

GOVERNMENT OF HARYANA



REPRINT OF FINAL REPORT

OF THE

**THIRD REGULAR SETTLEMENT
(1905-1910)**

OF THE

ROHTAK DISTRICT

BY

E. JOSEPH, C.S.,
Settlement Officer

**GAZETTEERS ORGANISATION
REVENUE AND DISASTER MANAGEMENT
DEPARTMENT, HARYANA
CHANDIGARH (INDIA)**

2010

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British period

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FOREWARD

In revenue terms, “settlement” means assessment of land revenue and the liability of a person to pay it. The other objective is framing of record of rights (*Jamabandi*) on a piece of land. Such a settlement is not entirely final or free but has to undergo relaxation/remission owing to natural calamities and destruction of crops by vagaries of weather causing serious loss of capital, and revision due to change in the cropping pattern and the apparent improvement in the sources of irrigation resulting into increase in material prosperity of the landholders and the tenants.

The Settlement Reports pertaining to the British period contain valuable data and give vivid description of a district, its former fiscal history, scope of settlement, statistical and economical examination of present conditions, measurement, remeasurement, revision of records etc.

This Settlement Report of Rohtak district is about 100 years old and being a rare document, has been got reprinted for its easy availability. It would serve as a guiding note to the revenue officials and is of immense use for research scholar teachers and administrators as well.

NARESH GULATI, IAS

Financial Commissioner & Principal Secretary to
Government Haryana, Revenue & Disaster Management Deptt.

Chandigarh.
March, 2010.

PREFACE TO THE REPRINTED EDITION

Land revenue which was the prime source of income to fill the empty coffers of a State, has a long history. During the time of Sur Dynasty, the job of land measurement, sources of irrigation, kind of land, fixation of land revenue, recording the rights of landowners and the rightholders, payment of compensation for the lost crops due to natural calamities, vagaries of weather, destruction due to movement of armed forces and enemy action etc. were determined by Diwan Todar Mal. Keeping in view his generous efforts, Mughal Emperor Akbar assigned him the same jobs, ignoring the fact that he was previously in the employment of their rebel Sur Kings. The policy and system devised by Diwan Todar Mal guided not only the Mughal Emperors but the same was adopted by the Britishers with minor changes here and there which then suited to a foreign ruler.

After acquiring a rich experience in revenue administration with the permanent settlement of Bengal and having taken over the control of revenue collection in the Avadh, the Britishers made inroads in the Cis-Sutlej territory after the Treaty of Sirji Arjengaum in 1803 whereby Daulat Rao Sindhia ceded to the East India Company and its allies all the territories, notably comprising the then districts of Gurgaon, Delhi, Rohtak, Hissar, tehsil Panipat and *pargana* Karnal in the Karnal district.

For many years after annexation Mr. Thomason's directions for Settlement Officers in the North-Western provinces was the authoritative text book in the Punjab as regards all matters connected with land revenue settlements. The first attempt to write a handbook specially adapted for the use of Punjab officials was made by Mr. Robert Cust whose Revenue Manual was issued in 1866. This manual deals with rights in land and the principles and methods of land revenue settlements.

After the passing of the first Punjab Tenancy Act-1868, the first land Revenue Act-1871 and issuance of rules under the latter, the duty of revising the Directions was entrusted to Mr. D.G. Barkley. With passage of time of over twenty years, the methods of assessment were modified, especially in the direction of adapting the demand in insecure tracts to the varying yields of good and bad seasons and the great importance of the distribution of the village assessment over holdings has at length been appreciated. The cumulative effect of these changes was great that Mr. Barkley's work became obsolete and the job of preparing a new Settlement Manual for Punjab was assigned to J.M. Douie by the then Lieutenant Governor, Sir Dennis Fitzpatrick, who successfully completed this tedious job in October, 1899.

The history of settlement in the composite Punjab has been divided into five periods, firstly from 1846 to 1863 which began in the Cis-Sutlej and Trans-Sutlej territories. After the mutiny of 1857, Hisar was re-settled and Sirsa settled for the first time. In the second period (1863-71), no settlement in the present districts of Haryana was made. However, in the third period (1871-79), revised settlement of the great part of old Delhi territory Rohtak, Gurgaon, Delhi and a tahsil and a half of Karnal was effected. Also, in the fourth period (1879-89), revised settlement of Ambala and parts of Karnal was made and reassessment of Hisar was undertaken.

The ten years beginning with 1879 were marked by great changes in the settlement procedure culminating in the system embodied in the Land Revenue Act of 1887. The fifth settlement started from 1889 and continued upto 1943 resulting into publication of summary settlement, first settlement, second settlement, revised settlement, final settlement report etc. of various districts and the work was stopped just a couple of years prior to independence.

The object of a settlement is two-fold. To assess the land revenue is the primary object of a settlement and framing of a record of rights (*Jamabandi*) is secondary. In the primary object, it is necessary at the same time to decide who shall pay the sums assessed or, in technical language, with whom the settlement shall be made. To permit an individual to contract to pay the land revenue is usually an acknowledgement that he possesses a proprietary right in the soil, and the drawing up of lists (*khewats*) showing the landowners in every estate, the extent of each man's right, and the amount of revenue for which he was primarily responsible. It soon became evident that there were other persons who had rights in the soil besides those who could claim the offer of a settlement, and the advisability of making a complete record of all rights and liabilities connected with the land, including even those of tenants from year to year, was recognized.

Though, this Reprinted Edition of Final Report of the Third Regular Settlement of Rohtak District (1905-1910) written by Mr. E. Joseph, the then Deputy Commissioner and Settlement Officer of Rohtak, is about 100 years old, every care has been taken to maintain its originality while reprinting.

I extend my appreciation to S. Shri Ram Kishan Bishnoi, Editor Gazetteers and A.P. Sharma, Assistant Editor who have handled the work with efficiency and care in the reprinting of this report.

I am thankful to the Controller, Printing & Stationery Department, Haryana and his staff in the press for expeditiously completing the work of reprinting.

S.K. GOYAL, IAS

Special Secretary to Government Haryana
Revenue & Disaster Management Department.

Chandigarh.
March, 2010

FINAL REPORT OF THE THIRD
REGULAR SETTLEMENT (1905-1910) OF
THE ROHTAK DISTRICT.

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Proceedings of His Honour the Lieutenant-Governor of the Punjab in the Department of Revenue and Agriculture (Revenue), No. 1895 &, dated Simla, the 1st September 1911.

READ—

Mr. Joseph's final report on the settlement of the Rohtak district, with the review of the First Financial Commissioner, Punjab, forwarded with letter, No. 469, dated the 1st July 1911, from the Junior Secretary to the Financial Commissioners, Punjab.

ORDERS.—The Rohtak district lies in the insecure tract in the south - east of the Punjab and except as regards the irrigated area is dependent on a most capricious rainfall for its crops. It lies outside the zone in which monsoon rains can be usually counted on. The chief causes which led to a revision of settlement being undertaken were the large extension of irrigation from the Western Jumna Canal, which mainly occurred in 1895-96, the great rise in prices since last settlement (the average effective rise being placed at the extremely moderate figure of 25 per cent. over the district), and the necessity for bringing up to date the old revenue records. Up to 1895 the district had fared well in the matter of seasons, but then many years of drought and famine supervened which crippled the resources of the people and led to the remission of over sixteen lakhs of rupees of land revenue. A further sum of some fourteen and a half lakhs which had also been suspended was, however, recovered in the intervening good years, a fact which speaks volumes for the sturdy character of the population and their power of recuperation.

2. The people of the district are mainly Hindu Jats, who supply large numbers of recruits to the regiments of the Indian Army, a fact which is patent from the estimate that the annual pay and pension of Government employes is not less than sixteen-and-a-quarter lakhs of rupees. The ravages of plague have, however, been severe, and the latest census figures (1911) show that the population, which had been gradually expanding during the currency of the expiring settlement, has now dropped to 541,489, a decrease of 89,156 persons since the census of 1901. The district is also, next after Hissar, the most important cattle-producing district in the Province. During the years of famine and scarcity it suffered heavy losses in its cattle, as was only to be expected, but there are healthy signs of recuperation here too furnished by the figures of the cattle enumeration taken in 1909.

3. Though the total cultivation of the district has only expanded by about 6 per cent, since 1879, there has been a notable increase in the irrigated area, mainly from extensions of the Western Jumna Canal, which is estimated to be at least 33 per cent, on the area irrigated at last settlement, The areas under cane, cotton and wheat show large increases, mainly due to extended canal irrigation; in fact the district is one of the main cotton. producing centres in the Province. Rents have risen considerably since last settlement, the statistics for alienations give rise to no cause for anxiety, while the price of land has increased enormously and appears to be still rising. -

4. The main problem connected with the settlement operations was the assessment of canal-irrigated land. As finally imposed, this can only be characterized as distinctly moderate, being in fact little more than an ordinary dry assessment. It is contemplated, however, that the occupiers' rates will be enhanced when the remodelling operations have reached a stage of reasonable finality and irrigation is less unstable than it has hitherto been. Provision has been made in the scheme of assessment for extending the irrigated rates to land newly coming under canal irrigation and remitting the extra rate of 4 annas an acre on land from which canal water is withdrawn. In the case of barani cultivation, which is liable to such violent fluctuations with the success or failure of the monsoon, the only principle suited to the circumstances of the tract is a full, fair, fixed demand made elastic by a carefully considered system of suspensions and remissions. The revenue

administration of the district will always demand the careful and sympathetic attention of the District Officer, and the remarks of the Officiating Lieutenant-Governor in paragraph 5 of his resolution No. 1153.S., dated the 26th July 1911, in passing orders on the Settlement Report of the Gurgaon district apply with equal force here, and should be carefully borne in mind.

5. The new assessment as finally sanctioned amounts to Rs. 11,86,020, an increase of 23 per cent. on the expiring settlement, but only amounts to 69 per cent. of the half net assets estimate. This demand, however, is reduced to Rs. 11,44,432 in the initial year on account of deferred increments, protective leases to wells, & c., and will practically never be attained in full, as in many cases the protective leases on wells extend to 40 years. The assessment is on the whole a fair one in the barani circles, but distinctly light in the canal irrigated circles. It exceeds the enhancement foreshadowed in the forecast report by Rs. 34,000, but it must be remembered that the expected enhancement of Rs. 1,50,000 was mentioned as being a minimum.

6. Both the Settlement Officer and the Financial Commissioner recommend that the period of settlement should be fixed at 20 years because the assessment on canal-irrigated land is so low. The period of the expiring settlement was 30 years, and this has also been fixed as the term for the new settlement in the adjoining district of Gurgaon. The Settlement Officer explains that the revenue now imposed under the orders of the Government of India is in the irrigated tracts so far below the sum which the Local Government and the people alike anticipated as the result of reassessment, and so much further still below the pitch of the half assets rates, that he is reluctantly compelled to recommend that in the whole of the district outside the Jhajjar tahsil the term of settlement should be fixed at 20 years. The Financial Commissioner, Mr. Meredith, who as Commissioner of the Delhi division was fully cognisant of the circumstances of the district, for the same reasons, and also because he anticipates extensions of irrigation in all three tahsils, recommends a 20 years' term for the district as a whole. The Lieutenant-Governor is much impressed by the validity of the reasons so advanced for a departure from the ordinary rule of 30 years' settlements in the Delhi division. He also regrets that the result of the reassessment should have been to continue for a further period the inequitable arrangement deplored by Sir J. Wilson, Mr. Meredith and all who have studied the circumstances of the tract on the spot, by which the owners of the rich canal lands have escaped with an assessment unduly light as compared with the less productive dry area. But the policy of the Government of India as recently enunciated is opposed to curtailment of the customary term of settlement except in very special cases, as, in their opinion, the state of the finances of India no longer makes it so important as it was in 1895 to secure for Government without unnecessary delay any enhancement of the land revenue to which it might be found entitled. Moreover in the irrigated tracts in which, as stated by the Settlement Officer, the under-assessment is most marked, some recovery of the State's share of the produce now foregone will be possible within the period of settlement without having recourse to the harassment of settlement operations before the expiry of 30 years. As intimated in paragraph 8 of their letter No. 1202—130-3, dated the 27th October 1909, the Government of India have accepted the view of the Local Government that the canal rates should not be fixed for the term of settlement or for 15 years, and have ruled that there is no reason why occupiers' rates should not be raised hereafter on the principles usually followed in dealing with such rates, when remodelling operations have made irrigation arrangements more stable. Arrangements have also been made by which any increase of irrigation will carry with it an increase of the nahri parta of from 3 annas to 6 annas an acre on the area so irrigated. In this way there is some hope that the revenue foregone in the prosperous days of 1909 will be in part recouped during the currency of the settlement. His Honour is accordingly pleased to confirm the assessment under section 53 (1) of the Land Revenue Act for a term of 30 years (section 53 (3) *ibid*) in each tahsil. Cesses as follows are also sanctioned: lambardari at 5 per cent., and local rate at $8\frac{1}{3}$ per cent. of the land revenue.

7. The thanks of Government are due to Mr. Joseph 'for the care and ability with which he discharged the onerous duties of Settlement Officer, also to Munshi Badri Pershad, the Extra Assistant Settlement Officer, for his industry and thoroughness. The Lieutenant-Governor also desires to acknowledge the full and interesting review furnished by the Financial Commissioner.

8. The orders should be communicated to the Financial Commissioners, and to the Chief Engineer, Irrigation Works, Punjab, and forwarded to the Government of India, Department of Revenue and Agriculture, with the usual number of spare copies.

By order of His Honour the Lieut.-Governor, Punjab,

H. P. TOLLINTON,

Revenue Secretary to Government, Punjab.

FINANCIAL COMMISSIONERS' OFFICE:

Dated Lahore, 1st July 1911.

From

G. F. DE MONTMORENCY, ESQUIRE,
Junior Secretary to the Financial Commissioners, Punjab,

To

THE HON'BLE MR. H. P. TOLLINTON,
Offg. Chief Secretary to Government, Punjab.

The Hon'able Mr. A. MEREDITH.

SIR,

I AM directed to forward the final settlement report of the Rohtak district by E. A. A. Joseph, Esquire, with the Financial Commissioner's review thereon.

I have, & c.,
G. F. DE MONTMORENCY,
Junior Secretary to the Financial Commissioners, Punjab.

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Note by the Hon'ble Mr. A. Meredith on
the Settlement Report of the Rohtak District.

1. The Rohtak district lies far beyond the southern boundary of the Punjab Proper, from which it is separated by the Native State of Jind. It is flanked, however, on the west by the Punjab district of Hissar, and on the north-east and east by the Punjab districts of Karnal, Delhi and Gurgaon. The chief characteristic of the district is the strong body of Hindu Jat peasantry who own 60 per cent. of the land, and also the size of the villages, there being only 532 in the whole district. Nearly two-thirds of the cultivated area is self-cultivated and many of the so-called tenants are really owners; so the assessment in fact falls on almost one class of peasantry concentrated in large homogeneous villages. The physical features of the district, consisting in a plateau of firm culturable loamy soil sloping from north-west to south-east, only broken by three lines of sandhills, conduce to a facility in working the soil to which the only exceptions are the more arid beds of shifting sands in the south of the Jhajjar tahsil. In the south-east of that tahsil the natural floods from the Sahibi, Indri and Kashaoti torrents have decreased in volume since last settlement, and the cultivated area on flooded land has fallen from 9,540 acres to 8,570 acres. The table below gives the average rainfall as ascertained by Mr. Fanshawe in the 10 years prior to his settlement and as ascertained by Mr. Joseph for 23 years prior to the present settlement :-

<i>Tehsil</i>	<i>Prior to former settlement.</i>	<i>Prior to Present settlement.</i>
Gohana	20.1	21.46
Rbhtak	19.6	19.45
Sampla	19.0	20.48
Jhajjar	19.1	19.32

In spite of an apparent improvement the rainfall has for a cycle prior to the present settlement been scanty and precarious. Here the heavy winter rains of the Northern Punjab are entirely absent, and the desiderata of the Rohtak district are good rain in July, supplemented by August rain for autumn crops and cotton, and rain at the close of the monsoon in September for spring crop sowings. Unfortunately these hopes are not invariably realised.

2. The former "famine" history of the Rohtak district is given in Mr. Fanshawe's Settlement Report, paragraph 40. The period which followed the settlement was not entirely free from similar calamities, and with 1895 a cycle of dry years began, necessitating suspensions to the amount of 33 lakhs of rupees and resulting in a great mortality in cattle. Between 1895 and 1904 the cattle in the Rohtak district decreased by 143,727 owing to mortality and sales by a temporarily impoverished peasantry. With the growing value of cattle this decrease represents a serious loss of capital. In spite of this check the hope of the gradual increase in material prosperity and the trust in the recuperative power in the Rohtak Jat, expressed by Mr. Fanshawe in paragraph 108 of his Settlement Report, seem to have been somewhat justified. For by 1909, five years later, cattle had again increased by 51,000 head, and of the suspended revenue Rs. 14,55,000 had been collected with ease in a few good harvests; sales and mortgages, however, indicate that some-notably the Jhajjar peasantry-had had a hard struggle in the bad years for between the two settlements 50,000 cultivated acres were sold and 134,368 cultivated acres were mortgaged. Fortunately more than half the transactions in each case were among agriculturists, and a plurality of free mortgages *inter se* among the body of cultivators is a sign of a good deal of reserve strength. The average matured area of the lean cycle sank by 253,000 acres below the average of the 10 years with which the settlement opened. The marked rise in the sale price of land is a sign of increase in general profits. Moreover the

miscellaneous income of the people of this district is considerable; the annual profit from the produce and sale of stock is estimated at 7¾ lakhs of rupees; the income from the pay and pensions of Government servants, who are chiefly soldiers, is 16¼ lakhs ; while other miscellaneous income may be put at a lakh and ten thousand rupees. Plague, however, has left its mark on the Rohtak peasantry, and in 1911 the population stands at 541,489 souls, a figure lower than the figure obtaining in 1879, and a decrease of 89,156 persons since the last census.

3. Certain administrative changes have taken place. By notification No. 224 of 3rd June 1910 the Sampla tahsil of Rohtak was abolished and its villages were divided up between tahsils Rohtak and Jhajjar. A few Rohtak villages were at the same time added to the Jhajjar and Gohana tahsils. This change, together with the changes in some of the assessment circles rendered necessary by the alterations and extensions of canal irrigation, make comparison between this and the former settlement in detail somewhat difficult. The assessment circle changes have been conveniently tabulated by Mr. Joseph in Appendices A and B of his report.

4. The chief objects of the revision of the assessment were to secure the enhancement due to Government on account of the expansion of canal irrigation and the rise in prices which had taken place during the currency of the expiring settlement, and to bring a 30 year old record up to date. It was desired also to clear up the question generally of canal assessments in the areas watered by the Western Jumna Canal. Apart from the extensions of irrigation in the Sampla and Rohtak tahsils, the improvements in the canal drainage lines which had been effected since last settlement, had also considerably improved some villages in the Sampla tahsil. Communications had greatly improved as the Southern Punjab Railway since settlement had traversed the district, and roads to connect with it had been linked up. Prices had also risen, and, in the canal villages at any rate, landlords' profits were thereby much enhanced. The anticipations of the forecast were an increase of Rs. 1,50,000.

5. The former assessment as modified by the change noted by Mr. Joseph in paragraphs 9 and 10 of his report consisted of what was nominally a dry fixed assessment on canal lands and a fixed assessment on other lands. Certain weak estates liable to floods in the Jhajjar tahsil received a fluctuating assessment. In addition to the dry fixed assessment on canal lands an owner's rate was imposed equal to half the occupier's rate which was supposed to form the difference between a wet and a dry assessment. The dry assessment, however, on the canal villages had to be enhanced up to the scale of a very light wet assessment because the owner's rate at the above rate did not bring out the whole difference between the wet and the dry assessment. This assessment brought in 1908-09 at its expiry—

				Rs.
Fixed land revenue	-	-	-	9,53,149
Fluctuating land revenue	-	-	-	12,473
Owner's rate	-	-	-	1,67,979

6. The cultivated area of the district has increased by 6 per cent, but, what is more important, the protected area has gone up by 33 per cent since 1879. While the matured area fluctuates violently with the rainfall, the average matured irrigated area of the bad cycle, 1895-96 to 1906-07, was 157,800 acres, of which 137,300 acres were nahri. As the nahri area is the area which really benefits by the general 25 per cent. rise of prices, the increase in nahri area, despite certain drawbacks in irrigational distribution and efficiency noted by Mr. Joseph in paragraph 4 of the report, is a real asset and probably accounts for the rapid rise in the number of cattle after the lean cycle and for the increasing numbers of agriculturist vendees and mortgagees. In cropping, the marked increase in cane, wheat and cotton are a satisfactory feature.

Rohtak is one of the great cotton districts of the Punjab, and with the present prices of cotton and wheat the increase in the sown area of these staples is a healthy sign. The decrease in rice, as a testimony to the improvement in the drainage of the district, is a matter for congratulation. The disappearance of indigo with its fertilizing effects on the soil is, however, to be regretted. The decrease in *kharif* fodders has something to do with the extension of irrigation and the increased possibility of safely growing more paying crops, and it also no doubt is a result of the decrease in the cattle of the district between 1879 and 1909 due to the cycle of bad years. As regards extraneous profits, while cattle are less in number, their value is much greater than in 1879 as may be seen by a comparison of the prices recorded in Mr. Fanshawe's Settlement Report, paragraph 67, and in Mr. Joseph's report, paragraph 18.

7. In no district is the classification of land more misleading; both in the well areas and the canal tract, the irrigation over and above a certain area is purely protective and used only in bad years when lack of rain renders *barani* cultivation impossible. This is evident from the table in paragraph 20 of Mr. Joseph's Report where the total irrigated matured area of the good cycle of years is only 77,000 acres, while in the bad cycle it rises to 157,000 acres, the unirrigated area in the lean cycle sinking from 897,800 to 644,700 acres. The subject is further amplified in paragraphs 37 and 38 of Mr. Joseph's report. The peculiar character of the wells and the fact that the extensive *barani* cultivation is subject to rapid contraction in bad years narrows down the problem of assessment, as far as the taking of an increase is concerned, to the treatment of the canal area. This problem was fully discussed in Sir James Wilson's review of the Gohana Tahsil Report, and his review and the order thereon are a valuable addition to the settlement literature of the time on wet assessments. An independent enquiry had been progressing about raising the occupier's rate schedule on the Western Jumna Canal generally. Sir D. Ibbetson decided against raising the schedule, but agreed to consolidate the occupier's rate with the owner's rate in the single schedule of occupier's rate of almost the pitch of both rates added together. The Settlement Officer in the Western Jumna area had to work out in canal villages an assessment after consideration of whether after this amalgamation the difference between profits on irrigated and unirrigated land still warranted a wet assessment on the former. The Settlement Officer was of opinion that defects of irrigation and climatic instability hardly warranted the application of a general wet rate, but was willing to announce a *barani* assessment and apply a water-advantage rate to actual recorded *nahri* areas. Sir James Wilson wished to add Rs. 0-4-0 per acre to the *barani* rates on account of the additional security of crop out-turn in canal villages, but desired boldly to add the water advantage rate to the charges already assessed for the use of water and adopt a consolidated water charge on each class of crop, theoretical divisions on the lines of occupier's rate or owner's rate being made after the stage when the demand had left the cultivator's pocket and been lodged in the treasury. The dry land revenue proposed by Sir James Wilson was stationed and announced, but after consultation of the Irrigation Department in the reference to the Government of India Sir James Wilson's enhanced consolidated rates for canal crop were modified mainly by a reduction of Rs. 1 per acre for the staples of cotton and wheat for five years. The Settlement Officer's conclusions that the circumstances of the Gohana tract did not warrant a full wet assessment were accepted. At the same time the Government of India admitted that the assessments announced were only very light wet assessments, and agreed to the possibility of hereafter enhancing the occupier's rates when canal improvements and remodelling schemes had reached some degree of finality. The dry land revenue announced on the same principles in other canal tahsils was allowed to stand. It was settled, however, that extensions of irrigation in canal villages or irrigation in hitherto unirrigated villages might be assessed at a *nahri parta* of Rs. 0-4-0 (or Rs. 0-6-0 in the case of new villages) per acre on the average actual *nahri* area every four years when the *jamabandi* is drawn up, the canal records being consulted if necessary. The area is compared with the *nahri* area assumed at settlement, and the area brought out is assessed at Rs. 0-4-0 or Rs. 0-4(6)-0, where the

total sum involved comes to Rs. 50 or Rs. 10 per cent. of the demand announced at settlement, whichever is less. The rules for the assessment of nahri parta are printed as appendix F of Mr. Joseph's report. The only difficulty in the situation is the accurate record of the average canal irrigated area and the subsequent enquiry about the method of bachh if a *nahri parta* assessment has to be made. The cases where *nahri parta* assessments in old canal villages will be needed will be few as explained by Mr. Joseph in paragraph 39 of his report.

8. In spite of the somewhat imperfect issue of the canal assessment question, the results of the assessment are as follows:-

				Rs.
Final	-	-	-	11,86,020
Initial	-	-	-	11,49,913
Sixth year	-	-	-	11,84,820
Eleventh year	-	-	-	11,86,020

Deducting owner's rate from the 1879 estimate it stood at Rs. 8,44,639, and with the same deduction the demand of 1908-09 stood at Rs. 9,65,622. Apart from the income to be gained by enhanced occupier's rate and *nahri parta*, the initial demand now announced exceeds the actual demand of the expiring settlement by Rs. 1,84,291 and exceeds the forecast report estimate by Rs. 34,000. In dealing with his circles Mr. Joseph has been lucky in having the actualities of large data of cash rents, which he has carefully checked and sorted, to measure with his crop estimates of half net assets, and he has only had to rely much on the latter in the better irrigated portion of the tract. The assessments imposed may be classed as full in the circles-

Sampla Barani,
Sampla Dahri,
Jhajjar Rausli Barani,
Jhajjar Dhari,
Jhajjar Bhur;

moderate in circles—

Rohtak Western,
Rohtak Rajputs,
Rohtak Eastern;

and light in circles-

Gohana Eastern,
Gohana Wester,
Rohtak Nahri I,
Rohtak Nahri II,
Sampla Nahri I,
Jhajjar Rauali.

The latter circles were nearly all affected by the decision to defer taking water advantage profits. In the case of the former two classes the rates are well below cash rent profit calculations. If there is subject for regret, it is that Gohana and other of the most secure and prosperous parts of the district have fared so lightly, while Jhajjar and the more insecure portions are relatively highly assessed. The final demand of Rs. 11,86,000, however, includes Rs. 37,000 to be taken by progressive assessments and owing to protective leases it is unlikely that the maximum final demand will be reached. Special provisions exist for remissions in cases of inundation for flooded crops in the Jhajjar Dahri Circle; but the villages can also have a fluctuating system which has been worked out ready for

application if needed. The instructions relating to this are printed as appendix E. These rates, which are not likely to be resorted to, require some caution in application by the Collector. The general rules for remissions and suspensions are printed as appendix E and form a full and detailed guide for the Deputy Commissioner. The Jhajjar Circles require the most sympathetic treatment. The cost of the settlement fell short of the estimate by a lakh and ten thousand rupees.

9. Mr. Joseph's history of the mapping work of the Rohtak Settlement is a record of a feeling of disappointment that he was unable to leave to posterity as perfect maps as those of Mr. Purser's settlement. For working purposes, however, the Rohtak patwari is supplied with an efficient article and the reference to the somewhat unsatisfactory Sadr copy should be of infrequent occurrence. The efficiency of the record and bachh work is most satisfactory, when the low standard of literacy of the Rohtak patwari, tabulated in paragraph 55 of his report, is considered.

10. The deductions which had to be made for land affected by the shade of roadside trees are small. The remarks of the Settlement Officer, touching the extension of the system to the trees growing on village roads with a view to encouraging village arboriculture, are worthy of attention. The protective leases of wells which have been allowed from 20 up to 40 years according to the circumstances of various circles and amount to Rs. 3,870 in cash, afford an encouragement to well irrigation needed in the precarious condition of parts of the tract.

11. The favourable assessments described in paragraph 50 of Mr. Joseph's Report form a complication which luckily does not exist in most districts in such variety of form. The muafi registers and records were very thoroughly completed by the Settlement Officer; and if kept up to date on the lines on which he has started them, will form a useful record, and obviate the difficulties which occurred in dealing with some of the muafis at the outset of the present settlement.

12. The zaidari system will ultimately, after the disappearance of a few existing anomalies continued in favour of incumbents holding office prior to settlement, provide an efficient and well-paid graded cadre of rural officials. The ala-lambardari system in Rohtak, as elsewhere, has failed to realise the hope of which it once gave promise, and will gradually disappear in favour of a more elastic inamdari system. Provision has been made for the reduction of petty lambardars and the strengthening of the position, importance and utility of those who will absorb these pattis into their charges.

13. Mr. Joseph has been in charge of the settlement throughout with the exception of three months when he was on privilege leave and the Extra Assistant Settlement Officer was placed in current charge of the duties. His work is characterised by great care and accuracy and scrupulous attention to detail, while his reports have evinced throughout great sympathy with the people and minute acquaintance with the district. The final report is somewhat lengthy, matters here and there being repeated which might with advantage have been confined to the Assessment Reports. The Financial Commissioner concurs in the Settlement Officer's commendation of the good work and ability of M. Badri Parshad, the Extra Assistant Settlement Officer, while among the subordinate staff M. Harnam Singh, Tahsildar, is a particularly good type of a native official.

14. For the reasons recorded in paragraph 69 of the report, the Financial Commissioner agrees in recommending that the settlement be sanctioned for a period of twenty years. The comparatively light assessments make this desirable in the Gohana and Rohtak tahsils, while it is probable that there will be a considerable extension of canal irrigation in the Rohtak and Jhajjar tahsils if the Sarda-Ganges scheme is brought to maturity. It appears desirable to have one term throughout the district, and, as the Settlement Officer proposes, if a revision of the assessment at the end of 20 years appears necessary in Gohana and Rohtak, the period can be extended in Jhajjar if this is found desirable.

FINAL SETTLEMENT REPORT

OF THE

ROHTAK DISTRICT.

CHAPTER I.—DESCRIPTIVE.

1. The Rohtak district lies on the confines of Rajputana, and belongs geographically and ethnologically to Hindustan and not to the Panjab Boundaries and dimensions. The lineaments of its inhabitants are those of the people of the adjacent districts of the United Provinces, and their speeches are allied for the most part to the Bangaru and Ahirvati dialects of Western Hindi. The district is bounded on the south by the Dujana and Pataudi Nawabis and the district of Gurgaon; the western border marches with the Dadri territories of Jind, the Hissar district and the Jind territories proper. The latter and the Karnal district bound the northern, and the three districts of Karnal, Delhi and Gurgaon the eastern face of the district. The district lies between latitudes 28°21" and 29°19" north, and longitudes 76°15" and 77°5" east. The maximum length and breadth of the district are 63 and 43" miles, with the headquarter station almost in the centre. With the exception of the sandy south of Jhajjar tahsil the whole district is of very easy access from Rohtak itself. The total area of the district is by the latest measurement 1,796½ square miles, excluding the two villages of the Dujana Nawabi which lie in the heart of the district. Though this is no justification for the large extent of re-measurement undertaken in the present settlement, it is satisfactory to notice the close approximation to the revenue survey area of 1,797½ square miles. The area by the settlement measurement of 1879 was 1,802½ square miles.

Prior to 1910 the district had consisted for many years of four tahsils, Rohtak, Gohana, Jhajjar and Sampla, having attained this shape before the revised settlement of 1879; but with effect from 1st April 1910 the last named tahsil was abolished for reasons of administrative economy, and its area divided between Robtak and Jhajjar, while a large tract from the north-west of the Robtak tahsil was merged in Gobana, and a few villages in the south of the same tahsil given to Jhajjar. Appendix B gives a list of the villages of the district with their present and late tahsil shown against each. It is unfortunate that this change was ordered at the close and not at the beginning of the settlement, for the assessment circles and assessment reports are based on the old divisions of four tahsils. In paragraph 15 will be found a table which will help to make the assessment reports more intelligible to those who have no recollection of the former tahsils. The area of the new tahsils is :-

	<i>Square miles.</i>
Gobana - - - - -	553
Rohtak - - - - -	515.3
Jhajjar - - - - -	728.2

2. The general physical characteristics of the Rohtak and Gohana tahsils and of the northern part of Jhajjar are much the same—Physical characteristics, vegetation, & c. a plain with a gradual slope to the south and east, singularly even in the mass, yet seldom perfectly flat. The soil is usually a good firm loam whose rich colour, as Mr. Fanshawe well noted, seems reflected in the faces of its sturdy inhabitants. This plain is intersected by three broken lines or sandhills running roughly north and south, of which the easternmost keeps cropping up on or within a few miles of the Delhi border, the central runs right through Rohtak itself, and the western-most borders the Hissar district. In the Jhajjar tahsil these lines are less distinct, and are lost

in seas of billowy sand. The south-east or this tehsil receives the drainage or the Sabi and Indauri *naddis* which come down from the Alwar hills through the Gurgaon district, and, running in channels often well defined, spill their water in the hollows between the sandhills. Of late years floods have been rare, but in both 1908 and 1909 large lakes were formed. The appearance of these streams can be distinguished from the accumulations of purely local rainfall by the red colour of the spate. Another *naddi*, the Keshaoiti, used to enter the tahsil further to the west, and run northwards to Jhajjar itself, but there is no record of its appearance for more than 30 years. In the monsoon of 1908, however, the village of Mohanbari in the south-west of the tahsil was washed away by the flood of an unknown stream. In the flood area of this tahsil the usual loam or sand of the district gives place to a hard, thirsty, and often sour clay which is, however, very productive where there is plenty of water. In the extreme south of this tahsil four small rocky hills, containing valuable quarries of stone and shale, rise among the sand, the last spurs of the Aravalli system. The northern part of the district, in the old canal tracts, is fairly well wooded, but elsewhere vegetation is extraordinarily scanty, and has probably decreased considerably since the famine of 1855-96. The hard-soiled centre of the district presents the barest appearance, and trees are few and far between except on the roads (themselves all too bare) and round the village sites. In the south of the Jhajjar tahsil the *forash* (*tamarix orientalis*) is abundant; it grows easily from cuttings and needs little water, and, though a poor tree for shade, relieves the glare and supplies the people with sufficient timber. The sandhills are often clothed with *sar* (*saccharum munja*), like a waving forest of pampas grass. A more particular account of the trees, shrubs and grasses of the district will be found in the marginally noted paragraphs of several assessment reports.

				Para	
Gohana	....	....	....	3	
Sampla	....	....	....	2	
Jhajjar	....	....	....	3	
Rohtak	....	....	....	3	

3. The Southern Punjab Railway traverses the district from the south-east to north-west, running as far as as Rohtak parallel to the old Roads, Communications, & (C). Delhi road, and from thence going straight to Jind. There are at present six stations on this line within the district, and two on the narrow gauge Rewari-Hissar branch of the Rajputana-Malwa Railway which crosses the extreme south-west corner of the Jhajjar tahsil. Metalled roads converge on Rohtak from Gohana, Mehm, Jhajjar. and Bhiwanl (in Hissar); Jhajjar and Bahadurgarh are now similarly linked, while from the Jhajjar-Rohtak road a loop runs to Beri and on through Jahazgarh to Jhajjar. Sections of metal, a mile or so in length, between Rohtak and Bahadurgarh on the old Delhi road, still bear witness to the fact that the Public Works Department, deliberately, ruthlessly, and without authority, hacked up the road to prevent competition with the infant railway. The Sonipat road from Sampla to Kharkhaudah is in process of being metalled. There are a number of broad *kachcha* roads of which the principal connect Gohana with Sonipat, Panipat, Jind, Hissar and Bhiwani: Rohtak with Baghpat and Jind and Jhajjar with Farrukhnagar, Rewari-Dadri and Jatusana. The Jind-Dadri road traverses the west of the district, and the old customs road or "permit *ki sark*" runs across it from Mehm to Badli. Most of these roads are bad, especially in the sandy south of the Jhajjar tahsil and their upkeep is difficult. The villages are connected with narrow roads like corkscrews, which frequently serve the double purpose of watercourses and become quickly overgrown by the shrubs on either side. The zamindars, too lazy or too disunited to clear them, proceed to drive a fresh path through the fields which are unlucky enough to run alongside.

A marked feature of the northern part of the district is the large size of the villages whose many masonry houses give an imposing air of solidity.

4. The Western Jumna Canal has an ancient history which need not be recounted here. It was re-aligned about 30 years ago and largely extended about 1895-96. In its present form the canal consists of three main branches, the Delhi, Hansi and Sirsa lines, with the last of which the district has no concern. The Delhi branch irrigates the eastern part of the district and the Hansi branch the west. From the former the Israna branch takes out at Munak, and forking into two systems known as numbers VIII and IX supplies all the irrigation of the east part of Gohana,

tahsil as far south as Gohana itself. Further down on the main Delhi line at Khubru, the Rohtak and Bhalaut branches, Nos. XII and X, the latter of which is one of the extensions made in 1895, take out and enter the district side by side at Saragthal. The former runs nearly due west to Gohana and thence south-west to Rohtak where it tails off. The Bhainswal Rajbaha also starts from Khubru and irrigates a few villages of the Gohana tahsil. The Bhalant Rajbaha, No. X, soon parts company from the Rohtak Rajbaha and travels south-west to a point some 7 miles east of Rohtak town where it breaks up into three branches of which the western irrigates Rohtak civil station. Two other branches, the Jua and Rohnah, take out lower-down the Delhi main and irrigate the eastern villages of Rohtak tahsil and a few villages in the north of Jhajjar, while the latter tahsil receives a little water also from the tail of the Bhalaut system. All these branches are dependent on the Delhi branch which normally runs for 10 days in each month, but some of the minors have to run in rotation and do not get a full 10-days supply, Rohtak itself being a sufferer in this respect.

The Butanah branch takes out of the Hansi main line at Safidon in Jind and subdivides into the Butanah and Bhiwani systems at Inchra, just outside the northern boundary of the Gobana tahsil. From this point onwards the Butanah branch irrigates the Western villages of the Eastern Nahri circle of Gohana, while the Bhiwani branch irrigates the Western Nahri circle. At Rindhanah in the last named circle it throws off the Kanhaur branch which runs down through the Southern Kahri circle, Gohana, and passing a few miles west of Rohtak supplies the irrigation of the Rajputs circle of that tahsil. The Bhiwani branch itself also irrigates the Southern Nahri circle of Gohana, while its offspring, the Mehm branch, irrigates the Mehm circle. These lines also run for 10 days in the month, but the rotation of the three main lines is subject to variation.

The Bhiwani and Bhalaut branches and their offshoots represent for this district the extensions that were made in 1895-96. They necessarily involved a decrease in the existing supply of many of the old canal villages which is naturally resented, but in many cases a decrease was desirable owing to the unhealthy condition of the villages caused by over-irrigation. Moreover the policy of protecting as wide an area as possible from famine is economically and humanitarianly correct. Nevertheless it is generally felt by those who know the district best that the extensions were pressed too far. On a canal such as the Western Jumna where the demand for water fluctuates violently with the caprices of an uncertain rainfall, and the supply of water is equally uncertain owing to the restricted area of the glaciers on which the river depends, it is extremely difficult to draw the line at which it is politic to stop extensions. It is certain, however, that the villages at the tails of the canal are badly served, and it is just when water is most needed that the supply most often fails, and crops which were sown on an abundant first-watering fail for lack of subsequent irrigation, leaving the people in a worse condition than they would have been had water never been offered them. Attempts have been, and are still being, made to improve the supply in the lower reaches of the canal by cutting down outlets higher up which irrigate more than the area assigned to them. This has not always been done judiciously, and when, as has not infrequently occurred, an outlet is restricted or removed without due notice, a real grievance is created. It should be the rule that notice of intended alterations should be given through the Deputy Commissioner at least six months in advance, and that if sugarcane has already been sown, or the ground has been already prepared for any other crop on the outlet, the Deputy Commissioner should have power to postpone the alteration till after the sugarcane or the other crop, as the case may be, is reaped.

Another source of complaint on this canal lies in the rapidity with which silt collects, and the extent to which it is carried beyond the outlets on to the zamindars' land. It is impossible for Government to sell clean water until science has discovered some method of stopping the influx of silt at the sources of the canal, but it is not unreasonable for the people to demand that so far as is possible the burden of clearance should be

undertaken by Government, and the silt should not be deposited in their channels. It is much to be desired on the other hand, that these channels should be better aligned, and better maintained so as to minimise the great waste of water which undoubtedly takes place. Under existing arrangements the Canal Department does not interfere with the distribution of the water once it has left the 'mori' or outlet, not even concerning itself with the distribution of water amongst the shareholders unless the latter, unable to agree among themselves, apply to the department to fix, a *war-bandi* or roster for them. This much, however, the people have learned since their supplies were reduced; they do not over-irrigate to the extent that they used to do, but make the same volume of water go much further than it did. But economy by scientific construction of watercourses and careful irrigation of small plots of land is very little appreciated or understood by the Rohtak Jat.

5. The remodelling of the canal was closely associated with the improvement of the drainage of the country. There are two main lines of drainage in the district. A number of shallow depressions come down from the Karnal border on the north and are carried into the Rohtas tank in Gohana. From there a deep and broad drain, locally known as the *ganda nala* or main drain No. VIII runs through the south of the Gohana tahsil roughly parallel to the high road until it reaches Rohtak, and then passes through the Rajput villages to Kanhaur and so on to the Jhajjar tahsil where it tails out in a depression in Bindawas a few miles south-west of Jhajjar.

The other drains starting from the Jua and Bhatgaon *jhils* in the Delhi district run through the eastern border of the Rohtak tahsil and unite in Nilothi from where a deep channel passes the flood waters out of the district by Bahadurgarh towards the Najafgarh *jhil*.

6. Jhajjar is the only tahsil in which well irrigation is of the slightest importance. Elsewhere the only wells are a few near the *abadi* which are generally worked by Malis. The universal method of well irrigation is by the rope and leather bucket, though one or two enthusiasts have attempted experimental demonstrations of the Persian-wheel which have usually been frustrated by the local carpenter.

The depth to water is great in this district. It is least in the Southern Dahri circle of Jhajjar where in the old days of flood it is said that a man might drink from the lip of the well. Here the depth to the water is now about 21 feet. In the Northern Dahri circle of the same tahsil it falls to 33 feet, in the Rausli Chahi to 30, and in the Bbur circle to 49. The fact that in the rest of this tahsil and in the non-canal villages of Rohtak the depth to water varies from 51 to 106 feet is sufficient indication that well irrigation can be of little practical importance in those tracts.

The majority of the wells are throughout of masonry, but in tahsil. Jhajjar there are about 600 *kachcha* wells. Between these two there are many varieties according to the nature of the sub-soil. In Jharli and a few other villages we find deep *kachcha* wells which require to be lined with brick only in certain strata; elsewhere a *pakka* lining will rest upon a wooden column, while sometimes the bare clay is lined with brushwood. In the Southern Dahri circle *dhenklis* are largely used in the depressions after the floods have dried up.

The quality of the water in the district is bad. Even in the canal tract the drinking wells are usually only maintained sweet (and incidentally rendered foul) by being constructed on the edge of the tanks, and the evaporation of the latter is soon followed by the well water turning brackish. Many wells are always brackish in greater or less degree and salt is still made in one village (Zahidpur) of the Jhajjar tahsil. A few years' good rainfall improves the quality of the worst wells which again deteriorate with the demands made on them. A more particular account of the different qualities of the well-water of the district will be found in paragraph 15 of the Sampla Assessment Report and paragraph 5 of the Jhajjar report, though the teapot and the bath generally form a rough index of the nature of the water in any village. The well crop of the district *par excellence* is barley,

though wheat is grown on the *dhenklis* to a considerable extent, and in a less degree on the regular wells. Of the method of assessment of wells, and of their protection as 'improvements' from over-assessment more will be said in a later chapter.

7. The district is unfortunately just outside the full track of the monsoon and the rainfall is accordingly capricious and often scanty. The average annual fall recorded between 1886-87 and 1908-09 (from June 1886 to May 1909) on the four old gauges is as follows :-

Rohtak	-	-	-	-	-	19.46
Gohana	-	-	-	-	-	21.46
Sampla	-	-	-	-	-	20.48
Jhajjar	-	-	-	-	-	19.32

The average monthly falls for the same period by the Rohtak gauge are :—

June	-	-	-	-	-	1.55
July	-	-	-	-	-	5.65
August	-	-	-	-	-	5.55
September	-	-	-	-	-	3.42
					Total of 4 months	16.17

October	-	-	-	-	-	.09
November	-	-	-	-	-	.06
December	-	-	-	-	-	.42
January	-	-	-	-	-	.77
February	-	-	-	-	-	.55
March	-	-	-	-	-	.41
April	-	-	-	-	-	.35
May	-	-	-	-	-	.64
					Total of 8 months	3.29

The distribution of the rainfall is of more importance than the total fall. Good rain in July is most important, of all for the cotton crop and in August it benefits the cane while both are necessary for sowing and growing autumn pulses and millets. Good September rains mean deep-seated moisture on which to sow barley and gram, which cannot last without a few falls in December and January.

Eight new gauges have lately been installed in different parts of the district in addition to the four mentioned above. There are also a number of canal rain-gauges.

CHAPTER II.—FORMER FISCAL HISTORY.

8. The district in its present form came under British rule at different times. The northern part of the district came to us mostly in 1803 after Lord Lake's conquest of the Mahrattas, though life *jagirs* were granted to the Bhai of Kaithal, the Raja of Jind and others, The Nawabis of Jhajjar and Babadurgarh, which form the bulk of the Jhajjar tahsil, were taken over for disloyalty in 1857. At different times there have been a variety of tahsils, which have now once again been redistributed. In different parts of the district a series of summary settlements were undertaken at different dates, and a regular settlement of the northern part of the district was undertaken by different officers between 1837 and 1840, while the first regular settlement of the resumed Nawabis was effected from 1860 to 1863. Of all these settlements a detailed account will be found in paragraphs 85 to 94 of Mr. Fanshawe's settlement Report of 1880.*

* The assessment reports of that settlement, and of the present may also be consulted when necessary.

			<i>Last settlement</i>	<i>Present settlement.</i>
See paragraphs	Gohana	-	16 - 28	7-8
	Rohtak	-	16 - 29	7
	Jhajjar	-	18 - 26	10
	Sampla	-	14 - 24	7

9. The revised settlement which was made by Messrs. Purser and Fanshawe and came into force for thirty years with effect from the *Kharif* of The settlement of 1879. 1879, was the first settlement made of the district as a whole. This settlement provided us with excellent maps on the triangular system for the production of which Mr. Purser is still famous, with an elaborately prepared and beautifully faired record-of-rights which is in most cases the earliest document on which reliance can be placed, and with a demand which was carefully adjusted to the capacity of each estate and should but for unforeseen calamities in most cases have been easily paid to this day.

The demand of the last year of the first regular settlement, 1878-79, is stated by Mr. Fanshawe to have been Rs. 8,89,653 for the whole district. This was a wet demand. The assessment imposed in 1879 was by the orders of Government (see correspondence ending with Sir L. Griffin's letter No. 1171, dated 30th October 1879) a dry assessment. Concurrently with its introduction the system of owner's rates was introduced on the canal. These were supposed to absorb the difference between a wet and a dry assessment, but were fixed at 50 per cent. of the occupier's rates. It was estimated that the income from owner's rates calculated in this way would on an average reach Rs. 1,11,816 though the estimate was subsequently raised to Rs. 1,17,179. The former sum fell short of the difference between a wet assessment, and a theoretical assessment of irrigated land in its dry capacity by Rs. 25,345, and the difference was ordered to be made up by enhancement of the dry assessments. In canal villages, therefore, the assessment was not strictly dry but an exceedingly light wet assessment.

Progressive demands were disallowed in the revised settlement, except in the case of one village, though three villages in the Gohana tahsil and one in Sampla (now Rohtak) tahsil which were severely affected by saline efflorescence received initial settlements for five years only, which were subsequently raised while some Rs. 5,500 was deferred on account of the protective leases granted to wells. The remuneration of zaildars and ala-Iambardars, which was paid by a deduction of 1 per cent. of the revenues of the villages for which they were responsible was first added to the total assessment. The final 'dry' demand announced by the Settlement Officers came to Rs. 9,61,818 to which had to be added the sum of Rs. 1,17,179 which was expected to be realised from owner's rates. While it was distinctly explained from the first that owner's rates were liable to rise with an increase in the occupier's rates, or to be extended to villages not at present irrigated, both of which contingencies have actually occurred, the increase that was immediately contemplated as sufficient was, therefore, one of Rs. 1,89,344 or 21 per cent. (9,61,818 plus 1,17,179 minus 8,89,653).

10. Five years after settlement the demand of the four villages temporarily settled was raised by Rs. 1,052, but already reductions had Subsequent changes in the demand. taken place in another direction. When the Lieutenant-Governor marched through the district in the winter of 1882-83 he received a number of petitions which led him to be anxious as to the condition of the district. Enquiry showed that there was no real cause for anxiety except in parts of the Jhajjar tahsil where, owing partly to the late Nawab's exactions, partly to the characteristics of the people, and in part to the diminution of the floods, real distress existed. Mr. (now Sir James) Wilson was directed to make a detailed examination and submit a report on this tract. A full account of these proceedings and a reference to the original records will be found in paragraphs 12-16 of the present assessment report of Jhajjar. For the purposes of this paragraph it is sufficient to note that a system of fluctuating assessment was introduced on 9,049 acres, of which the fixed assessment was abrogated, while a reduction amounting to Rs. 6,116 per annum, was granted for five years in the revenues of certain other estates in which the fixed system of assessment was maintained. When re-assessed after the lapse of that period, the demands fell short in seven villages of the original total by Rs. 892.

There have, of course, been other small changes in the course of the past thirty years due chiefly to the acquisition or surrender by Government of small plots of land.

The demand for the district in 1908-09, the last year of the expired settlement, compared as follows, with the full demand contemplated by the Settlement Officers :—

				Estimated.	Demanded of 1908-09
				Rs.	Rs.
Fixed	...	...	...	9,61,818	9,53,149
Fluctuating	...	...	...	—	12,473
Owner's rates	...	...	...	1,17,179	1,67,979
Total				10,78,997	11,33,601

Of this demand Rs. 25,039 was due to muafidars, zaildars and ala-lambardars and the balance to Government.

Distributed over the tahsils as they now stand, the demand of land revenue, apart from owner's rates, was as follows:—

				Rohtak.	Jhajjar	Gohana.	Total.
				Rs.	Rs.	Rs.	Rs.
Fixed	...	...	2,76,503	3,88,802	2,87,844	9,53,149	
Fluctuating	...	...	—	12,473	—	12,473	
Total				2,76,503	4,01,275	2,87,844	9,65,622

From this comparative statement owner's rates have been excluded for the reason that, as will appear later, they are now merged in the consolidated occupier's rate, and have disappeared from the land revenue balance sheet.

11. Such is the history of the demand of the late settlement. Collections tell another tale. It was to be expected that given decent years the collection of the expired demand. the assessment of 1879, which was by no means heavy, except in individual cases where as shown above relief was subsequently granted, would be regularly recovered, and in fact with the exception of the famine year of 1883-84 when considerable relief was given, there was at first but very rarely any need for suspension of the demand. With 1895-96, however, began a cycle of lean years, liberally interspersed with famines, and hut rarely punctuated with good harvests, and during this period Rs. 33,33,000 have been suspended, the equivalent of nearly 3½ years' demand of the whole district. Of this sum nearly half, or Rs. 16,33,000 has been remitted from time to time, the last remission being one of nearly two lakhs of rupees which was granted on the introduction of the new settlement in the *kharif* of 1909. On the other hand, Rs. 14,55,000 have been recovered, so that the arrear balance of the old settlement now amounts to only Rs. 2,45,000. These figures may seem to be alarming, and to point to the necessity of a reduction rather than an enhancement of the land revenue. But it must be remembered that the cycle of years in which these suspensions and remissions occurred was an extraordinarily dry one, and the most significant feature of their revenue history is the facility with which the recoveries were made in the few decent years that occurred in the period. Suspensions and remissions will always be needed in the Rohtak district under a fixed system of collections. It cannot be too strongly emphasised that there is no demand, however low, which could be collected in every year, and the only way to protect the interest of Government and the people alike is to impose a full fair demand, which is made elastic by a liberal use of suspensions and remissions. Prompt and generous advances will be needed in the future as in the past on the close of every famine.

Rohtak, paragraph 9. and statement XVI.
Gohana, paragraph 12 and statement XVI.
Jhajjar, paragraph 17 and statement XVI.
Sampla, paragraph 10 and statement XVI.

The revenue history of the different parts of the district is shown in the marginally noted paragraphs and statements of the assessment reports.

CHAPTER III.—RE-ASSESSMENT.

PART A.—GENERAL ORDERS.

12. The present settlement was undertaken for the double purpose of effecting a thorough revision of the record, including the maps, and for securing to Government the increase in revenue to which it "as entitled on account, principally, of the extension of canal irrigation and the rise in prices which had taken place since the imposition of the expiring demand in 1879. It was also contemplated by the Settlement Commissioner in his note on the forecast report that the possibility of introducing *killabandi* in the canal irrigated area should be considered. Consideration of this matter at once showed its impracticability in the present state of feeling of the people, and the idea was abandoned.

13. The classification of soils (other than banjar, etc., defined by rules) to be adopted in the present settlement was determined by the Settlement Commissioner's letters Nos. 628, dated 19th February, and 1016, dated 22nd March, 1906. They were as follows :—

Nahri.—Land which was irrigated by canal flow in two or more years during the quinquennium 1901-02 to 1905-06, and for which permanent means of irrigation still exist : also land irrigated by flow as of right during the year of survey, for whose irrigation permanent means exist.

Nahri dal.—Land similarly irrigated by canal lift.

Chahi.—Land similarly irrigated from a well, differentiated as *pukhtah* and *kham* according to the nature of the well.

Dahri.—Land which receives water from adjacent land of higher level even in a year of ordinary rains or that which is inundated by the overflow of the Sabi and Indori streams.

Dahri dhenkli.—*similar* land irrigated by a bucket lift. *Barani*.—All other cultivated land except *bhur*.

Bhur barani or bhur.—Sand and sandhills.

The *nahri dal* area of the district is very small (4,167 acres only). The definition of *dahri dhenkli* has been of little practical use. the abandonment of the old subdivisions of *barani* into *gora*, *rausli*, *matidr*, and *dakar*, has been seldom regretted, though in distributing the revenue over holdings in some villages of the Jhajjar tahsil the want of two grades of 'barani' was felt. *Bhir* is the most difficult soil to deal with, ranging as it does from hills, which might well be the exemplar that pointed the proverb of "Ploughing the sands," to soil which grows decent barley and gram. In paragraph 6 of the Jhajjar assessment report some suggestions on this point will be found for another generation of settlement officers.

14. The assessment circles of Messrs. Purser and Fanshawe's settlements required modification owing to the changes that had occurred since in the canal system.

In that settlement the Gohana tahsil had been divided into four circles, running from west to east as follows :- Western Rainland circle, Central Canal circle, Eastern Rainland circle, Eastern Canal circle. In the Sampla tahsil there was the Canal circle in the north and the Dahri circle in the south-east, while the whole of the rest fell in the Rainland circle. In Rohtak there were six circles. The Canal circle lay round the old canal and ran from the north of the tahsil to Rohtak itself. The east and south of the tahsil comprised the Eastern Rainland circle, and the Rajput villages of the south and west formed the Rajputana circle. In the west was a small circle of eight villages on the Hissar border called the Western Rainland circle: the centre and north-west was divided into the northern and central rainland circles, which were considered to differ somewhat in the quality of their soil. In Jhajjar the south-east naturally formed a Dahri circle, the sandy lands were divided into the Bhur Chahat Pukhtah and Bhur Chahat Pukhtas, according to the predominant construction of the wells. The firm lands of the north formed the Rausli Barani circle, and the rather lighter well villages of the centre of the tahsil the Rausli Chahi.

Orders on assessment circles for the new settlement were passed in the Settlement Commissioner's letter No. 5347, dated 3rd December 1906. It was found possible in Gohana to reduce the circles to two, the Western Barani circle re-appearing as the Western circle and the other three being grouped together under the name of the Eastern circle: the only village with no canal irrigation being Nizampur in the western circle. In Jhajjar, too, no change was made beyond the amalgamation of the two Bhur circles into one. In Simpla the Dahri circle was retained intact. The Nahri circle shown of three outlying villages (Bahadurgarh, Parnala and Hasanpur) which now get little or no canal water, re-appeared as the Natri I circle. The Barani circle was broken into two owing to the extensions of the canal. The former of them called the Nahri II circle, absorbed the three villages mentioned above and the newly irrigated villages of the Barani circle; the latter retained the old name of the Barani circle.

It was in Rohtak tahsil that the greatest changes were necessary, owing to the extension of irrigation in the Eastern rainland, Central rainland and Northern rainland circles. It was originally decided to group the whole of the two latter circles (which contain only two unirrigated villages) and the newly irrigated estates of the Eastern circle with the old Nahri circle. Later however it was found advisable to keep them distinct and sanction to this course was taken in submitting the assessment report of this tahsil. The Nahri I circle was therefore the old Nahri circle; the Nahri II circle consisted of Mr. Fanshawe's Northern and Central and part of the Eastern rainland circles, the remainder being retained as the Eastern circle. Two irrigated villages (Bhali Anandpur and Munidpur Tekna) which geographically and ethnographically had no place in the Rajputs circle were also included in the Nahri II circle. Otherwise the Rajputs circle was left alone and the Western Barani circle re-appeared as the Western circle.

15. Owing to the reduction of the Sampla tahsil it has become necessary to make further changes. The new tahsil boundary runs across the Nahri II circle of Sampla, the Nahri II and Eastern circles of Rohtak, and leaves in Rohtak one village (Bhainsru Kalan) of the Sampla Barani circle, the rest of which was absorbed in the Jhajjar tahsil. The latter tahsil and Rohtak, too, became possessed of an inconvenient number of circles, and the two northern tahsils had several pairs of circles of the same name. It was therefore necessary to amalgamate some circles where a similarity of rates permitted, and to change their names where necessary. After unofficial consultation with the Settlement Commissioner this has been done as follows :—

Tahsil	New circles	Assessment report circles.
Gohana	Eastern nahri	Eastern Gobana.
	Western nahri	Western Gohana.
	Southern nahri	26 villages of Nahri II, Rohtak.
	Mehm	Western Rohtak.
Rohtak	Nahri I	Nahri I, Sampla.
	Nahri II	Nahri I, Rohtak, 32 villages of Nahri II Sampla and I village of Barani Sampla.
	Nabri III	21 villages of Nahri II Rohtak.
	Rajputs	Rajputs Rohtak.
	Barani	14 villages of Eastern Rohtak.
Jhajjar	Nahri	20 villages of Nahri II Sampla and 38 villages of Barani Sampla.
	Rausli Chahi	Rausli Chahi Jhajjar.
	Barani	Rauflli Barani Jhajjar, and 14 villages of Eastern Rohtak
	Bhur	Bhur Jhajjar.
	Northern Dahri	Dahri Sampla.
	Southern Dahri	Dahri Jhajjar

In appendix A is a fuller statement giving the names of the villages transferred from one circle to another.

PART B.—STATISTICAL AND ECONOMICAL EXAMINATION OF
PRESENT CONDITIONS.

16. The population of the district is almost entirely rural, Rohtak, Jhajjar, Gohana, Mehm and Bahadurgarh being the only towns of considerable size. The enumerations of which we have record give the following as the total population at different times of the tahsils as they now stand :—

	Settlement	Census	Census	Census
		1879	1881	1891	1901
Rohtak	188,257	187,366	199,133	216,832
Gohana	165,174	175,386	189,815	203,810
Jhajjar	199,995	188,361	201,668	210,003
District	553,426	551,113	590,611	630,645

Everywhere there has been a steady increase except for the two years following the last settlement in the Jhajjar tahsil, where there was a large mortality from malaria, Rince last census, however, plague has played havoc in many villages of the two northern tahsils, Jhajjar having escaped much more lightly, and it is very doubtful if the Census of 1911 will show any increase in population. It is a common complaint that it is the ranks of the child-getters and child-bearers which have suffered most from this scourge.

The incidence of population to the total and the cultivated square mile taking the Census of 1901 and the areas of the new settlement is—

	Total	Cultivated.
Rohtak	422	502
Gohana	363	433
Jhajjar	288	348
District	357	419

The incidence is heaviest in the Nahri I circle of Rohtak and the Eastern Nahri circle of Gohana where it amounts to 628 and 553, respectively, per square mile of cultivation, and lightest in the Mehm circle of Gohana and the Bhur circle of Jhajjar where it is only 296 and 274.

17. Of the owners of the soil about 60 per cent are Jats and, with the exception of five or six small villages, they are all Hindu. Muhammadan Rajputs, or Ranghars, own 7 per cent and their Hindu brothers about 4½ per cent., Brahmans own 6½ per cent., Ahirs 2½, Baniyas and Pathans about two each. The remaining 15½ is held by miscellaneous tribes, Government, District Board, etc.

The strong hold of the Ranghars is in the Rajputs circle of Rohtak, though they own several villages in Gohana as well as part of the town of Gohana itself. Hindu Rajputs are found side by side with the Muhammadans in, the Rajputs circle and also in the Southern Dahri Circle of Jhajjar. Brahmans own several separate estates in different parts of the district, and are to be found in small numbers in most villages. Jhajjar, Mehm and Rohtak towns account for most of the Sheikhs of the district, and the neighbourhood of Rohtak for the Kaisths. The Pathans are in force in a number of villages round Guriani in Jhajjar, and are to be found in Gohana and its suburbs and in Rohtak. Jawara in Gohana is the only Ror village, and Dogars exist in Para, a suburb of Rohtak. Bahaadurgarh and Bilochpurah furnish Biloches, and the village or Kanwah in Jhajjar Fakirs. There are several Gujar estates in Jhajjar and one in the Rajputs circle of Rohtak. The Ahirs are mostly in the Bhur circle of Jhajjar and practically entirely confined to that tahsil whose dialect is largely Ahirvati. George Thomas' cantonment of Jahazgarh (Georgegarh) is partly owned by Beldars, who desire to prove a Rajput origin.

The average holding of the district contains 12 acres of which 10 are cultivated. The average area per shareholder is 10 acres of which 8 acres are cultivated. The average recorded size of the *khud-kasht* holding is five acres. Almost two-thirds of the total cultivated area is in fact *khud-kasht*, and of the tenants many are in the position of the villagers who subsisted by taking in each other's washing. There is no real tenant class. Owners who exchange plots for temporary convenience in cultivation, and men who take a little rent free land from their fathers or uncles are all recorded as tenants. Five acres is accordingly rather an under-estimate of the *khud-kasht* holding. Figures by circles will be found in the several assessment reports: they naturally follow closely the same ratios as are found in the incidence of total population. The estates may be classified as follows :—

Tahsil.	Zamindari		Pattidari		Mixed	Bhaiachara		Total
	Single	Communal	Perfect	Imperfect	Pattidari and Bhaiachara	Perfect	Imperfect	
Robtak ...	1	...	3	2	20	1	106	133
Gohana ...	1	...	23	...	11	1	87	123
Jhajjar ...	2	4	56	1	27	...	186	276
District ...	4	4	82	3	58	2	379	532

18. The adequacy of the supply of cattle is of such prime importance to the agriculture of the district that it has seemed worth while to retabulate the figures given in the assessment reports on the new tahsil basis and to add the results of the cattle census of 1909. The number of horned cattle of all ages in the district at the time of Messrs. Purser's and Fanshawe's Settlement in 1879 appears to have been 4,33,046. The subsequent variations are very significant.

	Rohtak	Gohana	Jhajjar	Total	Rohtak	Gohana	Jhajjar	Total	Rohtak	Gohana	Jhajjar	Total
Bulls and bullocks	39,448	36,327	49,585	125,360	25,501	28,344	33,954	87,799	30,003	28,705	36,411	95,119
Cows	37,992	34,662	61,057	133,711	17,077	16,364	30,301	63,742	22,620	19,831	47,967	90,418
Male-buffaloes	708	836	1,107	2,651	285	581	404	1,270	290	350	320	960
Cow-buffaloes	19,364	26,268	17,451	63,083	16,147	22,797	14,904	53,848	18,495	23,346	15,252	57,093
Young stock	44,556	47,596	60,095	152,247	35,948	37,754	52,964	126,666	41,703	39,378	59,850	140,931
Total	142,0681	145,689	189,295	477,052	94,958	105,840	132,527	333,325	113,111	111,610	159,800	384,521

Up to 1895 agricultural conditions had been good and there was an increase in stock, which was apparently spread throughout the district. With that year set in the dry cycle, and by 1904 stock had diminished 30 per cent. In the dry parts of the district it is a common practice to sell cattle at the spring Jahazgarh fair and buy again at the autumn fair, but here the decline was not confined to the *barani* villages. There was a very marked drop in the best irrigated parts of the district. The buffalo figures too are an important index, for the buffalo is the Jat's stand-by, and almost the last thing to be sold, yet these too decreased by nearly 15 per cent.

Recovery could not be expected until the turn of the tide in 1908-09, but it is gratifying to see that it is marked in each tahsil and in every class of stock except male buffaloes, which for some reason are still on the downward grade. There are sufficient bulls and apparently male buffaloes include the *тели's* and the *bhisti's* emasculated cattle. The total increase in all horned cattle already exceeds 15 per cent. It is hardly to be expected that the figures of 1904 will again be reached. They were probably above the wants of the district and above its present capacity. There is very little uncultivated land and the cattle now have to be chiefly stall-fed. It is noticeable in this connexion that one of the most closely cultivated and best irrigated circles, the Gohana Eastern Nahri, at present shows no recovery in bullocks or buffaloes.

Much the same table is told by the following figures of other livestock :—

	1895				1904				1909			
	Rohiak	Gohana	Jhajjar	Total	Rohiak	Gohana	Jhajjar	Total	Rohiak	Gohana	Jhajjar	Total
Sheep and goats	21,888	19,988	23,484	65,360	41,001	41,428	47,780	130,209	39,814	42,738	38,881	121,433
Horses	2,621	2,791	2,478	7,890	1,124	1,054	981	3,159	1,297	1,439	1,021	3,757
Mules and donkeys	5,259	5,375	5,899	16,533	3,264	3,329	3,845	10,438	4,787	4,105	4,805	13,697
Camels	681	661	1,629	2,971	465	462	1,435	2,362	339	593	1,487	2,419

Sheep and goats which totalled 47,103 at settlement and 65,360 in 1895 doubled the latter figure in the following five years. They are largely kept by menials who, when times are hard and there is little crop to divide, recoup themselves by keeping these animals for the butchers on the *batai* system, the milk and half the kids born being their perquisite. Even Jats undertake this trade occasionally in hard times, or like their Muhammadan brethren keep a goat, when they cannot afford a cow. The fact that the numbers had again decreased by more than 7 per cent, in 1909 is, therefore, a healthy sign. Horses and ponies are a luxury and that luxury was cut down by more than a half between 1895 and 1904. By 1909 six hundred more zamindars found themselves able to indulge in a mount. Even camels, which are of little importance in this district and the potter's donkey have begun to recover the ground lost, between 1895 and 1904.

The cost of cattle is constantly increasing and with the decrease of *jungle* their keep becomes more and more expensive. A workable young bullock costs anything from Rs. 40 to Rs. 100; an ordinary buffalo Rs. 70 to Rs. 100, while Rs. 200 and even more is sometimes paid. A cow fetches Rs. 25 to Rs. 35 or even more.

19. In paragraph 98 of his settlement report, Mr. Fanshawe shows that, so far as Cultivated areas as different periods. could be ascertained, the cultivated area of the district in 1862 (including revenue-free land) was about 687,800 acres, of which 61,400 were irrigated from the canal and 16,400 from wells.

The final figures of 1879 and those of the present settlement are as follows. The latter are taken from the detailed village assessment statements which as much as any other represent the facts of one and the same moment :—

				1879	1909
Nahri	...	...	...	96,521	179,556
Chahi	...	...	...	23,230	35,250
Dahri	...	...	...	12,989	8,573
Barani	...	...	...	665,797	625,231
Bhur	...	...	...	107,814	115,054
Total cultivated				906,351	963,664
Culturable				178,896	111,247

The distribution of the present areas by tahsils is—

	Rohtak	Gohana	Jhajjar.
Nabri	67,560	103,244	8,752
Chihi	710	573	33,967
Dahri and dahri dhenkli ...	35	—	8,538
Barani	196,961	186,670	241,600
Bhur	11,426	10,319	93,309
Total cultivated	276,692	300,806	386,166
Culturable	28,382	31,318	51,547

The total increase of cultivation since 1879 is one of 6 per cent. Much more important is the increase in the irrigated area which is nominally one of 86 per cent. on the canal and 52 per cent on the wells. The result is illusory as the figures of last settlement are probably based on the cultivation of a particular year while the present soil definitions give a much larger irrigated area than could be sown in anyone year. The annual area actually irrigated on both canals and wells on the average of seven selected years is, however, 158,877 acres, and this points to a genuine increase in the protected area of the district of at least 33 per cent.

20. In a tract of such uncertain rainfall as Rohtak the matured area of crops is subject to violent fluctuations. Compare the cropping of the following periods :—

Period	Average rainfall of period (sadr gauga).	Matured area in even hundreds of acres.								
		Khariaf			Rabi			Total		
		irrigated	Unirrigated	Total	irrigated	Unirrigated	Total	irrigated	Unirrigated	Total
Average of 10 years 1885-86 to 1894-95,	25.94*	31,900	521,000	552,900	45,100	299,800	344,900	77,000	820,800	897,800
Average of 12 years 1895-96 to 1906-07.	14.84	67,100	394,000	461,100	90,700	92,900	183,600	157,800	486,900	644,700
Average of whole 22 years.	19.64	51,100	451,700	502,800	70,000	186,900	256,900	121,100	638,600	759,700

To some extent the figures of the earlier decade no doubt reflect a poor understanding of the *kharaba* rules, but the main difference is a real one due to rainfall. In selecting years on which to base the produce estimate it was decided not to go behind the year 1894-95 in which the extensions of the canal took place involving great changes in the choice of crops grown, and in the proportion of irrigated and unirrigated sowings. Attention was confined to the period beginning with 1898-99, and the famine years of 1899-1900 and 1905-06 were omitted. The character of the seven years selected (1898-99, 1900-01-1904-05 and 1906-07) may be read in the several assessment reports. On the whole they were probably rather below than above the average. The total figures for the period irrespective of irrigation, however, compare fairly closely with those of the 22-years' average given above.

Rainfall (Sadr gauga).		Matured Area								
		Khariaf			Rabi			Total		
		irrigated	Unirrigated	Total	irrigated	Unirrigated	Total	irrigated	Unirrigated	Total
Average of seven selected years.	16.59	69,600	470,800	540,400	83,300	128,000	211,300	152,900	598,800	751,700

Of the irrigated area of the seven selected years some 500 acres in the kharif and 20,000 in the rabi represents the well irrigation of the Jhajjar tahsil. Practically the whole of the remainder is canal irrigation.

It is these fluctuations of the matured area that dominate the assessment problem—so far as there is any problem in Rohtak. It has been recognised for the past thirty years and is still true to-day that the only system of fixed assessment which is fair alike to the people and to Government is one under which the demand is pitched at a figure that can

- Excluding 1885-86 for which there is no record.

easily be paid in good seasons, while relief is afforded liberally and promptly when the rainfall is insufficient. The only alternative to this is a fluctuating assessment which is neither desired by the people or required in the interests of the State.

21. In paragraph 79 of his settlement report Mr. Fanshawe gives a table of the area. occupied by different crops. He did not consider it correct in all particulars, and it is apparently the record of a particular year's sowings. Our records now show the area of each staple sown, matured and failed, but when the settlement began the old procedure was still current by which matured crops alone were classified by their kinds and failed crops were lumped together in one column. The figures which I compare with Mr. Fanshawe's are the averages of the seven years 1898-99, 1900-01-1904-05, 1906-07 which were selected as together representative of *normal* conditions.

		Last Settlement		Now	
		Crop.	Area.	Area.	Crop.
Autumn Crops	{	Great millet (Jowar)	371,826	345,411	Jowar
	|	Balrush millet (Bajra)	260,793	210,904	Bajra
	|	Mung	1,421	14,339	Mung
	|	Moth	10,278	3,744	Moth
	|	Mash	691	986	Mash
	|	Gowar	12,099	35,474	Gowar
	|	Sugarcane	14,908	22,324	Sugarcane
	|	Cotton	44,126	56,433	Cotton
	|	Indigo	1,387	2,571	Indigo
	|	Rice	4,327	453	Rice
				39,627	Fodder
				7,707	Others
				539,973	Total crops matured
				205,306	Failed
Total		7,21,856	745,279	Total crops sown	

		Last Settlement		Now	
		Crop.	Area.	Area.	Crop.
Spring Crops	{	Wheat	36,175	54,223	Wheat
	|	Barlay	20,280	28,053	Barley
	|	Gram	107,418	101,454	Gram
	|	Gochni	17,318	13,094	Gochni
	|	Tobacoo	170	310	Tabacoo
	|	Saraon	1,473	8,139	Sarson and Taramira
	|	Vegitables	645	1,424	Fruits, Vegetables and roots.
				1,681	Fooder
Mixed barley and wheat		661	2,896	211,274	Other rabi crops
				49,903	Total crops matured
					Failed
Total		184,889	261,177	Total crops sown	
Other crops, harvest unspecified		2,243	751,247	Total matured year	
				255,209	Failed
Grand Total		908,988	1,006,456	Total sown of year	

The figures show an increase in sowings of 10.7 as compared with an increase of 6 per cent. in the total cultivated area. Mr. Fanshawe, however, considered his figures below the mark, and a comparison of seven years' average, even if the result is a reliable and normal one, is not of great value with the results of a single year. It is natural enough that the increase of crops should be greater than that of cultivated area owing to the extension of irrigation. Marked increases are shown in cotton, cane and wheat, the growth

of these valuable staples being even greater than appears from the figures, as those of last settlement include and the present exclude the failed areas. This is purely due to the extension of irrigation. Rice is disappearing with the disappearance of the unhealthy swamps and excessive irrigation by the aid of which it was formerly grown. Indigo is shown to be more extensively grown than at last settlement, but this too is really a vanishing crop. Its price has always fluctuated wildly and the adoption of the synthetic dye has made its culture a more precarious speculation than ever. It is grown for seed only, though latterly it is said to have been tested as a fodder crop. Gowar too is grown as a fodder crop, being little if ever used for human consumption. The decrease in millets is probably exaggerated by the figures, though to some extent they have no doubt made way for irrigated crops. A portion of the crops now recorded as fodder, and the greater part of the kharif failed crops must be credited to their present account. It is noteworthy that in the selected years more than one-fourth of the crops of the district were recorded as failed.

22. Cane, cotton and wheat are of course the chief irrigated crops. With the exception of an occasional acre on the wells or floods of the *dahri* tracts cane is entirely a canal crop. Wheat is mainly a canal crop, though a little is grown on the Jhajjar wells, and after the subsidence of the floods when it is usually irrigated by bucket lifts. If grown *briani* it is so generally in the form of *gochni*, so that if the wheat fails the gram may spread and take its place. Neatly half the barley of the district is found on the Jhajjar wells of which it is the crop par excellence. As a *barani* crop it is preferred to wheat, withstanding drought better and needing less tilth, but like it is often mixed with gram when it is known as *bejhar*. The pulses are usually sown mixed with millets, mung and mash with jowar, and moth in lighter soil with bajra. Gowar is mixed with both. Pulses generally are known as masina or "mixtures" and when themselves fixed together as they often are in Jhajjar, as *dhangrala-in* which form they are usually sold to the *baniya*, and by him as *moth*, the pure crop being called *gori moth*. Cotton is primarily a canal crop, but in a year of good early rainfall a considerable quantity is grown *barani* in the stiffer soils of the northern part of the district where as in 1909 it sometimes answers better than the canal-sown crop.

23. Cane is grown in soil most carefully prepared and heavily manured. The ideal of ploughing is expressed in the proverb: *Nau bar ganda, das bar manda*, "Nine ploughings for cane and ten for wheat." After the plough follows the clod-crusher. The allowance of manure is from 10 to 30 cart-loads an acre. A week after sowing the soil is broken up by hand, before the cane has sprouted; -this is known as *andhi kodha* and after it has sprouted the motiya grass and other weeds need constant removal, involving in good tilth 10 or 15 weedings, though it often does not get so much. The clod-crusher follows the weedings until the crop is about two feet high. Sown on a *pahlewar* it needs three more waterings before the rains break, when, if the monsoon is full, it will not be watered again until the end of August: two more waterings are given after that if possible, and if the monsoon is poor it must have water in Bhadon to succeed.

It follows from the preparation the soil requires, the time the crop occupies, and the demands it makes upon the strength of the soil, that it is usually followed and often preceded by a fallow (as the crop is counted as a kharif crop there is always a paper fallow in the rabi, whatever happens); the most approved rotation is to give two follows after cane and then sow wheat, but there are villages where cane follows cane as soon as it is off the ground with no real fallow, for several years—a practice not to be commended.

Cotton is a crop which involves far less labour : two or three ploughings suffice, even when the land is *thapar*, that is, consolidated by having last borne a *kharif* crop or an irrigated *rabi* crop; but if that crop has been cane, the presence of manure in the soil reduces the number of ploughings. If the soil is *umra*, that is, loose from having borne an unirrigated *rabi* crop, especially gram, one or at most two preliminary ploughings suffice. Irrigated cotton is sown after a *pahlewar* from Chet to Jeth. It needs the *kor* in Har, another watering in Sawan, and a third in Bhadon. By far the most important is the *dusarpani* of Sawan, and if rain does not fall at that period and the canal supply, as not

infrequently happens towards the tails, is short, it goes ill with the crop. Rain in Asoj spoils the crop, and water after Bhadon makes wood not cotton, but it is a common practice when the cotton is beginning to be picked to put on water and sow *methi* broadcast: a tenant will pay the land revenue of the field for the year for this privilege, and in the same way a man will give his field free of rent for gram to be sown in order to render the soil *umra* and more fit to bear the cotton crop. Cotton requires three or four weedings.* It will often receive a little manure, even when sown barani. The seed, which is sown broadcast, is first mixed with animal manure to start germination. Like sugarcane the crop needs rain and artificial flooding is not enough to ensure a return. In *barani* lands cotton will often be followed by gram: on the canal by *methi*, masur or even wheat. It is no uncommon sight to see *methi* and *masur* growing up before the bolls are all picked and the cultivator of the former may be different from the owner of the cotton crop. More often however the ground is allowed a fallow or given two fallows and then sown with wheat.

Wheat itself, as noted above, needs a deal or preparation of the soil +, but thereafter its cultivation is easy. It is seldom weeded, never more than once. The chief weed is *batua* and as that is picked for *sag* the weeding that it gets involves no extra labour. Sown on a palewar in Khatak or Maghair, it gets the kor in Maghair ‡ or Poh and *dusra* pani in *Magh*. Once in ear it needs no more water, but generally a third watering in Phagan is required before the ear forms. Wheat is most commonly followed immediately by cotton. It is doubtful if the sequence is a good one, but the demands on the irrigated soil leave no alternative.

On the wells both wheat and barley are preferably sown without a preliminary watering; the more brackish the well the more essential is it that the crop should germinate on the moisture of the rains, and be later refreshed by timely winter rains. Barley takes less water, ripens earlier, and is more immune from damage by the scorching winds of March. It dislikes brackish water too less than wheat and hence its preponderance is most marked in the Bhur circle. Wheat requires 4 or 5 waterings after germination if it has to depend entirely on the well, and barley 3 or 4, the daily capacity of a bucket being from ¼ to ½ an acre. The tilth is careful except where the crop is committed to the mercy of Rajputs or Pathans, and the soil is usually heavily manured, in the case of wheat always so: authorities differ as to the value of manure for barley on brackish wells. Once the crop has germinated there is little labour beyond that involved in irrigation, for weeding is little done. The *batua* is indeed gleaned for the pot, but the *Khartua* and *piazza* are as often left as removed. In most well villages outside the Dahri circles the water runnels require, owing to the lightness of the soil, to be puddled with clay each time they are used, which is a tiresome addition to the labour of the well.

The *barani* cultivation is very simple, the stiffer lands going under jowar with its mixtures or cotton, and the lighter under *bajra* and its mixtures. Both millets are usually sown with the drill, though on uneven sandy land *bajara* is sometimes thrown broadcast. The good husbandman ploughs all land not under gram in the winter, as next year's millets are improved if the land is turned when cool. In *barani* villages *bajra* like cotton will often get a little manure, though there is the danger of the crop being burned by this if the rainfall is scanty. *Jowar* is an exhausting crop and generally demands a following fallow though gram and even gochni will occasionally be sown after it if conditions are favorable. *Bajra* is followed by gram whenever the monsoon conditions permit, but this means scant ploughing and is the reason why so much of the gram of the district is a ragged crop and the normal outturn is low. The best gram is that grown *bhadwar*, that is, on a fallow when the soil has been ploughed in Bhadon. It is a delicate and uncertain crop. It has great power to resist drought, but will finally succumb with a rush: it is

* *Nauldi nah kari dopatti, kya, chugegi kupatt?*

If you don't weed it when two leaves high. what will the shrew pick?

** *Gehun khaina chhaihai tha, sadh men, kyon nah baha tha?*

If you wanted to eat wheat why did not you plough in Har ?

‡ *Maghsar men nah diya kor, kiya tere baldan legaya chor ?*

Not given the kor in Maghair, what had a thief stolen your bullocks ?

easily nipped by frost or burned up by cold winds. It is dear to all the burrowing and nibbling orders of creation. In 1909 it fell a prey to grasshoppers and in 1910 to field-mice.

Like gram, *sarson*, to do well, should be sown *bhadwar* and the difference between the crop so grown and that grown as a second crop is very noticeable. Of fibres *sani* (*croton juncea*) is usually grown wet or dry in small separate plots and *san* or *patsan* (*hibiscus cannabinus*) around the edges of sugarcane fields. Til is grown amongst cotton, irrigated or not, as the case may be.

The precariousness of the rainfall usually ensures ample fallows for *barani* crops and this enforced rest is the reason why the yield, when crop there is, is comparatively good.

24. Since the settlement of 1879 an area of 52,596 acres, or 50,490 cultivated, has been sold. Of the latter figure 28,764 acres were classed in the reports as having been sold to members of notified agricultural tribes, and 21,726 as sold to "others." At the time the assessment reports were written and the figures tabulated, the Gaur Brahmans had not been notified as an agricultural tribe, but 4,826 acres were noted as having been sold to genuine agriculturists who not being notified were classed as "others." Distributed by tahsils the figures are as follows:—

	To notified Agricultural tribes	To others	Total	Per cent. of cultivated area
Rohtak ...	7,494	7,708	15,202	5.5
Gohana ...	4,668	4,407	9,075	3.0
Jhajjar ...	16,602	9,611	26,213	6.8
District ...	28,764	21,726	50,490	5.2

These figures are obviously not alarming, and when analysed they are reassuring. More than half the sales are to members of notified agricultural tribes, generally indeed to members of the village to which the vendor belongs. With the exception of some sales which were due to the famine of 1877-78 when the revenue was collected in full despite the urgent need of relief, very few transactions indeed can be attributed to the pressure of the Government demand. Indeed these transactions do not belong to the settlement of 1879 at all, but having in many cases come on the records after 1879 are debited to its account. The cause of almost every sale was traced at village inspections and for the rest they were found to be due to undue expenditure or special and unavoidable calamities. An expensive marriage, the extravagance of a childless owner, the death of the bread-winner and the survival of a family too young to work, association with idle *fakirs*, the loss of cattle, the sale of land by an outsider who has been allowed to inherit in the female line, these are among the principal causes of sales. That sales are heaviest in Jhajjar is due, no doubt, to the fact that there are fewer savings there on which to fall back, and that less money can be raised on mortgage owing to the comparative inferiority of the soil.

It will be seen from paragraph 55 of his Settlement Report that these conclusions as regards sales reflect Mr. Fanshawe's experience of 30 years ago. It can hardly be said, however, that the existing burden of mortgage is due in the same degree to special causes. The figures compiled for each tahsil when the several assessment reports were written, and now retabulated on the new basis, are as follows:—

Mortgages with possession	To notified agricultural tribes		To others (including Brahmans).	
	Total	Cultivated	Total	Cultivated
Rohtak ...	28,142	26,562	22,815	22,203
Gohana ...	18,262	17,912	19,999	19,548
Jhajjar ...	29,359	28,172	20,709	19,971
District ...	75,763	72,646	63,523	61,722

Mortgage at the time of last settlement in 1879 seems to have amounted to 51,078 acres and has more than doubled since. The tables of periodical totals appended to the present assessment reports show how great has been the rise since 1895-96, the year that ushered in a long lean cycle in this part of the Province. It cannot be denied that the people have, despite the liberal relief given by Government, had a very hard struggle during this period, and that to this is due much of the present indebtedness. The statements, however, show an improvement. Since the introduction of the Land Alienation Act (XIII of 1900) and the critics who condemn this act and clamour for its repeal will find no support among the peasants of Rohtak who regard it as the most beneficent measure of Government passed within their memories. "If Government had not stepped in," they constantly say, "our whole land would have passed to the banias."

Fortunately considerably more than half the mortgage is *interse*. It is noteworthy that in mortgages the Jhajjar tahsil does not lead in the same degree that it does in sales. Free mortgage and little sale is the sign of a comparatively strong estate: the weaker estates are compelled to sell outright. Indeed in many rich estates mortgage is more a sign of easy credit than of real indebtedness. Figures for circles will be found in the marginally noted paragraphs of the assessment reports.

25. The rise in the value of land, as shown by sales and mortgages, is more than proportionate to the increase of transactions. A reference to the paragraphs quoted above shows that the consideration money has risen in every part of the district from 2 or 3 times the rate of thirty years ago, to 10 or 12 times or even more. Probably the selling value of unirrigated land at the present moment ranges from Rs. 35 to Rs. 70 an acre, and well commanded canal land is worth 2 to 4 times as much again.

26. Apart from the land on which alone the land revenue demand is based, the people have a large miscellaneous income. Its main sources are from cattle and from service. In paragraph 16 of the Sampla Assessment Report a calculation was made that an annual average profit of Rs. 45-8-0 could be made from the sale of ghi per head of buffalo in the district, though in fact many buffaloes are of course kept only for home use. The question of the profits of stock keeping in the Province is about to be investigated carefully, and undue stress should not be laid on the estimate of seven and three-quarter lakhs of rupees as the annual profit derived by the zamindars of Rohtak from the produce and sale of their stock. Surer ground is touched in calculating the pay and pension of Government employees who are for the most part soldiers. The income from this source is not less than sixteen-and-a-quarter lakhs of rupees. It is enjoyed chiefly in the rainland tracts of the district, the demand for labour and the certain return of agriculture being too great in the old canal circles to afford any incentive to military service. In the Rajputs circle of Rohtak alone, where some big villages can turn out a regiment of 600 or 700 soldiers, there is an income of Ra. 4,62,000 from this source. Other miscellaneous income from hearth fees, sale of grass and timber, royalties on *kankar*, etc., may be put at a lakh and ten thousand rupees.

27. Statements No. X attached to the Rohtak and Gohana tahsils Assessment Reports, and No. XI for Sampla and Jhajjar, show by soils the areas found under cash rents, and under each rate of *batai*. Taken by the tahsils as they were the totals are as follows, excluding cash rents at revenue rates:—

	Irrigated		Unirrigated		Total	
	Kind rents	Cash rents	Kind rents	Cash rents	Kind rents	Cash rents
Rohtak ...	5,394	7,732	15,329	62,695	20,723	70,427
Gohana ...	12,314	7,184	8,590	21,547	20,904	28,731
Sample ...	7,633	3,309	15,505	19,121	23,138	22,430
Jhajjar ...	3,053	4,735	9,485	55,568	12,538	60,303
Total ...	28,394	22,960	48,909	1,58,931	77,303	1,81,891

There is thus a very considerable area under cash rents throughout the district, more than twice as much as there is under kind rents. In the old Sampla tahsil, however, kind rents predominate, and in irrigated land they are everywhere of importance and especially so in the best irrigated tracts, that is to say, in the Gohana tahsil and the northern parts of Sampla and Rohtak. It is for this reason that especially in the north of the district it was necessary despite the large area under cash rents to frame careful half net asset crop estimates.

28. The marginally noted paragraphs of the assessment reports will show the method in which recorded cash rents were subjected to analysis. This part of the work was perhaps more carefully tackled than any other item in the assessment problem. Rents paid by tenants-at-will other than those at revenue rates, were classified under three heads:—

Analysis of cash rents.
Rohtak, paragraphs 31, 32, 33.
Gohana, paragraphs 32 to 35.
Sampla, paragraphs a2, 33.
Jhajjar, paragraphs 32 to 35.

- (a) paid by mortgagers to mortgagees;
- (b) paid by other tenants to mortgagees;
- (c) paid by other tenants to owners.

Each entry was then scrutinised, and all unusual rents, whether excessive in amount or defective, were analysed. Rents that were clearly concession rents or did not represent the full market value of the land, and rents that appeared to be above the amount that would ordinarily be paid by a free agent, were equally excluded. All rents paid by mortgagers, to mortgagees were excluded as they were found to be complicated by questions of interest, or to be paid under moral compulsion. In certain villages a large number of rents were excluded on the ground that they were, though not concession rents, pitched at customary rather than at economic rates.

The average rent on each class of land in each assessment circle, before and after this analysis, will be found in the marginally noted statements to the assessment reports the latter statement giving in each case the rentals taken as normal, though in the case of the Rohtak Nahri II circle (now Gohana Southern Nahri and Rohtak Nahri III) it was held both by the writer and by the Settlement Commissioner that the resulting rent on irrigated land was still far below an economic rent. The fact is that in the new irrigated circles irrigated land is at present little let on cash rents and an economic rent has still to be evolved. The little land that is so let is usually let at *barani* rates. It is the custom in this district to take an irrigated rent not on land that is commanded, but on land which is actually irrigated in the particular year, the rent really including a charge for the loan of the owner's water in addition, in the case of canal land, to the government water rates which are invariably paid in such cases by the tenant. Where then a tenant put his own water on rented land such rents were excluded. The corollary of this Statement is to be found in the application of the accepted nahri rents to the irrigated area. In estimating the half net assets by cash rents, the irrigated rental was throughout applied not to the recorded *nahri* or *chahi* area but to the average area actually irrigated in the seven years (1898-99, 1900-01—1904-05, 1906-07) on which the calculations of the settlement were based.

The normal rents, which have risen considerably since last settlement and are apparently still rising, vary on canal land (excluding the Southern Nahri Gohana and Rohtak Nahri III circles mentioned above) from Rs. 3-1-9 in the Rajput's circle of Rohtak to Rs. 89-2 per acre in the Nahri I circle of the same tahsil (late Nahri I Sampla). The average of the district is, with the same exception, Rs. 6-14-4.

The well rent, vary from Rs. 5-3-0 in the Bhur circle of Jhajjar to Rs. 7-14-7 in the Northern Dahri circle. The average is Rs. 5-10-6. These rents are all rents for land actually irrigated.

The *barani* rents are naturally much lower. The highest are the Rs. 5-14-0 rents of the Rohtak Nahri I (late Sampla Nahri I) and the lowest are the Rs. 2-2-4 of the Mehm circle of Gohana (late Rohtak Western), while those of the Bhur circle or Jhajjar are hardly higher. The average here is Rs. 3-2-5. The *bhur* rents are naturally lower still, being highest at Rs. 4-8-9 in the Rohtak Nahri I (late Sampla Nahri I) circle and reaching the nadir at Rs. 0-12-11 in the Mehm circle, with an all round average of Rs. 1-9-2. True *dahri* rents are found only in the Southern Dahri circle of Jhajjar where they average Rs. 4-2-11.

As the irrigated rents were applied only to the average area actually irrigated, the difference between this and the recorded irrigated area was for the purposes of this calculation classed as *barani* or in the case of well lands divided between *barani* and *bhur* in the proportion in which these two soils obtained in the whole well area of the circle or village concerned. It would not however have been fair to apply the unirrigated rents to the whole of the unirrigated area plus the excess *nahri* or *chahi* area. It would be a ruinous mistake to suppose that half the recorded rents of a particular year could be applied in every year to the whole cultivated area. Allowance must be made for fallows which in a tract off precarious rainfall like Rohtak often assume large proportions. Even were it the case that the whole of the land was held by cash-paying tenants, it must be remembered that tenants here generally change from year to year and often, twice in the year and that in a season of drought the land goes begging. The calculation of normal fallows was somewhat speculative, but the following allowances were made in the area to which the unirrigated rents were applied:—

			Per cent.
Gohana Eastern Nahri	...	...	5
Gohana Western Nahri	...	...	10
Gohana Southern Nahri	...	...	10
Gohana Mehm circle	...	...	15
Rohtak Nahri I (late Rohtak-Nahri I)	...	...	3
Rohtak Nahri II (late Rohtak-Nahri I)	...	...	7
Rohtak Nahri II (late Sampla-Nahri II)	...	...	5
Rohtak Nahri III (late Rohtak-Nahri II)	...	...	10
Rohtak Rajputs	...	...	15
Rohtak Barani (late Eastern)	...	...	12
Jhajjar Northern Dahri (late Sampla Dahri)	...	...	3
Jhajjar Barani, part transferred from Rohtak	...	...	12
Rest of Jhajjar tahsil	...	...	5

Besides these deductions a rebate of 5 per cent., was made in Gohana and Sampla tahsils to cover the cases where landlords failed to recover the stipulated rent, from tenants who had actually cultivated the land. In the Rohtak tahsil this rebate was allowed for *barani* and *bhur* rents but not in the case of irrigated rents which are always practically assured. In Jhajjar there seemed to be no sufficient ground for making the deduction at all. It is well to remember that while the rent rates of the district are high these liberal deductions were made in supplying them to the recorded cultivated area.

29. In the northern part of the district the almost invariable custom in *batdi* is for the landlord and tenant to share the cost of seed, water rates, and land revenue in the proportion in which they divide the crop. That is to say that if the rate of *batdi* is say one-third, the landlord receives a credit of two-thirds of the land revenue, but has to debited, before we ascertain what he really makes from the crop, with one-third of the cost of seed and water rates. Water rates here mean the sum total of *abiana* and *khush haisiyati*, for the people treated the two charges alike from the first as the total cost of water, a treatment which Government has now recognized by abolishing the water-advantage rate and consolidating the charges as a lump *abiana*. In calculating the value of the seed, the expenditure of which is ascertainable with some accuracy, it was recognized that the zamindar sows in a dearer market than that in which he reaps, and the cost of seed was calculated at 25 per cent, above the commutation prices except in the case of cane which is not purchased from the *baniya* but taken direct from the previous year's crop.

In the south of the district there are a variety of modifications of this system of *batai*, only one or two or still more commonly none of the three items being shared. Where nothing is shared 'except the harvested crop the ordinary Punjab system of *batai* is of course reached and no complication is involved in the hall net assets estimate.

30. The rates of *batai* were worked out to the nearest convenient fraction to the actual average resulting from the multiplication of the various areas by the rate taken on each. In only a few cases was an allowance made for *batai* rents known to be 'consideration' rates. Theoretically *batai* rents ought to be scrutinized with the same care that is expended over cash rents, but in point of fact this was not done. In reality there is. It is believed, less accommodation in kind than in cash rents. Probably, however, the fractions assumed are a shade low on this account. They were as follows.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Crop.	Gohana Eastern Nahri	Gohana Western Nahri	Gohana Southern Nahri & Rohtak Nahri III = Old Rohtak Nahri II	Gohana Meham = Old Rohtak Western	Rohtak Nahri = Old Sampla Nahri I	Old Rohtak Nahri I	Old Sampla Nahri II	Rohtak Rajputs	Rohtak Barani = Old Rohtak Eastern	Jhajjar Baranai=Old Jhajjar Rausli Barani — villages transferred from Rohtak as in last coulmn	Jhajjar Rausli Chahi	Jhajjar Northern Dahri = Old Sampla Dahri	Jhajjar Southern Dahri = Old Jhajjar Dahri	Jhajjar Bhur	Jhajjar Nahri = Old Sampla Barani : Nahri villages as in coulmn 8.
Cane	20/67	10/37	1/3	1/4	1/2	1/2	1/2	1/3	-	-	-	1/3	-	-	1/2
Other Irrigated Crops ...	5/11	10/31	5/12	1/3	1/2	1/2	5/12	5/12	3/5	1/4	1/3	1/3	1/3	1/3	1/3
Barani Crops	5/11	10/31	5/12	1/3	1/2	5/12	5/12	1/3	1/2	2/5	1/3	5/12	1/3	3/6	5/12
Bhur Crops	5/10	10/31	2/5	1/3	1/2	2/5	1/2	1/3	2/5	3/5	1/3	1/2	1/3	1/3	1/3

31. No crop experiments had been conducted in this district since the close of last settlement. They were made throughout this settlement for sugarcane, cotton, indigo,

jowar, bajra, wheat, barley and gram. The results were of doubtful value. One must begin the series of experiments with an assumption as to what is an average crop; at best the only degree of certainty available is that a selected field gives a fair average for the current year, and this clearly is of little value for the earlier assessment reports which are based on the experience of one or two years only. Then again the settlement began in a year of famine when practically the only crops were those on the canal, and the seasons fluctuate so violently that it is exceedingly difficult to strike an average. Subordinate officers too almost always look to the better rather than the worse fields, and their estimates of a normal crop are usually high. Often they do not understand the problem: when a Tahsildar is instructed to make five experiments on wheat, and before going round his tahsil orders his Naib-Tahsildars to make those experiments in five named villages, it is obvious that he approaches the problem under a misunderstanding, and that however carefully his orders are carried out the result will be to give at best the average in five selected villages and not the average of the tahsil or circle. To test the degree of success with which average fields were really selected, a series of maximum experiments was carried out in one year concurrently with the average experiments. It would only surprise a novice to find that the outturns of the bumper fields were usually less than those of the average crops. Such as they are the results of the experiments which were passed by the Settlement Officer have been tabulated and filed, but it may be said once for all that they are of little value for the unstable unirrigated crops.

More stress was laid on the accepted results of last settlement-though these for rainland crops were often too high-on the assumptions made in neighbouring tracts, and above all on the result of constant enquiries made from reliable zamindars which were compared and checked with each other.

The outturns accepted for the main crops (after modification by the Settlement Commission or Financial Commissioner in their reviews of assessment reviews in cases where the Settlement Officer's assumptions were not accepted) are as follows stated in *seers per acre* :—

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Crop.	Gohana Eastern Nahri	Gohana Western Nahri	Rohtak Nahri III & Gohana Southern Nahri = Rohtak Nahri II	Gohana Meham circle = Rohtak Westren	Rohtak Nahri I Sampla Nahri I	Rohtak Nahri II		Rohtak Rajputs	Rohtak Barani = Rohtak Eastern	Jhajjar Baran i= Jhajjar Rausli Barani. Villages transferred from Rohtak as in last coulmn	Jhajjar Rausli Chahi	Jhajjar Northern Dahri = Sampla Dahri	Jhajjar Southern Dahri = Jhajjar Dahri	Jhajjar Bhur	Jhajjar Nahri = Sampla Barani Nahri villages as in coulmn 8.
						Old Rohtak Nahri I	Old Sampla Nahri II								
Sugarcane	1,350	1,350	1,200	900	1,300	1,250	1,250	1,100	—	—	—	900	—	—	—
Cotton, wet	280	280	280	250	300	280	280	280	250	—	200	200	200	200	280
Cotton, dry	145	145	150	100	160	150	160	120	120	150	150	160	150	150	160
Indigo, wet	360	360	—	—	360	360	360	—	—	—	—	—	—	—	—
Jowar, wet	400	400	450	360	400	450	400	450	400	—	400	400	400	400	400
Jowar, Dry		220	B. 250	200	240	B. 250	240	250	250	240	240	200	250	200	240
	270		Bh.160	150	160	Bh.160	160	160	250	160	160	160	160	150	160
Bajra, wet	160	160	250	250	250	250	250	250	250	240	240	240	240	240	250
Bajra, dry	B. 200	180	B. 220	200	200	B. 220	200	200	220	220	220	200	200	180	220
	Bh.135	135	Bh.150	120	180	Bh.150	180	150	150	180	180	180	180	120	180
Moth, dry	225	225	B.180	180	180	B.180	180	—	180	200	200	180	200	180	180
			Bh.140	150	140	Bh.140	140	—	140	140	140	140	140	140	140
Mung, dry	250	250	B. 200	160	200	B. 200	200	200	200	200	200	200	200	180	200
			Bh. 140	120	140	Bh. 140	140	140	140	140	140	140	200	140	140
Mash, dry	250	250	200	160	200	200	200	200	200	200	200	200	200	180	200
Gowar, dry	225	225	B. 200	200	250	200	250	200	200	250	250	250	250	200	250
			Bh. 150	150	150	150	150	150	150	150	150	150	150	150	150
Wheat, wet	580	580	580	480	600	580	580	480	480	580	580	580	580	560	580
Wheat, dry	240	240	280	240	290	280	290	240	250	240	240	300	380	240	290
Barley, wet	500	500	580	580	600	580	600	580	580	600	600	600	600	560	580
Barley, dry	440	440	450	—	450	B. 450	450	400	400	400	400	480	480	400	450
			Bh. 200	—	—	Bh. 250	—	250	250	280	280	—	—	280	—
Gram, dry	280	280	B. 260	250	280	280	280	280	260	280	280	280	280	280	280
			Bh. 220	200	240	240	240	240	220	240	240	240	240	220	240
Gochni, wet	560	560	580	480	580	580	580	480	480	—	580	580	580	—	580
Gochni, dry	280	280	300	280	350	320	350	300	300	320	320	300	380	300	350
Sarson, wet	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240
Sarson, dry	210	210	B. 200	180	200	200	200	200	200	200	200	200	200	200	200
			Bh. 180	—	—	180	—	—	—	—	—	—	—	180	—

*B. Barani

Bh. Bhur

In the light of the further experience that has been gained during the progress of settlement it would be wise to reduce the sugarcane estimate in the Eastern and Western Nahri circles of Gohana from 1,350 to 1,300 *sers*. The dry cotton estimate in the same circles might safely be raised to 150 or 160 *sers*, though cotton is a more difficult crop than any on which to experiment, and very variable in its outturn. For dry jowar 250 *sers* would be a safer estimate than 270 in the Eastern Nahri circle of that tahsil, while in the Western Nahri circle 200 *sers* would probably be safe for *barani bajra*. The autumn pulses in these two circles would probably be better fixed at 200 on *barani* land. Though the estimates are everywhere speculative there is no sufficient reason for further departures from those accepted at assessment. In explanation of the high unirrigated outturns for wheat, barley and *gochni* in the Southern Dahri circle of Jhajjar it must be remembered that much of these crops are grown in naturally flooded land. In reviewing the report of this tahsil the Settlement Commissioner, who reduced the *bajra* estimate in the Bhur circle, expressed an opinion that while the Assumed rates of yield might otherwise be accepted they were certainly full, and in the case of Sampla while not making any modification he was inclined to characterise the rates of outturn assumed as high. The Financial Commissioner, however, held that they were carefully framed and added that “seeing that they are applied in the produce estimate only to the area returned as matured in a series of years below what may reasonably be expected as the normal, I do not myself think they are an overestimate for this tahsil with its unusually fertile level loam “ (Sampla Review, paragraph 2). It must be admitted that they are highly speculative; let them remain for what they are worth. They will not be improved by further manipulation.

32. One of the first tasks under taken in the settlement was the determination of the prices of the principal staples to be adopted as the basis of the half net assets estimate. A careful scrutiny of *baniyas*' books showing the prices at which grain was bought from the zamindars after making certain allowances for carting, &c., was made in a number of villages throughout the district. The transactions examined covered a period of 20 years. The prices which were fixed for the whole district by Settlement Commissioner's letter No. 1121, dated 23rd March 1907, were determined with special reference to the Gohana tahsil where rates ruled rather lower than elsewhere. Subsequent experience has shown that everywhere they were very moderate assumptions.

The principal staples were rated as follows in annas per maund :—

Jowar	...	...	21	Gowar	...	...	20
Bajra	...	...	25	Til	...	...	60
Cotton	...	...	68	Wheat	...	...	32
Indigo	...	...	40	Barley	...	...	21
Cane	...	...	43	Gram	...	...	22
Moth	...	...	23	Gochni	...	...	27
Mung	...	...	30	Sarson	...	...	46
Mash	...	...	30	Cbaulah	...	...	22

The rate for cane is the same as that assumed at last settlement; the price of the unimportant crops—rice and indigo—was greatly lowered, but that of all other crops is higher in more or less degree. After allowing for the relative produce per acre of different crops it was estimated that there was an effective rise in prices of 25.3 per cent. in the Rohtak tahsil as it then stood, of 17 per cent. in Gohana, of 27 per cent. in Jhajjar, and of 21.5 in Sampla. For the district as a whole 25 per cent. is probably an underestimate of the real rise.

33. The ordinary rule of the district is that the tenant is allowed to take no part of the crop until it comes to division except the short stalks round the edge of the field which will yield no heads, while he is of course free to take as much grass as he can find in the field. In the old Gohana tahsil Fodder deductions.

more latitude is allowed and there a liberal deduction was made in the half net assets estimate of a twentieth of the *jowar* and gram, and a fiftieth of the *gowar*, before working out the value of the divisible crop. Elsewhere, as the loss, if any, is trivial, no deductions were allowed on this account. When a fodder crop is grown as such on *barani*, landlord and tenant out according to their several shares, and usually in distinct parts of the field.

34. There is another aspect of the fodder question which is very important in this district. It may be calculated that as a rule the straw of one good year is sufficient for the wants of the village for two years, and in *barani* estates where the proportion of millets grown is greatest, there is a large surplus. Owing to the proximity of the Delhi market where there is a large demand for straw, and prices always rule high, there is at all times a considerable export of fodder from Rohtak which in times of scarcity attains in the case of many villages great proportions. It is commonly argued in assessment reports that no account should be taken of the value of fodder as it is necessary to the support of the cattle on which agriculture is dependent. Even if there were no export this argument is untenable. It might, with equal truth, be applied to food crops, for agriculture is equally dependent on the labour of man who consumes them for his support. A half net assets estimate is a conglomeration of speculative assumptions, and the only value it can possess depends on those assumptions being as closely correlated to the facts as circumstances admit. The value of straws assumed in the different assessment reports of this district were as follows :—

See Assessment Reports—
Rohtak, paragraph 36
Gohana, paragraph 41.
Sampla, paragraph 37.
Jhajjar, paragraph 44

Jowar { Rohtak tahsil, irrigated Rs. 2-8 per acre, umrrigated Rs. 2 to Rs. 2-8.
Gohana }
Sampla } Rs. 2-8 throughout.
Jhajjar }

Bajra, Rs. 1-8 per acre throughout.

Wheat { (Rohtak tahsil, irrigated Rs. 2-8 to Rs. 3 per acre, unirrigated Rs. 1-4 to Rs. 1-8.
Gohana }
Sampla } Irrigated Rs. 3 per acre, unirrigated Rs. 1-8.
Jhajjar }

Barley { Rohtak tahsil, irrigated Rs. 3 to Rs. 3-8 per acre, unirrigated Rs. 1- to Rs. 2-4.
Gohana } Rs. 3 throughout.
Sampla } Irrigated Rs. 3-8 per acre, unirrigated Rs. 2-8.
Jhajjar }

Gram, irrigated Re. 3-8 throughout, unirrigated Rs. 2-8 throughout, except in Western circle of Rohtak (Mehm circle of Gohana) where Rs. 2-4 was taken.

Gochni, irrigated Rs. 3-8 throughout, except in Eastern, Rajputs, and Western circle of Rohtak, where Rs. 3 was taken, unirrigated Rs. 2 throughout.

The straws of other crops (autumn pulses) are negligeable in value and were not estimated.

The sums added to the half net assets estimate on account of the straws were as follows :—

				Rs.
Rohtak	...	...	...	3,23,916
Gohana	...	...	...	2,33,635
Sampla	...	...	...	3,29,183
Jhajjar	...	...	...	3,15,839
Total	...	...	...	12,02,573

35. The menials who receive a part of the crop for the assistance given in agriculture are the *chamar* (cobbler), the *lohar* (blacksmith), and the *khatti* (carpenter). The dues are calculated differently in different villages, either at so many sers per crop, or at so much per plough, or at a definite fraction of the produce of cereals and pulses. They are higher in the irrigated portions of the district where there are heavier crops to be handled and more assistance is required from the menials. For example, in the old Gohana tahsil the *khatti*, and *lohar* are estimated to receive 'from 1 to 1½ per cent. each before division (or according to the commoner practice which comes to the same thing, after division, from landlord and tenant severally); 1¼ per cent. was taken as the average. The *chamar* who does both field and household work generally receives 1/10 and he who does the latter only 1/20 that 5 per cent. was reckoned as the guerdon of the fields. There are minor pickings in addition to these sums; such as six sheaves and a bundle of the crop at harvest to the *chamar*, a few sers of seed at sowing time to the *khatti* who has to repair the plough and drill, and to the *chamar* who reaps, his food and a couple of sheaves a day. These dues are not paid on cane, cotton, fodder crops, indigo, oil seeds, tobacco and the like, and in the south of the district they form a lighter charge on the edible grains than in the north.

Cotton and cane are, however, subject to special charges. When the former crop is heavy, and also in the Rajputs' circle where household assistance is not available, the women of the family are unable to manage the whole picking, and low caste women and girls are employed to assist on the *pui* system. That is to say, they receive 1/10 of their pickings, or when few bolls are left and picking is more laborious an even higher proportion.

For the production of sugar there is first the hire of the press to be paid : this is always an iron mill; but there are a number of firms in the field and their charges differ.

It was calculated in the assessment reports that Rs. 41 was a fair charge for the hire of the press and cauldrons. To this had to be added Rs. 4 for oil as the press works throughout the night. The cost of the 3 glazed kunds into which the juice is first poured and of the *chak* in which it is cooled, amounts to Rs. 2. These charges amount to Rs. 47, but as one press usually serves about 15 acres, have to be applied to that area. There are wages beyond this; the *jokhanala* or stoker receives ½ to ¾ of a *ser* per maund. Sometimes he receives his food and sometimes not, so that ¾ *ser* was taken in full quittance. The two *jhinwars*, who are the cooks, receive a *ser* in the maund between them. They also get their food, say 1½ *sers* a day. As the press is usually working for 2½ months this amounts to 112 sers of grain for which Rs. 8-8-0 was allowed.

The full deductions allowed for cane were accordingly 1¾ sers in the maund and thereafter Rs. 55-8-0 per 15 acres of the crop grown. This was assumed in all circles. The other deductions made may be tabulated as follows:-

Menials' dues on edible grain crops.—Gohana tahsil, 10 per cent. throughout; Rohtak tansil, 10 per cent. in the old Rohtak villages; and 8 per cent. in those transferred from Sampla.

Jhajjar tahsil, 5 per cent. in the old tahsil; 8 per cent. in villages transferred from Sampla and 10 per cent. in those transferred from Rohtak.

Deductions for picking cotton 10 per cent. throughout, except in the Mehm circle of Gohana, the Barani circle of Rohtak, and the whole of the Jhajjar tahsil where nothing was allowed.

It may be noted that the menials' deduction was in some cases allowed on a few minor crops which are not strictly chargeable. In the old Gohana and Rohtak tahsils they were allowed on the combined value of the grain and straw of the crops concerned. In Jhajjar and Sampla they were, correctly, allowed on the grain only, as the menial does not take a percentage of the straw.

It may be noted that these dues are paid in full only in good years and that there is increasing friction, as the bonds of custom loosen, between the owners and the menials.

36. It has been explained in paragraph 29 that in the northern part of the district the prevalent system of *batai* involves a contribution by the landlord to the cost of the tenant's seed, and in the case of an irrigated crop to the payment of all water rates which are met by the tenant, proportionate to the share of the crop received by himself, while *per contra* the tenant pays the same proportion of the landlord's land revenue as he himself retains of the crops. Except, therefore, in the old Jhajjar tahsil and in the Eastern, Western, and Rajpats circles of the old Rohtak tahsil, where the Panjab system of *batai* is equally common if not commoner, the half net assets statements are complicated by the adjustment of these charges between landlord and tenant. The Gohana statement which was the first undertaken is perhaps somewhat obscure, but is elucidated in paragraphs 11 and 12 of the Commissioner's review. Should any difficulty be experienced with the Sampla and Rohtak statements it should be resolved by a reference to paragraphs 41 and 40 respectively of their assessment reports.

PART C.—ASSESSMENT BY CIRCLES.

37. Before passing to the assessment of individual circles it will facilitate matters if the method adopted in treating irrigated land generally is dealt with.

The simpler case of wells may be taken first. Wells are rather of the nature of a famine insurance in this district. In years of decent rainfall the area sown on them is largely reduced in the *chahi* circles, and almost disappears in the others. Many wells again are brackish and demand a rotation not in the crops grown but in the field sown. The result of these factors is that the area classed as *chahi* under the definition is much greater than the average area irrigated from the wells. To apply *chahi* rates to the former would have been to kill the wells. It was accordingly proposed throughout to apply the *chahi* rate, in working out the circle and village *jamias*, to the average area of irrigation only and this proposal was accepted.

38. In canal areas too there was the same problem of the difference between the *nahri* area as brought out by the soil definition, and the average area irrigated by the canal. In a dry year the demand is keen, and in a year of good rainfall, the water often goes begging. Constant changes of outlets under the remodelling scheme too resulted in an exaggeration of the *nahri* area. The less stable the irrigation of any village is, the greater is the discrepancy. The matter was first discussed in paragraph 16 of the Gohana Assessment Report.

It must be remembered that shortly before the resettlement of the Delhi Division districts was undertaken an enquiry into the adequacy of the *abiana* rates on the Western Jamna Canal had been made by Pandit Hari Kishen Kaul. The upshot of the voluminous literature of this case was contained in the orders issued in Punjab Government letter No. 125½ S., dated 22-29th May 1907. Sir Denzil Ibbetson pronounced against any enhancement of the occupier's rate, but decided that the existing occupiers' and owners' rates which were in fact already treated by the people as one charge should be consolidated into a single occupier's rate of approximately equal amount. It was considered probable that Settlement Officers who were instructed to work on this basis would find the facts justify the inclusion of a wet assessment on canal lands. "Whether it should be separable in the form of a fixed *nahri parta* will be for consideration and will depend largely upon the probability of the withdrawal from or extension to areas at present irrigated or unirrigated of canal water during the terms of settlement. But the absolute limitations of a fixed wet assessment will be that the amount must not on the one hand be so low as to lead to over irrigation, and must not on the other hand be so heavy as virtually to annul the discretion which the cultivator should enjoy as to whether he will take water or not for a particular harvest."

The first assessment report of this district based on these orders was that of the Gohana tahsil, and it has formed the pivot on which the discussion of the whole question

of the wet assessment of the districts irrigated by the Western Jamna Canal has turned. It was held by all revenue officers who dealt with the case, though the view was not uncontested by the Irrigation Department, that the conditions of the canal were not sufficiently stable to warrant a wet assessment in the sense that the whole of the water-advantage revenue that Government could fairly demand from the owners of the soil could be included in the assessments announced by the Settlement Officer and distributed over the lands of the village. The original proposal in the Gohana tahsil was to assess all canal land as *barani* and to take the difference between a wet and a dry assessment in the form of a water-advantage rate varying from Re. 1-8 to Re. 1 per acre on the actual irrigation, whatever was the crop sown. Gohana Report, paragraphs 54 and 55). These proposals were generally accepted by the Settlement Commissioner, but Sir James Wilson in his review differed in two respects. Firstly he proposed to rate the actual average acreage of canal irrigation as on the wells,—not the recorded. *'nahri* area-4 annas higher than the rest of the firm soiled land. This 4 annas was not intended to tap the extra profits derived by the landlord from irrigated lands as a true wet assessment should. It was regarded as an enhanced 1 *birani* rate on the more secure lands as though on them less *kharaba* were assumed and the crop estimates were consequently raised. The true wet assessment was to be recovered by other means. Secondly he pointed out that while the proposed water advantage rate differed from the old owner's rate in not being varied according to the crops sown, or being any fraction of the *abiana*, the adoption of the scheme would still involve a multiplicity of charges and a complexity of accounts. He advocated obtaining the same amount of revenue by the use of a revised consolidated water charge, all adjustments between different heads of account being made in the office. In paragraph 43 (vi) of his classic review he summed up the matter thus. "We should not attempt to disguise what we actually take as a fluctuating demand on areas annually irrigated by dividing it into two parts and calling one occupier's rate and the other owner's rate or canal advantage land revenue; but whatever demand we do take in this form, and, however it may be calculated, it should be levied on each class of crops in one consolidated rate, which may be called occupier's rate, and which should be fixed at such a sum per acre as will give an easy calculation on the local measures of area. Three per cent. out of the collections from these rates should be allowed to the headman, and the Local Government should allow the District Board a lump allotment calculated annually at 2 per cent. on the actual collections of occupier's rate in the district for the year. No cesses should be surcharged on these consolidated rates used for the purpose of calculating the fluctuating demand. This is most desirable both in order that the cultivator may clearly understand the charges he has to pay when he utilises the canal water, and in order that the accounts may be kept clear of complications." Intermediate orders were passed on the Gohana Report in Punjab Government letter No. 1028 S., dated 1st July 1908. The so called dry land revenue proposed by the Financial Commissioner was sanctioned and the Settlement Officer was ordered to proceed to its distribution over villages, "it being understood that any assessment that may be ordered in respect of canal irrigation will be imposed separately hereafter." The Lieutenant-Governor expressed himself in sympathy with Sir James Wilson's proposals in the latter respect, but reserved orders pending consultation with the Irrigation Branch and the necessary reference to the Government of India. The matter was not ripe for reference to the Government of India till 1909 when the question was submitted with Mr. Chief Secretary Maclagan's letter No. 56, dated 12th February 1909. The scale of consolidated rates proposed by Sir J. Wilson was modified chiefly in the direction of reducing by Re. 1 per acre, for at least 5 years, the rate proposed for cotton and wheat. The reduction was made in view of the apprehensions entertained by the Chief Engineer of the disorganisation in canal arrangements that might result from the sudden enhancements proposed by the Financial Commissioner. The Government of India, in their Revenue and Agriculture Department letter No. 1202-130-3, dated 27th October 1909, accepted the view that the great variations from year to year in irrigation on this canal rendered a substantial fixed wet rate impossible. They pointed out that the so-called dry assessment already announced was really a very light wet assessment, and

if no further additions were to be made to the scale of water rates reached by consolidation of the existing fluctuating charges on canal irrigated lands, the canal villages would get off lightly as compared with others, and a somewhat higher fixed assessment might reasonably have been imposed on canal lands. They were however of opinion that in all the circumstances of the case the land revenue demand already announced in Gohana should be allowed to stand and that the existing canal charges should merely be consolidated into a single schedule of occupiers' rates rounded off to the nearest convenient figure* "There is no reason," the letter added, "why the occupiers' rates should not be raised hereafter, on the principles usually followed in dealing with such rates, but in the opinion of the Government of India no enhancement should be attempted until the 'remodelling operations have reached a stage of reasonable finality and irrigation is less unstable than it is reported to be at present."

In view of the decision reached in the Gohana case and the wish of the Government of India that the assessments of other tahsils should be reconsidered in the light of the general orders contained in the letter cited, it was decided that in the other canal tahsils of this district, which had meanwhile been assessed to an equally heavy or heavier "dry land revenue" than that announced in Gohana, no further immediate increase should be made and Government must submit to a diminution of the revenue which had been anticipated.

39. Meanwhile in passing orders on the Panipat Assessment Report of Karnal Assessment on extensions of canal irrigation the Lieutenant Governor had taken the opportunity of ordering that the 4 annas as difference between the assessment of the average irrigated area and that of the rest of the firm soil should be applied to subsequent extensions of irrigation in the Gohana tahsil, increases of less than Rs. 50 being neglected, and the calculations being made on the areas recorded as irrigated in the *jamabandi*. The same orders were extended to the two circles of Sampla and three circles of Rohtak in which an excess rate on actual irrigation, or *nahri parta* as it has for brevity been called, had been fixed. Considerable correspondence took place on this matter. There was the difficulty of placing reliance on the *jamabandi* entries, which had from the first been abandoned on account of their inaccuracy in favour of the actual average irrigation and especially on the *jamabandi* entries of a particular year in which irrigation might have been abnormally extended on account of a failure of the monsoon. It was urged too that it would be unreasonable to increase the assessment of villages in circles where a *nahri parta* had been fixed and to let oft extensions of irrigation in circles where owing to the absence of all irrigation at settlement or to its inferior quality all land had been rated alike. It was felt too that if increased irrigation was to entail an increased assessment, decreases should be met by a reduction of the demand. Lastly attention was called to the great difference between the *nahri parta* which held for arithmetical convenience been fixed in different and often adjacent circles, when the assessment was considered "dry" and no question of subsequent increases had been mooted. The importance of assimilating the rates became greater when owing to the abolition of Sampla tahsil and the consequent division of several circles it became necessary to amalgamate in one new circle villages in which different rates of *nahri parta* would prevail. These various objections were removed by the orders contained in Punjab Government letter No. 48 C., dated 7th February 1910, which embody the following principles. The actual rules which were finally sanctioned in Punjab Government letter No. 2736 S., dated 1st October 1910, are reproduced in Appendix F.

(1). The average area of canal irrigation assumed at settlement whether assessed or not was ordered to be entered on the *fard bachh* of the record of rights as well as in the settlement Officer's village note.

(2). At every quadrennial *jamabandi* a calculation is to be made of the average actual irrigation of the last four years, the Irrigation Department records being consulted

* This was done by P. G. G. Notification No. 0250 B.I. dated 24th August 1910.

when necessary. Where the difference between the area assumed at settlement and that brought out by this calculation is such that the *nahri parta* applied to them at the rates specified in rule 3 differs by as much as Rs. 50 or Rs. 10 per cent. of the final revenue fixed at the settlement (whichever shall be the less) revenue shall be enhanced or decreased as the case may be. In the case of new extensions of the canal or of irrigation in estates which have hitherto enjoyed no such irrigation the calculation will of course be made on the actual average of the irrigation of the past four years.

(3). A uniform rate of *nahri parta* of 4 annas per acre is sanctioned for all old irrigated villages, irrespective of the rate that was originally fixed at assessment. In the case of new extensions of the canal or of the introduction of irrigation in estates where there has hitherto been none the rate is 6 annas.

These rules need little comment. In the Gohana tahsil there are 3 villages only with no irrigation at present. The rest will all come under the 4 annas an acre rate and in only one case is 10 per cent. of the revenue less than Rs. 50. With this exception it follows that no change will be made in the revenue fixed at settlement unless and until the average canal area varies by 200 acres or 320 *pakka bighas*. Such variations will be few and far between. They will be equally uncommon in the Rohtak Nahri I Circle and rare in the Nahri II.

In cases where new irrigation is introduced within four years of the preparation of *jamabandi* the Collector must be cautious of assuming that the actuals of one or the average of two or three years' irrigation is a stable basis on which to assess. New irrigation is apt to be lavish. In all cases where additions to or remissions of the settlement demand are made the villagers must be consulted on the method by which they wish the alterations to be carried out in the *bachh*.

The above outline of the history of the case will facilitate an understanding of the following paragraphs. The whole correspondence especially Sir J. Wilson's review, the Punjab Government letter and the Government of India's reply is of great interest, and should be studied by any one who wishes to understand clearly the recent policy in canal assessments. We may now pass to the assessment of the individual circles.

I.—GOHANA EASTERN (Now EASTERN NAHRI).

40. The Financial Commissioner accepted Rs. 4,18,900 as a safe estimate based on cash rents of half the proprietary profits of the circle (review paragraph 17). This was confirmed by the estimate based on kind rents which was put at Rs. 5,25,847 by the (settlement) Commissioner (ibid, paragraph 18). The existing revenue of Rs. 1,97,905 was shown by calculations based on sale prices (ibid, paragraph 15) to be very low. The Financial Commissioner proposed and Government sanctioned a fixed assessment of Rs. 2,50,000. The actual net assessment imposed on the villages of the circle after remission of Rs. 484 for roadside trees amounts to Rs. 2,47,095. The initial assessment is Rs. 2,38,734, that of the 6th year Rs. 2,46,292. Rupees 2,47,092 will be reached in the eleventh year. The final assessment falls on the cultivated area of the circle at Re. 1-9-2 per acre and on the culturable area at Re. 1-6-6, while the respective incidences of the expired demand on the areas of last settlement were Re. 1-5-4 and Re. 1-2-1. In view of the fact that the Financial Commissioner had proposed to obtain an increase of Rs. 87,100 (ibid, paragraph 40) by his scheme of revised water rates, the assessment of this rich circle can only be considered a very lenient one. The final increase in fixed land revenue is one of 25 per cent only.

II.—GOHANA WESTERN (Now WESTERN NAHRI).

The Settlement Commissioner here accepted a half net assets cash estimate of Rs. 34,809 and kind rent estimate of Rs. 39,346. The Financial Commissioner took Rs. 36,000 as the lowest true half net assets (ibid, paragraph 39). He proposed an assessment of Rs. 24,000 which was sanctioned, being an enhancement of 37 per cent. The sum of Rs. 2,658, which he proposed to recover by enhanced water rates, was disallowed under the general orders quoted in the last paragraph. The actual assessment imposed amounted after deduction of Rs. 27 for land under shade of roadside trees to Rs. 23,973

final, which is recoverable in the sixth year. The initial demand is Rs. 22,847. Here again the assessment is a light one. It falls with an incidence of Re. 1-1-1 on the cultivated and of Re. 0-15-9 on the culturable acre. The similar figures for last settlement were Re. 0-13-1 and Re. 0-11-5.

III.—ROHTAK WESTERN (Now GOHANA—MEHM CIRCLE).

The half net assets estimate by cash rents was here Rs. 23,046 and by kind rents Rs. 24,056, while the evidence of sale prices suggested Rs. 29,280 as the full demand. Rupees 24,000 was taken as the full fair half net assets by the Settlement Officer and accepted by superior authorities. The sanctioned fixed assessment of this circle (which included no *nahri parta*) was Rs. 16,750. The actual assessment announced is initial Rs. 15,452, sixth year Rs. 16,746, final (25th year) Rs. 16,750. This falls at the rate of Re. 0-10-0 on the cultivated and of Re. 0-9-1 on the culturable acre as compared with Re. 0-8-1 and Re. 0-6-3 for last settlement. The fixed demand amounted to an enhancement of 42 per cent and was sufficient for this somewhat inferior circle. No immediate increase would have accrued from the adoption of the revised scale of water rates in this circle.

IV—Rohtak Nahri II (Now Gohana Southern Nahri and Rohtak Nahri III).

The half net assets estimate by cash rents was here Rs. 1,40,841, but it was obvious that, owing to the underdeveloped state of rents this was an under-estimate. The kind rent calculations gave a demand of no less than Rs. 2,75,381, and sale price suggested Rs. 2,29,781. The Settlement Officer suggested 2 lakhs as a full half net assets demand, but the Settlement Commissioner (review paragraph 15) thought this a more than cautious estimate. The fixed assessment proposed by him and sanctioned for this circle was Rs. 1,38,000, an enhancement of 32 per cent. Rupees 10,042 was looked for as an immediate enhancement of water rates by the application of the revised schedules. The actual assessments announced amounted to initial Rs. 1,29,585, sixth year Rs. 1,38,100, final (eleventh year) Rs. 1,38,500 with an incidence of Re. 0-15-8 on the cultivated and Re. 0-14-5 on the culturable acre. This circle is an improving one, and has got off lightly owing to the decision against enhancement of water rates. The incidences for last settlement calculated as before were Re. 0-12-11 and Re. 0-10-7.

V.—ROHTAK NAHRI I (Now PART OF ROHTAK NAHRI II).

The estimates of half net assets demand for this circle were as follows :—

	Rs.
By cash rents	73,390
By kind rents	94,609
By sale prices	74,296
General	76,000

It was proposed to secure an immediate increase estimated at Rs. 8,048 by revised water rate schedules. For this reason it was held that Rs. 44,200 was a sufficient fixed demand. The total of these two sums was 68 per cent. of the half net assets. The fixed demand gave an enhancement of 29 per cent. only. As it represents the only enhancement sanctioned, the circle as a whole is certainly lightly assessed. The actual assessments imposed amount to Rs. 44,350. The initial demand is Rs. 43,314 and the full sum, with the exception of Rs. 5 deferred on a well, will be reached in the sixth year. It falls on present areas at the rate of Re. 1-5-11 per cultivated acre and of Re. 1-3-3 per culturable acre, compared with Re. 1-1-5 and Re. 0-14-4 for last settlement.

VI—ROHTAK RAJPUTS' CIRCLE.

The estimates in this circle were—

	Rs.
By cash rents	64,763
By kind rents	72,216
By sale prices	82,026
General	70,000

No immediate increase was anticipated from the revision of the canal rates schedule in this circle. The sanctioned fixed assessment was Re. 52,000, as proposed by the Settlement Commissioner. This was Rs. 4,000 in excess of the sum recommended by the Settlement Officer and Financial Commissioner. The higher rate was amply justified by the figures given above, and the only reason in favour of going below it was the general character of the population.

Government however held, in view of the large profits of cattle in this circle and the enormous income (nearly 4¾ lakhs per annum) from military service, that Rs. 52,000, involving an enhancement of 27 per cent., should be taken. The actual assessments imposed amount to Rs. 52,050. The initial demand is Rs. 50,500; the final demand, which is reached in the sixth year, falls on present areas at the rate of Re. 0-13-4 per cultivated and Re. 0-12-6 per culturable acre. The figures for last settlement were Re. 0-11-2 and Re. 0-9-8. The circle is not heavily assessed, but the people have no agricultural backbone and are bad revenue-payers.

VII.—ROHTAK EASTERN CIRCLE (Now ROHTAK BARANI AND PART OF JHAJJAR BARANI).

The estimates here were—

	Rs.
By cash rents	62,609
By kind rents	87,087
By sale prices	82,592
General	74,000

No increase in canal area was looked for here, nor was any *nahri parta* suggested for the insignificant area under irrigation. The assessment proposed and sanctioned was Rs. 54,000 giving an increase of 10 per cent. The actual assessments give a demand of Rs. 53,400 initial and Rs. 53,900 (sixth year). The incidence of the latter figure is Re. 0-14-10 per cultivated and Re. 0-13-4 per culturable acre. Last settlement figures were Re. 0-14-3 and Re. 0-12-2. The circle is a very insecure one and the assessment is sufficient. The only justification for an increase was the rise in prices, and the old demand on a number of villages had to be reduced.

VIII.—SAMPLA NAHRI I (Now ROHTAK NAHRI I).

In this circle the half net assets demand by cash rents was estimated at Rs. 1,33,080 and by kind rents at Rs. 1,79,895. Sale prices gave an index of Rs. 1,43,500 and the Financial Commissioner assumed Rs. 1,50,000 as a full fair half net asset demand. Of this he had calculated to recover Rs. 27,428 by the revised scale of water rates. The “dry” assessment sanctioned for the circle was Rs. 80,000 involving an enhancement of 39 per cent. The actual assessments imposed amount to Rs. 74,776 initial and Rs. 79,875 final (sixth year, except Rs. 18 on deferred leases) and fall with an incidence (final) of Re. 1-14-7 on the cultivated and Re. 1-10-7 on the culturable acre. The incidences for last settlement were Re. 1-6-6 and Re. 1-3-4. Though relatively more heavily assessed than the Eastern and Western Nahri circles of Gohana the demand in view of the fact that the water rates have not been enhanced cannot be considered other than light. The circle is practically secure.

IX.—SAMPLA NAHRI II (Now PARTS OF ROHTAK NAHRI II AND JHAJJAR NAHRI).

The kind rent estimate in this circle exceeded the cash rent estimate very largely, the figures being Rs. 2,85,411 and Rupees 1,99,032, respectively. Rs. 2,46,000 was suggested by the figures for sales, and the Financial Commissioner framed an all round estimate of Rs. 2,20,000. Out of this sum Rs. 1,51,000 was proposed by the Settlement Officer and sanctioned as dry land revenue, giving an increase of 23 per cent. The actual assessments

amount to Rs. 1,47,790 initial and Rs. 1,50,700 final. Except for Rs. 150 on deferred leases the whole sum falls due in the sixth year. The final demand will fall on the present areas with an incidence of Re. 1-7-0 per cultivated and Re. 1-5-1 per culturable acre. The figures for last settlement were Re. 1-3-1 and Re. 1-0-11. In as much as nearly Rs. 10,000 further increase had been anticipated by the Financial Commissioner from his revised schedule and the Settlement Officer had proposed to take a water advantage rate on actual irrigation which would have brought in approximately Rs. 22,000 per annum, this circle is lightly assessed. It is not however a very secure one.

X.—SAMPLA BARANI (Now INCLUDED IN JHAJJAR NAHRI AND ONE VILLAGE IN ROHTAK NARRI II).

	Rs.
Estimated by cash rents	90,432
Kind rents	1,20,022
Sale prices	1,95,000
Financial Commissioner's half net assets	1,00,000

There is practically no irrigation in this circle.

The sanctioned assessment was Rs. 80,000—80 per cent. of the estimated half net assets and 23 per cent. higher than the old assessment. The actual assessments amount to Rs. 78,115 initial, Rs. 79,875 sixth year, and Rs. 80,050 final. The final sum includes the assessment on wells whose leases will not expire within 30 years. Incidence of final demand on present areas is Re. 1-5-7 per cultivated and Re. 1-3-9 per culturable acre. The circle is a very insecure one, and though not heavily assessed is relatively much more so than the canal circle. The similar incidences for last settlement were Re. 1-2-1 and Re. 1-0-0.

XI.—SAMPLA DAHRI CIRCLE (Now JHAJJAR NORTHERN DAHRI).

The irrigation here is all by wells.

	Rs.
Estimate by cash rents	26,303
	but see Financial Commissioner's review, paragraph 10).
Kind rents	37,806
Sale prices	28,000
Financial Commissioner's half net assets	30,000

The sanctioned assessment (for local rates purposes) was Rs. 24,000, an increase of 28 per cent., but one village, Bir Barkatabad, enjoys a perpetual assessment of Rs. 2,344. The assessment ordered was 80 per cent. of the half net assets.

The actual assessments are Rs. 21,307 initial, Rs. 22,240 in sixth year and Rs. 22,831 final (twentieth year), the departure from the sanctioned assessment being chiefly due to the case of Barkatabad. The incidences of the final demand are Re. 1-9-3 per cultivated and Re. 1-5-8 per culturable acre compared with Re. 1-5-3 and Re. 1-1-9 of last settlement. The circle is a weak and somewhat depressed one and the assessment is, relatively the heaviest of any in the four Sampla circles.

XII.—JHAJJAR RAUSLI CHAHI

	Rs.
Cash rent estimate	63,834
Kind rent estimate	69,344
Estimate by sale prices	70,000
Financial Commissioner's half net assets	70,000

The sanctioned assessment of this circle was Rs. 55,000, involving an increase of 18 per cent. and absorbing 79 per cent. of the half net assets. The actual assessment is Rs. 53,765 initial, Rs. 54,348 in the sixth year and Rs. 54,961 final (19th year), the latter demand having an incidence of Re. 1-5-0 per cultivated and Re. 1-2-11 per culturable acre of present areas. The figures for last settlement were Re. 1-3-1 and Re. 1-0-3. The circle is a fairly prosperous one.

XIII.—JHAJJAR RAUSIAL BARANI (Now PART OF JHAJJAR BARANI).

					Rs.
Cash rent estimate	...	...	...	...	69,556
Kind rent estimate	...	...	...	...	69,447
Estimate by sale prices	...	...	...	...	75,000
Financial Commissioner's half net assets	...	...	...	...	70,000

The assessment proposed by the Settlement Officer was raised from Rs. 50,000 to Rs. 53,000, an increase of 32 per cent., but equal to 76 per cent. only, of the half net assets. The actual assessment is Rs. 51,998 which cannot be reached till 1948 owing to the grant of 40 years' protective leases in this circle. It never will be reached. The initial demand is Rs. 49,941 and that of the sixth year Rs. 51,841. The incidence of the full assessment on the present cultivated and culturable acre is Re. 1-1-2 and Re. 1-0-1, respectively. Last settlement's figures were Re. 0-14-10 and Re. 0-11-9. The circle is a weak and very precarious one, and the assessment is quite as much as it can pay.

XIV.—JHAJJAR DAHRI (Now JHAJJAR SOUTHERN DAHRI).

					Rs.
Cash rent estimate	...	...	...	...	77,112 (but see Financial Commissioner's review, paragraph 8).
Kind rent estimate	...	...	...	...	85,782
Estimate by sale prices	...	...	...	...	73,000
Financial Commissioner's half net assets	...	...	...	...	80,000

In this circle a light assessment was imposed, as at last settlement, on the culturable waste in excess of a fifth of the cultivated area. The whole sanctioned fixed assessment was Rs. 76,000. The year's demand is to be remitted on any fields which cannot be reaped in either harvest owing to floods standing on them Provision was also made in certain eventualities for a return to fluctuating assessment. These subjects are dealt with in paragraph 42. The fixed assessment announced is Rs. 74,582 initial and Rs. 76,275 final, the latter demand falling on the present cultivated and culturable acre at Re. 1-8-7 and Re. 1-1-11, respectively. The assessment is a practical reversion to that of Mr. Purser's settlement (1879) though the demand between villages has been entirely redistributed. The incidence 30 years ago was Re. 1-11-4 and Re. 1-2-4. The final demand will be reached in the 19th year, the demand of the 6th year being Rs. 75,428.

XV.—JHAJJAR BHUR CIRCLE.

					Rs.
Cash rent estimate	...	...	...	...	93,253
Kind rent estimate	...	...	...	...	1,06,347
Estimate by sale prices	...	...	...	...	1,20,000
Financial Commissioner's half net assets	...	...	...	...	1,00,000

The sanctioned assessment was Rs. 90,000, absorbing 90 per cent. of the half net assets, and involving an enhancement of 11 per cent. which is as much as this sandy and inferior circle can pay.

The actual assessment is Rs. 91,476, a margin having been left for objections and appeals, which were fewer than anticipated. This sum will not be reached till the 27th year. The initial demand is Rs. 90,326 and that of the 6th year Rs. 90,716. The incidences of the final demand are Re. 0-14-3 per cultivated and Re. 0-12-11 per culturable acre. The incidence of the expired demand on the arrears of last settlement was Re. 0-13-8 and Re. 0-11-6, respectively.

The following is a summary of the assessment rates authorized for each circle grouped in the above order stated in annas per acre :—

Crop.	Gohana Eastern (Now Eastern Nahri).	Gohana Western Nahri (Now Western Nahri).	Rohtak Western (Now Gohana-Meham circle).	Rohtak Nahri II (Now Gohana Southern Nahri and Rohtak Nahri III).	Rohtak Nahri I (Now part of Rohtak Nahri II).	Rohtak Rajputs' circle	Rohtak Eastern circle (now Rohtak Barani and part of Jhajjar Barani).	Sampla Nahri I (now Rohtak Nahri I).	Sampla Nahri II (now parts of Rohtak Nahri II and Jhajjar Nahri).	Sampla Barani (now included in Jhajjar Nahri and one village in Rohtak Nahri II).	Sampla Dahri circle (now Jhajjar Northern Dahri).	Jhajjar Rausli Chahi.	Jhajjar Rausli Barani (now part of Jhajjar Barani).	Jhajjar Dhari (now Jhajjar Southern Dahri).	Jhajjar Bhur circle
Nahri (average irrigated)	28	20	10½	19	24	18	16	36	28	22	-	-	-	-	-
Barani	24	16	10½	15	21	13	16	28	22	22	24	19	18	21	16
Chahi (average irrigated)	48	-	36	36	48	40	40	48	48	40	48	48	40	44	40
Dahri	-	-	-	-	-	-	-	-	22	-	24	19	-	21	-
Bhur	16	12	6	12	16	8	9	16	16	16	16	12	12	12	11
Fallow (in excess of one-fifth of cultivated).	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-

Note.—In calculating incidences for the purposes of this chapter the detailed village assessments, which represent the areas of a given moment as wells any other figures, have been employed.

41. The demand of the last year of the old settlement, excluding leased lands, was Rs. 9,52,430 (khalsa Rs. 9,27,391). The Total increases and profit to Government from re-assessment. sanctioned "dry" assessment of the new settlement is Rs. 11,87,950, an increase of 23 per cent. The actual assessments announced are as follows :—

	Rs.
Final	11,86,020
Initial	11,49,913
	(khalsa Rs. 11, 18, 075-8, mafi Rs. 9,448, inams Rs. 5,517)
Sixth year	11,84,820
Eleventh year	11,86,020

The net demand of the initial year, after deductions for protective leases, shade of trees, & c., is Rs. 11,44,432 (khálsa, Rs. 11,17,567).

The final demand will never be reached. Some wells enjoy protective leases that will outlast the present settlement; other wells will meantime fall out of use, and be entitled to a remission of revenue. Other alterations will be caused in the demand by extensions or decreases of canal irrigation (see paragraph 39). Lastly, it is possible as shown in the next paragraph, that fluctuating assessment may supplant the fixed demand in the Southern Dahri circle of Jhajjar.

The cost of the settlement may be reckoned at Rs. 5,75,900 (see Appendix G.) so that it will take 3½ years to recover it. In submitting the forecast report to the Government of India Sir Denzil Ibbetson had expressed the opinion that the enhancement was unlikely to be less than Rs. 1,50,000 (Panjab Government letter No 558-S., dated 15th June 1905. Despite the great loss of revenue that was anticipated from the imposition of a water-advantage rate or the remodelling of the canal schedule, an increase of Rs. 2,33,590 (or Rs. 1,90,176 initial) has been attained. The cost of settlement has fallen short of the estimated sum of Rs. 6,85,787 by a lakh and ten thousand rupees.

42. In the southern Dahri circle of Jhajjar, parts of which are liable to annual in undation it has been ordered that the revenue of the
Remissions of revenue on flooded fields and fluctuating assessment year shall be remitted on any fields which have actually been under water so long that neither a kharif nor a rabi crop could be reaped. (Financial Commissioner's review, paragraph 16, and Government orders).

The demand on a given submerged area differs in each village according to the system of distributing the revenue and the incidence of the assessment. Difficulties arise in the application of the rule to villages whose bachh is on shares.

Executive instructions have therefore been issued that while in bhaiachara estates the amount to be remitted will be the actual assessment of the submerged fields brought out by the application of the rates employed in the bachh, in pattidari estates the circle revenue rates will be utilised for the calculation. The resulting sum will be deducted from the share of the revenue paid by the owner, provided if the result is greater than the whole sum paid by him the latter will be remitted, but nothing of course will be paid to him beyond this.

The sanctioned circle rates, for land classed as cultivated at settlement, which alone is entitled to the concession, are—

					Rs. a. p.
Chahi	...	...	...	...	2.12 = 1-11-6 per pakka bigha.
Barani and dahri	...	...	...	...	1-5=0-13-1½ per pakka bigha.
Bhar	...	...	...	...	0-12=0-7-6 per pakka bigha.

For the satisfaction of the sub-official mind it has also been explained that a flooded-out kharif crop is entitled to a remission (not being reaped) while water-nuts sown in the spring, though not in the field, will bar a claim to a remission in respect of the land below. Executive instructions have been issued to guide the subordinate staff in the calculation of these remissions.

In the face of this provision, which extends to flooded-out lands a more generous treatment than the burned up high lands receive in a year of drought, it is unlikely that the people will ever desire a return to the fluctuating system of assessment, which, as shown in paragraph 10, obtained in parts of 12 villages up to 1909. The system was highly unpopular, as will be seen from paragraph 19 of the Jhajjar Assessment Report, and in deference to the people's wishes no attempt was made at the present settlement to force on them a system which the interests of Government did not demand. Power was however retained to introduce a fluctuating assessment at any time, either in the whole

village or in the flooded area only, at the desire of a numerical majority of the landowners (see paragraphs 13 to 16 of Financial Commissioner's review). Details have been worked out in advance in case the landowner should ever elect to revert to this system, and will be found in Appendix E (Settlement Commissioner's letter No. 1947, dated 6th June 1910). It must be understood that the rules apply equally to Gurgaon where the system is already compulsorily in force, and as regards this district are proleptic. The only action that has as yet been actually taken here, beyond informing the people of the power reserved, is that the flooded area of 1908 and 1909 has been demarcated on the sadar copy of the maps.

It is only necessary here to note that if a fluctuating demand is applied to a part only of any estate whose revenue is paid on shares, a *bachh*, *pro hac vice*, either at all-round or at differential soil rates, must be made before the revenue of any shareholder can be equitably reduced in respect of the land coming under fluctuating assessment. This was not done, or where done, not intelligently done, when the system was last introduced, and gross inequalities resulted. No doubt if the system is applied to the flooded tract only, the shareholders will propose to put a disproportionate amount on the dahri lands, the effect of which would be to benefit the owners of land brought under fluctuating assessment without throwing any extra burden on the other shareholders. To protect Government interests the Collector must before sanctioning any such proposal compare the rates adopted at settlement in dahri villages whose revenue is not paid on shares.

CHAPTER IV.—REMEASUREMENT AND REVISION OF RECORDS, & c.

43. The district was mapped at last settlement on the triangular system. To this day Mr. Purser is famous for his maps. They were beautifully prepared and the paper wore well. The maps were marvels of minuteness, each "kiari" or irrigation plot being shown. The measurements were made in pakka bighas and on the scale of 40 gathas to the inch.

In 1884 the Financial Commissioner ordered the introduction of kachcha bighas. The method of conversion was simple. All areas were thenceforth multiplied by 3. The advantages were *nil*. The chain remained and had to remain the gatha chain of the pakka Shahjahani bigha, and all the results given by it on partition cases and so forth had to be tripled.

Some years later another Financial Commissioner ordered a consolidation of the field maps to be undertaken. There were advantages in this. Mr. Purser's measurements were so minute that the maps were sometimes scarcely legible, and unnecessary labour was entailed in the maintenance of the records. But the pendulum swung too far in the "ishtimál" of 1892. The number of fields was reduced to less than one-third of those mapped by Mr. Purser, but the girdawari is a farce in a field of 10 acres or more. The amalgamation would have been fatal to the Canal Department's measurements; so they continued working on the settlement map and settlement numbers to the end, with the most disconcerting results. However carefully a canal khatoni was prepared it was unintelligible to the people until the revenue patwari converted it into the terms of the map in use in the district. It was decided in the new settlement to revert to *pakka* bighas, which were perfectly understood by the people and to limit the size of an irrigated field to 1 bigha and that of an unirrigated field to 5 bighas, except in cases where the absence of sub-divisions on the spot necessitated a larger unit. The number of field numbers which was 19,20,053 at last settlement and fell to 5,86,892 in consolidation is in the new settlement 10,88,782.

It was estimated by the Deputy Commissioner who prepared the forecast report that only about one-fourth of the villages would require remeasurement. The first operation of settlement was to instruct the patwaris and local kanungos in the principles of measurement and at the same time to subject the maps to the usual tests. There were some cases in which the maps were found to be substantially inaccurate, and a few others—irrigated villages—in which it seemed necessary to have a map on a larger scale. There

were more where the extension of irrigation, the passage of new roads or the railway, the breaking up of the waste or partition of joint holdings had so far changed the face of the village that satisfactory amendment of the old map was impossible. The Settlement Officer in his preliminary report estimated that 170 villages would require to be remeasured. In the upshot however 236 villages were measured, all on the square system and the maps of the remaining 296 estates amended. The Financial Commissioner indeed was of opinion that undue accuracy had been aimed at and that remeasurement had been carried out in far too many cases. Under his instructions amendment, and in some cases "sarsari tarmim," which had just been introduced, was adopted even in cases where square laying or remeasurement was already in progress.

Very few boundary disputes have arisen, the only important cases of altered boundaries being those in which very large estates have for convenience of record work been sub-divided with the sanction of the Financial Commissioner. Two estates, Samri and Dubaldhan were divided into three each. Fifteen others were divided into two parts. The uninhabited village of Babaduri was on the other hand merged in the present Kakanah. The number of estates has by this process risen from 514 to 582.

The work of amendment was nowhere done on the original map, but tracings were made for work in the fields in four different ways. A thin white and a brown paper were used on which direct tracings were made. The tracings were then mounted on cloth. The paper has not proved durable or stood the wear and tear of the fields. These maps are in a bad state and subsequent reproduction has often proved difficult. Equally unsuccessful were some maps made on ready mounted thick white mapping sheets purchased from Lahore. The old map was copied on these by means of tracing paper, but the paper has cracked and come away from the cloth. The best maps are those used chiefly in the Jhajjar tahsil and prepared after the experience of the failures recounted above. Here thick Lucknow *hinai* paper was first mounted on cloth and then the old maps were traced on these by carbon paper. The drawback to this process is that the use of a style damaged Mr. Purser's original maps. The carbon paper used in this settlement was locally and cheaply prepared in two ways; either with a mixture of blue-black powder and rapeseed oil or by lamp black and oil. The former mixture gave the more durable results. The result of our experience is to show the need for good unrulled mapping sheets.

When remeasurement was adopted the scale was 40 gathas to the inch (= 16 inches to the mile), except in 94 villages and parts of two others where the 20 gatha scale (=32 inches to the mile) was adopted. A separate base line was laid down in each village and the three corners of the base square subsequently demarcated with small stone pillars. These maps are on English-made masavis but many of them are in very bad conditions for which rough usage by the patwaris is chiefly responsible. The paper however is not as good as it should be and cracks far too readily. Some country made masávis were sent to the "Mufid -i-am" press to have squares ruled in with a view to their use for the patwáris' copy of the maps, but the squares were far too inaccurate to be serviceable.

When settlement began in the winter of 1905-06 famine works were in progress and operations had to be confined to the north of the district, roughly down to the railway line. Work was not begun in the Jhajjar tahsil until the summer of 1906. Fortunately the villages there were mostly small and amendment was commoner than remeasurement, so that time was made up. The greatest difficulties in measurement occurred in the large estates which are so common in the north of the district when three or four parties had to measure at once, of which only one could use a permanent series of numbers. White ants and herd boys everywhere played havoc with the corner pegs, and in big villages it was impossible to let square-laying go a year and more ahead on mapping. The only remedy was to lay squares in sufficient number for a season's work and exercise double supervision on their accuracy. Another great difficulty in large estates was that tenancies constantly changed before the measurements were completed. Two serious epidemics of plague interrupted operations in a number of villages. On the whole it is creditable that mapping

was complete everywhere by June 1908, except in a few villages of Sampla where it was finished in the following quarter.

The settlements of the Delhi Division were the first in which chainmen were paid, and the difficulties that arose from this rule are still a haunting memory. They have however been to some extent remedied by recent orders on the subject and there is no object in emphasising them further.

Fodder and cattle-yards, &c., have in the present settlement been included in the abadi according to standing instructions. The change is not always welcome to the people who are very tenacious of their rights in these plots.

44.. It will be gathered that the state of the maps actually prepared in the fields
Map. is in a great number of cases very unsatisfactory. Indeed, though much labour has been expended in their repair with transparent music paper, many are not fit for use at all. It was accordingly determined while filing the original maps to provide a copy on cloth for all ordinary office and court use. These are to be treated as the "part sirkár." The originals should not be sent to the courts at all. If it is ever necessary to appeal from the court copy to the original the comparison should be made by the sadar kanungo in his office and his evidence be recorded as an expert. These copies are coloured and in some of the earlier ones the squares have been shown in the case of remeasured villages. As however these squares are of use only to the patwari who has to identify a particular spot—and then but seldom—this refinement was discontinued. It should be added that in the case of Kharkharah, Ritauli, Bisahan, Sundarpur and Bahujamalpur—all in the Rohtak tahsil till 1910—the actual originals of the field map do not exist. The maps of the first were burned and those of the other four disappeared from the Rohtak tahsil office.

The girdáwari copy of the maps is of course also on cloth. These are coloured and the "karmkás" have also been shown in order to assist the patwris in the use of a strange map.

Another copy of the map had in the case of irrigated estates to be supplied to the Canal Department. At different times the Executive Engineer asked for tracing cloth and for "latha" to be employed. Of 263 maps 84 were on latha and the rest on tracing cloth.

There remains the "part patwari" A very few of these were traced by the aid of screens on masavis, but the process is appallingly slow and costly. The patwaris for the most part were utterly incapable of this work and they were otherwise very fully employed. To cheapen and expedite this process it was decided in the case of irrigated villages to use the copy given to the Canal Department as "part patwari" for these were again lithographed by the Executive Engineer who had therefore no need to retain our copy. In other cases tracings have been made on tracing cloth. The "part patwári" maps are therefore for the most part on tracing cloth, but ten are on masávis and 91 on cloth. The square lines are shown in the case of remeasured villages in case of necessity arising for their use, but the maps have not been coloured, as the girdáwari maps supply all the information that is wanted in that way.

It must be admitted that the new maps, even if substantially accurate, are not very satisfactory in form and that a great deal of money has been spent in their production. Were the settlement beginning again, with an exact knowledge of the requirements of different departments, there can be no doubt that better results would be obtained by having each map once for all carefully traced as soon as it came from the field, and then multiplied by the Vandyke process in Calcutta. The Rama process was at one time tried, but Lala Ram Nath after retaining the maps sent him for five months ultimately returned them without having made any reproductions.

45. Despite the assistance of an extra staff of two Tahsildars and four Naib
Record work. Tahsildars during the third year of settlement, record work lagged far behind measurements. To some extent this was due to the necessity for

finding work for a large body of paid chainmen, but the chief cause was a failure to resist the usual tendency of subordinates to hurry on mapping at the expense of record work. The worst delay occurred in the Rohtak tahsil. There are not many points to notice about the manner in which records were prepared.

The record of rights consists of the following papers:—

- (1). Preliminary order under Land Revenue rule 205 (2) giving dates of inception and completion of the work, and authority for its undertaking.
- (2). Alphabetical index.
- (3). Index showing the holding in which each number falls.
- (4). Pedigree-table.
- (5). The jamabandi.
- (6). The mutation orders.
- (7). List of revenue assignments and pensions.
- (8). Statement of rights in wells.
- (9). The village administration paper.
- (10). List of hearth and profession fees.
- (11). The map.
- (12). Order announcing the new revenue, and stating the instalments, &c.
- (13). Order distributing the assessment over holdings.

The first three items in the above list call for no note.

The pedigree-tables have been prepared on continuous sheets, which in small villages are placed in a pocket of the record of rights, and in large estates in separate portfolios. In a few cases where it is contained on a single sheet the genealogical table is bound in the volume. The labour of ruling these sheets was great, and it was found advisable to have them vandyked in very pale ink. Only so many generations have been shown as were necessary to explain existing shares, and ordinarily no table goes back beyond four generations. The owners of last settlement are clearly shown to facilitate the present pedigree-tables being fitted in with those of last settlement, when necessity for going behind the present records occurs. There were no regular pedigree-tables at last settlement for occupancy tenants, and but scanty information was found in the "misl tankih hakkuk." The rough tables there given have been brought up-to-date, going back, wherever the information was available, to the person who first acquired the land. It must be borne in mind that the misl tankih hakkuk in many cases only showed the names of persons who were first decreed to be occupancy tenants. Section 59 (i) (c) of the Tenancy Act does not limit the claim of collaterals to succeed a deceased occupancy tenant to the lineal descendants of such a person, but to the lineal descendants of any ancestor of his who occupied the land. It is open therefore to a claimant, to prove that an ancestor not shown in the pedigree-tables occupied the land although not in the capacity of an occupancy tenant. No attempt was made to fix the exact status of any occupancy tenant whose position was not already entered in the record or defined by judicial decision.

Generally speaking the jamabandi and the fard bāchh, which may be considered as an integral part thereof, were prepared under the Financial Commissioner's orders on the principles which are now incorporated in paragraphs 8 and 9 of Settlement Commissioner's Circular No. 15 (Correction Slip 22-1901, dated 12th June 1909).

In every case with the exception of five villages the measurement jamabandi has been accepted as the record of rights. New quadrennial jamabandis were prepared in 1909-10 for 102 estates those villages being selected in which the measurement jamabandi

though accurate at the time of its preparation had since become most out-of-date. The contents of paragraph 10 of this circular formed no part of the instructions Sir James Wilson issued in Rohtak. The jamabandi shows only the revenue of the old settlement. The demand of the new settlement is entered in the fard báchh which, whether or not a quadrennial jamabandi had been prepared in the meantime, incorporates the effect of all mutations up to Kharif 1909 when the new revenue was imposed. There are four copies of the fard bachh, the part sirkár, the part patwár, the copy given to the lambardars and the original rough copy which is in the bachh file, Of the báchh work itself an account is given in the following paragraph.

Great care has been taken to include in the rent the share of the revenue and water rates paid by the tenant when division of the crop is made on these principles. The action taken regarding non-owners of the soil, who as heirs of ex-mafidárs contract for the revenue, is described in paragraph 50 on favourable assessments. There is another class of tenure in this part of the province which needs some note, that of the dohlidár. A dohli is defined in the Settlement Manual as a death-bed gift of a small plot of land to a Brahman (*cf.* Settlement Manual, paragraph 142). This is not quite correct. The assignment is made at any time of life, and though made in the name of a temple or a religious man the recipient need not be a Brahman. The dohlidár is essentially not a tenant, for he pays no rent; in some cases he is not even in possession of the land, but receives only its produce from the owner. Equally he is not the owner of the land. The grant is inalienable and the grantee never pays the land revenue. Some dohli are not permanent assignments, and a permanent dohli granted by the whole village from common land can apparently be withdrawn by common consent for misconduct or other sufficient reason. In cases where the owner himself retains possession of the land a note has been inserted in the column of cultivation, after the word khudkásht, to show that the produce of certain fields is given to so and so dohlidár. When the dohlidár himself is in possession of the land he has been accorded a separate khatoni and a line has been drawn across the column of rent. The words "bilá lagán" or "muáf" were proscribed, to preclude the idea that the dohlidar is a tenant and liable to a suit for rent under the Tenancy Act. An attempt has also been made to decide whether a particular dohli is a permanent or temporary grant, and to specify it as one or the other. A list of the permanent dohlidars has been entered in the Wájib-ul-arz and succession to these grants should be brought on to the register of mutations.

So far as tenants-at-will are concerned the record of rights is not of great value but it would matter little in this district if they were entirely omitted from the record.

They change every year and changed constantly during the measurement of big villages. Indeed it was necessary in some cases to permit the khatonis of such tenants to be drawn up as measurements proceeded instead of being prepared in advance. For occupancy tenants the record is of course "correct." The total number of holdings in the new record is 266,534.

Some idea of the amount of work involved in the preparation of the record of rights can be gathered from the volume of attested mutations. Although a small staff began this work, as usual, before settlement proper started, 185,000 mutations were attested up to the end of December 1909.

The mutations sanctioned up to the date of the preparation of the record form item number 6 in the office copy of the record of rights.

The statement of rights in the wells and list of revenue assignments and pensions call for no special comment.

The village administration paper of last settlement has been revised and re-cast in the form prescribed by the existing rules. No attempt has been made either in this document or in the statement of village cesses, which follows it, to decide disputes. The claim of each party and the fact of the existence of the dispute is duly attested and perhaps the most noticeable fact is the frequency with which disputes have had to be noted. Thirty

years ago Mr. Fanshawe noted that the bonds of custom were loosening and certainly today there is great tension in many villages between owners and menials. For the last twelve months, for example, great agitation has been led by Ary Samji Jats and others of the advanced school of thought against the customary rights and duties of the Nais. It is often difficult again to ascertain precisely what are the rights of the Chamars and dhanaks in the corpses of cattle, and both the owners and the menials are always more assertive of their privileges than mindful of their liabilities. In the matter of the right to levy hearth fees a recent judgment by the Financial Commissioner (case No. 158 of 1908-09 dealing with Pataudah village) should be consulted. It was found that at last settlement the recovery of hearth fees was recorded in many villages where to this day they have never been levied, the alleged custom having been based no doubt on the expression of a wish of the owners to follow the lead of other villages where such dues were actually paid. An attempt has been made to confine the record in the present settlement to the case of villages where the dues are actually paid, but even in such villages the existence of a dispute has often been attested in the case of individual bányás or menials.

The maps are of course filed separately (in Allibhoy Vallijee's tin cases) and the subject of mapping is fully treated in paragraphs 43 and 44.

Item No. 12 is self-explanatory. Number 13 is an order explaining briefly the method of distribution adopted in the previous settlement and in more detail that adopted now. This subject is treated fully in paragraph 47. The original bachh files have been deposited with the village papers in the sadar Kanungo's office.

A copy of the principal local instructions issued from time to time in connexion with the preparation of the records has been filed in the district office, as a commentary on matters on which further information may at any time be required.

46. Book-binding was begun in Gohana and Sampala in February 1910, in Jhajjar
Binding of record in the following month and in Rohtak in the last days of March. The contract for Gohana tahsil was given to a local man Jogas, and of the other three tahsils to Jhandu of Lahore, whose work is much better than Joga's. The binding is in boards covered in cloth, with leather backs and edges, and has been done at the rate of Re. 0-11-9 per volume, the pedigree portfolios being paid for at the same rate.

47. The bachh work was done in the following way :— The "Tahsildars first
Bachh prepared files showing the method adopted in the previous settlement, and containing a statement of the wishes of the people as to the distribution of the new revenue.

As the revenue of each village was announced, their file was taken up by the Settlement Officer (or in the case of Rohtak tahsil by the Extra Assistant Settlement Officer), and a decision was reached regarding the future distribution. In a zamindri estate or in one on which the revenue is paid by shares no further difficulty arose, although it had generally to be decided whether purchasers or mortgagees of individual fields, and not of whole shares, should pay by a sarsari parta, or by differential soil rates. Rule V of the well remission rules contained in paragraph 441 of the Settlement Manual shows that no remission of assessment is claimable on a well that falls out of use in an estate on which the revenue is paid by shares, and the corollary to the proposition is that no lease protecting a new well from assessment is required in such a village. The wells therefore in such estates were not separately rated, but in pure zamnidari villages the case is different and there the amount of the revenue to be considered as well-abiana was fixed, where necessary, by the Settlement Officer.

In bhaiáchrá villages where the people desired a sarsari parta and wells existed, it was pointed out to them that the result of the choice would be to deprive recently made wells of their protective leases, and those that might in the future fall out of use of their chance of remission of revenue. If the people still desired a sarsari parta as they generally did, their choice was confirmed.

When an assessment by soil rates was chosen a calculation was then made of the total amount by which the assessment of the well area by their cháhi rate would exceed the assessment at the dry soil rates and that sum was deducted from the dry revenue of the village and announced as a well abiana, the balance to be distributed by their dry rates. Generally the people desired to rate the wells at $1\frac{1}{2}$ times the value of the dry loam. Occasionally an attempt to put an excessive sum on the wells had to be resisted in the interests of the well owners or of the Government which remits the revenue fixed on wells falling out of use. On this point the village notes should be consulted. The abiana was distributed over the different rated wells by the Tahsildar or Naib Tahsildar with the help of a panchayat. Very few appeals were preferred in this matter but in Rabi 1910 it was discovered in tahsil Jhajjar that many useless wells had been rated in the bachh and remissions of their ábianā were at once claimed. It became necessary to revise the bachh in half-a-dozen villages. In all cases the people rated kachchá wells (which receive no remissions or leases) at the dry rates, according to the class of the soil. In almost every case the abiánā of the pakka well (where the well is rated at all) consists therefore of a lump sum which is separate from the dry assessment of the land served by the well. In a very few instances where the ownership of the well and the land were different, it was found necessary to assess the land as such at chahi rates, and there the sum to be remitted on the decay of the well is the difference of the actual wet assessment and the dry assessment at village rates, and is worked out in the registers of assessed wells in the tahsils.

So far then the following stage had been reached. The initial jama of the village had been announced. In well villages, where the wells were to be rated above the barani rate a portion of this sum was deducted for abiana. In such villages the balance and in other villages the whole sum had to be distributed by differential or uniform rates over the holdings. By the subtraction of the abiana, the cháhi area fell into the bārāni or bhur class according to the nature of the soil. In canal villages, with very few exceptions outside the old Rohtak tahsil, the people desired to rate land recorded as nahri with barani. The main differences therefore when differential rates were adopted were nāhri, bārni, bhur, and banjar, and it had been settled with the people what proportions the rates on these were to bear to each other.

From these proportions slight departures were made. In the settlement of 1879 the rates had been worked out to mitáns, or the two hundred and fifty sixth part of a pie. On this occasion the people were told that such refinement would not be attempted, and that the pie would be the minimum limit while the combined rate of revenue *plus* cesses at $13\frac{1}{3}$ per cent. would always give a full pice to facilitate the calculations of rent at revenue rates between landlord and tenant. This has actually been done. Obviously it involves in many cases trifling modifications of the proportions selected, and equally obviously it does not generally bring out the exact assessment of the village. It was explained to the people that a result slightly higher than the Government assessment would be brought out and that the difference instead of being paid into the treasury would be credited to the village malba fund, and this result was welcome enough among a democratic people whom an all-wise Government has for several years past declined to assist in the distribution and recovery of a malba. So skilfully however were the partas adjusted that in almost every case instead of the substantial sum with which it was intended to endow the malha the excess amounts to a few rupees only, and so far one object contemplated by the Settlement Officer in the orders on the bachh was defeated by the ingenious exactness of his subordinates.

Once the partas had been fixed, the distribution proceeded in the ordinary way. It is hardly necessary to add that while for purposes of tenants paying at revenue rates a lump rate for revenue and cesses in full pice has been devised the cesses on owners' holdings are calculated at exactly $13\frac{1}{3}$ percent. of the revenue brought out by the partas on their holdings. Finally in the total harvest demand on each owner pies were, where possible, rounded off into pice.

In a few villages the *shamilat* is held in shares proportionate to the revenue paid (*hasb rasd zar-i-khewat*). In such villages where *abiana* is fixed it should theoretically be taken into consideration in dividing the demand on the *shamilat* for it is a part of the land revenue. Numerous technical difficulties however arise in this course and the *zar-i-khewat* was in most cases taken to be the dry land revenue. The point is mentioned in case a well-owner should in proceedings for partition of the *shamilat* claim a larger share of land than that to which his dry land revenue entitles him, The claim would be tenable.

48. A curious difficulty was encountered in doing the *bachh* in connexion with the rents of occupancy tenants. Some of these The position of occupancy tenants in the *bachh*. either pay rent at so much the *bigha* or in addition to rent at revenue rates pay *malikana* at so much the *bigha*. In such cases where the new measurements give an area slightly different from that of last settlement, as is necessarily often the case, the rent or *malikana* which the tenants have hitherto paid is no longer proportionate to the area in their possession. The provisions of the Tenancy Act do not however permit of an automatic adjustment by the Settlement Officer. The case does not come under Section 27. The only legal course open is to leave the old rent, which was the outcome of the application of the rate to an obsolete area, until the matter is adjusted by mutation order or by a suit filed under Section 28 of the Tenancy Act. A somewhat similar difficulty arises in another class of cases in which the total rent payable by the tenant is actually less than the new revenue. At last settlement it was common to exclude the *shamilat* area held by occupancy tenants from the *bachh*. The revenue of the village was then divided by the rest of the cultivated area and the resultant rate was applied to the tenants' holdings. Subtracting the sum of their rents thus calculated from the total revenue, the remainder was distributed over the owners holdings. By this dodge the occupancy tenants were recorded as paying fixed lump sum rents at a higher rate than that at which the owners' revenue fell. In the present settlement the *shamilat* area has not been excluded from the *bachh*, but in many cases where the revenue has been enhanced the demand on the owner has become greater than the revenue recovered from the tenant. Obviously it is not right that in such cases the landlord should have to bring a suit to recover from the tenant even the amount of the land revenue. In both these classes of cases mutations were entered up, as the agreement of the parties could generally be secured to (a) an adjustment of the rent or *malikana* to the new areas, or (b) to the payment of the actual revenue demand. Where agreement could not be secured the tenant or landlord as the case might be was directed to bring a suit for reduction or enhancement of the rent. But those conditions suggest the advisability of enlarging the scope of section 27 of the Tenancy Act when the measure is next on the legislative anvil.

49. Under the orders contained in paragraph 573 of the Settlement Manual, the Settlement Officer has power to make deductions from the Deductions for road side trees. revenue of an estate on account of damage done by the shade of trees along a canal or public road. The Settlement Commissioner to whom a reference was made held that the term public road could not be taken to include village roads. So interpreted the rules permit a Settlement Officer as the representative of government to redress hardship caused by government or by a public body such as the District Board, but do not enable him to stimulate tree planting by remitting the assessment of land planted with trees along village paths. There is little hardship caused by the trees on the public roads of the district whose shade is welcome even to the owners of the adjacent field, but in the Gohana (old) tahsil where a half promise of such a concession had been made in the early days of settlement, a deduction from the village demand was made in favour of the persons concerned where the whole sum amounted to some Rs. 5 or more per village. The amount allowed off the *jama* originally announced on this account is Rs. 511.

50. It was a common practice in the earlier days of our revenue administration to provide that after the expiry of a *mafi* the settlement should be made with the heirs of the late *mafidars* instead of with the Favourable assessments

owners; or that provided the *mafidars* were the owners of the land the assessment of the land should on resumption be made with their heirs at favourable rates. The term employed was sometimes *nisf muhasil* and sometimes *nisf jama*. The student of early revenue history will discover that as a matter of fact the terms were not equivalent, *nisf muhasil* being a higher proportion of the assessed revenue than a half, but the distinction became obscured, and it seems that of late years any persons enjoying the concession actually enjoyed a remission of one half of the rateable revenue. The term of the concession was sometimes specified, but more often the point was left undecided.

Such concessions were described in the revenue records under a variety of titles such as mukarridar, mafidar, waris, *mafidar*, riatidar, etc.

On this question paragraph 183 of the Settlement Manual may be consulted. With the approval of the Settlement Commissioner it was decided to make no attempt to resolve these various status into the status of occupancy tenant sub-proprietor, & C. What has been done is to ascertain (1) that where other persons than the recorded owners were in constructive possession and actually paying the revenue their names were brought on the record, and (2) that when the party paying the revenue, whether the recorded owner or not, enjoyed an abatement he had a right to the continuance of the concession.

In the former case no general investigation was made into the title of the revenue-payer to oust the owner: it was thought wiser to let sleeping dogs lie. Only in a few cases where a dispute was raised has a ruling been given. All the various terms mentioned above were swept away, but in addition to any status that the revenue payer might enjoy as occupancy tenant, &c., he has been shown in the column of cultivation as *bandobastdar*. This new fangled term is simply a label to call attention to the fact that the revenue-payer is not the owner. A new term was designedly coined which had no associations and could convey no suggestion of a judicially decided legal status. It takes the place of an entry in the column of remarks.

In the case of persons paying at favourable rates, an investigation as to title was necessary in the interests of Government, and in a few cases where title could not be proved the assessment was imposed at full rates. Here where the concession is enjoyed by a person other than the owner the word *riyaiti* is added to *bandobastdar*. Owners who themselves pay at favourable rates as heirs of ex-mafidars are simply shown as owners in the column of ownership, but a remark is added in the last column to show why the assessment is favourable.

Bandobastdars and concessionnaires are found only in the Jhajjar tahsil. A register has been prepared of all who enjoy a favourable assessment whether owners or not, and a list has been attached to the record-of-rights. The record should be maintained in the same way as the *mafi* registers.

It must be remembered that these concessions are not *mafis*. A *mafidar* pays cesses on his *mafi*. The person assessed to revenue at favourable rates enjoys a proportionate reduction of cesses.

The amount which would but for these concessions have been added to the initial revenue including the village of Thomaspurah the whole of which is assessed at half rates; see note to paragraph 59 on *mafis*) is Rs. 725.

51. Under the orders of the Lieutenant-Governor conveyed on the assessment reports progressive *jamats* at intervals of 5 years were authorized in cases where the new revenue involved an increase of some 33 per cent., on the old. In applying this rule efforts were made as far as possible to fix the amount of progressive assessments at such a fraction of the initial demand as would facilitate the preparation of the subsequent *bachh*. The total amount deferred under these provisions is Rs. 35,057 which is all payable in the sixth year except for a sum of Rs. 1,800 in 3 villages of Gohana which will become due in the 11th year. The amounts deferred by *tahsils* are :—

					Rs.
Rohtak	...	...	...	...	10,393
Gohana	...	...	...	...	18,034
Jhajjar	...	...	...	...	6,630

52. Protective leases for wells for periods varying from 20 to 40 years were sanctioned by the Financial Commissioner in his Senior Secretary's letter Nos. 79 S., dated 5th June 1909, and 303 S., dated 28th July 1909. The orders as they stood then were clear enough, 20 years being the period sanctioned except in *tahsil* Rohtak, the Rausli Barani circle of Jhajjar and part of the Barani circle of Sampla where a 40 years' lease was allowed, and in the Bhur circle of Jhajjar where 30 years was the period fixed. Owing to the subsequent alteration of circles consequent on the abolition of *tahsil* Sampla, the limits within which the various leases are in force are less clear, but details will be found in the well pamphlet which has been prepared for the district under standing orders and a copy of which forms Appendix C of this report. It is obvious that a well which owing to the method of *bachh* adopted in the village is not entitled to a remission of revenue on falling out of use on the grounds that its remission would benefit others than the owners of the well, should equally lose the right to a protective lease, and to this deduction the Settlement Commissioner agreed.

The total sum deferred under leases is Rs. 3,870-8-0. It will never be reached, for the leases in some cases will be carried on beyond the term of settlement and in others the wells will no doubt fall into disuse before the assessment is imposed.

53. The *kistbandi* or comparative demand statement is of course that for the last year of the old and first of the new settlement. The total assessment (column 18) of the first year is often less than that sanctioned by the Financial Commissioner (column 20). The reasons for the decrease are explained in each case in the column of remarks and may be classed under two heads—

- (1) decreases that are permanent. These are due to deductions made from the sanctioned total in consideration of land affected by the shade of roadside trees (*tahsil* Gohana) or of an admitted claim to an assessment at half rates (*tahsil* Jhajjar). Both points have been clearly explained in preceding paragraphs.
- (2) decreases that are not permanent. These are due to deductions made for progressive assessments, or for deferred assessments of wells under protective leases.

The records show clearly when the leases on wells will expire or the enhanced demand on the village will accrue. There are however one or two points which the Collector of the day should bear in mind. Firstly, it does not follow that the whole increase will be *khalsa*. In villages where there are *mafis* some part of the increase due to progressive assessments will be, and in the case of protective leases may be, assigned revenue; the exact amount will be known when the new *bachh* is done. Secondly, the *abiana* that has been distributed on the wells is also the *abiana* of the initial demand, and in villages which were given a progressive assessment it will increase five years hence. The increases will be worked out then and must be entered up in the registers referred to in paragraph 47. Should any of these wells fall out of repair after the progressive demand has come into force, they will of course be entitled to a remission of the enhanced *abiana* and not of the original *abiana*. Similarly, when the lease of any well in a village admitted to a progressive assessment expires after the increment accrues the amount deferred under the lease will become greater than that shown in the statements.

Lastly, as to the *ala lambardars' inams* entered in column 13. These have been calculated at 1 per cent. of the initial revenue of the village or part thereof in which the *ala lambardar* holds office. The orders, regarding the appointment of *safedposhes*, referred to in paragraph 57, were received after the preparation of the *kistbandis* and the payment of the first instalment of the new revenue, and no amounts are accordingly shown on this account. As the *ala lambardars* die off their *inams* will disappear and fresh *safedposh inams* will be created.

54. The new assessments were announced in the Gohana *tahsil* in March, and in Sampla and Jhajjar during May 1909. Orders were received on the Rohtak Report in September, and the *jamas* were immediately worked out by the Settlement Officer, but actually announced by the Extra Assistant Settlement Officer. When this work began the old revenue was often maintained where there could be no question of any substantial enhancement. Later however it was realised that this would not ordinarily facilitate *bachh* work owing to the adoption of a different system of distribution and because, as explained in paragraph 47, in many cases the *bachh* was not worked out in the minute fractions of a pie adopted at last settlement. The old *jama* was consequently maintained in *pattidari* villages only, and in *bhaiachara* estates the nearest multiple of 25 rupees above or below the old demand was taken.

The following statement shows the reception that the announcements met with:—

	Applications For Reconsideration.			Appeals		
	Total.	Rejected.	Accepted.	Total.	Rejected.	Accepted.
Gohana	12	10	2	...	...	...
Sampla	47	35	12	9	9	...
Jhajjar	27	21	6	12	10	2
Rohtak	43	36	7	24	21	3
Total	129	102	27	45	40	5

CHAPTER V-- MISCELLANEOUS.

55. Sanction was obtained in Secretary to Government's letter No. 286, dated 10th December 1909, to an increase of 2 girdawar kanungos and the cadre of the district now stands as follows :—

- 1 sadar kanungo.
- 1 assistant to sadar kanungo.
- 3 office kanungos.
- 12 field kanungos.

Fresh blood has been infused into the girdawar establishment, only three members of which held their appointments at the beginning of settlement. The office staff is weak.

The patwari establishment is unfortunately very weak. Their numbers are insufficient, and their abilities much below the average. The increase of irrigation, the reversion to fields of a reasonable size in which the *girdawari* can be a matter of accuracy instead of a farce, and the necessity for improving the standard at the record of the district and preventing a relapse to their normal state, furnished good grounds for asking for an increase in the staff. Unfortunately this was refused in Punjab Government letter No. 55 Rev., dated 11th February 1909, the only increase sanctioned being one in the small number of assistant patwaris. The pay of the staff has however been improved under the authority of that letter, and by absorption of the old anomalous canal allowances

which obtained in certain only of the canal circles. This measure, and a consequent regarding of the patwaris was sanctioned by the Financial Commissioner in his Senior Secretary's letter No. 2710, dated 5th May 1909. The present staff is:-

60 first grade patwaris at Rs. 15 per mensem.

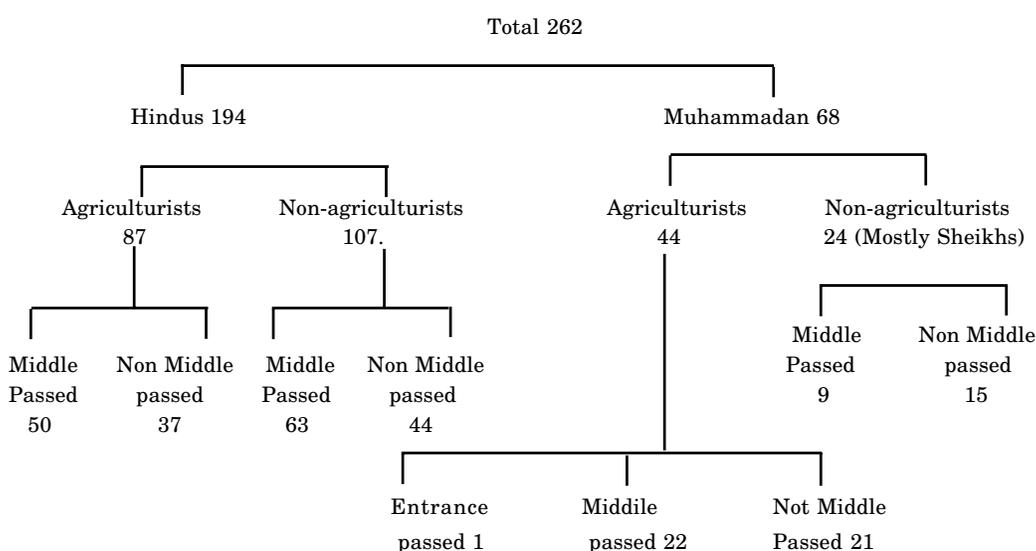
121 second grade patwaris at Rs. 12 per mensem.

61 third grade patwaris at Rs. 10 per mensem.

20 assistant patwaris at Rs. 8 per mensem.

Seven old and incompetent patwaris were retired immediately before settlement operations began and 37 more have followed them. Twelve others have resigned and as many more died. Nineteen have been dismissed for misconduct of one kind or another. Of the 262 patwaris only 139 held their appointments prior to 1904.

The following statement shows how low the attainments of the staff are:—



56. The *zaildari* system which was introduced in the settlement of 1879 was in the present settlement reorganised. The *zail* boundaries were altered, and the number of *zails* increased while the graded system of remuneration was introduced. The object of the redistribution was mainly to ensure the inclusion as far as possible within one *zail* of tribes belonging to the same *khap* or faction. For an account of these factions Ibbetson's classic report on the Kamal settlement (paragraph 190) should be consulted. There are now 42 *zails* of which one will be reduced at the next vacancy and absorbed in the Bahadargarh *zail*. The ultimate scale of remuneration will be—

11 zaildars on Rs. 350.

20 ditto 300.

10 ditto 200 with a single cadre throughout the district.

At present to prevent loss to existing incumbents by the change of system, there are also grades of Rs. 400 and Rs. 150 which will gradually disappear. The orders on this subject are contained in Senior Secretary to Financial Commissioner's letter No. 184, dated 12th January 1910.

57. The high hopes entertained of the *ala lambardari*, system (vide paragraph 18 of Mr. Fanshawe's report which was introduced at last settlement have not been realised. It is universally recognised that the *ala lambardar* has been a failure, and amongst a people so democratic as the Jats of Rohtak this must be so. He was appointed from among the *lambardars* of particular villages which happened to have 3 headmen of one tribe, themselves *lambardars* by virtue of heredity and not selection, and he was responsible only in the limits of his own village. He was not even *primus inter pares*. By the orders contained in Punjab Government letter No. 260, dated 16th April 1909, he was doomed to gradual extinction,

and since the beginning of settlement vacancies were not filled up. In their place it was decided to utilise the lapsed grants up to a total of $\frac{1}{4}$ per cent. of the land revenue in the creation of *safedposhi* inams. By the letter quoted in the foregoing paragraph it was decided to fix the emoluments of the *safedposhes*, of whom there will be 37, at a uniform rate of Rs. 80. There will not therefore ever be a *safedposh* in every *zail* at once, and there may be more than one within the limits of any *zail*. These inams are not necessarily confined to *lambardars*, and in practice it will often be found advisable to look outside their ranks, but in such cases the sanction of the Commissioner is necessary. (See correspondence ending with Senior Secretary to Financial Commissioner's letter No. 1122, dated 3rd March 1910.) At present the savings available from lapsed *ala lambardaris* are sufficient for the appointment of 13 *safedposhes* only, and these have been selected, and will come into office in 1910-11. Under the orders quoted above there is to be a quinquennial calculation of the balances available for fresh appointments.*

58. Mr. Fanshawe in paragraph 119 of his report, shows that there were 1,958 headmen in the district or one to every 50 Reduction of excessive posts of lambardars. owners, and explains the origin of this excess. To compose the claims of rival claimants in the regular settlement all were, wherever possible, appointed headmen. In other cases it appears that the *thuledars*, who are the representatives chosen by the people in their own councils as distinct from the *lambardars* who are appointed by Government, got themselves recorded as *lambardars* and so obtained a hereditary status and some remuneration. Proposals for reduction of the excessive number of headmen which found no favour in 1879 were at last adopted as the result of the, Police Commission report of 1902-03. Under these orders, which are contained in section 330 of the Land Administration Manual, a register has been prepared of proposals for reductions of superfluous posts and it has been prefaced by the printed correspondence which occurred in 1908-09, showing the lines on which the scheme is framed. Spare forms have also been provided on which to transcribe the Settlement Officer's proposals for any given village when the vacancy occurs and the time arrives to submit the proposals for sanction. Care will have to be taken to check the figures for each *lambardar's* holding and *jama* as these constantly change by inheritance and alienation. A large number of vacancies have actually been reduced on special reports during the term of settlement. If and when all the marked posts are absorbed the total number of headmen will have been reduced to 1,489, though some men hold office in more than one estate. These reduction necessarily give rise to some heart-durnings and there are cases in which it is almost a matter of chance which of two *lambardaris* has been set down for resumption and absorption in the other. In these cases it was proposed that it should be open to the Deputy Commissioner to select at any future vacancy a *lambardar* from either of the two families, thus widening his choice which is much restricted by the hereditary rule. The proposal however found no favour. A strict adherence to the rules requiring and permitting the dismissal of a headman and limiting the claim of his nearest heir to succeed will often enable the Deputy Commissioner to rid himself of an unsuitable *lambardar* or claimant to the post. Where a *lambardar* or his heir has insufficient property to justify his appointment it is a common practice in this district for his near relations to enter some of their land in their name. This is a cloke which should never be admitted. The transaction is never genuine and cases have occurred of the open rendition of the land soon after appointment. It is far preferable, if no other suitable appointment can be made to demand security from the *lambardar* for the fulfilment of his trust. On the other hand, it is only reasonable when considering the value of the property he holds to look to the largest harvest instalment for which he is responsible and not to the revenue of the whole year.

59. A useful note on the *mafis* of the district is to be found in the volume of Memoranda on the revised settlement published in 1880. Despite the care taken by Mr. Fanshawe in the matter, the *mafi* files of the district

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- Subsequently in Punjab Government letter No. 200.B. D., dated 27th April 1910 sanction was given to add to) the number of appointment as funds become available without waiting for a quinquennial revision,

were found to be in a great state of confusion. The registers do not appear to have been completed before he left the district, or if they were they must have been destroyed and replaced by copies. At all events the only registers available were incomplete from the start, had never been kept up to date, and were prepared on wretchedly thin paper which is torn to ribands. The actual files, in common with most files in the record room, were badly kept and often only obtainable with the greatest difficulty. Particularly are these remarks applicable to the *mafis* of the Shekhs of Rohtak which in common with many of the other old assignments of pre-mutiny days are transferable. No record whatever had been kept of the innumerable transfers that had taken place since settlement and generally no mutation order was entered. The various entries recorded at last settlement were discrepant and the *mafidars*, who were often not owners of the land, were utterly ignorant of their rights. While dealing with the question of these *milki mafidars* it may be well to mention that the question of their proprietary status was again raised in this settlement on the revenue side. The Financial Commissioner held that they were full proprietors, and the other owners of Rohtak thereupon agreed that the land held by them should rank equally with all other land for purposes of calculating the rights in the *shamilat*. One *misl hakkiat* for Rohtak town has accordingly been prepared instead of two as at last settlement and it is to be hoped that the vexed question of the origin of these rights and the title to the lands of Rohtak will not again protrude its ugly head through the loopholes that are still left in the meshes of the law.

New holograph *mafi* registers have now been prepared on good paper and filed in the office, while translations have been sent to the tahsils and given to the sadar kanungo. The *mafis* are grouped under 3 heads :-

1. For the up-keep of institutions (i. e., temples, mosques, wells, & c.).
- II A. In favour of persons in perpetuity.
- II B. In favour of persons for one or more lives.

A clear reference is made in each case to the original and subsequent orders, and to the connected files, and a note shows what *mafis* are transferable and what were granted for mutiny services. The latter note is made with reference to the orders contained in paragraph 187 of the Land Administration Manual. Two mutiny grants of Mehm were previously resumed in ignorance of the orders requiring a reference to the Financial Commissioner prior to the resumption of expired mutiny grants, and in another the third generation has now expired. Proposals for the continuance of these three grants have been submitted, but final orders are still awaited.* Excepting them there are the following grants now surviving in the district :—

Tahsil	Class			
	1.	II A.	II B.	Total
Rohtak	1	88†	1	90
Gobana	7	5	25	37
Jhajjar	50	14‡	39	103
Total	58	107	65	230

It is much to be desired that these new registers will be kept up to date by incorporation of subsequent changes. Many of the Shekhs and their alienees hold in a number of separate parts and to ensure the entry of the changes effected by any transfer an index of the "Shekhs' *mafi* of Rohtak" has been prepared and a copy given to the patwari.

* In two of these cases assignments for terms of settlement (Class II-C.) have now been sanctioned of Rs. 16 each.

† The Shekhs' *mafi* is shown in 84 parts.

‡ One of these is technically an assessment at favourable rates and not a *mafi*, but is here shown all it concerns an entire estate.

The old *mafi* registers have been placed together in a single portfolio. These consist of the following:—

- (1) Copy of register prepared in 1848 under the orders of the Board of Revenue, Allahabad. The register is in three parts. grants in perpetuity, grants for life, grants for religious and charitable purposes. All grants found in these registers were held to be valid after the transfer of the Delhi territories to the Punjab. They concern the north of the district.
- (2) Registers A, B, and C, prepared in 1860 for the Bahadurgarh territory after the confiscation of the Nawabi.
- (3) Register for the Badli parganah, and
- (4) Register for the Jhajjar parganah: these two were similarly prepared in 1860 for the confiscated Jhajjar Nawabi.
- (5) The four tahsil registers of 1879 are also in the portfolio.

Besides these there are also the following records :—

- (1) Two *robkars* of the Punjab Government, dated 18th and 21st August 1860, in vernacular file No. 9, dated 14th December 1862. These orders are the original authority for many small grants.
- (2) A thick red register of proposals submitted in 1879 on which orders were passed in Punjab Government letter No. 978, dated 12th October 1880.
- (3) Special creations in various English office files. In every case in column 6 of the new register a reference has been made to the appropriate entry in the registers of 1879, or to later orders as the case may be, and behind them to the original registers of 1848, 1860, or 1862, as well as to the file containing the English orders, where such exist, sanctioning the entries in the various registers.

The total amount of revenue (initial) remitted under man is as follows, excluding the assessment at favorable rates referred to above:-

Tahsil	Class													
	I.			II A.			II B.			Total				
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.		
Rohtak	5	0	0	1,946	14	9	5	12	5	1,957	11	2
Gohana	34	0	5	357	8	7	636	7	5	1,028	0	5
Jhajjar	1,603	12	11	2,710	8	10	2,230	10	1	6,544	15	10
Total	1,642	13	4	5,015	0	2	2,872	13	11	9,530	11	5

When deferred assessments fall due the amount of the *mafis* entered in the registers will in some cases be increased.

60. By paragraph 9 of the orders of the Government of India alluded to in paragraph 38 above, it was ordered that that portion of land demand which is due to the extra charge on irrigable land (or more correctly on average area irrigated) should be transferred to the canal department as indirect credit. The exact method of calculating the credit was discussed in correspondence ending with Senior Secretary to Financial Commissioner's letter No. 2035, dated 19th April 1910, and the following sums were worked out by the Settlement Officer and submitted in his letter No. 241, dated 16th May 1910:—

Tahsil	Initial Demand		Progressive Demand 6th year		Final Demand 11th year	
	Kharif 1909	Rabi 1910	Kharif 1914	Rabi 1915	Kharif 1924	Rabi 1925
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Rohtak	8,615	8,330	9,095	8,615	9,095	8,615
Gohana	9,435	9,300	9,880	9,830	9,940	9,855
Jhajjar	775	600	795	610	795	610
Total	18,825	18,230	19,770	19,055	19,830	19,080

61. There is very little Government waste land left in the district. A large part (1,264 acres) of the Chhuchhakwas Birh has been let out in ten-year leases, and the decision to retain the rest intact should not be lightly set aside. In Birh Dadri there is now no waste, all the land having been given in reward grants or let on five-year cultivation leases. In Birh Sunarwala both leases and grants have been made and it has been decided to retain the rest as a grazing ground. Proposals for the future treatment of the leased lands, on expiry of the current terms, were submitted in Settlement Officer's letter No. 214, dated 11th June 1909. Final orders have not been passed in the case. The Financial Commissioner in his Senior Secretary's letter No. 4365, dated 14th August 1909, directed a reference to be made to this correspondence when any of the leases in question was about to expire. In view of the great demand for land it is desirable as far as is legal under the waste land lease rules to let as many persons as possible enjoy the benefit of a tenancy from time to time, and to recognise in the selection of grantees the claims of civil as well as of military service.

62. The trijunction pillars have been put into proper repair. Their chief enemies are herd boys who delight in pulling them to pieces, and their repair is always tiresome. It was therefore suggested that the people should put in solid stone pillars, which will last to all time, but they were only compelled to do so when they had failed to put the old masonry pillars in repair. In all 635 stone pillars were put in. They were hewn from the Delhi quarries and cost from Rs. 4-2-0 to Rs. 5-6-0 each, delivered at tahsil headquarters. Their great drawback is their weight which is nearly 14 maunds each. Their conveyance over bad roads, and removal to the actual site, has caused much difficulty. If the demand for them increases small rough trollies should be constructed for their transport.

63. The *Riwaj-i-am* prepared at first settlement was very incomplete. It has now been revised and largely amplified, the original enquiries having been conducted and answers recorded by M. Badri Prasad, Extra Assistant Settlement Officer. The work is not yet complete, but it is hoped to supplement the people's answers by reference to judicial decision~ and to precedents taken from mutation files.

64. The new records were filed in the sadar kanungo's office, which had to be enlarged during settlement operations, as soon as the Settlement Officer had signed the bound volumes. The SampIa records were first filed at the end of March 1910, and were followed a few days later by the Gohana collection. The Jhajjar records came in the middle of April and the Rohtak records a month later. In the sadar kanungo's office they were carefully scrutinised and all unattested pages and erasures were signed before the sadar kanungo finally accepted responsibility. This scrutiny was very necessary, and indeed two Naib Tahsildars who had left the settlement had to be recalled at their own expense to make good their delinquencies. At the same time the old records with the patwaris were called in and disposed of under standing orders. Owing to the concentration of the records of four tahsils in three buildings, due to the abolition of Sampla tahsil, it has been found necessary to enlarge the Rohtak and Gohana tahsil offices and to provide more accommodation in the Jhajjar record room as well.

65. A scheme to govern the treatment of suspensions, recoveries and remissions of land revenue in the district was submitted by the Settlement Officer in his letter No. 25, dated 28th February 1910. The scheme, as sanctioned by the Financial Commissioner with some slight modifications, in his Senior Secretary's letter No. 47 S., dated 24th May 1910, is printed as Appendix D of this report.

66. The abstract village note-books were found very useful in assessment, and have escaped the doom of the scrap heap which recently threatened them. These have now been re-bound and consist of the following papers for each Village.

- (1) Transcript of the assessment note of 1879 (the original handsome volumes of that settlement have been carefully preserved in the office).
- (2) Abstract figures taken from the old note book for the years 1885-86 to 1908-09, with notes by district officers in original.
- (3) The Settlement Officer's assessment statement and notes recorded in 1906-09, in original, with small scale map.
- (4) New form for abstract statistics during currency of present settlement and blank pages for notes.

67. The number of mutations decided up to the end of December 1909 has been shown in paragraph 45 to be 185,000. The volume of other work disposed of by the Settlement Officer up to 9th April 1910, when he became Deputy Commissioner and dealt with these cases as such, and by the Extra Settlement Officer up to the end of May 1910, was as follows :-

Revenue Court cases.—

Enhancement or abatement of rent cases	...	...	...	477
Miscellaneous				6

Revenue Officer's cases.—

Partition cases	...	...	...	1,107
Boundary cases	...	...	...	7116
Zaildari and lambardari cases	...	...	...	940
Patwaris' and kanungos' cases	2,056
Other cases under Land Revenue Act	2,2841
<i>Mafti</i> case	852

Total	8,995
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68. The settlement began at the end of October 1905. I was in charge of it throughout, but for three months in the summer of 1908 when I was on privilege leave, M. Badri Prasad was placed in current charge of my duties. For two months, or rather more, in the summer of 1909, I acted as Senior Secretary to the Financial Commissioner in addition to my other duties, and from April 10, 1910, I was appointed Deputy Commissioner as well as Settlement Officer. M. Badri Prasad was Extra Assistant Settlement Officer from the start, though the post was filled for 21 months in 1908-09, while he was on leave, by S. Rahim Bakhsh. The post of Extra Assistant Settlement Officer was reduced during June 1910. To M. Badri Prasad must be attributed whatever credit is due for the preparation of the new records. By sheer ability and unflagging industry he has worked his way up the revenue ladder from patwari to Extra Assistant Commissioner. His knowledge of detail is unsurpassed. At times indeed I have felt that it has somewhat clogged rather than lubricated the wheels of the settlement machine, but it is impossible to do other than admire the high standard of accuracy and industry which he has set to all his subordinates. With the work of assessment he was not directly concerned, but I am indebted to him for the willingness with which he has elaborated his opinions on every subject on which his advice was sought.

Of the Tahsildars who worked in the settlement M. Harnam Singh and S. Nazir Husain were both recommended for the post of E. A. C. The former was distinctly the ablest of the Tahsildars, and has the power of getting work out of others. The latter is of a steady and reliable type of public servant. Among Naib Tahsildars and candidates who officiated as such, B. Amir Singh, L. Devi Ditta Mal, M. Muhammad Ismail, M. Shah Amir, M. Muhammad Gulab Khan and L. Diwan Chand did the best work in the field,

the last-named acting on several occasions with credit as Tahsildar. B. Sant Singh was a very conscientious and hard-working head clerk, M. Parmeshri Das an industrious and reliable reader and M. Barkat Ali and L. Ram Lal did good work in the tracing department. Amongst settlement kanungos Ram Saran Das, Allah Ditta, Sham Singh, Kias Gul, Muhammad Din, Sundar Das Siyal, Sundar Das Bhandari, Khem Chand, Shah Sowar, Nayar Hussain, Habib Alam, Ram Diya. Mal, Harnam Singh and Diwan Chand (candidate) deserve commendation for specially good work in their several departments. Of the district staff Abdur Rahman and Bhagwan Das are entitled to praise.

On the whole the conduct of the staff was good, but there were unfortunately several instances in which the public interests were sacrificed to private intrigues, while in Rohtak tahsil a fire occurred which destroyed the records of several villages, while at the same time the maps of others disappeared. There was a strong suspicion of incendiarism. It is to the credit of the staff, that there were but few complaints of corrupt practices, especially against the higher ranks.

The staff began to disperse early in March) 1910. The process would have begun earlier and the expense of this settlement have been somewhat reduced but for the unexpected postponement of the Amritsar settlement.

Eight Assistant Commissioners, 4 probationary E. A.C's., 3 candidates for the post of Tahsildar, 14 for that of Naib Tahsildar and 36 for the post of kanungo, were trained in the settlement.

69. Thirty-year settlements are the common rule of the Delhi tract, and cultivation in the Rohtak District is so fully developed that in ordinary circumstances there could be no hesitation in recommending this term for the currency of the new settlement. The revenue now imposed under the orders of the Government of India is, however, in the irrigated tracts so far below the sum which the Local Government and the people alike anticipated as the result of re-assessment, and so much further still below the pitch of the half net assets, that I am reluctantly compelled to recommend that at least in the new tahsils of Gohana and Rohtak the term of settlement should be fixed at 20 years. In the new Jhajjar tahsil canal irrigation is at present negligible, and should the extensions of the future be but slight, they will be sufficiently tapped by the rules regarding the assessment of new irrigation. As the present assessment of this tract is relatively much fuller than that of the two northern and canal irrigated tahsils, one is tempted to propose a thirty years term for this tahsil. There is, however, the possibility of considerable extensions of the canal if the Sarda-Ganges project is matured, and it will on the whole be wiser to fix one term throughout the district. It will be easy enough on the expiry of 20 years even if a revision of the assessment seems then necessary in the Robtak and Gohana tahsils, to extend the term of the present settlement in Jhajjar.

70. The great bulk of this report was written in March last. The delay in its completion was due partly to the necessity of awaiting orders on the suspension scheme, but mainly to the lapse of nearly eight months that occurred in the disposal of the question noted in paragraph 39.

The attention of the Deputy Commissioner is specially invited to the following points:—

1. Assessment on extensions of canal irrigation-paragraph 39 and Appendix F.
2. Remissions on flooded fields-paragraph 42.
3. Bachh — paragraphs 47 and 48.
4. Mafis-paragraph 59.
5. Suspension and remission scheme-paragraph 63 and Appendix D.

SIMLA :
7th October 1910 }

E. JOSEPH.
Settlement Officer.

GLOSSARY OF VERNACULAR WORDS

Vernacular word.	Meaning or explanation.
Abadi	Village site.
Abiana	{ 1. Occupier's rates. 2. Wet assessment on wells, as distinct from dry assessment on the well lands.
Ala lambardar	Chief village headman.
Andhi kodha	Hoeing before germination.
Asoj	A month (September to October).
Bajra	Bulrush millet (<i>Pencillaria spicata</i>)
Banjar	Uncultivated fallow.
Batai	Division of produce as a form of rent.
Bejhar	A mixture of barley and gram.
Batua	A weed (<i>Chenopodium album</i>).
Bhadon	A month (August to September).
Bhadwar	Land which has been ploughed in Bhadon.
Bhaiachara	Tenure in which possession is the measure of right.
Bhisti	Muhammadan water-carrier.
Bila lagan	Rent free.
Birh	Forest land.
Chak	A flat round vessel in which to cool the cane juice.
Chaula	A pulse (<i>Vigna catiang</i>).
Chet	A month (March to April).
Dakar	Hard clay soil found in depressions.
Dhania	Coriander seed.
Dhenkli	A bucket lift.
Dusra pani	Second watering after germination.
Farash	A tree (<i>Tamarix indica</i>).
Fard bachh	List of distribution of revenue over holdings.
Ganda nala	Filthy channel, a drainage line so called.
Gatha	A unit of measure=99 inches.
Ghi	Clarified butter.
Girdawari	Crop inspection.
Gochni	A mixture of wheat and gram.
Gojra	Do. do. barley.
Gora	Naturally manured land round the village site.
Goshwara	An abstract.
Gowar	A pulse (<i>Cyamopsis psoralioides</i>).
Har	A month (June to July).
Inam	A cash allowance paid to secure the services of a man of influence in a village.
Ishtimal	Consolidation.
Jagir	Assignment of land revenue.
Jama	Revenne.
Jamabandi	Record of rights.
Jeth	A month (May to June).
Jhil	A swamp.
Jinswar	Crop return.
Jowar	The great millet (<i>Sorghum vulgare</i>).
Kachcha	Unlined (of a well), 5/24ths of an acre (of a bigha).
Kamil	Full.

GLOSSARY OF VERNACULAR WORDS.—*Continued*

Vernacular words.	Meaning or explanation.
Kankar	Limestone nodules.
Karam kan	Dimensions of sides of a field.
Katak	A month (Ocoober to November).
Kham	As kachcba.
Khalsa	Government dues (as contrasted with jagir).
Kharaba	Failed to ripen.
Kharif	The autumn harvest.
Khartua	A weed (<i>Chenopodium murale</i>).
Khati	Carpenter.
Khasra chahat	Register of wells.
Khasra girdawari	Register of crop inspection.
Khatauni	A slip containing entries of fields cultivated by one tenant.
Khewat number	Series by owners.
Khush haisyati	Owner's rate.
Khud kasht	Land cultivated by owner.
Killabandi	Remodelling of the fields on rectangles.
Kor	First watering after germination.
Kund	A large earthen vessel to hold cane juice.
Latha	A kind of cloth.
Lohar	An ironsmith.
Mafi	Assignment of revenue.
Mafidar	Holder of a mafi.
Magh	A month (January to February).
Maghair or Maghsar	A month (November to December).
Malba	Village common funds.
Malikana	Payment made to a landowner in recognition of his proprietary right.
Masawi	Mapping sheet.
Mash	A pulse (<i>Phaseolus radiatus</i>).
Masina	A mixture (of pulses).
Masur	A lentil (<i>Ervum lens</i>).
Matiar	Stiffish loam.
Methi	A fodder crop (<i>Trigonella fenugroecum</i>).
Milki mafidar	An assignee having proprietary right only in the land assigned.
Misl hakkiat	Record of rights (see Jamabandi).
Moth	A pulse (<i>Phaseolus aconitijolius</i>).
Matia	A coarse grass.
Mung	A pulse (<i>Phaseolus mungo</i>).
Naddi	Stream, torrent.
Naib Tahsildar	Sub-tahsildar (<i>q. v.</i>).
Nawab	Muhammadan ruler.
Nawabi	Territory of a Nawab.
Pakka	Five-eighths of an acre (of a bigha); lined (of a well)
Palewar	Initial watering.
Panchayat	A meeting of influential men in a village or tract.
Parganah	A sub-division of a district.
Parcha	A slip of paper.
Parta	Rate.
Parat sirkar	Government's copy of maps or records.
Parat patwar	Patwari's copy of maps or records.
Patsan	(See san).

GLOSSARY OF VERNACULAR WORDS.—*Continued*

Vernacular words.	Meaning or explanation.
Patti	A sub-division of a village.
Pattidari	Tenure where possession is based on hereditary or customary shares.
Patwari	Village revenue accountant.
Phagan	A month (February to March).
Piazza	A weed (<i>Asphodelus fistulosutl</i>).
Poh	A month (December to January).
Pukhta	As pakka.
Pui	Cotton picking by hired labour.
Rabi	Spring harvest.
Raja	A Hindu ruler.
Rausli	Loam.
Rausli chahi	Loam irrigated by well.
Riwaj-i-am	Customary law.
Sadar	Head-quarters of a district.
Sadar Kanungo... ..	District Kanungo.
Sag	“Greens.”
Safedposh	A yeoman grantee.
Sambat	Year (Bikramajit era).
San	Roselle hemp (<i>hibiscus cannabinus</i>).
Sani	A fibre plant (<i>crotolaria juncea</i>).
Sar	Saccharum munja, a grass.
Sarsari parta	Distribution of revenue by a uniform rate on all soils.
Sarsari tarmim	Summary correction of map.
Sarson	Rape seed (<i>Brassica campestris</i>).
Sawan	A month (July to August).
Ser	The 1/40th of a maund; 2 pounds (approximate).
Shajra	Map.
Shamilat	Village common land.
Tahsil	A Sub-division of a district.
Tahsildar	The officer in charge of a tahsil (<i>q. v.</i>).
Taraf	A sub-division of an estate.
Taramira	An oil-seed (<i>Eruca sativa</i>).
Thapar	Land consolidated by irrigation or the monsoon rains.
Thuledar	Representative of a sub-division of an estate.
Til	An oil-seed (<i>sesamum indicum</i>).
Umra	Land which has borne an unirrigated spring crop.
Wajib-ul-arz	Village administration paper.
Waris	Heir.
Wasil baki nawis	Revenue Accountant.
Zail	A group of villages.
Zaildar	A non-official in charge of a zail, a rural official.
Zamindar	Farmer.
Zamindari	Tenure by a single proprietor or several jointly.

LIST OF APPENDICES.

No.	Subject.
A	Statement showing composition of assessment circles at time of assessment and now.
B	Showing the tahsil in which each village fell before and after the reduction of Sampla tahsil.
C	Well pamphlet.
D	Sus pension, remission and recovery scheme.
E	Scheme for future application of fluctuating assesement in Southern Dahri circle of Jhajjar.
F	Rules regarding assessment of future extensions of canal irrigation.
G	Cost of Settlement.
H	Principal notifications.

APPENDIX A.
SEE PARAGRAPH 15.

Tehsil	Present circle.	Circle of assessment reports.		Detail of last column.
Gohana	Eastern Nahri.	Eastern circle, Gohana	...	Complete.
	Western Nahri	Western circle, Gohana	...	Do.
	Southern Nahri	Nahri II circle, Rohtak	...	Villages of Seman, Bedwah, Bahalba, Khar, Khara, Mokhra, Khas, Mokhra Kheri, Raunj, Nidana, Farmatnah, Khas, Farmanah Badshahpur, Bharan, Ajaib, Madinah Gindran, Madinrlh Kaursian, Nirannah, Gurawar, Bainsi, Gugaheri, Kharak Jatan, Lakhan-Mazra, Chiri, Kharak Charungla, Chandhi, Nandal, Guraothi, Kharainti, Muradpur Tekna.
Rohtak	Mehm	Western circle, Rohtak	...	Complete.
	Nahri I	Nahri I circle, Sampla	...	Complete
		Nahri II circle, Rohtak	...	Do
		Nahri II circle, Sampla	...	Villages of Hasangarh, Sam chana, Mor-kheri, Kansala, Humayunpur, Bakheta, Gurar, Nizampur Majrah, Polangi. Mun-gan, Rurki, Asan, Bhalot, Pakasmah, Kasrainthi, Atail, Nanaund, Baliana, Kheri Sadh, Karor, Kharawar, Chulianah, Ismailah 9 biswab, Ismailah 11 biswah, Gandhrah, Dataur, Gijhi, Bhainsru Khurd, Nayabas, Kheri Sampla, Sampla, Gadhi Sampla.
		Barani circle, Sampla	...	Village of Bhainsru Kalan
	Nahri III	Nahri II circle, Rohtak	...	Villages of Bahu Jamalpur, Bahu Akbarpur, Samar Gopalpur, Bhagwatipur, Katwarah, Ghuskani, Basantpur, Makrauli Kalan, Ladhana, Dhamar, Bhayapur, Kilo Khas, Kilo Dopana, Bohar, Parah, Pahra-war, Karaunthah, Maina, Simli, Kanahli, Bhali-Anandpur.
Rajputs	Rajputs Rohtak	...	Complete.	
Barani	Rohtak Eastern.	...	Villages of Sunari Khurd, Sunari Kalan, Jalalpur, Baland, Kakranah, Gurnaothi, Ballab, Marodhi Jatan, Ratauli, Kabulpur, Matana, Sundana, Masudpur, Dobh.	
Jhajjar	Nahri	Nahri II circle, Sampla	...	Villages of Bhambewah, Dighal, Diwanah, Barhanth, Bhapraudah, Asenda, Mazra. Asenda, Asaudah Sawan, Asandah Todran, Kulasi, Ladrawan, Khairpur, Mukand. pur, Kanaundah, Barahi, Bahmnauli, Parnalah, Hasanpur, Bahadurgarh, and Kharhar.
		Barani circle, Sampla	...	Complete except for Bhainsru Kalan.
	Rausli Chahi...	Rausli Chabi circle, Jhajjar	...	Complete.
	Barani	Rausli Barani circle, Jhajjar	...	Do.
		Eastern circle, Rohtak	...	Villages of Bisahan, Beri Khas, Beri Dopanah, Bhutian, Dubaldban Bedian, Dubalddhan Ghikian, Dubaldban Kirmian, Majrah Sewanah, Chimni, Dhuranah, Wazirpur Bagpur and Bakrah.
	Bhur	Bhur circle, Jhajjar	...	Complete.
Northern Dahri	Dahri circle, Sampla.	...	Do.	
Southern Dahri	Dahri circle, Jhajjar	...	Do.	

APPENDIX B

SHOWING THE TAHSIL IN WHICH EACH VILLAGE FELL BEFORE AND
AFTER THE REDUCTION OF SAMPLA TAHSIL

Name of Village	Tahsil	
	Previous	Present
Achhej	Jhajjar	Jhajjar
Agarpur	Sampla	Do.
Ahwadpur Majra	Gohana	Gohana
Ahmadpur Partal	Jhajjar	Jhajjar
Ahri	Do	Do.
Ahulana	Gohana	Gohana
Ajaib	Rohtak	Do
Amadapur	Jhajjar	Jhajjar
Aauboli	Do	Do
Anwal	Rohtak	Rohtak
Anwali	Gohana	Gohana
Asadpur	Jhajjar	Jhajjar
Asan	Sampla	Rohtak
Asaudah Sewan	Do	Jhajjar
Do. Todran	Do	Do
Asendah	Do	Do.
Ahrafpur Matindu	Do	Rohtak
Atail	Do	Do
Aursngpur	Jhajjar	Jhajjar
Babipur	Do	Do
Babrah	Do	Do
Babuliah	Do	Do
Badli	Do	Do
Bagpur	Rohtak	Do
Bahadurgarh	Sampla	Do
Bahali Asandpur	Rohtak	Rohtak
Bahalbah	Do	Gohana
Bahmanwas	Do	Rohtak
Bahrampur	Jhajjar	Jhajjar
Bahu Akbarpur	Rohtak	Rohtak
Satin Jamalpur	Do	Do.
Bainsi	Rohtak	Gohana
Bakheta	Sampla	Rohtak
Bakhtiarpur (<i>alias</i> Raiyah)	Jhajjar	Jhajjar
Bakrah	Rohtak	Do
Ballab	Do	Rohtak
Baland	Do	Do
Balaur	Sampla	Jhajjar
Bali	Gohana	Gobana
Baliana	Sampla	Rohiak
Bamnaula	Jhajjar	Jhajjar
Bamnauli	Sampla	Do
Banwasah	Gohana	Gohana
Banyani	Rohtak	Rohtak
Barahi	Sampla	Jhajjar
Bardhana	Jhajjar	Do
Barhana	Gohana	Do
Barona	Do	Rohtak
Barodah Mor	Gohana	Gohana
Barodab Thuthan	Do	Do
Barotha	Do	Do
Barsa	Jhajjar	Jhajjar
Basantpur	Rohtak	Rohtak
Bathera	Jhajjar	Jhajjar
Bazidpur tapa Birohar	Do	Do
Do Do Haveli	Do	Do
Bedwah	Rohtak	Gohana

APPENDIX B—Continued

Name of Village	Tahsil	
	Previous	Present
Beri Dopanah	Do	Jhajjar
Berikhas	Do	Do
Bbadana	Jhajjar	Do
Bbadani	Do	Do
Bhadauti Khas	Gohana	Gohana
Bhadanti aluka Busaush	Do	Do
Do do Mundlana	Do	Do
Bhagotipur	Rohtak	Rohtak
Bhaini Bharon	Do	Gohana
Bhaini Chandarpal	Rohtak Do.	Gohana
Bhaini Mahasrajpur	Do	Do
Bhaini Surjan	Do	Do
Bhainsru Kalan	Sampla	Rohtak
Bhainsru Khurd	Do	Do
Bhainawan Kalan pana Baola	Gohana	Gohana
Do do do Mithan	Do	Do
Bhainiwan Khurd	Do	Do
Bhaiyapur	Rohtak	Rohtak
Bhakli	Jhajjar	Jhajjar
Bhalaut	Sampla	Rohtak
Bhambewa	Do	Jhajjar
Bhapraudah	Do	Do
Bharan	Rohtak	Gohana
Bhawar	Gohana	Do
Bhikanpur	Jhajjar	Jhajjar
Bhindawas	Do	Do
Bhurawas	Do	Do
Bhurthala	Do	Do
Bhutian	Do	Do
Bichpari	Gohana	Gohana
Bidhal	Do	Do
Bidhlan	Sampla	Rohtak
Bilbilan	Gohana	Gohana
Bilochpurah	Jhajjar	Jhajjar
Birar	Do	Do
Bir Barkatabad	Sampla	Do
Bir Chuchakwas	Jhajjar	Do
Bir Dadri	Do	Do
Birohar	Do	Do
Bir Sunarwala	Do	Do
Bisahlan	Rohtak	Do
Bithala	Jhajjar	Do
Bohar	Rohtak	Rohtak
Bundheri	Gohana	Gohana
Bupania	Sampla	Jhajjar
Buria	Jhajjar	Do
Buriawas	Do	Do
Busanah I	Gohana	Gohana
Do II	Rohtak	Rohtak
Butana pana Khetlan	Gohana	Gohana
Do do Kundan	Do	Do
Camphellgarh	Jhajjar	Jhajjar
Chamari	Rohtak	Rohtak
Chandaul	Jhajjar	Jhajjar
Chandi	Rohtak	Gohana
Chandpur	Jhajjar	Jhajjar
Chaudpuri	Do	Do
Chhadwanah	Do	Do
Chhanauli	Sampla	Rohtak
Chhapar	Jhajjar	Jhajjar

APPENDIX B—Continued

Name of Village	Tahsil	
	Previous	Present
Chhaprah	Gohana	Gohana
Chharah	Sampla	Jhajjar
Chhaterah	Gohana	Gohana
Chhawah	Jhajjar	Jhajjar
Chhichranah	Gohana	Gohana
Chhuchhi	Sampla	Jhajjar
Chhudani	Jhajjar	Do
Chimni	Rohtak	Do
Chiranah	Gohana	Gohana
Chiri	Rohtak	Do
Chulianah	Gohana	Gohana
Dabandah Kalan	Do	Jhajjar
Do Khurd	Do	Do
Dadanpur	Jhajjar	Do
Dadri	Do	Do
Dahkaurah	Sampla	Do
Daryapur	Jhajjar	Do
Dataur	Sampla	Rohtak
Daola	Jhajjar	Jhajjar
Desalpur	Sampla	Do
Dewanah	Do	Do
Dewarkhanah	Jhajjar	Do
Dhakhla	Do	Do
Dhamar	Rohtak	Rohtak
Dhanah	Jhajjar	Jhajjar
Dhananah Allahdapur	Gohana	Gohana
Dhandlan	Sampla	Jhajjar
Dhaniah	Jhajjar	Do
Dhanirwas	Do	Do
Dharanah	Rohtak	Do
Dharauli	Jhajjar	Do
Dhaur	Do	Do
Dhilanwas	Do	Do
Dhuranah	Gohana	Gohana
Dighal	Sampla	Jhajjar
Dobh	Rohtak	Rohtak
Dubaldhan Bidian	Do	Jhajjar
Dubaldhan Ghikian	Do	Do
Dubaldhan Kirmian	Do	Do
Dulehra	Sampla	Do
Durinah	Jhajjar	Do
Faizabad	Do	Do
Farmanah	Sampla	Rohtak
Do Badshahpur	Rohtak	Gohana
Do Khas	Do	Do
Fatehpur	Jhajjar	Jhajjar
Fatehpuri	Do	Do
Fordpura	Do	Do
Gaddi Ballab	Rohtak	Rohtak
Do Kheri	Do	Do
Do Sampla	Sampla	Do
Gandhra	Do	Do
Ganganah	Sampla	Gohana
Gangarwah	Sampla	Jhajjar
Gangesar	Gohana	Gohana
Gangtian	Sampla	Jhajjar
Ganwri	Gohana	Gohana
Garhi Sisanah	Sampla	Rohtak
Do Ujale Khan	Gohana	Gohana

APPENDIX B—Continued

Name of Village	Tahsil	
	Previous	Present
Garhwal	Do	Do
Gowanah	Do	Do
Ghilaur Kalan	Do	Do
Do Khurd	Do	Do
Ghuskani	Rohtak	Rohtak
Gijaraudh	Jhajjar	Jhajjar
Gijhi	Sampla	Rohtak
Girdharpur	Jhajjar	Jhajjar
Gochhi	Sampla	Do
Godhri	Jhajjar	Do
Goela Kalan	Sampla	Do
Gohana	Gohana	Gohana
Gopalpur	Sampla	Rohtak
Gubhana	Do	Jhajjar
Gudha I	Jhajjar	Do
Do II	Gohana	Gohana
Gugaheri	Rohtak	Do
Gudodh	Jhajjar	Jhajjar
Guraothi	Rohtak	Gohana
Gurar	Sampla	Rohtak
Gurawar I	Jhajjar	Jhajjar
Do II	Rohtak	Gohana
Guriani	Jhajjar	Jhajjar
Gurnaothi	Rohtak	Rohtak
Gwalesan	Jhajjar	Jhajjar
Habibpur Wiran	Do	Do
Husainganj <i>alias</i> Jahazgarh ...	Do	Do
Hasangarh	Sampla	Rohtak
Hasanpur I	Jhajjar	Gohana
Hasanpur II	Rohtak	Jhajjar
Humayunpur I	Jhajjar	Do
Do II	Sampla	Rohtak
Isapur Kheri	Gohana	Gohana
Ishahea	Sampla	Jhajjar
Isharhera	Jhajjar	Do
Islamgarh	Do	Do
Ismailah 11 biswah	Sampla	Rohtak
Do 9 biswahs	Do	Do
Ismailpur	Jhajjar	Jhajjar
Jagsi	Gohana	Gohana
Jahangirpur	Jhajjar	Jhajjar
Jakhala	Do	Do
Jakhaudah	Sampla	Do
Jalalpur	Rohtak	Rohtak
Jamalpur	Jhajjar	Jhajjar
Jasaur	Sampla	Rohtak
Jasia	Rohtak	Do
Jasrana	Jhajjar	Jhajjar
Jasarana	Gohana	Gohana
Jatwarah	Jhajjar	Jhajjar
Jauli	Gohana	Gohana
Jaundhi	Jhajjar	Jhajjar
Jawahra	Gohana	Gohana
Jitpur	Jhajjar	Jhajjar
Jhajjar	Do	Do
Jhamri	Do	Do
Jhanswah	Do	Do
Jharli	Do	Do
Jindran	Rohtak	Rohtak
Kablanah	Jhajjar	Jhajjar

APPENDIX B—Continued

Name of Village	Tahsil	
	Previous	Present
Kabulpur	Rohtak	Rohtak
Kachhrauli	Jhajjar	Jhajjar
Kahri	Do	Do
Kahlpa	Gohana	Gohana
Kahni 7½ biswah	Do	Do
Do 12½ biswah	Do	Do
Kahrawar	Sampla	Rohtak
Kailana Khas	Gohana	Gohana
Do Taluka Khanpur	Do	Do
Do Do Mahmudpur	Do	Do
Kakhana	Jhajjar	Jhajjar
Kakhana (Bahadri)	Gohana	Gohana
Kakrana	Rohtak	Rohtak
Kalanaur Kalan	Do	Do
do Khurd	Do	Do
Kaliawas	Jhajjar	Jhajjar
Kahahli	Rohtak	Rohtak
Kanaundah	Sampla	Jhajjar
Kanharwas	Jhajjar	Do
Kanhaur	Rohtak	Rohtak
Kansala	Sampla	Do
Kanwah	Jhajjar	Jhajjar
Karaudh	Do	Do
Karauntha	Rohtak	Rohtak
Karaur	Sampla	Do
Kasar	Do	Jhajjar
Kasendah	Gohana	Gohana
Kasendhi	Do	Do
Kasni	Jhajjar	Jhajjar
Kasarahnti	Sampla	Rohtak
Katesrah	Rohtak	Do
Kathurah	Gohana	Gohana
Katwal	Do	Do
Katwarah	Rohtak	Rohtak
Kelangah	Do	Do
Khairpur	Sampla	Jhajjar
Khalikpur	Jhajjar	Do
Khandah	Sampla	Rohtak
Khandrai	Gohana	Gohana
Khanpur Kalan	Do	Do
Khanpur Khurd	Gohana	Gohana
Khaparwas	Jhajjar	Jhajjar
Kharainthi	Rohtak	Gohana
Kharak Churangla	Do	Do
Kharhar	Sampla	Jhajjar
Kharak Jatan	Rohtak	Gohana
Do Kalan	Do	Rohtak
Do Khurd	Do	Do
Kharkharah	Rohtak	Gohana
Kharkhaudah	Sampla	Rohtak
Kharari	Rohtak	Do
Khatiwas	Jhajjar	Jhajjar
Kheri Asra	Sampla	Do
Do Damkan	Gohana	Gohana
Do Hoshdarpur	Jhajjar	Jhajjar
Do Jasaur	Sampla	Rohtak
Do Jat	Jhajjar	Jhajjar
Do Khumar	Do	Do
Do Madanpur	Do	Do

APPENDIX B—Continued

Name of Village	Tahsil	
	Previous	Present
Do Mehm	Rohtak	Gohana
Do Sadh	Sampla	Rohtak
Do Sampla	Do	Do
Do T. Pataudh	Jhajjar	Jhajjar
Kherka Gujar	Sampla	Do
Do Musalmanan	Do	Do
Khetawas	Jhajjar	Do
Khirman	Sampla	Do
Khirwali	Rohtak	Rohtak
Khundrali	Jhajjar	Jhajjar
Khungai	Do	Do
Khurrampur	Sampla	Rohtak
Kiloi	Jhajjar	Jhajjar
Do Dopanah	Rohtak	Rohtak
Do Khas	Do	Do
Kilraudh	Jhajjar	Jhajjar
Kirauli	Sampla	Rohtak
Kohla	Gohana	Gohana
Kaldpuri	Jhajjar	Jhajjar
Kok	Do	Do
Kosli	Do	Do
Kudan	Do	Do
Kulanah	Do	Do
Kulasi	Sampla	Do
Kultanah	Do	Do
Kunjiah	Jhajjar	Do
Kutanah	Rohtak	Rohtak
Kutani	Jhajjar	Jhajjar
Ladain	Do	Do
Ladhaud	Rohtak	Rohtak
Ladpur	Jhajjar	Jhajjar
Ladrawan	Sampla	Do
Lagarpur	Jhajjar	Do
Lahli	Rohtak	Rohtak
Lakariya	Sampla	Jhajjar
Lakhan Mazrah	Rohtak	Gohana
Lath	Gohana	Do
Lohar-Heri	Sampla	Jhajjar
Lohari	Jhajjar	Do
Lohat	Do	Do
Lowah Kalan	Sampla	Do
Do Khurd	Do	Do
Luksar	Do	Do
Lulah	Jhajjar	Do
Machhrauli	Do	Do
Madal Shahpur	Do	Do
Madanah Kalan	Sampla	Do
Do Khurd	Do	Do
Madina	Gohana	Gohana
Do Gindhraan	Rohtak	Do
Do Kaurasian	Do	Do
Mahmudpur	Gohana	Gohana
Do Majra	Jhajjar	Jhajjar
Mahra	Gohana	Gohana
Mainah	Rohtak	Rohtak
Majra	Do	Jhajjar
Majri	Sampla	Do
Makrauli Kalan	Rohtak	Rohtak
Do Khurd	Do	Do

APPENDIX B—Continued

Name of Village	Tahsil	
	Previous	Present
Malesiawas	Jhajjar	Jhajjar
Maliawas	Do	Do
Malikpur	Do	Do
Mamian	Sampla	Do
Mandauthi	Do	Do
Manjha	Rohtak	Rohtak
Mahkawas	Jhajjar	Jhajjar
Maraudhi Jatan	Rohtak	Rohtak
Do. Ranghran	Do	Do
Marot	Jhajjar	Jhajjar
Masudpur	Rohtak	Rohtak
Matan	Sampla	Jhajjar
Matana	Rohtak	Rohtak
Matatxnhel	Jhajjar	Jhajjar
Mathind	Gohana	Gohana
Mawwi	Do	Do
Mazrah Asendah	Sampla	Jhajjar
Mehm	Rohtak	Gohana
Mehndipur	Sampla	Jhajjar
Mirzapur Kheri	Gohana	Gohana
Mohan Bari	Jhajjar	Jhajjar
Mokhra Khas	Rohtak	Gohana
Do Kheri Raunj	Do	Do
Mor Kheri	Sampla	Rohtak
Muazzamnagar	Do	Do
Mubarikpur	Jhajjar	Jhajjar
Muhammadpur Majra...	Do	Do
Mukandpur	Sampla	Do
Mundahra	Jhajjar	Do
Muuda Khera	Do	Do
Mundhra	Do	Do
Mundlana	Gohana	Gohana
Mundsa	Jhajjar	Jhajjar
Mungan	Sampla	Rohtak
Munimpur Kakrolah	Jhajjar	Jhajjar
Muradpur Tekna	Rohtak	Gohana
Nagar	Gohana	Do
Naglah	Jhajjar	Jhajjar
Nagli	Do	Do
Nait	Gohana	Gohana
Nanaund	Sampla	Rohtak
Nandal	Rohtak	Gohana
Nasirpur	Do	Rohtak
Do Cholka	Sampla	Do
Nathera	Jhajjar	Jhajjar
Nauganwah	Do	Do
Nawadah	Do	Do
Nayabas	Sampla	Rohtak
Neolah	Jhajjar	Jhajjar
Nidanah	Rohtak	Gohana
Niganah	Do	Rohtak
Nilaheri	Jhajjar	Jhajjar
Nilothi	Sampla	Rohtak
Niranah	Rohtak	Gohana
Nimana	Jhajjar	Jhajjar
Nizampur	Gohana	Gohana
Do Majra	Sampla	Rohtak
Nuran Khera	Gohana	Gohana

APPENDIX B—Continued

Name of Village	Tahsil	
	Previous	Present
Paharipur	Jhajjar	Jhajjar
Pahladpur	Sampla	Rohtak
Pahrawar	Rohtak	Do
Pai	Sampla	Do
Pakasma	Do	Do
Palrah	Jhajjar	Jhajjar
Parah	Rohtak	Rohtak
Parnalah	Sampla	Jhajjar
Patasni	Jhajjar	Do
Pataudah	Do	Do
Patwapur	Rohtak	Rohtak
Pelpah	Jhajjar	Jhajjar
Pilana	Rohtak	Rohtak
Pipli	Sampla	Do
Polangi	Do	Do
Puthi	Gohana	Gohana
Rabrah	Do	Do
Raipur I	Jhajjar	Jhajjar
Do II	Sampla	Do
Rana Kheri	Gohana	Gohana
Rankhandah	Jhajjar	Jhajjar
Rathanthal	Do	Do
Redhuwas	Do	Do
Rewarah	Gohana	Gohana
Rewari Khera	Sampla	Jhajjar
Ridhao	Do	Rohtak
Rindhana	Gohana	Gohana
Ritauli	Rohtak	Rohtak
RithahNirwal	Gohana	Gohana
Do Phogat	Do	Do
Rohad	Sampla	Jhajjar
Rohna	Do	Rohtak
Rohtak	Rohtak	Do
Rukhi	Gohana	Gohana
Ruriawas	Jhajjar	Jhajjar
Rurki	Sampla	Rohtak
Sadpur	Do	Jhajjar
Sabili	Jhajjar	Do
Sahan Mazra	Rohtak	Rohtak
Salahwas	Jhajjar	Jhajjar
Salaudah	Do	Do
Samar Gopalpur	Rohtak	Rohtak
Samchana	Sampla	Do
Sampla	Do	Do
Samri Bhuran	Gohana	Gohana
Do Lochab Beran	Do	Do
Do Sisan	Do	Do
Sangahera	Rohtak	Rohtak
Sanghi	Do	Do
Sankhaul	Sampla	Jhajjar
Saragthal	Gohana	Gohana
Sarai Ahmad	Rohtak	Rohtak
Do Aurangabad	Sampla	Jhajjar
Do Namdar Khan	Gohana	Gohana
Saraulah	Jhajjar	Jhajjar
Sarsadh	Gohana	Gohana
Sasroli I	Jhajjar	Jhajjar
Do II	Rohtak	Rohtak
Sauldah	Sampla	Jhajjar
Sehri	Do	Rohtak
Sehria	Do	Jhajjar

APPENDIX B—Continued

Name of Village	Tahsil	
	Previous	Present
Silanga	Jhajjar	Do
Seman	Rohtak	Gohana
Senpal	Do	Rohtak
Sewanah	Do	Jhajjar
Shadipur	Jhajjar	Do
Shafipur	Do	Do
Shahjahanpur	Do	Do
Shahpur Malik	Sampla	Do
Shamaspur Majra	Jhajjar	Do
Shekhupur Jat	Do	Do
Do Titri	Rohtak	Gohana
Sheojipurah	Jhajjar	Jhajjar
Shidipur	Sampla	Do
Sihoti	Do	Rohtak
Sikandarpur	Jhajjar	Jhajjar
Sikandarpur Majra,	Gohana	Gohana
Silana I	Jhajjar	Jhajjar
Do II	Sampla	Rohtak
Silani pana Kesho	Jhajjar	Jhajjar
Do Do. Zalim	Do	Do
Silothi	Sampla	Do
Simli	Rohtak	Rohtak
Singhpura	Do	Do
Sisahah	Sampla	Do
Sisar Khas	Rohtak	Gohana
Siwana Mal	Gohana	Do
Siwanka	Do	Do
Sondhi	Jhajjar	Jhajjar
Subanah	Do	Do
Sulahli	Do	Do
Sultanpur, <i>alias</i> Nuna ... Mazra	Sampla	Do
Sunari Kalan	Rohtak	Rohtak
Do Khurd	Do	Do
Sundanah	Do	Do
Sundarpur	Do	Do
Sindrahti	Jhajjar	Jhajjar
Surah	Do	Do
Surahiti	Do	Do
Surkhpur Tapa Haveli...	Do	Do
Do Tapa Kosli	Do	Do
Do Wiran	Do	Do
Taja Mazra	Rohtak	Rohtak
Talao	Jhajjar	Jhajjar
Tandaheri	Sampla	Do
Tatarpur	Jhajjar	Do
Tatauli	Rohtak	Rohtak
Thaska	Gohana	Gohana
Thomaspura	Jhajjar	Jhajjar
Timurpur	Rohtak	Rohtak
Tumnah	Jhajjar	Jhajjar
Tumbaheri	Do	Do
Ukhalchana	Do	Do
Untlodah	Do	Do
Usmanpur	Do	Do
Wazirpur	Rohtak	Do
Yakubpur	Jhajjar	Do
Zahidpur <i>alias</i> Asadpur		Do Do
Do TapaKosli	Do	Do
Zardakpur	Sampla	Do
Zia-ud-dinpur	Do	Rohtak

APPENDIX C.
WELL PAMPHLET.

1. In the new settlement protective leases have been granted to masonry wells exempting them from wet assessment for the following periods reckoning from the date on which the well was first used:-

Tahsil Gohana.— Eastern and Western Nahri circles 20 years. Southern Nahri and Mehm circles 40 years.

AUTHORITIES.

Senior Secretary to Financial Commissioner's letters No. 79 (S), dated 5th June 1909, and 303 S., dated 28th July 1909.

Tahsil Jhajjar.—Nahri circle 20 and 40 years. * Northern Dahri, Southern Dahri and Rausli Chahi circles 20 years.

Bhur circle 30 years. † Barani circle 40 years.

Tahsil Rohtak.— Nahri I circle 20 years. Nahri II circle 20 and 40 years. ‡ Nahri III, Rajputs and Barani circles 40 years.

2. The existing orders concerning the remission of revenue on wells falling out of use are reproduced in paragraph 4 below. They include this condition that no remission can without the special authority of the Financial Commissioner be granted except where the assessment is in the form of a lump sum on the well cylinder, or of a consolidated lump sum including both wet and dry rate on the well and lands attached, or where differential rates have been employed for irrigated and unirrigated land. The reason of this rule is that it is only when assessments of the kind mentioned are used that the benefit of remission would accrue to the persons assessed for the advantages of the well.

It follows by parity of reasoning that the advantages of a protective lease should only be given in cases where the wet assessment falls only on the owner of the well or of the land irrigated from the well. Accordingly in cases where the village has adopted a *sarsari* parta or a *bachh* on shares-in which cases no remission is granted when the well falls out of use-the full assessment is taken at once and no protective leases have been given.

3. In other cases protective leases have been granted. The *abiana* has usually been calculated in the following way. The zamindars decided to *bachh* the assessment by certain rates on, say, *chahi*, *dahri*, barani, bhur, banjar. The Settlement Officer worked out the total sum that would fall upon the assessed chahi area by the use of these rates, and the sum that would fall on the same *chahi* area if it were assessed to the dry rate. The difference between these two sums was announced as the lump sum *abiana* of the village. A committee of lambardars with the zaildar and tahsildar or naib tahsildar then proceeded to distribute this sum over all the rated wells. In this way the land under the wells was assessed dry and a lump sum fixed on the cylinder of each rated well, which can easily be deferred under the terms of the lease or remitted when the well falls out of use. In a few cases the zamindars fixed lump sums on the wells without going through the above accounts and then *bachhed* the rest over all the land of the village. In one or two cases for special reasons soil rates were used, in which case the assessment due on the land in its dry aspect and the additional sum due in virtue of its irrigation are separately calculated.

4. The rules for remission of assessment on wells are as follows :—

The rules will be found in L. A. M., paragraph 558. They are reproduced in the patwari's edition of the well pamphlet but need not be printed here.

Note.— In the *Jhajjar tahsil* the term masonry well includes a well costing Rs. 100 or upwards to construct, which, though not built entirely of masonry, is constructed thereof in certain strata of the sub-soil.

Senior Secretary to Financial Commissioner's letter No. 4767, dated 14th September 1909, to Settlement Commissioner.

* The following villages in the Nahri circle were admitted by Musalmanan Settlement Officer to 20 year leases:—Sankhaul, Sadpur, Kasar, Tandaheri, Kherkah Musalmanan, Sarai Aurgabad, Dabodah Kalan, Sultanpur, Lowah Khurd, Bhambewa, Dighal, Diwana, Birhanah, Bhapraudah, Asandah, Mazra Asandah, Asandah Sawan, Asandah Todran, Kulasi, Ladrawan, Khairpur, Mukandpur, Kanaundah, Barahi, Bamnauli, Parnalah, Hasanpnr, Bahadurgarh, Kharhar, the rest to 40 years leases.

† Ten year leases were sanctioned in this circle for kachcha-pakka wells costing Rs. 100 or upwards to construct, which though not built entirely of masonry are constructed thereof in certain strata of the sub-soil. But no much wells have been rated to *abiana* and consequently no such leases given.

‡ The following villages in the Nahri II circle were admitted to 40 year leases :—Bhainsru Kalan, Sanghi, Khirwali, Jasiah Sahan Mazra, Bamanwas, Chamari, Sasrauli, Jindram, Nasirpur, Sarai Ahmad, Kutana, Taja Mazra, Gaddi Kheri, Rohtak, Makrauli Khurd, Sundarpur, Singhapura, Tatauli; the rest to 20 year leases.

5. The following procedure has been laid down for patwaris and other officials in connexion with reporting cases in which the assessment on wells should be reduced :—

Senior Secretary to Financial Commissioner's letter No. 4767.

- (1) During the *rabi girdawari* the patwari should note in the *khasra girdawari* :—
- Masonry wells which have fallen in or become otherwise unfit for use.
 - Masonry wells assessed at wet rates which have not been used during the year because canal irrigation has been taken.
 - Masonry well assessed at wet rates which have not been used for four successive harvests.
 - New masonry wells brought into use to irrigate land on which the wet assessment has been remitted under heads (a), (b) or (c) ; and old masonry wells repaired and brought into use for the same purpose.
 - New masonry wells, and old masonry wells repaired, which are brought into use in tracts under fluctuating assessment.
 - Other new masonry wells brought into use.
 - Old masonry wells on which the wet assessment has been remitted under heads (a) to (c) which are again brought into use, (i) after being repaired, (ii) without being repaired.

Note to Rule I.—In the Jhajjar tahsil of the Rohtak district the term masonry well includes a well costing Rs. 100 or upward, which though not built entirely of masonry is constructed thereof in certain strata of the Sub-soil.

(2) The patwari should be provided for each village with a *khasra* of wells in the following form :—

1	2	3	4	5	6
Serial Number.	Name of village	Khasra number	Name of well	Report of patwari with signature of field kanungo.	REMARKS

At the end of each day's work in the *rabi girdawari* the patwari will enter up in this *khasra* the wells against which he has made a note in the *khasra girdawari*. The wells will be entered up in the order in which they come and one series of numbers will be maintained for the village. The report of the patwari should fully explain the cause of the entry, e. g., that the well has fallen in or been newly brought into use and should contain the statement of the owner or person affected by the entry. In the case of a new masonry well or of an old masonry well repaired the report should state the cost of construction or repairs. The field kanungo will be responsible for the correctness of every entry and will sign the patwari's report as in the case of a mutation, and the revenue officers in checking *girdawari*. work should check as many entries in the *khasra chahat* as possible.

(3) When the patwari has finished the *girdawari* of his circle he should fill up the following form in a register kept for the purpose for each village in foil and counterfoil :—

Column 1-4	5	6	7	8	9	10
As in khasra chahat.	Owner (briefly) of the well land and If they differ, of the well also.	Wet assessment payable (if any).	Person by whom the wet assessment (if any) is paid.	Report of patwari as in khasra chahat).	Recommendation of Assistant Collector 2nd grade, Tahsildar or Naib Tahsildar.	Order of Collector, or Assistant Collector, 1st grade.

The patwari will fill up columns 1—8 in foil and counterfoil, and will then send the counterfoil through the field kanungo to the tahsildar. The wet assessment, if any, entered in column 6 will be either-

- (i) The lump sum assessed on the well in addition to the non-well rate.
- (ii) When a lump sum has been assessed inclusive of a non-well rate, such lump sum after deducting the equivalent of a non-well rate.
- (iii) When the distribution has been by soil rates, the difference between the actual assessment of the area irrigated and the amount which would have been assessed on that area if not irrigated.

After orders have been recorded in columns 9 and 10 of the counterfoil, that document will be filed in the record room, copies of the orders being communicated through the tahsildar to the patwari who will copy them in columns 9 and 10 of the foil. The wells should in the register be grouped in the class under which they come (*vide* Rule 1). There will thus be 6 or 8 classes and the register will be arranged by these classes each class having its own set of serial numbers. Where the order in column 10 remits the assessment it should state the harvests from which and the period for which it is remitted. After the wasil baki nawis has given effect to the orders, the tahsildar will give to the person affected a certificate containing details as to the well and the terms of the final order. This certificate shall in the case of a well coming under one of the heads (d), (e) or (g) (i) in rule 1 be prepared by the wasil baki nawis before the statement is returned through the tahsildar and shall be signed by the Deputy Commissioner or the Revenue Assistant.

6. At each *tahsil* a register in the following form is kept up (and the sadr kanungo keeps up a similar register for the district) for all wells bearing a wet assessment in any form :—

1	2	3		4	5	6	7
Name and number of the village.	Name and sufficient description for identification of well.	ASSESSMENT ON WELL		Number of year of protective lease and date from which it runs, if any.	Harvest from which assessment will be imposed.	Date of subsequent remission of assessment or again of re-imposition -or +	Reference to order of Collector sanctioning remission or re-imposition entered in column 6.
		(a) By lump abiana.	(b) Khasra number of fields assessed chahi and amount by which wet assessment thereon exceeds dry.				

APPENDIX D.

SANCTIONED SCHEME FOR "REMISSIONS AND SUSPENSIONS" IN THE ROHTAK DISTRICT.

1. The present settlement, like the last, has been made on the assumption that the proper way of dealing with this precarious tract is to impose a fairly full assessment and to grant relief liberally in bad seasons.

2. The Settlement Officer's notes on each village are bound up in the abstract note books which are kept in charge of the district kanungo. Subject to what is noted below the first entry in the new statements in these volumes, "the settlement entry, is the foundation of the scheme of suspensions. Columns 10 and 16 show the incidence at which the new *kamil* demand of each harvest fails on the average matured acreage of crops of that harvest for the seven years which were accepted for assessment purposes. Nevertheless this rate, the so-called "normal incidence": is not always a safe guide. It must be remembered that it is the incidence of a new demand on past crops and not the incidence of actual recoveries. A high incidence does not always mean ability to pay a high revenue but may reflect unusually short harvests in the cycle preceding settlement. In deciding whether suspensions are required the Deputy Commissioner has to look mainly to the danger rate. A comparison of the harvest rate with the normal rate is useful for the decision of the question whether revenue under suspension should be recovered. But there are cases in which the so-called normal rate calculated as above approximates so closely to the danger rate that the mere fact that the incidence of the revenue of any particular harvest falls below it would not indicate that suspended revenue could safely be realized. In other cases the approximation of the normal rate to the danger rate may mean that the village is fairly secure and consequently fully assessed.

Again, the zamindars have not in all cases selected the instalments best suited to their village, nor are instalments of either 8 and 8, 10 and 6, 6 and 10, 12 and 4, or 4 and 12 annas suited to every case. Some villages have practically no rabi crop, but pay in the rabi from the proceeds of the kharif or other sources. Their case is alluded to again in paragraph 3 below.

3. The "danger rate" is printed at the head of the statement. Ordinarily there is a kharif rate and a rabi rate; and these rates are usually in considerable excess of the "normal incidence." Sometimes for the reasons given above the latter however approaches the danger rate. In the Bhur circle of the Jhajjar *tahsil* where the instalments do not correspond to the value of the crops grown and the rabi revenue is paid from the profits of the kharif or from other sources of income, it has been necessary to employ a kharif and an annual danger rate, and the annual normal incidence is specially shown. In case of failure in this circle it is necessary in the rabi to consider the cropping of the whole year, and in deciding on the measure of relief to be granted in the demand of the year to deduct the amount of the suspensions that may have already been made in the kharif; the same method has been applied to one or two villages elsewhere.

The danger rates fixed are shown in statement A. In no case are there more than 8 harvest rates in one circle, and in most cases only 2 or 1.

4. Taken as B whole the strongest *tahsil* is Gohana and the weakest Jhajjar. The estates grow weaker as we proceed south and west. The only secure estates for which no danger rate has been framed are to be found in the old canal circles of Rohtak and Gohana *tahsils*, find it must be remembered that alterations in the canal arrangements may make them insecure. Registers have been filed in the *tahsils* containing by assessment circles each estate under its class of secure or insecure, its normal and danger rates. The Deputy Commissioner can ascertain the characteristics of each Village from the settlement note in the abstract note books. Maps with insecure estates coloured red have been placed in the Deputy Commissioner's office.

5. The Revenue Assistant should furnish the Deputy Commissioner a week before, the beginning of March and October in each year with a report from the tahsildars and his own opinion as to the extent, if any, to which relief is likely to be wanted, and take his preliminary orders as to the lines on which the tahsildars are to make their inspections. Immediately on the close of the *girdawari*, he should place before the Deputy Commissioner a statement showing by circles the incidence of the harvest demand on the crops of each village in order that the original orders may, if necessary, be modified. Where the incidence amounts to or exceeds the danger rate, it should be entered in red ink. The tahsildar,

without waiting for orders on the statement, will prepare in the ordinary form a suspension statement for each insecure village in which relief appears to be wanted. Should he consider that any village classed as secure stands in need of relief, he will report such cases for orders.

6. It must be remembered that the danger rate is only a rough guide. If there has been a succession of bad harvests relief may be wanted before it is reached, while, if previous crops have been unusually good, the danger rate may be reached or exceeded and yet suspension may be unnecessary. But ordinarily the fact that it is reached is sufficient reason, for the tahsildar to enquire into the state of the village.

7. The following general considerations bearing upon the condition of the district may facilitate a decision as to the grant of suspensions in each case:—

- (i) The prices of each staple that were assumed at settlement are to be found in the assessment reports. They were not high and it is possible that the lapse of a few years may show that the incidence of the revenue based on them is really low. "High prices profit those that sell." It must be remembered that they are of no value to the zamindars of a *barani* tract, *producing* only millets and the necessaries of life, unless there is a *surplus* crop. Even if the total crop is short, high prices in wheat, sugar and cotton are of value to the zamindar of the irrigated tracts who sells these commodities, and purchases bajra, bejhar, etc.
- (ii) In the greater part of the district, the kharif is the principal crop. The only exceptions to this rule are in villages with abundant canal irrigation, as the Eastern and Western Nahri circles of Gohana, the Nahri I circle and part of Nahri II circle of Rohtak where the rabi crop is equally important, and in the Southern Dahri circle of Jhajjar *tahsil* and a few of the better well villages of the Bhur circle of the same tahsil. (It will consequently be found that with the exceptions named above most villages pay at least 10 annas of their revenue in the kharif.)
- (iii) A failure of the monsoon ordinarily necessitates some relief in the kharif in all tracts not specified in (ii) and also in the tracts of the Jhajjar tahsil there mentioned. If the preceding crops have been good the scale of relief laid down in paragraph 561 (i) of the Land Administration Manual is, subject to the remarks* made in the beginning of this paragraph, ordinarily applicable, though cases may occur in which there is no objection to the recovery of 25 per cent. of the demand. When however the resources of the people have been weakened by a series of indifferent or bad seasons more generous measures of relief are often wanted.
- (iv) When the adversity of the season is accompanied by a failure of the canal or comes after other bad seasons, relief may be required in the secure canal tracts mentioned in (ii).
- (v) It must however be remembered that there is a large export of fodder from this district especially from the unirrigated firm-soiled villages of the centre. "The fodder of a good year is ordinarily sufficient for the wants of two: and though the grain of the millets may fail in a particular year the straw may be of value. This must be borne in mind in considering the resources of each village. In sandy villages a failure, especially if accompanied by heavy rains in the early part of the monsoon, often means double or treble waste of seed.
- (vi) A failure of the rabi crop affects principally (1) those villages of the Southern Dahri circle of the Jhajjar *tahsil* which grow wheat and barley in the depressions : more often than not the floods fails, and often when they fail labour is too scarce or the sub-soil too brackish to admit of *dhenklis* being sunk; (2) those villages in the Northern Dahri, Rausli Chahi, and south part of the Bhur circle of the same *tahsil* which rely on their wells.

These villages will ordinarily require more generous relief than the pure *barani* estates which pay less on the rabi than they do.

- (vii) Canal villages will not ordinarily require much relief on a failure of the rabi crop if—
 - (a) preceding harvests have been satisfactory;
 - (b) the canal has enabled them to raise a good area of wheat.

* "The remarks" are to be found only in the draft submitted by the S.O. and not in the scheme as sanctioned by the F.C. and here printed.

- (viii) In connection with relief in the rabi, heed should not be lost of the income made since payment of kharif by sale of fodder. It should also be remembered that in the Southern Dahri circle of Jhajjar fields not reaped in either harvest by reason of *flood water standing in them*, are exempt from payment of the year's demand.
- (ix) Relief where given should, as in the kharif, be in multiples of 4 annas per rupee of land revenue.

8. As regards the recovery of suspended revenue, attention is invited to paragraph — 572 of the Land Administration Manual. Except for the Southern Dahri circle of Jhajjar in some villages of which there are large areas of low-lying grazing ground, and parts of the Bhur circle of the same *tahsil*, which contain large areas of ordinarily unproductive sandhills the district is now fully cultivated, nor in the present settlement can it, except in the case of fully irrigated canal estates, be considered other than pretty fully assessed. It is however the case, especially after the enforced fallow of a famine, that the produce of a good year enables the people to pay far more than the demand thereof. The practice should be that unless the first crop after widespread suspensions is of decided excellence no collections of arrears should be made with it. Comparison of the actual incidence of the demand on the matured area of the harvest with the normal incidence is a useful guide. But this is subject to the caution given in paragraph 2. The *maximum* limit of recovery of arrears should be 100 per cent. of the demand of the harvest with which the arrears are being called in.

9. In making recoveries in well villages in the rabi it must be remembered that the wells of the district are very deep, largely, and after a bad monsoon mostly, brackish and worked at great expense, generally in bad years on borrowed capital. In such cases the existence of a well often only enables the owner to maintain his family and cattle and leave no margin. In canal villages the fact that water rate have also to be paid must not be forgotten.

10. Reporting officers should consult the people freely as regards suspensions and recoveries. The Jats, Ahirs, and Rors are good revenue payers. The Rajputs and Pathans are mostly bad: but they have often resources in service as well as in agriculture. The Brahmans, Sheikhs and Sayads come midway between these two classes, but their power of resistance is inferior to that of the first class.

11. As regards remissions of suspended revenue, attention is invited to paragraph 576 of the Land Administration Manual and especially to sub-clause (iii) of that paragraph as amended by Correction Slip No.7, dated 7th June 1909.

STATEMENT A.

DANGER RATES EXPRESSED IN ANNAS PER ACRE MATURED.

Tahsil	Circle	Kharif rates			Rabi rates			REMARKS
GOHANA ...	Eastern Nabri	48			48	64		The bulk of this circle is secure.
ROHTAK ...	Western Nahri	40	64		48	72		
	Southern Nahri	40	48		48	64		
	Mebm	36			48			
	Nahri I	48			80			
JHAJJAR ...	(Nahri II	40	48	54	54	64	80	The bulk of this circle is secure.
	Nahri III	40	48		48	64		
	Rajputs	40			48	64		
	Barani	40			60			
	Northern Dahri	34			56			
	Southern Dabri	32	36		64	72		
	Nahri	32	40	48	54	64		
	Barani	40			64			
Ransli Chahi	36			72				
Bhur	24			28 (annual rate).				

APPENDIX E.

Rules for framing fluctuating assessments in Delhi and Rohtak.

References.

A. — SUBSTANTIVE.

1. The limits of the area to which these rules apply have been fixed for each village by the Settlement Officer but may for sufficient reasons be extended by the Deputy Commissioner with the sanction of the Commissioner.

II. The schedule of rates sanctioned for application to the acreage of matured crop in the areas to which these rules apply is as follows :—
(Paragraph 21 of Settlement Commissioner's review, North Delhi Assessment Report).

Class	Crop	RATES PER ACRE.					
		Chahi and dahri			Barani		
		Rs.	a.	p.	Rs.	a.	p.
I	Sugarcane	6	0	0	6	0	0
II	Rice, cotton, til, hemp, indigo, wheat, fruit, gojra, gochni, spices, tobacco, dhanian, orchard, vegetables and gardens.	3	8	0	2	8	0
III	Barley, gram, bejhar and rabi oil-seeds	3	0	0	2	0	0
IV	All other crops	2	0	0	1	0	0

III. In the case of mixed crops other than those expressly provided for in the schedule of rates each separate crop will be assessed at the rate of its class.

IV. If in any field the crop is less than 4 annas, nothing will be charged. If it is 4 annas or morf, but less than 8 Annas, only half rates will be charged; if it is 8 annas or more, full rates will be charged.

V. The Settlement Officer was given authority to vary the second and third class rates from village to village in multiples of 2 annas within a limit of 8 annas above or below the scheduled rate. In any village assessed above the minimum rate of these classes, the Collector may, if he thinks the assessment is working badly, reduce the Settlement rate by any multiple of 4 annas which he thinks appropriate, provided that he does not go below the minimum rate. An order of the Collector under this rule must be reported to the Commissioner for sanction.

VI. New masonry wells brought into use during the currency of the settlement will be granted a protective lease, and crops irrigated from them will during the term of the lease be assessed at the village rate for barani crops.

B.—PROCEDURE.

1. Before the commencement of the rainy season the patwari will draw a map on A paper (If that part of a Village which is subject to natural flooding (dahri), or will indicate it in one of the copies of the field map prepared by the Rama or other mechanical process, which have been supplied to him for the purpose. During the rainy season he will inspect the areas in question after every appreciable fall of rain, and will draw a line in red ink on the shajra showing the limits of the land flooded. Each line shall be signed and dated by the patwari and every entry made by him shall be checked by the field kannungo. If at any of the patwari's inspections there has been no fresh flooding, he need only add a date to the previous line. At the harvest inspection all fields or parts of fields included within the line of flooding will be entered as *dahri*, and the field kanungo and revenue officers will see that this is done. The work of the patwari and kanungo will be carefully checked by the Revenue officer of the circle and by the Revenue Assistant or other Assistant Collector, 1st grade, specially deputed for this work by the Collector.

2. Unless otherwise ordered by the Collector, the dates for commencement and completion of the *girdawaris* shall be as follows :—

Girdawari.	DATE OF	
	Commencement.	Completion.
Kharif	September 16th	October 31st.
Babi	February 16th	March 31st.
Extra Rabi	May 15th	May 31st.

3. The results of the girdawaris will be entered in a form of *khasra girdawari* appended (A), especially sanctioned for villages under fluctuating assessment. It contains entries for one year only and a new register will be opened annually.

4. Patwaris will be supplied with duplicate *parcha girdawari* forms (Form B). These forms will be stitched together in book form. As soon as the patwari has inspected the first field or a landowner or occupier he shall give him, if present, a *parcha* with the entry of field number and area under crop relating to that field. He will take the thumb impression of the person on the counterfoil of the *parcha*. If the landowner or occupier be absent he will make the *parcha* over to the lambardar. Entries will be added to each *parcha* as the patwari proceeds with his crop inspection.

5. In the case of fields in which the patwari thinks that *kharaba* should be given he will leave blank columns 9-12 or 17-20 as the case may be, of the kharif *girdawari*, and will enter the fields in a separate *kharaba* list which he will keep up as he makes his *girdawari* (Form C).

6. Every field in this list and any other field regarding which *kharaba* allowance is claimed must be inspected by the kanungo or naib tahsildar. The kanungo must inspect as many of these fields as he can and the naib tahsildar must inspect all the remaining 808 well as 25 per cent of the fields inspected by the kanungo.

7. Having inspected the fields entered in form C and any other fields regarding which *kharaba* is claimed, the kanungo or naib tahsildar will comply with the instructions noted in form C and will then fill up columns 9-12 or 17-20 of the *khasra girdawari* and columns 6 and 8 of the *parcha girdawari*, if the owner or occupier is present, in forming him of the entry made. Any field not seen by the kanungo or naib tahsildar must be treated as fully matured. All corrections must be made by the kanungo and naib tahsildar with their own hands, and against every field inspected and every entry made by them they must put their initials. The naib tahsildar shall be finally responsible for the correctness of the *girdawari* and for disposing at once on the spot of all oral objections made by the zamindars.

8. When the naib tahsildar has completed his check of the *girdawari*, of a village, the Revenue Officer or other Assistant Collector, 1st grade, specially deputed by the Collector, shall inspect it and shall satisfy himself of its correctness. He shall dispose on the spot of all objections preferred to him whether oral or written, and shall record in his inspection note a list of all corrections ordered by him. These corrections will be made in red ink by the field kanungo under his own initials. The Assistant Collector, 1st grade, will also record his recommendation on the reports submitted by the naib tahsildar, under rule 7 and transmit them to the Collector for orders.

9. After the Revenue Assistant or other Assistant Collector, 1st grade, has completed his check of a village the patwari shall at once call in all *parchas girdawari* and after comparing them with the *khasra girdawari* make any corrections and additions necessary. It shall be the duty of the kanungo to see that patwaris carry out this order properly and without delay. The patwari will then make in the *khasra girdawari* page totals of all columns left blank and totals for the whole village. These total A shall be carefully checked and initialled by the kanungo and naib tahsildar. The patwari will then complete the ordinary *jinswar* and after entering it in the village note book forward it to the field kanungo.

10. The patwari shall then immediately prepare from the *khasra girdawari* a *khatauni* in form D, carefully complying with the following instructions:-

- (a) *Khewat* and *khatauni* numbers will be those of the last *jamabandi*.
- (b) Columns 4 and 5 will be in accordance with the changes found at *girdawari* if mutation has been sanctioned or if no mutation is necessary. Where a mutation is necessary, but has not yet been sanctioned, the old entry will be maintained in column 4 and the change noted in the column of remarks.

- (e) Entries for the extra rabi will be made in the *khatauni* of the next kharf demand with which the extra rabi demand will be collected.

11. After the *khatauni* has been checked, signed and dated by the field kanungo and naib tahsildar, it shall be submitted not later than November 20th in the kharif and April 20th in the rabi to the tahsildar together with the map referred to in rule 1 and an abstract in form E. After the tahsildar has checked and signed the *khatauni* and abstract and has had the demand entered up by the tahsil wasil baqi nawis in his *khatauni* he shall forward them to the Assistant Collector, 1st grade, who inspected the *girdawari*. The Assistant Collector, 1st grade, will after satisfying himself as to their correctness send them to the sadr kanungo who will after checking the calculations lay them before the Collector by December 1st at the kharif and May 1st at the rabi. When orders have been passed by the Collector and the sadr wasil baqi nawis has noted the sanctioned demand the *khatauni* and abstract will be returned to the tahsil for preparation of the *kistbandi* and recovery of the demand.

12. On receipt of the *khatauni* and abstracts in the *tahsil* the tahsildar will at once order the patwari to prepare the *fard bachh* by *pattis* in the usual form. The *fard bachh* must be completed and delivered to the lambardar concerned not less than one month before the date of the harvest instalment. Meanwhile the tahsil wasil baqi nawis will compare the *goshwaras* with his *khatauni* and make any corrections that may be necessary, and will then make them over to the tahsil office kanungo who will prepare a general abstract in the same form. A copy of this general abstract together with all the village abstracts arranged by assessment circles will be sent to the sadr kanungo. The sadr kanungo after checking the general abstract with the village abstracts will prepare a statement in form F for submission to the Financial Commissioner through the Commissioner. The sadr wasil baqi nawis will compare the figures with his records and sign the statement. The sadr kanungo will then make over the general and abstract statements to the English office for translation and they should reach the Commissioner by the end of December for the kharif and by the end of July for the rabi.

FORM A.

KHASRA GIRDAWARI (FLUCTUATING) Village _____ Tahsil _____
District _____ for A.D. 19 _____ Sambat 19 _____

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Field Number.	Name of taraf or patti.	Name of proprietor with brief description and reference to last jamabandi number.	Name of cultivator with brief description.	Area.	Class of soil according to last year's girdawari.	Detail of area cultivated and uncultivated under crop according to class of soil.	KHARIF 19 .						Transfers of rights, cultivation, rent, and rough temporary sketch, with calculation of area.	Detail of area cultivated and uncultivated under crop according to class of soil.	RABI 19 .							
							DETAIL OF CROPS								DETAIL OF CROPS							
							Crop with Class.	Share of Kharaba.	Matured Kharaba.	Scale of assessment.	Signature of officer.				Crop with Class.	Share of Kharabn.	Matured Kharaba.	Scale of assessment.	Signature of officer.			

NOTES.—Columns 7 and 15.— The dimensions $\frac{E.N.}{W.S.}$ of such area as it is necessary to chain must be entered in these columns.

Columns 9 and 17.— For orders about the share of *kharaba* see rule IV of the Rules for framing assessments.

Columns 12 and 20.— The scale of assessment will be either “full rate,” “half rate “ or “free,” *vide* rules for framing fluctuating assessments.

FORM B

GIRDAWARI SLIP

Number of slip _____ | Number of slip _____ Harvest 19 _____ Village _____
 Name of Village _____ | Tehsil _____ District _____
 Harvest _____

1	2	1	2	3	4	5	6	7	8	9
Date on which the slip is made over to zamindar.	Signature or thumb mark of the person to whom the slip is made over.	Field number.	Name of owner.	Name of cultivator.	Area.	Area under crops				Remarks.
						Name and class of crop with area and class of soil.	Matured.	Failed.	Scale of assessment.	

NOTE.— This part will be retained by the patwari on receipt book.

NOTE.—(1). The patwari will make over this slip to the person liable for payment of land revenue.

FORM C.

LIST OF KHARABA

Village _____ Topographical No. _____ Assessment Circle _____
 Tahsil _____ District _____ (For 19 .)

1	2	3	4	5	6
Field number.	Subsidiary number according to supplementary map (if any).	Name of crop.	Total area under crop.	Fraction to be allowed as kharaba.	Signature of field kanungo or naib tahsildar with date of entry.

Note.— (1). A separate list will be prepared for each girdawari.

(2). The patwari will make the entries in this list except column 5, and the field kanungo or naib tahsildar will after inspecting the field fill in column 5 and affix his signature in column 6.

FORM D

KHATAUNI OF FLUCTUATING ASSESSMENT.

Mauza No. _____ Tahsil _____ for the harvest _____ 19 _____ A.D. (Sambat 19 _____).

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Khewat Number.	Khatauni Number.	Name of patti with name of lambardar and jama.	Name of owner with description.	Name of cultivator with description.	Field Number.	Detail of Crops.		Assessment			Deduction on Account of		Balance Due			Remarks.
						Area matured with name of crop and class of soil.	Class of crop.	Scale.	Rate.	Demand.	Protective leases.	Total.	Revenue.	Cesses.	Total.	

NOTE.—Columns 7–11.—Total of columns 7–9 must be worked out for each holding and page in order that form E may be compiled. Columns 10 and 11 therefore should be filled up against these total for the holding; and not against each field.

FORM E

Abstract of Fluctuating Assessment

Patwar circle _____ Tahsil _____ for harvest 19 _____ (Sambat 19 _____).

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31									
Serial Number	Assessment Circle.	Topographical Number.	Name of village	Area sown.	Detail.	Area under Matured Crops																			Deduction on account of protective lease	Balance to be recovered													
						Charkhi and Dadri.									Other.						All soils.	Land revenue		Cesses.		Total.	REMARKS												
					Class I.	Class II.	Class III.	Class IV.	Class I.	Class II.	Class III.	Class IV.	Class I.	Class II.	Class III.	Class IV.	Class I.	Class II.	Class III.	Class IV.	Class I.	Class II.	Class III.		Full rate.			Half rate.	Full rate.										
					Area.																																		
					Rate.																																		
					Demand.																																		

FORM F

ABSTRACT OF FLUCTUATING ASSESSMENT.

District _____ Harvest 19 _____ (Sambat 19 _____).

1	2	3	4	5	6	7	8	9	10	11	12	13
Serial Number.	Tahsil.	Assessment circle.	AREA UNDER CROP.			Total assessment.	LAND REVENUE RECOVERABLE AFTER DEDUCTIONS ON ACCOUNT OF PROTECTIVE LEASES			Average assessment of previous harvest non settlement.	Average assessment as calculated at settlement.	Remarks explaining the difference between the amount in column 7 and close in column 11 and 12.
			Matured.	Failed.	Sown.		Khalsa.	Assigned	Total.			

Note.— The average in column 11 will be calculated on the same harvests as that for which the abstract is prepared, e.g., if the abstract is for the kharif harvest, the average in column 11 will be that of the previous kharif harvests only.

APPENDIX F.**RULES FOR ASSESSMENT OF FUTURE EXTENSIONS OF CANAL IRRIGATION.***Substantive Rules.*

1. The Settlement Officer has recorded in his detailed village notes and on the *fard bachh* of the record of rights the average canal-irrigated area which was assumed at settlement whether or not an enhanced rate of assessment was employed thereon. ,

2. At each subsequent quadrennial *jamabandi* a calculation will be made of the average actual irrigation of the last 4 years. To the difference between the settlement area. and the *jamabandi* area shall be applied a rate :-

(a) in villages which had canal irrigation at settlement, of 4 annas per acre,

(b) in villages to which irrigation has been extended since settlement, of 6 annas per acre.

3. The resultant Sum shall be added to or subtracted from the revenue of the estate provided that differences of less than Rs. 50 or 10 per cent. of the final demand fixed by the Settlement Officer (whichever shall be less) shall be neglected.

Procedure Rules.

4. By July 1st of each year the tahsildar will submit to the Collector, leaving the last column blank, the following statement for each village of which a detailed *jamabandi* is under preparation. A separate statement Will be prepared for each Canal Division concerned.

1	2	3	4		5	6	7	8	9
Village.	Final demand announced by Settlement Officer.	Areas assumed as irrigated at settlement.	Average irrigation area or last 4 years according to returns of—		Difference + or—in acres.	Rate to be employed 4 or 6 annas.	Resultant demand of column 6 on 5.	Sum proposed to be added to or subtracted from revenue + or —.	Orders of Collector.
			Revenue patwaries.	Canal patwaries.					

NOTE.— Column 4 will be calculated from column 17 of Jinswar statement. If the village has been irrigated for less than 4 years, the figure will be based on the actual number of years for which irrigation has been in force.

5. The Collector is not bound to accept the entry in column 7 as the sum to be added to or subtracted from the previous demand. He may raise it if a comparison with the returns of the Irrigation Department shows the area irrigated to have been under estimated by the revenue patwari, and he may lower it either as the result of a similar comparison or because he thinks that owing to any special circumstances the average is Dot likely to be maintained for the next four years.

6. After passing orders the Collector shall report the amount of the assessment to be imposed or to be reduced through the Commissioner for the sanction of the Financial Commissioner and shall inform the Executive Engineer of the proposal made sending him at the same time the statement for information and return. On receipt of the orders of the Financial Commissioner the Collector will have an entry made under the signature of the tahsildar at the end of the *jamabandi*, and have the *bachh* corrected.

7. In correcting the *bachh* the Collector will proceed under section 56, Act XVII of 1887, and after consulting the revenue-payers, and considering in the case of each village the method of *bachh* sanctioned by the Settlement Officer, determine how the additional sum is to be distributed, or, in the case of reduction, on what principle the revenue is to be reduced.

Note.— In old *tahsils* Gohana and Sampla the *bachh* even in irrigated villages is usually by an all round rate or on shares. It does not follow that the people will wish the distribution of the enhanced revenue to follow the same rule. Again in a village hitherto unirrigated to which irrigation is in future extended and in consequence of which the revenue is enhanced, the people may, if the irrigation is well localized, desire only those in enjoyment thereof to pay for it. In all cases there must be a separate *bachh* order on the enhanced or diminished revenue.

APPENDIX G.

TOTAL EXPENDITURE OF RE-MEASUREMENT OPERATIONS UNDER ALL HEADS IN THE ROHTAK SETTLEMENT.

Budget heading.	Total expenditure.	REMARKS.
	Rs.	
Salary and settlement allowance of Gazetted Officers	1,01,554	
A.—OFFICE ESTABLISHMENT.		
1. Office Kanungos	25,547	
2. Menial Establishment	25,357	
Total Office Establishment	51,904	
B.—FIELD ESTABLISHMENT.		
3. Settlement Tahsildars	39,031	
4. Settlement Naib Tahsildars	59,404	
5. Field Kaonungos including field allowance ...	1,00,268	
6. Total Field Establishment	1,98,703	
7. Temporary establishment including chainmen ...	1,16,295	
8. Settlement allowance to district patwaris ...	22,885	
Total	1,39,180	
9. Traveling allowance of officers	13,067	
Ditto Establishment	15,690	
Total	28,757	
Total pay and allowances of Establishment	4,18,544	
Contingent expenditure except stationery and lithography	48,508	
Lithography	4,268	
Stationery	6,998	
Total Contingent Expenditure	59,774	
GRAND TOTAL	5,79,972	
Deduct on account of sale of old furniture, & c., refunded into treasury 1,468	} 4,072	
Deduct on account of price of stock transferred to other settlements, but no money realized ... 2,604		
Total 4,072		
Balance	5,75,900	

APPENDIX H.

PRINCIPAL GAZETTE NOTIFICATIONS REGARDING THE 2ND REVISED
SETTLEMENT OF THE ROHTAK DISTRICT.

No.	Date.	Subject.
188	5th August 1905	Under section 49 (1), Act XVII of 1887, notifies that, with the sanction of the Governor-General in Council, a general reassessment of the land revenue of the Rohtak district is about to be undertaken
189	Ditto	Directs that the records-of-rights of all the estates included in the Rohtak district, shall be specially revised.
216 A	21st October 1905	Mr. Joseph assumed charge of the settlement and reassessment operations on 21st of October 1905.
216 B	Ditto	All the powers of a Collector under the Punjab Land Revenue Act (except those under Chapter VI) conferred upon Mr, Joseph.
216 C	Ditto	All the powers of a Collector under the Punjab Tenancy Act similarly conferred.
103	16th January 1906	Appoints M. Badri Prasad, Revenue Assistant, Rohtak, as Extra Assistant Settlement Officer, with effect from the 1st of October 1905.
1542	11th August 1908	Privilege leave granted to Mr. Joseph for 3 months from the, 7th August 1908.
1543	Ditto	M. Badri Prasad. Extra Assistant Settlement Officer, to be in charge of the current duties of the office of Settlement Officer during the absence of Settlement Officer.
1608	24th August 1908	M. Badri Prasad invested with the Settlement Officer's powers as Collector under the Land Revenue and Tenancy Acts.
2027	17th November 1908	On return from privilege leave Mr. Joseph, Settlement Officer resumed charge.
2391	21st December 1908	Privilege leave for 2 months granted to M. Badri Prasad, Extra Assistant Settlement Officer (leave extended by No. 371 of 10th March 1909).
12	6th January 1909	Sheikh Rahim Bakhsh, M.A., Extra Assistant Commissioner, to officiate for M. Badri Prasad.
370	10th March 1909	On return from leave M. Badri Prasad resumed charge of his duties relieving Sheikh Rahim Bakhsh, Extra Assistant Commissioner.
1123	16th August 1909	M. Badri Prasad invested with the Settlement Officer's power of a Collector under Punjab Land Revenue and Tenancy Acts.
1147	24th August 1909	Mr. Joseph, Settlement Officer, to officiate as Senior Secretary to Financial Commissioner, Simla, in addition to his own duty from 19th August 1909.
1369	3rd November 1909	Mr. Joseph relieved of his duties as Officiating Senior Secretary to Financial Commissioner, Punjab, on 25th October 1909.
689	19th April 1910	Mr. Joseph appointed to officiate as Deputy Commissioner, Rohtak, with effect from 9th April 1910. afternoon, in addition to carrying on the duties of Settlement Officer.