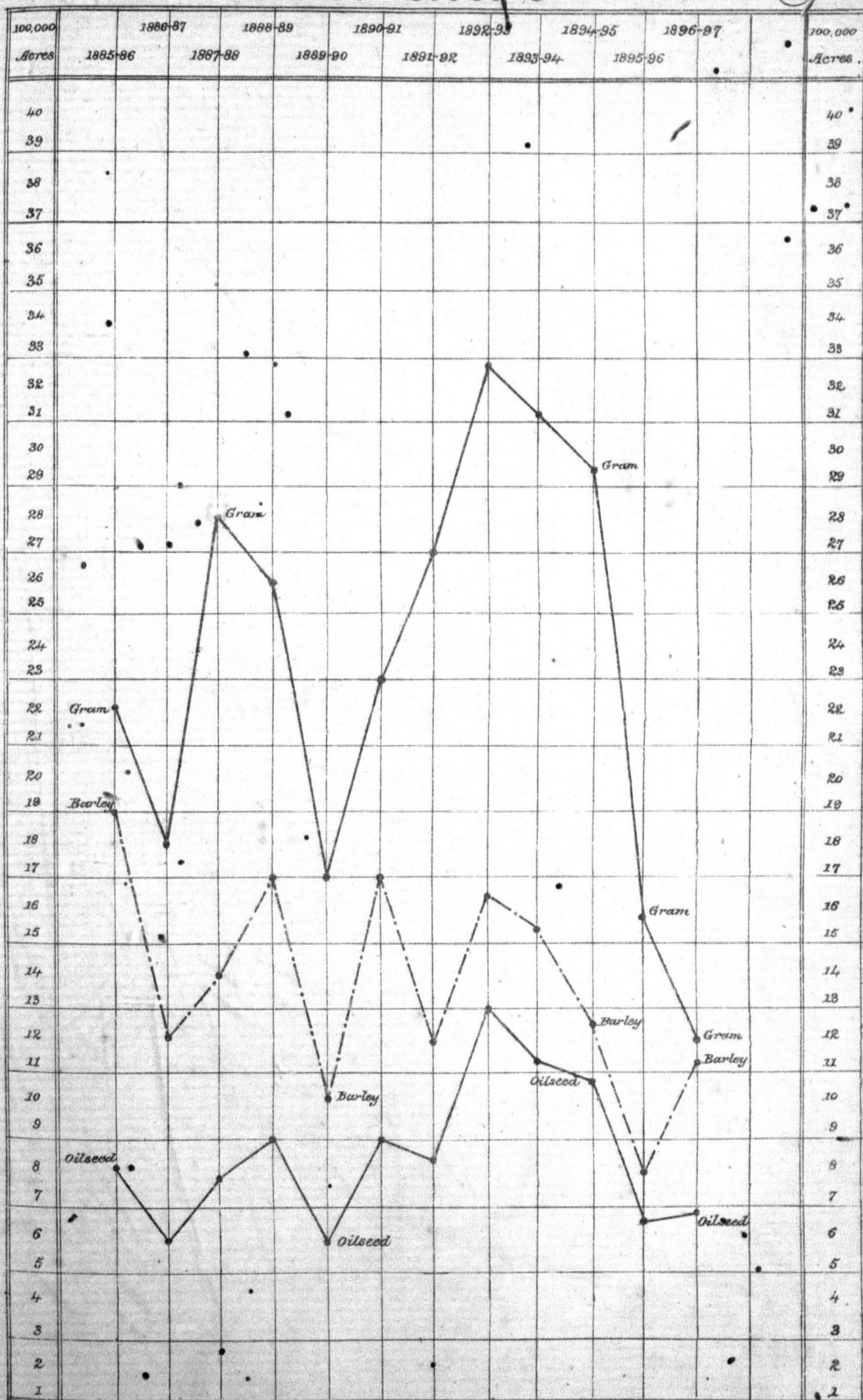
TEA

(D)



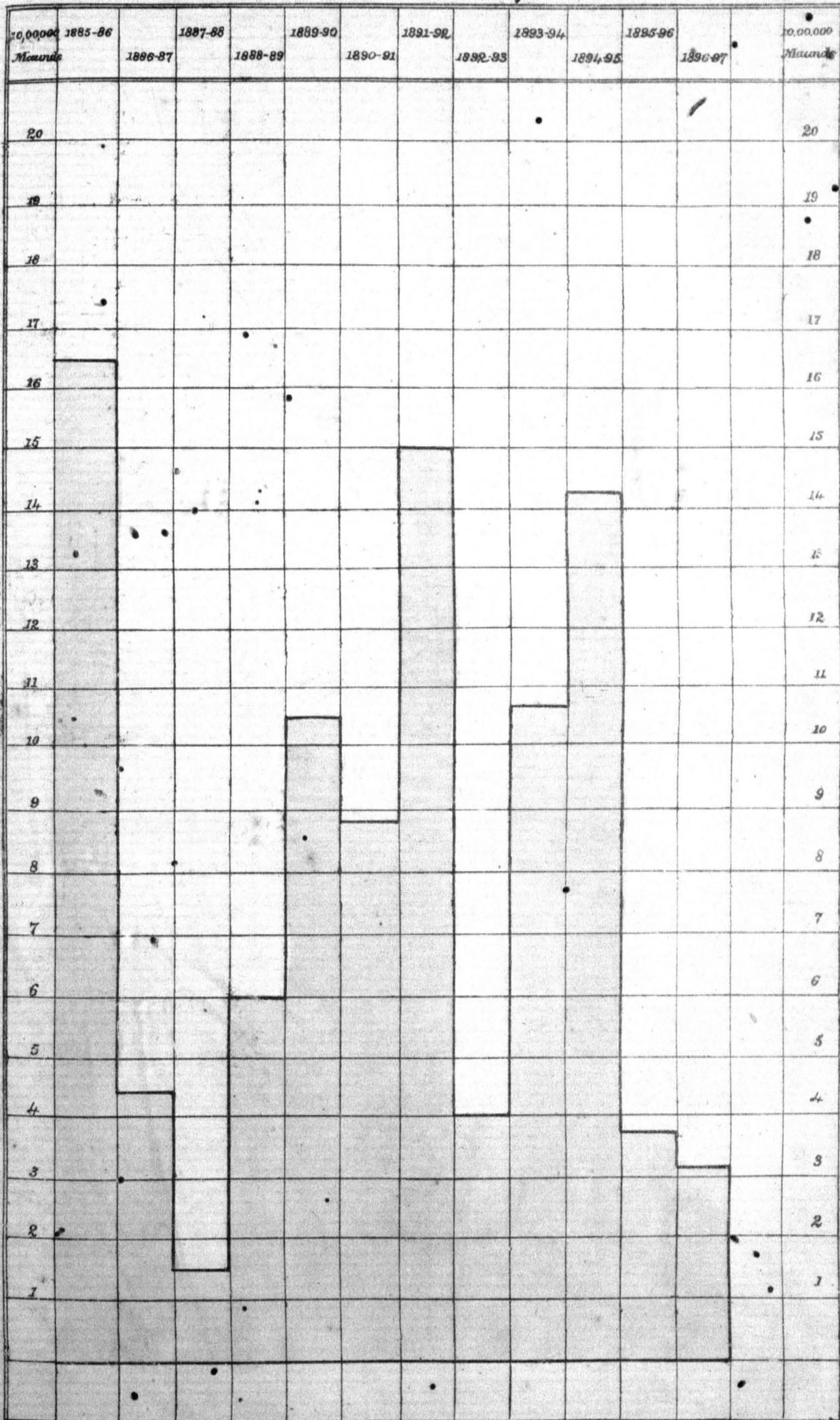
RABI CROPS

(E)



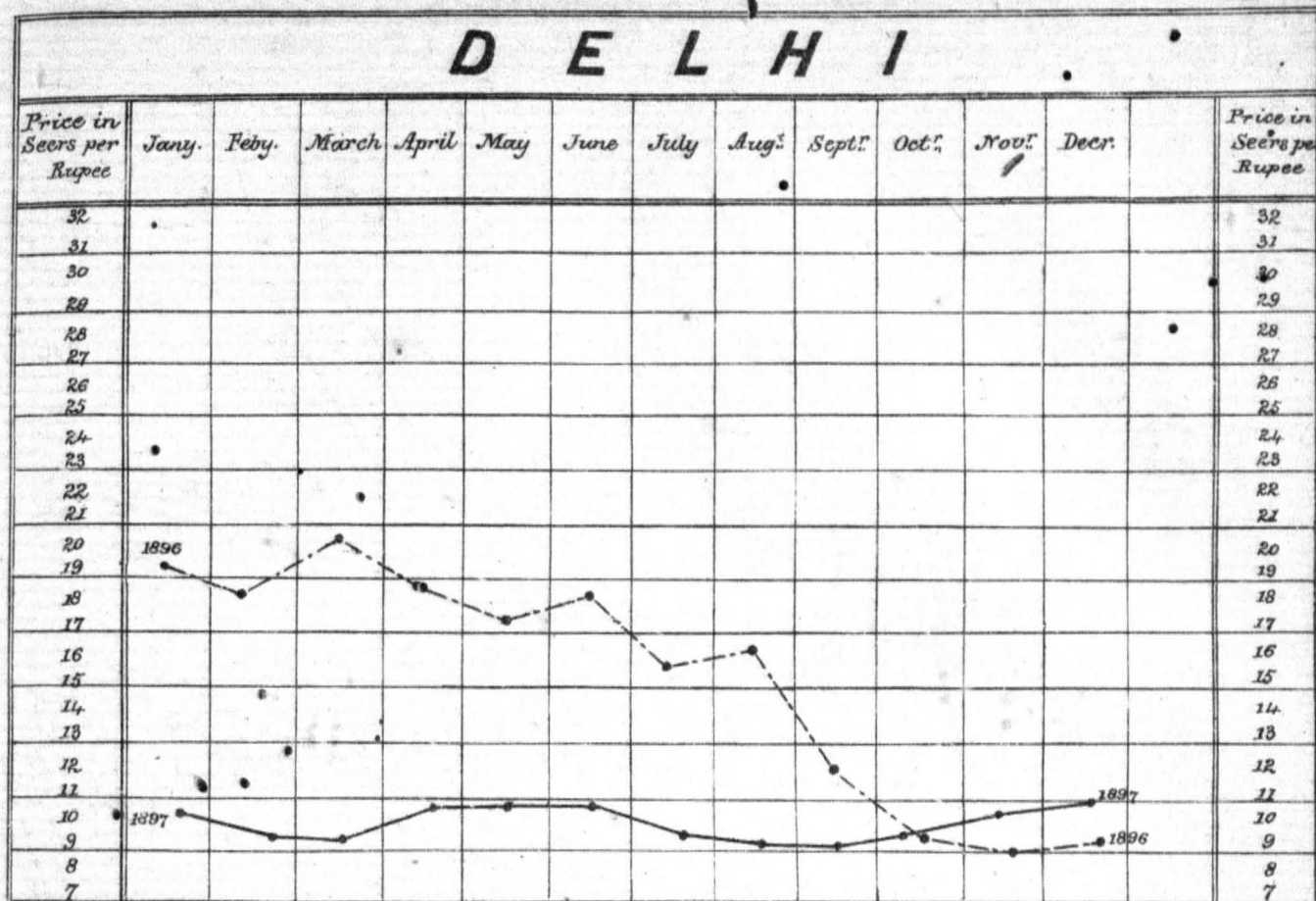
EXPORT OF WHEAT

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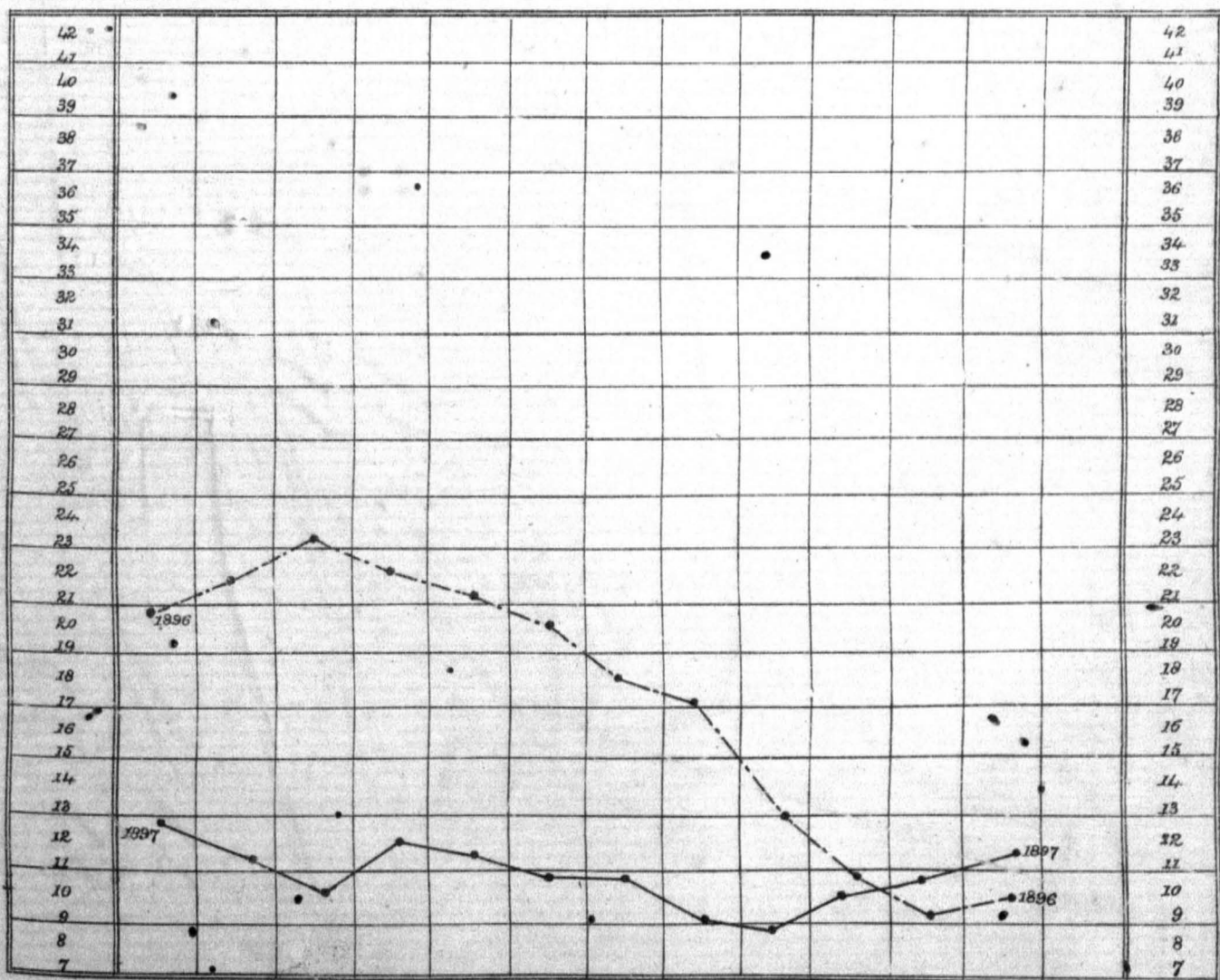
PRICES OF GRAM D E L H I

(H)



FEROZEPORE

(I)



APPENDIX A.

No. 560, dated the 28th January 1898, from J. A. SINCLAIR, Esq., Government Advocate, Punjab,
to the Junior Secretary to Financial Commissioner, Punjab.

I HAVE the honour to submit the usual report of the civil business transacted by this office during the twelve months, from 1st October 1896 to 30th September 1897, inclusive.

2. I held the office of Government Advocate, and Mr. S. M. Robinson officiated as Junior Government Advocate throughout the year. During the year under report, Mr. E. P. Henderson was placed on special duty in Incumbents of office. England in Muhammad Yusaf Dīn's case (Hyderabad bribery case) from 1st October 1896 to 26th July 1897, and he was then on furlough from 27th July to 31st October 1897. Mr. Henderson was appointed a Divisional Judge on the 21st January 1897. From the 17th January to the 17th July 1897 Mr. E. W. Parker was attached to the office, on special duty, pending sanction of the appointment of a Legal Remembrancer.

3. Appendix A is a detailed abstract of cases and matters submitted to this office for opinion during the year; and the number of such references disposed of is compared with the numbers dealt with during each of the past five years in the following tabular statement:—

Comparative Statement of References disposed of during the years 1891-92 to 1896-97.

No.	Name of Department.					1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.
1	Secretary to Government, Punjab, Civil Department	...	...	...	...	49	48	59	53	42	71
2	Ditto ditto, Public Works Department	...	...	...	...	9	23	36	60	53	24
3	Ditto ditto, Irrigation Branch	...	...	...	...	87	65	294	158	143	127
4	Secretary to Financial Commissioner, Punjab	...	...	...	...	28	36	17	47	42	32
5	North-Western Railway	...	...	...	...	99	50	36	38	32	46
6	Conservator of Forests, Punjab	...	...	...	...	6	2	2	...	2	2
7	Inspector General of Police, Punjab	...	...	...	...	...	3	...	1	1	2
8	Ditto Civil Hospitals, Punjab	...	...	...	...	1	...	...	...	...	...
9	Ditto Prisons, Punjab	...	...	...	...	...	...	...	...	...	1
10	Ditto Registration, Punjab	...	...	...	...	...	...	...	...	...	...
11	Director of Public Instruction, Punjab	...	...	...	...	1	2	3	4	...	...
12	Accountant-General, Punjab	...	...	...	...	3	2	6	...	...	4
13	Deputy Commissioner of Paper Currency, Punjab	...	...	...	...	...	1	5	5	1	2
14	Postmaster-General, Punjab	...	...	...	...	11	5	4	6	6	6
15	Registrar, Joint-Stock Companies, Punjab	...	...	...	...	...	...	...	...	...	...
16	Superintendent of Stamps, Punjab	...	...	...	...	1	...	...	...	...	1
17	Commissary-General, Punjab Command	...	...	...	...	8	9	9	5	9	7
18	Miscellaneous	...	...	...	...	35	16	19	22	22	22
Total						338	262	496	399	353	347

This gives 347 law references disposed of during the year 1896-97, or 6 less than the last year, and 21.4 references less than the average of the past five years.

4. Particulars as to original suits are given in Appendix B, Part I, which shows that Government was a party to 27 original suits during the year or 4 more than in the preceding year. Of these suits 15 were successful; 3 were compromised; 1 decided partly against Government; and 8 were pending at the close of the year.

Appendix B, Part I—
Original suits.

5. Appendix B, Part II, relates to Civil Appeal and Revision cases. The number of these cases is 23 or 7 more than last year. Of these 12 were decided in favour of Government; 1 compromised, and 10 were pending at the close of the year.

Appendix B, Part II—
Civil Appeal and Revision
cases.

6. Details of Civil Execution cases will be found in Appendix B, Part III. The amount outstanding during the year was Rs. 8,037-6-10, of which Rs. 2,259-13-8 were recovered and Rs. 528-7-3 written off as irrecoverable, leaving a balance of Rs. 5,249-1-11 still outstanding. This balance, I may add, includes Rs. 1,064 on account of Court-fee stamps in two pauper suits, and Rs. 3,352-8-0 in two heavy cases which are pending in the Chief Court.

Appendix B, Part III—
Execution of decrees.

APPENDIX B.

No. 219 B., dated Simla, 27th October 1897.

From—L. Pocock, Esq., Extra Assistant Superintendent, 1st Grade, in charge No. 18 Party (Himalaya),
To—The Financial Commissioner, Punjab.

WITH reference to your letter No. 264 C., of the 16th October 1897, I have the honor to submit a report on the progress of work of No. 18 Party (Himalaya), Survey of India Department, during the season 1896-97.

* * * * *

Progress Report, of No. 18, Himalaya Party, Survey of India Department, for the year 1896-97.

Personnel.

Captain C. L. Robertson, R.E., Officiating Deputy Superintendent, 2nd Grade.

Mr. L. J. Pocock, Extra Assistant Superintendent, 1st Grade (Supernumerary).

„ C. D. Potter, do. do., 4th do.

„ W. Robert, do. do., 5th do.

„ W. A. Fielding, do. do., 6th do.

„ W. M. Gorman, Sub-Assistant Superintendent, 2nd do.

„ E. J. Biggie, do. do., 3rd do.

„ C. E. C. French, Probationer Sub-Assistant Superintendent, 3rd Grade.

SURVEYOR, SUB-SURVEYORS, &c.

Shah Nasir-ud-din, Ram Saran, Asmatullah Khan, Dalbir Rai, Amir Singh and 27 others.

Mr. C. D. Potter was in charge of this Party at the commencement of the year under report, but was relieved by Captain C. L. Robertson, R.E., on the 12th November 1896, who remained in charge till the 5th August 1897, when he left for frontier work with the Malakand Expedition, having been relieved by Mr. C. D. Potter from whom the charge was taken over by Mr. L. J. Pocock on the 20th August 1897, who held it till the close of the year ending 30th September 1897.

The programme of operations as submitted and sanctioned by the Punjab Government was adhered to without any material change. The work of the Party, as in previous years, comprised the topography of British tracts on the 4-inch scale; of the Native States on the 2-inch; and of all demarcated forests, wherever situated, on the 4-inch scale.

The localities that were under survey were—

- (i). The Kangra district and Kulu sub-division of that district on the 4-inch scale.
- (ii). The Native States of Mandi, Suket, Sirmur and Simla Hill States, on the 2-inch scale.
- (iii). Special surveys of the forests of the Patiala and Sirmur Native States, and revision of a portion in the Kalsia State, on the 4-inch scale.
- (iv). Triangulation in advance of topography in the Kangra district and in Bilaspur of the Simla Hill States.
- (v). The classification of forest growth and soils, *pari passu* with the topography in British tracts and special forest surveys.
- (vi). The large scale survey, 48 inches to a mile, of the town of Nahan in Sirmur, carried out at the special request and cost of the Sirmur State.

All, except the last of the above operations, were in continuation of the previous season's work. The system of the classification of forest growth and soils was continued in Kulu, Patiala, Sirmur and Kangra, and local officers, as before, are supplied with ferrotype reproductions of the field work, in advance of the publication of the 4-inch sheets. Arrangements have now been made by Captain Robertson, in consultation with the Superintendent, Trigonometrical Surveys, for the preparation of these traces of classification once for all in the field, for reproduction, with a view to avoiding in future the necessity of redrawing them on return to recess. This will save a deal of labor and enable copies to be issued much earlier than formerly. This is of considerable importance to Forest Officers, who use these traces to help in their "working plans."

Included in the areas shown on the 4-inch detail the following forest areas were surveyed :—

	Blocks or compartments.	Square miles.
In Sirmur, Patiāla and Kalsia	39	111.97
„ Kulu	28	55.3
„ Kāngra	13	23.6
Total		<u>190.87</u>

The cost of triangulation was Rs. 29.7 per square mile, detail survey 4-inch Rs. 93.3, detail survey on the 2-inch Rs. 48.7. The latter being less than last year, while the two former are in excess, due to the usual fluctuations as to cost of instruments, style of ground, pay of superintendence and surveyors on different rates of pay.

The completion of instruction of "Native Soldier Surveyor" students from the Thomason Civil Engineering College, Roorkee, for a further two years' course in surveying continues to form one of the duties of this Party. One man completed his course, and in lieu of him another, a naick of the 44th Gurkhas, has joined the Party for further instruction.

The Party has responded to a call for experienced native surveyors for the Frontier Expeditions, two being sent to the Malakand and two to the Mohmand Expedition.

With reference to last year's report wherein it is stated that this Party rendered professional aid to the Simla Municipality, during the recess months, in revisionary surveys, for bringing maps up-to-date, the President has conveyed his best thanks for the excellent manner in which the revised map of Simla has been prepared.

It may be added that steady progress has been made with the drawing of fair maps and forwarding them for publication. Up to date 11 sheets of the Sirmur and Patiāla work and 3 sheets of Kāngra have been sent during the year, and 6 others are approaching completion.

The season's work shows a good outturn and compares favorably with that of previous seasons.

The recess office of the Party was inspected by the Surveyor-General in July and by the Superintendent, Trigonometrical Surveys, during the 28th June and following days. Both these officers expressed their appreciation of the efficient state in which they found the Party.

The Executive Officer cordially acknowledges the help received from His Highness of Sirmur and all District and Forest Officers during the course of the operations.

The proposed programme for this Party for season 1897-98 consists of the continuation of 4-inch topography in Kulu and Kāngra, a small detachment will be employed on 1-inch work in the high ground in Kulu in anticipation of the survey of Lahoul.

Topography on the 2-inch scale will also be carried on in Saket, the Simla Hill States and in Sirmur; the State forests in the latter State will be surveyed on 4-inch scale as heretofore.

The Punjab Government have asked for a special survey of part of the Ghaggar river, the scale and area are still under discussion.

The survey of the town of Nāhan on the 48-inch scale will be continued.

The above programme has been submitted to the Punjab Government and may be liable to slight alteration.

SURVEY OF INDIA DEPARTMENT.

Statement of Progress of Work of No. 18 Party (Himalaya) for the year 1896-97.

Antique figures denote work up to date.
Black figures denote progress during 1896-97.

DISTRICT.		Total area by map or other authority (approximate) to be surveyed by No. 18 Party (Himalaya).	WORK COMPLETED IN 1896-97.																
			Forest blocks.				4" = 1 mile. (Square miles). (a)		2" = 1 mile. (Square miles).		1" = 1 mile. (Square miles).		Topographical maps.		Triangulation in square miles.		Settlement sheets plotted.	Areas of classification of forests, timber and soils.	
			Area in square miles.		Number.								Fair mapping in hand.	Sent for publication.					
			Total to date.	In 1896-97.	Total to date.	In 1896-97.	Total to date.	In 1896-97.	Total to date.	In 1896-97.	Total to date.	In 1896-97.			Total to date.	In 1896-97.		Total to date.	In 1896-97.
Umballa Hill (including Morni)		365	...	...	...	108.0	...	154	...	...	...	...	7	157	...	161	...	...
Gurdāspur Hills (Shahpur Kandi)		108	12.4	...	12	111.0	...	...	...	...	...	...	6	108	...	162	...	...
Kāngra		2,725	178.8	23.6	245	13	1,741.4	181	...	...	342	...	12	51.3	2,620.8	43.8	730	30.9
Kulu Sub-division		1,934	578.3	55.3	311	28	1,384.6	152	...	...	...	...	24	19	1,471	...	212	177.3
Simla Hill States		3,203	70.6	...	114	...	104.0	...	1,803.4	156.4	...	...	6	9.1	3,047.2	158.2	...	...
Special Forest Surveys.																			
Patiala State		...	97.1	0.07	329	1	184.7	0.3	...	...	...	...	4	11	...	...	...	9.6
Sirmur State		...	304.5	111.9	245	38	408.5	111.9	...	...	...	...	7	27	...	...	...	0.1
Kalsia State		22.4	14.5	...	13	...	(b) 23.5	1.0	...	...	...	...	1	6	...	...	304.5	111.9
Kālka Town, 48" = 1 mile...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nāhan Town, 48" = 1 mile		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Frontage maps, 30' = 1 inch		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mandi State		1,520	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...
Suket State			...	...	...	...	97.5	...	1,340.5	207.5	...	...	6	...	1,536	...	...	...
Hoshiārpur Hills			1,000	11.7	...	5	...	70.25	...	6	...	...	...	(c)	...	...	...	...
Lahoul		...	...	...	...	...	...	...	...	...	...	...	...	...	400	...	...	...
Total		...	1,267.9	190.9	1,274	80	4,233.3	446.2	3,303.8	363.8	342	...	60	130.15	9,340.0	202.0	1,265	522.3	

(a) Includes forest areas.
(b) Includes 1 square mile revisionary survey.
(c) Included in Kangra maps.

APPENDIX C.

Final Report on the Wheat Crop of the Punjab for the year 1896-97, by M. F. O'Dwyer, Esquire, C. S., Director of Land Records and Agriculture, Punjab, dated Lahore, 12th May 1897.

The season.—The wheat crop in the Punjab, which ordinarily covers from three-fifths to two-thirds of the total area under spring crops, though largely secured by irrigation, depends mainly for its success on copious monsoon rains well prolonged into the autumn to enable sowings to be made, and on timely and well-distributed winter rains to bring the crop to maturity. The monsoon rains of 1896 were very deficient for the Province as a whole. In July the rainfall was general, but far short of the average, especially in the Delhi and Deraját Divisions and Ferozepore. The August rains were very short everywhere except in the Jullundur Division—excluding Ferozepore—Amritsar, Jhelum and Ráwalpindi. They ceased abruptly about 20th August, and the September rains which are the most important for rabi sowings, failed almost completely. Only in the hill districts of Simla, Kángra and Hazára did the fall exceed two inches. In Gurgáon, Jhelum, Ráwalpindi and Kohát from one to two inches fell, while in the remaining 24 districts the fall fell short of an inch, though the only districts which receive less than an inch on the average are Mooltan, Jhang, and the four districts of the Deraját. October was, as is usual in the Punjab, almost a rainless month. In November and December there was fairly good rain in the hill and submontane districts as well as here and there in the plains, and this facilitated sowings in Gurgáon, Hoshiárpur, Ferozepore, Gurdáspur, Jhelum, Ráwalpindi, the whole of the Pesháwar Division and Bannu. All of these, except Gurgáon, are large wheat-growing districts, and this timely fall was most providential. Over the rest of the Province, however, the position had become rather critical by the end of the year. Sowings on dry land had been much reduced, and those that had been made had to a large extent failed to germinate properly owing to the continued drought. Every effort was therefore made to secure the crop by irrigation from canals and wells, but the canals in the south of the Province were hardly able to meet the increased demand owing to the low supply in the rivers, while the well cattle were becoming exhausted from overwork and underfeeding. Everything, therefore, depended on the winter rains, and these, though late in coming, did not fail. About the middle of January there was general rain throughout the Province. The Delhi Division—excepting Simla—and the Deraját—excepting Bannu—received less than half an inch, Jhang, Montgomery, Jullundur and Ludhiána from half an inch to an inch, and all other districts considerably over an inch. The rains were very abundant in the hill and submontane districts and the Pesháwar Division, and in these as well as in Jhelum and parts of Ferozepore fresh sowings of wheat, or wheat and barley mixed, were generally made. In February there were fairly heavy rains in the hill and submontane districts, the Pesháwar Division and Bannu; in the Delhi Division—excepting Simla—practically no rain fell; while over the remaining districts, though the fall was small, there were frequent and well-distributed showers which were very beneficial to the crop. The rain in March was more general than usual. It exceeded two inches in Simla, Kángra, Jhelum, Ráwalpindi, Hazára, Bannu, one inch in Hoshiárpur, Jullundur, Gujrát, Pesháwar, Kohát, and nearly came up to an inch in the Central Punjab. The Delhi Division again fared worst, no district getting as much as half an inch. The late March rains were especially beneficial to the crop this year, as it was late in ripening, and had begun to wither up from the high dry westerly winds which prevailed over the Province at the end of February and beginning of March.

The winter rains even continued well into April, usually a dry month except for local thunder-storms. The districts of the Jullundur Division received from one to four inches, Amritsar, Gujrát, Gurdáspur, Shahpur, Jhelum, Ráwalpindi, Dera Gházi Khan from one to two inches, Hazára seven inches, Kohát over four and Bannu over three inches. Elsewhere the fall was less than an inch, and in the Delhi Division was again inconsiderable.

In an ordinary year the prolongation of the rains into April would have caused much damage, but this year it seems to have been generally beneficial, especially to the late sowings in the north of the Province. Altogether the season, which started very badly, improved as it went on. The drought, however, caused a great contraction of sowings on dry land, which were lower than in any year of the last ten, while it stimulated irrigated sowings which are the highest on record, and have probably for the first time exceeded the sowings on dry land. The high westerly winds which blew in February and March did considerable damage in the Delhi Division and Ferozepore and to the late sowings in other districts where there was no late rain to counteract their evil effects. Smut appeared about the middle of March in a few districts of the Central Punjab, but its progress was arrested by timely rains followed by fair weather. Of rust no complaints have been received this year except from Hazára where over 22 inches of rain fell from January to April. Hail did some damage at reaping time in Rohtak, Gurgáon, Ferozepore, Gurdáspur, Pesháwar, but this appears to have been inconsiderable. The thunder-storms and disturbed

weather which prevailed during the last week in April and the first week of May for a time caused some apprehension, as most of the crop had been cut, but not yet garnered. Some damage was probably done, but the present fine harvest weather has repaired this, and it may safely be said that this crop is the healthiest and freest from all kinds of fungoid diseases that we have had for many years.

Area.—The first forecast, which included sowings up to the end of November, was 5,346,700 acres. Subsequent sowings increased the second forecast, which deals with the crop up to the end of January, to 6,001,800 acres. We have now received the actual figures from all districts but Kangra—from which we have got a fairly accurate estimate—and the area works out to 6,584,300 acres. This is 4·5 per cent. below last year's area—6,893,400 acres—10·3 per cent. below the average of the preceding five years—7,347,320 acres—which, however, included the three exceptionally good harvests of 1893, 1894, 1895, and only 4·4 per cent. below the average of the preceding ten years—6,886,990 acres—which may be taken as a normal cycle. The area exceeds that of four years in the last ten, viz., 1887, 1888, 1890, and 1892, and falls short of the area in the remaining six years. The Province may therefore congratulate itself on having done very well under difficult conditions. The deficiency is trifling compared with that in the North-Western Provinces and Central Provinces. In 19 districts the area is less than last year, in one it is the same, in 11 it is in excess. In 23 districts the area falls short of the average of the preceding five years, in 8 it is greater, while in 18 districts it falls short of the average of the preceding ten years, and in 13 it is in excess. As compared with last year, the deficiency is greatest in Hissár, 44 per cent., Rohtak 20 per cent., Delhi 23 per cent., Jullundur 15 per cent., Ferozepore 14 per cent., Gujrát 24 per cent., Shahpur 11 per cent., Ráwalpindi 10 per cent.; while the increase has been largest in Gurgáon, 62 per cent., Umballa 10 per cent., Jhang 19 per cent., Hazára 18 per cent., Kohát 19 per cent. In all other districts the variations either way falls short of 10 per cent. The fluctuations in each case may be traced primarily to the character of the rainfall, and in a lesser degree to the working of the canals and the nature of the river inundations.

Of the total area, 3,317,700 acres, or 50·5 per cent., has been irrigated, and 3,266,600 acres, or 49·5 per cent., unirrigated. Not only the proportion, but the area irrigated, is believed to be the highest on record. The nearest approach to it is last year's crop, of which 3,207,700 acres, or 46 per cent., was irrigated, and 3,676,100 acres, or 54 per cent. unirrigated.

The increase appears to be mainly due to the improved working of the canals. On the perennial canals alone up to the end of March 900,000 acres of wheat had been irrigated against 800,000 last year. There was a great expansion on all these canals except the Western Jumna, which, owing to short supply and absence of rain, irrigated only 178,000 acres against 251,000 last year, and this deficiency seriously affected the crop in Hissár, Rohtak, Delhi and Karnál. Twenty-two districts show an increase in the irrigated and a decrease in the unirrigated area, 8 districts an increase in unirrigated and a decrease in irrigated. In Simla there has been no change. The only districts which record an increase under both heads are Gurgáon, Umballa, Hoshiárpur, Hazára, Kohát, and Bannu. In all of these districts rains were favorable. In comparing the figures with those of previous years it has to be borne in mind that since 1893-94 the returns show the entire area sown without allowance for crops that have failed or been cut for fodder, and the deduction which should be made under these heads is very considerable in some districts, but cannot be correctly ascertained till the complete harvest returns are published.

Yield.—The outturn of wheat is estimated this year at 1,872,066 tons. Last year—after correcting the figures for Rohtak and Ráwalpindi, which were wrongly worked out at first—the yield was estimated at 1,753,766 tons. This year, therefore, in spite of a deficiency of 4·5 per cent. in area, we have an improvement of 6·7 per cent. in the outturn. The outturn is 12·8 per cent. below the average of the five years ending rabi 1895—which, as explained, included three abnormally good crops—and is only 4 per cent. below the average of the ten years ending Rabi 1895. It has been exceeded only in five years out of the last ten. The average all-round of yield *per acre sown* comes to about 294 sérs, or 7½ maunds, against 271 sérs last year and 324 sérs in 1895. The yield may appear low considering what a large proportion of the crop is irrigated and what a good yield this has given over most of the Province. We must, however, remember that no allowance has been made for failed or fodder crops.

Up to date we have nothing very definite to go upon, as only a small proportion of the crop has yet been garnered, but there is a general consensus of opinion among traders, officials and agriculturists that the yield, at least of grain, has surpassed expectation on irrigated lands, that the ear has filled out well, and that the grain weighs well and is of excellent quality.

Personally I should be inclined to estimate the yield of the harvested crops on irrigated land at 11, on unirrigated at 7 maunds per acre, giving an all-round rate of 9 maunds, but probably from 10 to 20 per cent. of the crop has gone in failed crops and fodder deductions according to the circumstances of each district; so the estimate of 7½ maunds per acre sown is probably near the mark. The districts in which the all-round yield is reported to be average or above are Simla 16 annas, Jhang 18 annas, Gurdáspur 16

annas, Hazárat 17 annas, Pesháwar 16 annas, Bannu 16 annas, Dera Gházi Khan 16 annas. In Rohtak, Mooltan, Montgomery, Lahore and Muzaffargarh the estimate is 15 annas. The only district in which it falls short of a three-quarter crop is Ferozepore 11 annas, while in all other districts it ranges from 12 to 14 annas. The bumper crop in Jhang is due to the Chenáb Canal, which has irrigated nearly two-thirds of the wheat area, and the crops on which, especially in the new colonies, cannot be surpassed in any part of the Province. The straw crop on dry and late sown crop is generally short, on irrigated land it is said to be average. The supply should, however, be adequate to replenish fodder stocks which had been entirely depleted, and to keep life in the half-starved cattle till green pasture becomes available after the monsoon rains.

The acreage and outturn of wheat for the last ten years is shown in the following table:—

Year.	Area in acres.	Yield in tons.
1887-88	6,179,800	1,668,507
1888-89	6,919,100	2,054,074
1889-90	6,222,900	1,603,176
1890-91	7,074,000	2,071,239
1891-92	6,223,600	1,392,146
1892-93	7,123,300	2,235,611
1893-94	8,165,200	2,560,341
1894-95	8,051,800	2,395,353
1895-96	6,891,400	1,753,766
1896-97	6,584,300	1,872,065

Character of the harvest.—The preceding remarks explain the general character of the harvest. The poor monsoon and autumn rains caused a great contraction of dry sowings in October and November; but the partial rains in November and December and the general rains in January enabled late sowings to be made in several districts, especially in the northern half of the Province. The continuance of the winter rains into March and April brought the crop to maturity, though the outturn was generally below average, especially in the plain districts of the Delhi and Jullundur Divisions, where the crop suffered from drought and high winds as well as in the great wheat-growing districts of Gujrat, Jhelum and Rawalpindi, where much of the crop was sown very late. A considerable portion of the dry area represents sowings on river-flooded (*sailaba*) land. In Montgomery and Mooltan the river floods were not favourable while in the Indus districts they were better than usual. The irrigated crop was generally average or above average except in some districts of the Delhi Division, in Ludhiána and Ferozepore, where the canal-supply was insufficient, or where too large areas were sown on the wells as in Delhi, or they became brackish from want of sweet rain water as in parts of Rohtak. The districts in which there is the greatest deficiency in the total outturn of wheat, as compared with the normal (average of ten years) outturn, are—

	Deficiency per cent.
Hissár	52·3
Rohtak	16·1
Umballa	30·1
Hoshiárpur	10·6
Ferozepore	32·3
Montgomery	27·7
Siálkot	14·5
Gujrat	18·0
Shabpur	37·0
Jhelum	28·0
Dera Ismail Khan	24·7

While there is a very large surplus in—

Gurgáon	12·9
Karnál	17·7
Jhang	149·7
Hazára	45·9
Kohát	61·1

The grain everywhere is of better quality than usual, having suffered nowhere from blight or mildew, and the weather has recently been very favourable for harvesting.

Prices.—Prices are still very high throughout the Province, but are falling every day as the new grain come into market.

On 15th April 1896, wheat was selling in Ferozepore at 15 sérs per rupee. Early in May it rose to 14 sérs, and practically continued at that figure till the middle of July, when it rose to 13 sérs. It dropped again to 14 sérs in the first half of August, but the early cessation of the rains caused a sharp rise to 11 sérs per rupee in the first half of September and to 9 sérs in the second half. When at the end of October it appeared that the kharif had failed largely, the price rose to 7 sérs, having been artificially forced up by gambling on the chance of a failure of the winter rains, but it soon fell to 8 sérs, where it remained till the winter rains in January improved rabi prospects and caused the price to fall to 11 sérs. In February it rose again to 9, and in March, owing probably to high winds and drought in the south of the Province, to 8; but since then, as the character of the harvest became known, there has been a steady decline to 11 sérs at the end of April and 12 sérs on 25th May. The downward movement is still proceeding, and in a few days the price will probably be 13 sérs. In Amritsar the fluctuations in prices have been similar, though not so sharp and sudden, as there was not so much gambling in stocks as in Ferozepore. Starting at 14 sérs per rupee on 15th April 1896, the price rose to 8 sérs in November and again for a few days in March, but never went as high as 7 sérs. On 30th April the price had fallen to 11 sérs, and is now (25th May) 12½ to 13½ sérs with a downward tendency. It is doubtful whether even in years of severe famine prices ever before ruled so high as during last winter, and there was practically no difference between the price of wheat and the inferior grains—*jowár*, *bájra*, maize and gram—all of which are now selling dearer than wheat. The average price of wheat during the year was considerably higher in the Punjab than in England, where the average of the various markets worked out to 26 shillings per quarter, or about 11½ sérs per rupee. Of course the short harvests of Kharif 1895, Rabi 1896, followed by a disastrous kharif last year, enormously reduced the surplus stocks, and the general impression that there would be another failure of the winter rains forced up prices in November and December enormously. This was further aggravated by the general gambling in stocks which was facilitated by their concentration in the hands of a comparatively few large dealers.

At the present pitch of prices agriculturists with even a small surplus to dispose of should reap very large profits. Taking the average price of wheat for the whole Province on 15th May for the last four years the figures are—

			Price per ton.
			Rs.
15th May 1893 ...	16 sérs per rupee		140
Do. 1894 ...	25 " "		90
Do. 1895 ...	22 " "		102
Do. 1896 ...	16 " "		140
and for 1897 ... say 13	" "		172

The value of the crop works out as follows :—

						Rs.
1893	...	...	...	...	...	31,29,85,540
1894	...	...	...	...	...	23,04,30,690
1895	...	...	...	...	...	24,43,26,006
1896	...	...	...	...	...	25,55,25,240
1897	...	...	...	...	...	32,19,94,380

so that the present crop, even assuming prices to fall generally to 13 sérs per rupee, is worth more money than even the bumper crops of 1893, 1894, 1895. The crop is worth over 12 times the total revenue demand for the whole Province. Of course these high prices are only beneficial to agriculturists in so far as they have a surplus to dispose of, and the great mass of the peasant proprietors cultivating dry and well-irrigated lands will probably have little surplus after their own wants have been supplied, but large owners and cultivators of canal lands will reap enormous profits. Along the Chenáb Canal the price is now 14 sérs, and that is probably the lowest point that will be reached till we get the monsoon rains. Should these be favorable, a further sharp drop may be counted upon.

Exports.—The export trade during the year was, as might be expected in a season of high prices and low stocks, abnormally dull. Statistics are available only for the 9 months—1st April to 31st December 1896—during which the total exports were only 99,187 tons against 331,939 tons for the corresponding period in 1895, and 354,318 tons for the whole year 1895-96. During the concluding quarter of the year, 1st January to 31st March, the export trade appears to have died away altogether, and the Province began to import food-grains. The statistics for rail-borne trade published in the *Government of India Gazette* show that from 30th January to the end of April 61,250 tons of food-grains left the districts of the Punjab by rail and 103,418 tons entered them. The difference of

42,000 tons roughly represents the gains by import from outside the Province, chiefly from Sind and trans-frontier territory. Probably another reaction will now set in, as the harvest in the Punjab is more abundant than in other Provinces. It appears, however, from the most recent reports, that the crop in the North-Western Provinces—towards which a drain was anticipated—has turned out much better than was expected, and at the end of April prices were higher in the Delhi Division than in the adjoining districts of the North-Western Provinces.

The present prices leave little margin for profit on exports to Europe.

The figures of export of wheat from the Province for the last ten years are given below. The year dealt with is from 1st April to 31st March:—

YEAR.	EXPORT OF WHEAT IN TONS BY			
	Rail.	River.	Land.	Total.
1887-88	30,909	12,789	2,098	45,796
1888-89	167,864	46,113	3,302	217,279
1889-90	312,350	51,992	2,724	367,066
1890-91	255,720	58,198	2,255	316,173
1891-92	474,820	59,058	1,595	535,473
1892-93	145,621	21,717	2,674	170,012
1893-94	237,425	50,820	1,657	289,902
1894-95	407,701	47,494	2,329	457,524
1895-96	313,080	39,836	1,402	354,318
1896-97 up to 31st December 1896 ...	76,130	21,359	1,692	99,187

Stocks.—The very heavy exports of wheat during the three years ending 31st March 1896—during which over 1,100,000 tons left the Province—considerably depleted the surplus of the three good harvests of 1893, 1894 and 1895. The poor harvests which set in from Kharif 1895 caused a still further scarcity of all food-grains, and stocks were very low before the present crop began to come into the market, though they were estimated to hold out till the end of July. The outturn of the present wheat crop would, it is calculated, supply $4\frac{1}{2}$ months' food for the population of the Province and their cattle, at the rates of subsistence given by the Famine Commissioners, besides leaving a sufficient margin for seed grain. Taking area and yield together, the present wheat crop may be considered a 15-anna one, taking 16 annas as the normal.

APPENDIX C (i).

Final Report on the Rapeseed Crop of the Punjab for the year 1896-97, by M. F. O'Dwyer, Esquire, C.S., Director of Land Records and Agriculture, Punjab, dated Lahore, 13th May 1897.

Season.—The nature of the season has been described in the report on the wheat crop. It was more unfavourable for rapeseed than for wheat, as rapeseed in this Province is mainly an unirrigated crop, only 10 to 15 per cent. ordinarily being assisted by irrigation, while from one-third to one-half of the wheat crop is protected by irrigation according to the exigencies of the season.

Area.—The failure of the monsoon and autumn rains over most of the Province caused an exceptionally gloomy view to be taken of the prospects of the crop. In the first forecast the estimate was only 284,400 acres, in the second 297,600 acres, or less than one-half of the normal area, 600,000 acres. Clearly, sufficient allowance was not made for the later sowings, which were made over most of the Province and especially in the great rapeseed-growing districts of Hissár, Ferozepore, Gujrát, Jhelum, Ráwalpindi and Dera Ismail Khan after the January rains, for the actual returns now received bring out the area sown as 515,300 acres. This is 8·5 per cent. above last year's area (475,100 acres), 18·1 per cent. below the average of the previous five years (629,380 acres), and 14·2 per cent. below the average of the preceding ten years (600,578 acres). In 13 of the 20 districts reported on the area is greater than last year, which was, however, an exceptionally bad off, in 6 it is less, and in 1 there has been no change. The only districts in which the sowings exceeded the normal area (average of ten years ending 1894-95) are Ferozepore (+11·2), Gujrát (+57·6), Ráwalpindi (+38·2), Hazára (+37·6), and Dera Ismail Khan (+1). The increase in these districts is probably due to the fact that much of the land ordinarily sown with wheat or gram was left unsown owing to the failure of the autumn rains, and advantage was taken of the winter rains in January to sow a large area of rape as a speculation, partly for the seed, partly for the fodder. About 20 per cent. out of the area sown was irrigated—a much higher proportion than usual, and this was of course due to the drought.

Yield.—The total outturn of rapeseed is estimated at 52,756 tons, an increase of 4·3 per cent. on last year's figures, but a decrease of 46·8 and 35·1 per cent. on the averages of the previous five and ten years respectively. The average yield per acre—108 sérs—was therefore even worse than last year. In only one district, Hazára (17 annas), was the yield above average. The yield was extremely poor in Hissár, 3 annas, Umballa 8 annas, Ludhiána 8 annas, Jhelum 6 annas. In the first three districts the crop was injured by the general drought in the south of the Province and high dry winds in March; in Jhelum the late sowings did badly and more than half the crop failed. In Lahore it was damaged by caterpillars. In Gujránwála and Dera Ismail Khan much of the crop was fed to the starving cattle. The only districts in which the crop approached the average in yield are Hoshiárpur, Siálkot, Gujránwála, Pesháwar and Dera Ismail Khan. Taking area and yield together the crop may be considered a 10-anna one.

Exports and Prices.—The poor crop last year left little margin for export, and from 1st April to 31st December 1896 only 21,626 tons were exported against 110,497 tons in the corresponding period of 1895 and 145,800 tons in the same three quarters of 1894. The total exports from Karáchi from 1st January to 3rd May of the present year were only 107 tons against 1,860 tons in the corresponding period last year. The dullness in the trade is no doubt partly due to the plague at Karáchi. Prices at Ferozepore have fluctuated enormously. Starting at Rs. 3-13-6 per maund in August 1896 they rose to Rs. 6-10-7 in September, fell in October to Rs. 5-9-0, and since then have fluctuated between Rs. 5 and Rs. 6, standing at Rs. 5-8-10 at the end of April. At other centres the fluctuations have been much less marked, and the price at present is considerably lower.

APPENDIX C (ii).

Final Report on the Cotton Crop of the Punjab for the year 1896, by G. C. Walker, Esquire, C.S., Director of Land Records and Agriculture, Punjab, dated Lahore, 16th December 1896.

The striking feature of this year's cotton crop has been the inadequacy of the yield as compared with the large area sown, which exceeds last year's area by 1·3 per cent.; and last year's crop was pronounced to be "a decidedly good one." The present year's area and yield are both said to have been very largely in excess of the averages of those of former years; but it is at present doubtful how far this comparison can be considered reliable, as there is ground for thinking that the area figures of years previous to 1893 only included "cropped" areas whereas the district figures furnished for the last three years have included both "cropped" and "failed" cotton cultivation. The complete statistics for this report have reached this office late; there is no time to enquire into the supposed miscalculation now or to correct it if the supposition be true. It is also impossible to say off-hand to what extent the different methods of calculation suspected to have been adopted before 1893 and from 1893 may have vitiated the calculation of average yields. On the whole, however, the safest course will be to compare this year's returns with those of the last three years only, as these at least are known to have been calculated on the same basis. The figures then to be compared are as follows:—

	1893.	1894.	1895.	Average of three years.	1896.
Area	984,700	1,124,500	1,161,200	1,056,800	1,176,700
Yield	208,780	231,997	241,667	227,481	204,806

Thus we find that, although a larger area of cotton was sown in the current year than in any of the three previous years (all of which have been in former reports pronounced favourable to cotton), yet the yield of this year has been between 9 and 10 per cent. less than the average of the past three years. The yield of cotton in the current year was less than that of last year in all districts except the five south-eastern districts, Ferozepore, Jhang, Lahore and Amritsar. In the first-named group last year's cotton crop was worse than anywhere else in the Province. The increase in Ferozepore can only be due to an unusually large area having been brought under cultivation this year, as the district report states that the yield of 1896 was inferior, especially on unirrigated land. In Jhang the increase of yield is more than proportionate to that of area, and this can only be accounted for by supposing that irrigated cotton cultivation on the Chenáb Canal, as well as having been extended to an absolutely larger area, has also displaced much of the former unirrigated cotton cultivation. The very large increases of area and yield in Lahore and Amritsar districts testify to the elastic capabilities of the Bári Doáb Canal. The greatest falling-off is noticed in the districts of Jhelum, Ráwalpindi and Pesháwar. The two former districts are more dependent on the rainfall perhaps than any other districts of the Province. In Pesháwar last year's cotton crop was exceptionally good, and this year's rainfall in that district has been unusually short. Briefly it may be said that all over the Province, owing to no rain falling in April, unirrigated cotton sowings were greatly contracted: this fact combined with a sudden rise of price for cotton in most districts, tempted cultivators to sow more by aid of irrigation than their irrigating resources justified. The scanty rainfall of the past summer and the early cessation of the monsoon left the standing crops, almost entirely dependent on artificial irrigation, which could not be supplied in sufficient quantity, partly owing to the area sown being in excess, and partly because both wells and well-cattle were failing under pressure of work. The average outturn of cotton per acre in 1896 was 69·6 lbs. against 83 lbs. in 1895.

The price of cotton in Delhi was 9 sérs the rupee during December 1895 and the same for most of January, but then rose suddenly to 7 sérs, which rate was maintained until the end of July, when it dropped for a month to 8 sérs the rupee. In September the price rose again to 7 sérs, but took a sudden downward turn in October and continued at 9 sérs for the rest of the year. In Amritsar the price fluctuated between 9 and 10 sérs the rupee from December 1895 to August 1896; but in the following two months was generally touching 8 sérs.

APPENDIX C (iii).

Final Report on the Sesamum (Til) Crop of the Punjab for the year 1896, by M. F. O'Dwyer, Esquire, C.S., Director of Land Records and Agriculture, Punjab, dated Lahore, 2nd January 1897.

[Sixteen selected districts are dealt with.]

The total area under sesamum in the past kharif was 223,400 acres against 189,400 acres sown in 1895 and an average of 211,500 acres for the preceding five years. There is thus an increase of 34,000 acres, or 18 per cent. over preceding year's area and an increase of about 12,000 acres, or over 5 per cent. as compared with the quinquennial average. Six districts, Hissar, Gurgáon, Ferozepore, Lahore, Gujrat and Peshawar, show an aggregate decrease of 17,000 acres, while the following nine districts show an increase of 51,000 acres—Kangra, Mooltan, Montgomery, Amritsar, Gurdaspur, Siálkot, Gujranwála, Dera Ismail Khan and Muzaffargarh.

The increase is distributed over both irrigated (6,100 acres) and unirrigated (27,900 acres) lands. Ferozepore, Lahore, Gujrat, Peshawar and Dera Ismail Khan show a falling-off in the irrigated area; in every other district the irrigated area shows an increase.

The largest increase in the unirrigated area is found in Gurdaspur (11,700 acres) and Dera Ismail Khan (13,500 acres), in both of which districts sesamum is grown largely on low-lying and *sailaba* lands in which the season was favourable for its cultivation. Siálkot also shows an increase of 4,000 acres on unirrigated land, which is due to the fact that wheat land where the crop failed on account of unfavourable season was sown with sesamum owing to a fall of rain at the time of cultivation.

The yield is estimated to be 427,587 cwts., or nearly 14 per cent. above the yield of the past year, 375,452 cwts., but 11 per cent. below the quinquennial average of 482,724 cwts. The crop of last year was pronounced to be "a poor one below average and very inferior to that of 1894 in area and gross outturn," and, considering the fact that the 18 per cent. increase in area gave only 14 per cent. increase in the yield, the crop of this year is decidedly a poor one as regards yield.

Taking area and outturn together, the crop may be regarded as a 15-anna one compared with the quinquennial average, and considering the generally unfavourable character of the monsoon and autumn rain, which in nearly every district was short or badly distributed, the general result is not so unsatisfactory as might have been anticipated.

APPENDIX C (iv).

Final Report on the Indigo Crop of the Punjab for the year 1896, by G. C. Walker, Esquire, C. S., Director of Land Records and Agriculture, Punjab.—Dated. Lahore, 18th December 1896.

[Seven selected districts are dealt with.]

In the first forecast of this year's indigo crop the area was estimated to be 88,200 acres, in the second 91,200 acres, and now for the final report the area has been ascertained to be 135,400 acres, which is much more than was anticipated.

The areas and yields of the last four years are compared below, the figures representing hundreds:—

	1893.	1894.	1895.	1896.
Area	1,107	1,242	1,043	1,354
Yield in seed	120,899	75,693	76,297	130,716
Yield in dye	8,698	13,094	11,066	11,183

Thus the current year shows a large increase both in area and outturn of seed ; a smaller increase in the yield of dye. The largest extension of indigo cultivation took place in Hissár and Rohtak districts, where indigo is grown simply to raise seeds for sale, and the increase was due to extension of canal irrigation. In Karnál also there was a large proportionate increase both of area and yield, all owing to freer resort to canal irrigation. The falling-off in Dera Gházi Khan was caused by the failure early in the season of one of the inundation canals. The indigo crop of 1896 was on the whole much above the average.

APPENDIX D.

Report on the Colonisation of the Government waste lands commanded by the Chenab Canal for the year ending 30th September 1897, by Captain F. Popham Young, Colonisation Officer, Chenab Canal.

I.—SURVEY AND DEMARCATION.

(a) *Rakh Branch*.—In the Rakh Branch colony there were few new allotments. But at the close of last and at the beginning of this year a considerable number of squares were exchanged, and this accounts for the fact that 22,000 small square fields have been demarcated during the year.

(b) *Jhang Branch*.—(1). *Large square survey*: The whole of the area of Government waste commanded by the Jhang and Bhawána Branches was demarcated into large squares by the close of last year, with the exception of a small outlying rakh containing only 509 acres. In a large part of the area, however, I had only demarcated the squares by means of stakes or billets of wood, and towards the close of this year I commenced replacing these with masonry blocks.

(2). *Small square survey*.—Small square fields are now demarcated directly allotments are made, so that from the first, settlers may cultivate on the lines laid down for them. I have had to assist the patwáris in this work by engaging a special staff of *amíns*, who are paid from survey funds. My returns show that on the Jhang Branch 106,183 fields were demarcated during the year.

It is a very good plan to mark out these small squares when the colonist takes possession.
J. MONTGOMERY,
Settlement Commissioner.

(c). *Gugera Branch*.—Excellent progress on the Gugera Branch survey was made during the year. The supervision of the work was entrusted to Lálá Gobind Lál and Moulvi Ghulám Ali, Deputy Superintendents. A start was made towards the close of November, and by the beginning of April, when we had to suspend work owing to harvest operations attracting all our labour, the square survey of 452,420 acres had been completed. I described the system now followed in my detailed report on the colonisation operations submitted at the close of last year. The corners of squares have only been demarcated by means of billets of wood. But I have now somewhat modified the opinion expressed in the report above referred to regarding the possibility of doing

I agree that something more permanent than billets of wood is needed for the corners of the large squares. There is no objection, however, to wood being used during the survey.
J. MONTGOMERY,
Settlement Commissioner.

without masonry blocks altogether. I think that for permanent demarcation it will be best to use masonry blocks as before, but consider that the quickest and cheapest plan is to use billets of wood cut from the surrounding jungle whilst survey operations are actually in progress. When all the squares have thus been demarcated I propose to get my masonry blocks burned and laid down by a contractor making his own transport and labour arrangements. The obtaining of labour for the Gugera Branch survey has proved and is proving a somewhat troublesome job. I pay high wages, Rs. 8 per month for a coolie. But the work is uncongenial to the loafing *kamíns* of the Rávi and Chenab villages, and zaildárs and others make a great fuss about the difficulty of bringing the number of men required of them. Complaints have reached me that the labourers' pay did not always reach the men who had earned it, but on investigation nothing could be established except that on one occasion a zaildár wrongly entrusted by my Deputy Superintendent with money with which to pay certain coolies who had bolted after doing only half-a-month's work, had taken an unnecessarily long time in distributing the money. I am now trying the plan of paying every man half-a-month's wages in advance through the Tahsildárs who engage them, but the Tahsildárs indented upon still represent that the production of a few hundred coolies to do a month's work for Rs. 8 is beyond them. Luckily I have the tahsil of Lyallpur to fall back upon, and most of my labour for the Gugera Branch survey is now going from the recently colonised villages. However, I am

I hope that as colonisation spreads labour will be more easily obtained. It is true that the ordinary *kamín* of the Bár and Hithar is not a willing worker.
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travelling beyond the scope of this report, as my present labour difficulties relate to a period not now under consideration.

II.—COLONIZATION.

1. *Allotment*: (a) *Rakh Branch*.—During the year a total area of 14,383 acres was allotted, the distribution being as follows:—

	Acres.
To capitalists	398
To yeomen	2,439
To peasants	11,546
	<hr/>
	14,383

There has not, however, been a corresponding increase in the actual allotted area. For most of the land above referred to had been previously given out to men who have been transferred to the Jhang Branch. As has been pointed out in previous reports a certain amount of land was allotted on the Rakh Branch which has turned out to be so bad as not to repay cultivation or so situated as to be unirrigable by either lift or flow. Considering all things this area is remarkably small, and the unfortunates in whose cases I have had to apply the final remedy of a second uprooting and transportation to Jhang Branch villages, are surprisingly few. Many similar transplantations have been effected with a view to establishing peace by removing Janglis from the hostile environment of Sikh settlers.

(b). *Jhang Branch*.—On the Jhang Branch 117,162 acres were allotted during the year:—

							Acres
To capitalists	...	...	...	...	...	...	1,106
To military grantees	{	Yeomen	...	...	...	...	3,700
		Peasants	...	...	...	...	12,441
To yeomen	...	...	...	...	...	...	3,152
To peasants	...	...	...	...	...	...	96,763
							<hr/>
							117,162

2. *Exchanges of squares*: (a). *Rakh Branch*.—On the Rakh Branch 670 exchanges of allotments, either between grantees by mutual request, or of allotted land for land in the reserved grazing area, were given effect to. I am now absolutely declining to allow any more such exchanges on the Rakh Branch.

(b). *Jhang Branch*.—On the Jhang Branch 743 such exchanges were allowed. As explained in my detailed report the exchange nuisance ought not to be nearly so severe on the Jhang Branch as it has consistently been on the Rakh Branch. We have now much more reliable data regarding good and bad soil, uncommanded land, &c., before allotments are made. But judging from present experience the margin of error in contouring seems to be a pretty wide one. A good deal of land shown as uncommanded is being taken up, and a good deal shown as commanded is being abandoned by settlers in despair of ever getting water on to it. Even so, however, there is absolutely no comparison between the state of affairs which exists now and that which obtained on the Rakh Branch in the early days of the colony. The detailed survey and carefully thought out schemes of intra-village irrigation worked out by the Canal Department have proved of inestimable value.

III.—GENERAL.

1. *Maps and records*.—The most important work in the way of record making which has been carried out during the year has been the preparation, signing, and attesting of the Tenancy registers maintained under Act III of 1893. The Tenancy registers of 245 peasant villages on the Rakh Branch have been completed in every way, and conjointly the attestation of the extent to which settlers have complied with the conditions which bind them during the first three years of their tenancies. Absenteeism has of course been the principal failing. But a lenient view has been taken where reformation is assured and practically the whole body of settlers are now in a fair way of obtaining at the close of their five years' probation the hereditary occupancy rights which the Act promises them. This is the most satisfactory result, and I regard it as perhaps the best justification of the continued retention of the colonisation office during the period which has elapsed since colonisation operations first commenced. Had not the settlers been

This work has been well done. No one but a special Colonisation Officer could have done it.

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continually watched, followed up with notices (of which I have issued over 2,650) driven, and occasionally punished, it is safe to assure that barely 50 per cent. would at the close of five years be in a position to claim occupancy rights. The rigid scrutiny which had to be made into the circumstances of each settler revealed the fact that a certain number of men who had been in cultivating possession from the first were not those for whom recommendations were made, and in whose names grants were allotted. To turn out neck and crop men who had permanently settled here, built houses, and brought their lands under cultivation, would have been an extreme measure. But one could not pass over cases of successful fraud and impersonation altogether. I therefore obtained the permission of the Financial Commissioner to give to men in this position a chance of redemption. They have not yet been permitted to sign the Tenancy registers, but they have been allowed to retain possession of the land on the condition that over and above the Government demand under all heads they pay as rent the appraised value of one-sixth of their crop harvest by harvest. After thus penalising them for a few harvests I propose to allow them to sign the Tenancy registers and to become merged in the body of settlers proper, with whom in due course they will acquire occupancy rights. It has not been possible to obtain the signature of

every single grantee, for the reason that many of those who have succeeded by inheritance to allotments are employed on Government or other service. Out of 14,850 *khátás*, as dealt with, there remain only 650 which have not been duly signed and attested.

During the year two copies of a new edition of the field maps were made. The field books were corrected. New *khataunis* (a paper maintained for colonisation purposes) were written up; and abbreviated *jamabandís* of the four villages in which the proprietary rights were sold by auction were prepared. As previously reported I had twice before flattered myself that I had been able to complete the *jamabandís* and other papers which should go to form the standing record. It seems clear, however, that a mistake was made in supposing that such a record could or should be made until, after the

This is right. Regular *jamabandís* cannot be prepared until the settlers have acquired some permanent rights in the land.

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expiration of the five years' probationary period, it has been ascertained what rights have been secured by the different classes of grantees. The Settlement Commissioner and Director of Land Records and Agriculture agree in this view, and consequently the standing record for the greater part of the Rakh Branch colony should be prepared during the ensuing year, whilst in the case of the Jhang Branch villages it will not be necessary to waste time in preparing *jamabandís* during the years of their incubation.

2. *Recoveries of initial demand from settlers.*—The following table shows the demand and the recoveries for the year under report :—

Name of Branch.	Heads.	Demand.	Recovered.	Balance.
		Rs. a. p.	Rs. a. p.	Rs. a. p.
RAKH BRANCH.	Nazarána	21,456 13 0	21,456 13 0	...
	Cost of survey	1,345 8 0	1,345 8 0	...
	Cost of water-course construction ...	4,405 6 3	4,405 6 3	...
	Price of wood	364 6 0	364 6 0	...
	Total	27,572 1 3	27,572 1 3	...
JHANG BRANCH.	Nazarána	31,876 9 0	21,968 15 0	9,907 10 0
	Cost of survey	51,221 12 11	29,363 4 11	21,858 8 0
	Cost of water-course construction ...	2,67,711 12 0	1,47,328 11 0	1,20,383 1 0
	Price of wood	731 6 0	420 6 0	311 0 0
	Total	3,51,541 7 11	1,99,081 4 11	1,52,450 3 0

It has been decided now to continue the old system. See Punjab Government letter No. 115, dated 6th November 1897.

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3. *Takávi advances.*—No advances were made to settlers on the Rakh Branch during the year. Rupees 1,61,145 were advanced to incoming peasant settlers on the Jhang Branch to enable them to pay the cost of survey and of water-course construction. The large outstanding balances are due to the fact that the system of making *takávi* advances to incoming settlers has now been discontinued.

4. *Takávi recoveries.*—Instalments due on account of *takávi* advanced in previous years have been recovered without difficulty. The money is collected by Deputy Commissioners and details of outstandings have not been supplied to me; but I know that they are trifling.

5. *Cultivation*.—Details of cultivation are as follows. The figures in brackets relate to the corresponding harvests of the previous year, and are given for the purpose of comparison:—

								Total acres.	Matured.	Failed.
(a).— <i>Rakh Branch.</i>										
KHARIF 1896—										
Nahri	...	...	...	...	...	...	...	173,799	161,789	12,010
								(133,776)	(119,307)	(14,469)
Baráni	...	...	...	...	...	...	...	12,485	6,246	6,239
								(7,053)	(1,909)	(5,144)
Total								186,284	168,035	18,249
								(140,829)	(121,216)	(19,613)
RABI 1896-97—										
Nahri	...	...	...	...	...	...	...	254,995	249,044	5,951
								(174,419)	(168,875)	(5,544)
Baráni	...	...	...	...	...	...	...	2,438	2,087	351
								(29)	(20)	(9)
Total								257,433	251,131	6,302
								(174,448)	(168,895)	(5,553)
(b).— <i>Jhang Branch.</i>										
KHARIF 1896—										
Nahri	...	...	...	...	...	...	...	13,678	12,678	1,000
								(Nil).	(Nil).	(Nil).
Baráni	...	...	...	...	...	...	...	603	223	380
							
Total								14,281	12,901	1,380
								(Nil).	(Nil).	(Nil).
RABI 1896-97—										
Nahri	...	...	...	...	...	...	...	44,314	42,325	1,989
Baráni	...	...	...	...	...	...	...	(Nil).	(Nil).	(Nil).
Total								44,314	42,325	1,989

The results obtained on the Rakh Branch are nothing short of startling. The total allotted area on that Branch is 430,000 acres approximately. The Canal Department have only pledged themselves to give water to irrigate half the allotted area during the year. And yet we find that more than half has in one harvest been cultivated with crops successfully matured. Truly these have been halcyon days for the Chenáb Canal colonist. A splendid water-supply, a series of bumper harvests, and famine prices ruling for his produce! In the interests of the general community it is to be hoped that his profits will be not quite as extravagant in the future. It must, however, be borne in mind that the opening of the Gugera Branch must lead to at least a diminution of the rabi supply of water in the other distributaries now irrigating. As a set off against this it is the fact that the Rakh Branch settler can now mature his rabi with less water than he required formerly. Three waterings will in the older villages go as far as five used to when the land was first brought under cultivation.

The area of matured crops on irrigated land on the Rakh Branch was—

	Acres.
Kharif	161,789
Rabi	249,044
Total	410,833

This is excellent and more than the Canal Department engage to do. The settlers have without doubt had very profitable times in the last year; perhaps more profitable than they can hope to have again.

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Settlement Commissioner.

settler can now mature his rabi with less water than he required formerly. Three waterings will in the older villages go as far as five used to when the land was first brought under cultivation.

6. *Assessments.*—The following are the details of the demand formulated against settlers in the year under report. The figures in brackets relate to the year 1895-96 :—

	Kharif 1896.	Rabi 1896-97.	Total.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
<i>(a).—Rakh Branch.</i>			
Water-rates	5,90,407 0 0	7,44,749 14 0	13,35,156s 4 0
	(4,02,603 14 0)	(5,72,108 14 0)	(9,74,712 12 0)
Land revenue	73,536 13 6	99,964 10 0	1,73,501 7 6
	(49,704 11 0)	(75,568 0 9)	(1,25,272 12 3)
Cesses	54,324 8 9	74,552 9 3	1,28,877 2 0
	(37,200 9 9)	(56,753 13 9)	(93,954 7 6)
Málikána	52,624 5 0	72,576 12 3	1,25,201 1 3
	(36,080 3 3)	(55,002 11 0)	(91,082 14 3)
Total	7,70,892 11 3	9,91,843 13 6	17,62,736 8 9
	(5,25,589 6 0)	(7,59,433 7 6)	(12,85,022 14 0)
<i>(b).—Jhang Branch.</i>			
Water-rates ... ..	...	1,009 9 0	1,009 9 0
Land revenue ... ..	...	41 13 0	41 13 0
Cesses ... ..	...	31 5 6	31 5 6
Málikána ... ..	...	31 5 6	31 5 6
Total ... ..	...	1,114 1 0	1,114 1 0

7. *Houses and communications, &c.*—During the year 5,400 new houses have been built in the Rakh Branch colony, and 1,500 in the Jhang Branch villages. Last year I reported that I had had all village sites mapped with a view to framing a record with the assistance of which to settle the disputes which constantly arise, and on which to frame an assessment on ground occupied by others than the settlers and the village *kamíns*. I found that the maps then made were so inaccurate as to be useless, and as

The making of these maps of *abádís* is a good idea.

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the careful mapping of village sites involves a great deal of work and the *patwáris* were employed fully on other duties, I engaged a special staff of *amíns* to map and survey all the peasant village homesteads in the Rakh Branch colony. This work is now approaching completion and I shall shortly be in a position to report to Government my proposals for taking rent or revenue from the shop-keepers and others occupying sites in these villages on land owned by Government. A very modest assessment should bring in some few thousands of rupees a year, and will tend to prevent the grabbing of land which may appreciate considerably in value. Building on the Jhang Branch is proceeding much more rapidly than it did in the early days of the colony. The conditions in fact are now enormously different to what they were when the first few hungry pioneers came to the Bár. The settlers were then poverty stricken almost to a man, and there was no one with sufficient confidence in the future to give them any credit. Now not only do we get much more substantial *zamíndárs* anxious to get a square of land, but the great ambition of the *Maghiána* Khatri or the *Chiníot* Khcja

The lot of the settlers of the present day is doubtless much easier than it was in the early days of the colonisation.

I agree with the Colonisation Officer in hoping that the new colonists will not begin with too grand ideas.

J. MONTGOMERY,
Settlement Commissioner.

is to obtain a footing in one of the new villages. To this end he approaches the incoming settler on the Jhang Branch with an offer of a loan at a fairly reasonable rate of interest, and at a time when his predecessor on the Rakh Branch was still content to live as best he could under a *ran tree*, the Jhang Branch settler commences the construction of a more or less ambitious *haveli*. I only hope that it will not be overdone, and that both on the Rakh and Jhang Branches the colonists will not get into the habit of adopting a style of living and a scale of expenditure which in more normal years and with a less profuse supply of water they may not be able to afford.

One of the most pressing requirements of the colony is the improvement of communications by bridging the numerous water-courses which cross roadways. The District

This is a very important work. Everything should be done to make it easy for the produce of the colony to reach the railway.

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Settlement Commissioner.

Boards of Jhang and Gujranwála have at length taken a certain number of main roadways in hand. In order to provide bridges on the village and *zamindári* roads (the latter being the term used to denote a road which leads only to some body's fields and ends in a *cul de sac*), I have collected from the Rakh Branch villages Rs. 5 per allotted square, and I am now arranging to construct as many bridges of as cheap a kind as is compatible with endurance, as I can with the money. A couple of simple masonry walls supporting slabs of Tarakki stone well covered with earth is the form of bridge which, after consulting Rái Bahádúr Ganga Rám, Executive Engineer, I have decided to adopt.

8. *Tree-planting*.—I embarked on rather an ambitious scheme of roadside tree-planting in the Lyallpur tahsil on behalf of the District Board of Jhang who provided the requisite funds. An attempt was made to plant up or sow with tree seed five miles along each of the roads radiating from the three centres of Lyallpur, Khurriánwála and Dijkot, at each of which places there is a nursery. The Executive Engineer, 2nd Division, Chenáb Canal, was kind enough to assist me by making arrangements for the supply of water. But my hastily dug channels have been found to be hardly sufficient for the purpose, and want of funds has prevented me making them as sound and water-holding as I could have wished. Something, however, has been effected, and I hope that I shall be able in the spring to replace the young trees which have died, re-dig certain lengths of water-course, and sow fresh seed where that originally put down has failed to germinate. Altogether 3,295 young trees were planted out from the Dijkot nursery, 1,327 from Khurriánwála, and 2,256 from Lyallpur. But I should be afraid to say how many of these are still living. In sowing I adopted the plan of putting down a handful of seed at intervals in the places where I wanted the trees to remain permanently, instead of the more common practice of sowing continuously along the berm of a channel. Should a tree result in each of the places where I have put down a few handfuls of seed, the District Board of Jhang would be credited with 7,336 trees along its roads. But generally speaking owing to hurried work and insufficient supervision I am afraid this sowing has been rather a failure. In Gujranwála the Tahsildár of Khangah Dográn has put down about 1,700 young trees, and sown a length of two miles of roadway with seed. I cannot say with what result. Of course, the importance of tree planting in the colony is very great, and I hope that good will result from the small plantations which I have started in a very large number of villages on the Rakh Branch. I supply the seed and the lambardárs are made responsible for the maintenance of these plantations, for the irrigation of which the Executive Engineer has made excellent arrangements.

These village plantations should, by all means, be encouraged.

J. MONTGOMERY,
Settlement Commissioner.

9. *Case work of officers*.—The following table shows the case work disposed of by myself and my assistants during the year. Owing to the increasing amount of colonisation work proper due to the spread and growth of the colony, I have had to give up doing original criminal work almost entirely :—

OFFICERS.	CRIMINAL.		REVENUE.			
	Original.	Appellant.	Appeals.	Partition.	Share of produce.	Contesting ejectment.
Colonisation Officer	64	20	3	...	...	...
Assistant Colonisation Officer...	360	..	...	3	7	46

During the year 218 cases were referred to and settled by village *pancháyats*. Mutations were attested as follows :—

By the Colonisation Officer	111
„ the Assistant Colonisation Officer	274
„ Tahsildár, Khangah Dográn	15
„ Náib-Tahsildár, Khangah Dográn	13
„ Tahsildár, Lyallpur	88
„ Náib-Tahsildár, Lyallpur *	45
„ Deputy Superintendents	1,912