

FINAL REPORT
ON THE
ELEVENTH SETTLEMENT

OF THE
MORADABAD DISTRICT.

BY
H. J. BOAS, I. C. S., *Settlement Officer.*



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I-509B, dated the 23rd September 1909.

From—A. W. PIM, Esq., I.C.S., *Joint Secretary to the Board of Revenue,*
United Provinces,

To—*The Chief Secretary to Government, United Provinces,*
Revenue Department.

SIR,—I am directed to submit for the orders of Government the final report on the eleventh regular settlement of the Moradabad district by Mr. H. J. Boas, the Settlement Officer, and to offer the following observations by the Board.

Present :
THE HON'BLE MR. L. A. S. PORTER, C.S.I.

2. In anticipation of the expiry of the tenth settlement on June 30, 1908 the question of a revision of the assessment was considered in 1903 and 1904; and, a substantial enhancement of revenue being anticipated, the appointment of a Settlement Officer and of an Assistant Settlement Officer was sanctioned by the Government of India in February 1904. It was then proposed that the revision should be completed by the Settlement Officer in four years from October 1904, with the help of an Assistant Settlement Officer for two years. At the same time a re-survey was authorised in those parts of the district of which the maps were seriously inaccurate, and, as a consequence, a partial revision of the land records was necessary to bring them into conformity with the new maps: while for a few villages, in which tenures were complicated, the proprietary registers were found to require re-writing and attestation. In July 1904, however, the Board proposed to defer the appointment of a Settlement Officer until October 1905, chiefly with the object of saving expense, and at the same time submitted an altered programme which contemplated the completion of the settlement within three years, an Assistant Settlement Officer being employed throughout. The Board's suggestions were approved, and Mr. H. J. Boas and Mr. W. Gaskell were appointed Settlement Officer and Assistant Settlement Officer respectively in October 1905. It was not found possible, however, to complete the revision by October 1908, and an extension of the term of both appointments was sanctioned. Mr. Gaskell finished his work and proceeded on leave on 20th February 1909, and Mr. Boas followed on April 7th. The survey was completed by December 1905. The revision of records, which had been commenced in November 1904, was conducted by Kazi Makhdum Husain, Deputy Collector, throughout the period during which the assessment was in progress, but had not been completed by the time Mr. Boas gave over charge, and some part of the establishment is still at work. As, too, the assessments of tahsil Amroha could not be passed by the Board, before Mr. Boas left, the declaration of those assessments had to be made by the Deputy Collector, who was specially empowered to perform this duty. The Collector of Moradabad is now formally in charge of the settlement, and he will be responsible for winding up the proceedings in due course.

3. The district, whose total area is 2,293 square miles, presents a great variety of natural features, which have been sufficiently described in the report. On the western side, where the Ganges forms the boundary, is a long stretch of low-lying (*khadir*) land, generally infertile, and varying in width from 2 miles in the north to 8 miles in the south. East of the *khadir* the level of the country rises several feet to the plateau which extends eastward and southward to the valley of the Ramganga. To the north and east of that valley the level is again higher; and the district extends towards, and finally joins, the Naini Tal tarai in the neighbourhood of Kashipur. The uplands between the Ganges and Ramganga *khadirs* include many tracts of varying type. On the west, just above the Ganges *khadir* is a broad tract of sandy (*bhur*) soil; in the centre and in the south and south-east lies the northern portion of the extensive loam plain (known as the *katahr*) which, like the *bhur* tract, is continued far into the Budaun district. The northern part of the uplands is more varied, being

divided into distinct blocks by several streams; all of these unite in the Gangan, which in turn approaches and ultimately joins the Ramganga a few miles beyond the borders of the district. West of these streams again a considerable *bhur* ridge enters the district from Bijnor, extending as far south as, and almost encircling, the town of Amroha; and further west still, before the great *bhur* tract is reached, the soil is an almost unbroken loam. In the east centre, adjoining the *bhur* tract, lies an area known as the *udlu*, in which the drainage is defective and, in consequence, the soil is liable to water-logging: and from the town of Amroha southwards the whole upland area is traversed by a sluggish stream or drainage channel called the Sot, which continues its course into Budaun: its valley is fairly deep and somewhat unhealthy. A similar but less important stream is the Ari, which traverses the greater part of the Bilari tahsil in the south-east of the *katehr* plain, and leaves the district a few miles east of Chandausi. In the tract to the north and east of the Ramganga conditions are generally similar to those of the adjoining *tarai* of the Naini Tal district, though the submontane forests exert no influence in Moradabad. Here again the country is broken up by several streams, the chief of which, the Dhela and the Kosi, fall into the Ramganga. While much of the tract is covered by a good soil there are considerable areas of hard clay of indifferent productiveness.

4. The Ganges *khadir*, which lies entirely in the Hasanpur tahsil and includes nearly 12 per cent. of the whole area of the district, is essentially precarious. The river almost invariably floods a large part of it in the rainy season, and the cultivation in the remainder depends chiefly upon the depth and superficial extent of the water in the depressions and swamps which abound. Part of the *khadir* is occupied by a *bhur* ridge in which conditions resemble those of the great *bhur* tract to be shortly described. The *kharif* crops are precarious, but the *rabi* crops are usually raised successfully. Much of the land is never cultivated, being still under grass and trees: the grazing and breeding of cattle therefore flourish, and the proprietors reap considerable profits from their waste land.

The great *bhur* tract is included partly in the Hasanpur tahsil and partly in Sambhal, and to a small extent in Amroha also; altogether it occupies about one-fifth of the area of the district. For the prosperity of this tract a moderate rainfall is essential, drought and excessive moisture being equally to be feared. A fairly dry cycle has always witnessed a large extension of cultivation, and a wet cycle a serious contraction. The *rabi* crops are nearly always poor in quality, save in a few favoured depressions, but the coarser *kharif* crops flourish when the rainfall is propitious. The tract may be described as one of naturally poor capacity, liable to extreme fluctuations in the cultivated area.

About half the area of the district lies on the central plateau, and outside the *bhur* tract. The *katehr*, in which lie the whole of tahsil Bilari and the eastern part of tahsil Sambhal, possesses a rich loam, broken here and there by slight ridges of lighter soil, and more rarely by depressions in which the soil stiffens to clay. The cultivation is stable and of good quality: irrigation is plentiful and apparently permanent, and the only serious element of precariousness is water-logging in the valleys of the Sot and the Ari. The northern portion of the plateau in which lie the greater part of the Amroha tahsil and parts of the Moradabad and Hasanpur tahsils, is less fertile, and cultivation is liable to considerable fluctuations on the *bhur* ridge in the north of Amroha tahsil and on a raised area, in which irrigation is not practicable, between the Ramganga and the Gangan.

The *khadir* of the Ramganga, with the similar small tract bordering on the Kosi, occupies about 7 per cent. of the district area, being shared by tahsils Thakurdwara, Moradabad and Amroha. The Ramganga is a powerful stream which frequently changes its course, but the soil deposited by it is usually of a very fertile description. Floods are frequent, and the *kharif* harvest is therefore somewhat precarious; but the crops which survive the floods are usually excellent, and the *rabi* harvest seldom falls short of a high standard.

The north-eastern tract (about 15 per cent. of the whole district) is included partly in tahsil Thakurdwara and partly in tahsil Moradabad. The soil is for the most part a stiff loam, in which cultivation is stable and good, and irrigation from percolation wells is generally practicable : but there are considerable stretches of inferior soil in which only early rice can be raised, and there is no irrigation.

5. It has been thought necessary to describe the various tracts of the district at some length in order to emphasise the great variety of conditions prevailing, and to exhibit the precariousness of certain parts. There is no doubt, as stated in paragraph 13 of the report, that a large part of the district is naturally fertile and well protected against drought, but the exceptions are important—more so than Mr. Boas's concluding summary, if read alone, would appear to suggest. The Ganges *khadir*, the *bhur* tract, and the other areas in which irrigation is impracticable, are all precarious, and, taken together, they represent well over one-third of the whole district. The rainfall is generally ample, however, and a set-back is chiefly to be feared in these precarious tracts in years of abnormally heavy rain.

6. The total population has steadily increased, and in 1901 it amounted to 1,191,993; but the Hasanpur tahsil, which comprises little besides the Ganges *khadir* and a large share of the *bhur*, shows variations in population corresponding to the extension or decline of the cultivated area. Even now the population of that tahsil is more sparse than that of any other, being only 291 to the square mile. On the other hand the density in the Moradabad tahsil is as high as 781 to the square mile. There are four municipal towns; the chief, Moradabad, has a population of about 75,000 only and the smallest, Chandausi, of less than 26,000. There are several small towns administered under Act XX of 1856, but they owe their importance almost entirely to agriculture. The brass work of Moradabad city is well known, and the manufacture of articles from horn affords considerable employment in Sambhal town; but the other industries of the district, excluding of course the trade in imported goods, are almost entirely connected with agriculture. Chandausi is an important and progressing centre of the cotton trade, and the last few years have seen a rapid increase in the number of steam gins and presses. Hasanpur is a distributing centre for twine and sieves locally made from the grasses of the *khadir* and the *bhur*: sugar refining on a small scale is carried on at numerous places throughout the district: but otherwise the trade of the towns is chiefly concerned with the distribution of raw agricultural produce, and of the imported goods for which that produce is ultimately exchanged. The district is therefore essentially agricultural in character.

7. Communication by railway is now on the whole good. At the previous settlement the Oudh and Rohilkhand Railway traversed the district only from Chandausi northwards to Moradabad, which was then the terminus of the line, and eastward in the direction of Aligarh. It has since been extended to Saharanpur, while the new main line through Rampur also lies partly in the district. The branch line from Moradabad to Ghaziabad, opened in 1900, has brought the important town of Amroha on to the Railway system, and Hasanpur within 9 miles of it. A further development (not, however, affecting the recent assessment directly) has been effected by the opening of the Moradabad-Kashipur-Ramnagar extension of the Rohilkhand and Kumaun Railway. This traverses the north-eastern tract of the district, and runs within a few miles of Thakurdwara, so that of the tahsil head-quarter towns Sambhal alone now lacks easy access to the railway. The system of roads is not, however, good, several important tracts being without a metalled road. Unmetalled roads cannot be maintained satisfactorily in a soil which cuts up easily, as is generally the case in Moradabad; and the Board trust that the considerable increase in local rates following on the new assessment will be devoted largely, if not entirely, to the improvement of road communications.

8. Of the cultivators it is unnecessary to say much; the table given in paragraph 23 of the report indicates that the more industrious and efficient castes are well represented; and generally the standard of cultivation is as good as the soil allows,

being in places very high. The average size of a tenant's holding is 6·77 acres, ranging from 4·77 acres in tahsil Moradabad, where the population is densest, to 8·72 in Hasanpur where it is most sparse. It may be noted also that the average holdings are largest in the tahsils where rents in kind are most common, namely in Hasanpur and Amroha.

9. Of the whole area of the district (1,260,996 acres) no less than 923,202 acres, or nearly three-fourths of the total, are held in single or joint *zamindari* tenure: of the remaining fourth more than two-thirds is held by *pattidari* communities; and the rest chiefly by owners of small plots called *milks* (some of which are revenue-free) included for administrative purposes in mahals owned by other proprietors. Among all the proprietors Muhammadans are the most prominent, owning as they do nearly half the whole area: and among the Muhammadans, the most remarkable as a class are the Saiyid *muafidars* of Amroha. The chief Shaikh proprietors are the Bachraon *maulvis* who own large estates, chiefly in the Hasanpur tahsil: the other Shaikh proprietors are numerous, holding in various parts of the district. Among Hindus the most prominent individual proprietor is Raja Kishan Kumar, a Khattri by caste, of Sahaspur in the Bilari tahsil: he owns a considerable estate in the Budaun district also. The most prominent family is Baniya by caste, the head of the family being Sahu Ram Rattan, Rai Sahib, of Thakurdwara. There are several substantial Thakur families, and Thakur proprietors own a very large area. Other large estates are those of Laltu Singh, a Jat: the Mahant of Salempur, a Goshain: and Chaudhrai Jamna Kuar, of Kanth, a Vishnoi.* The most prominent *pattidari* communities are composed of Jats, Thakurs, Ahars, Chauhans,* Tagas and Musalmans. The Saiyids and the Thakurs have lost most ground since the previous settlement, chiefly to Baniyas and Khattris. Most of the other castes have held their own fairly well, and many have actually gained. The district is on the whole one of substantial proprietors, and the management is usually good and sympathetic, though in some cases strict. The only striking instances of really bad or tyrannous management were noticed in the estates of the *Maulvis* of Bachraon, the Chaudhrai of Kanth, the Mahant of Salempur, and of several of the Saiyid *muafidars* of Amroha.

10. The area under *kharif* crops is greater than that under *rabi* as might be expected from the description given of the district. The large *bhur* tract, for instance, is much more suited for *bajra* and small millets than for spring crops, and there are several tracts in which little but early rice can be raised. Rice occupies about one-fourth of the *kharif* area; next in importance is *bajra*, and then *juar* and the small millets. Cotton is grown in about one-twentieth of the *kharif* area, and cane in about one-fifteenth. The most important crop in point of area is, however, wheat, which is grown alone or mixed with other crops in nearly 40 per cent. of the whole cropped area, 28½ per cent. being under pure wheat. Barley and gram are the only other important *rabi* crops. The double-cropped area is about one-eighth of the whole. The strong points in the crop statistics are the substantial areas under cotton, cane and wheat. The cane area is well maintained except in the *katehr* plain, where the depth to water, and the consequent expense of irrigation, have led to the abandonment of cane in the recent era of rising prices, other crops giving almost as good a cash return. As Mr. Boas remarks, if the canal from the Sarda is brought through this tract a revival of the popularity of cane is not unlikely.

11. Of the present means of irrigation it is not necessary to say much, and paragraph 20 of Mr. Boas's report may be referred to. There is a little canal irrigation from the *tarai* canals in the extreme north-east. Except in the *bhur* tract and a few other areas irrigation from wells is possible everywhere; but water is not often required in ordinary seasons, and, if required, it is obtained from cheap earthen wells. As an exception, a few fine spring wells are found in the *katehr*, near the southern border of the district. In the famine of 1907-8 about one-fourth of the normal cultivated area of the district, excluding the Ganges *khadir*

* Vishnois and Chauhans are special castes found in Moradabad and some neighbouring districts.

and the *bhur*, was irrigated; and in 1899-1900 nearly one-third (over 214,000 acres); but in 1301 *fasli* the irrigated area was under 38,000 acres.

12. About three-fourths of the whole area was actually cultivated at survey, and of the remainder nearly two-thirds was returned as culturable. The limit of profitable cultivation has probably been almost reached in the non-precarious areas, e.g. in the Bilari and Amroha tahsils where over 82 per cent. of the whole area is now cultivated.

In paragraph 18 of his report Mr. Boas has shown that the extension of cultivation during the term of the last settlement was 10·27 per cent. in the stable portions of the district. In the precarious portions the apparent rise is well over 50 per cent. but this is due, in a large measure, to the fact that the figures of the previous settlement for the Hasanpur tahsil were those of the famine year 1877-8, when the cultivation was recorded at a lower area than any in the 20 years from 1292-1311 *fasli*. It is difficult to say whether there has been a real extension in these tracts, but there is no doubt that the cultivation in 1312 *fasli* was certainly not less than the normal area before the former settlement, and was probably nearly at the maximum possible under present conditions, the soil being naturally poor, population relatively sparse, and irrigation almost non-existent.

13. The tenants are for the most part in a strong position, over 52 per cent. of the whole area included in holdings being held by occupancy tenants. About 9½ per cent. only is held in the cultivation of proprietors, and the remainder by non-occupancy tenants. On the other hand rent is paid in kind for nearly one-fourth of the area in occupancy holdings, and for more than half the area in non-occupancy holdings; and one of the most difficult problems of the settlement lay in the valuation of grain-rented lands for the purposes of assessment. The area held on cash rents rose from 425,768 acres at the previous settlement to 581,255 acres at Mr. Boas's settlement; that is to say, considerable progress was made in the thirty years towards the commutation of kind rents to cash; in fact, in the Amroha tahsil the cash-rented area has doubled and in the Hasanpur quadrupled; but there is still a large area held on grain rents, representing about one-third of the whole tenant-held area.

14. In Moradabad, as elsewhere, there has been a substantial rise in prices. Mr. Boas shows that the average price of wheat during the last settlement was more than 100 per cent. higher than during the 20 preceding years: gram sells for 80 per cent. more than it did: barley for more than twice as much: *bajra* for about 88 per cent. more, and common rice for more than double its former price. *Gur* alone is not substantially more valuable than it was. With the rise in prices there has also been a rise in the rent-rates, estimated on the bare figures at 13 per cent. in the case of occupancy and 52 per cent. in the case of non-occupancy tenants: but, as Mr. Boas observes, the area under cash rents has much increased, and much inferior land which at the previous settlement was rented in kind is now held by cash-paying tenants. The real rise is, therefore, greater than the figures show, for the average quality of the cash-rented land is lower than it was.

15. There has thus been progress in every direction: population has increased, communications have improved, cultivation has extended, prices and rents have risen substantially, and the area held on cash rents is now far greater than it was.

16. It was at first intended that no new soil classification should be made, but soon after inspection had commenced it became apparent that the old classification was no longer suitable; consequently, a fresh classification was made throughout the district. In the early stages the work was inspected on the spot by the former Senior Member of the Board, Mr. Hardy, and in the later parganas the classification has been carried out on the same lines. The results have proved uniformly satisfactory. After the soils had been demarcated a minute analysis of the rents was carried out, and a large basis for the selection of standard rates was secured. Generally, the standard rates were based on the recorded rents of selected holdings.

of tenants who had acquired occupancy rights since the previous settlement and had retained their holdings for 20 years and upwards. That this standard was the most suitable will be readily admitted if it is remembered that more than half the area in tenants' holdings is held in occupancy rights and that the settlement affects the occupancy tenants nearly as much as the landlords, for an important part of an assessing officer's many duties is to adjust the rents of these tenants. In a few cases, particularly in the worst circle of the great *bhur* tract and the Ganges *khadir*, the cash-rented area within the circle was not sufficient to form a sound basis for the deduction of standard rates, and appropriate variations from the usual method had to be devised. Details have been given fully in the various rent-rate reports, and it is sufficient to say here that the difficulties were surmounted in every case and that the rates adopted have worked well in their practical application to individual mahals and holdings.

17. The grain-rented area being extensive (about one-third of the whole tenant-held area) the experience of recent settlements led to a close examination of the question whether special rates were required for its valuation. In every pargana (except perhaps Bilari) the matter was of great importance, and it was treated exhaustively in every case. The result was that soil for soil the standard rates adopted for cash-rented areas were found to be equally applicable, with unimportant exceptions, to grain-rented holdings. The inferiority of the grain-rented land is marked by the fact that, when valued by the standard cash rates, the all-round incidence per acre is Rs. 3.09 in revenue-paying and Rs. 3.61 in revenue-free mahals, as compared with an incidence of Rs. 4.39 in each class of estate when the cash-rented occupancy holdings are valued by the same rates. This result is entirely due to the fact that the grain-rented holdings include a greater proportion of the inferior soils than cash-rented holdings. Non-occupancy rents being higher than occupancy rents, the moderateness of the rates in their application to grain holdings is further proved. The Board scrutinised the rent-rate reports very carefully, and found it impossible to doubt that the application of the same rates to both cash and grain holdings was justified. That the rates were adequate for grain-rented areas was clear from the fact that the valuation corresponded in a remarkable manner with genuine returns of the cash value of grain rents, the returns being selected for comparison on much the same considerations as governed the selection of cash holdings for the deduction of cash rates, and being adjusted by allowances for variations in area from year to year, and for differences in the shares taken by the landlords.

18. Rates for the valuation of occupancy holdings and grain-rented holdings being thus practically identical, a very large part of the area was valued without great difficulty, modifications in the rates within limits of 25 per cent. either way being judiciously made as permitted by the rules. The actual result of the valuation of occupancy holdings was the acceptance in revenue-paying properties of Rs. 17,56,558 as the rental of 402,721 acres, the incidence being Rs. 4.36 per acre or less than 1 per cent. below the valuation of the whole occupancy area at standard rates. Part of the area was excluded from assessment for reasons which will be explained later. The recorded rent of the occupancy holdings was Rs. 16,08,178 on 404,719 acres, so that the rent accepted for assessment purposes is Rs. 1,48,380 above the previous actuals; in revenue-free mahals where the recorded rents are relatively higher, the accepted rental is Rs. 19,297 above the actuals, but in paragraph 49 of the report it is shown that nearly the whole of this excess has actually been decreed by way of enhancement of rent, and that applications for such enhancement were not made in all possible cases. The valuation therefore corresponds very closely with the actual rents realisable from the date of the imposition of the new assessments.

19. The valuation of the grain-rented area was effected on similar lines, modified rates being applied as circumstances required. The resultant assets give incidences of Rs. 3.28 per acre assessed in revenue-paying and Rs. 3.79 in revenue-free

properties. In both cases the incidence is above standard, mainly owing to the exclusion from assessment of extensive areas of precarious and inferior land, which, if assessed, would have been valued at the lowest soil rates. In revenue-paying mahals the grain-rented area contributes no less than Rs. 7,05,174 to the total assets upon which the settlement is based.

20. The next important item in the net assets of revenue-paying properties is the accepted rental of non-occupancy holdings, amounting to Rs. 8,40,226. The recorded rental of these holdings, 176,536 acres in area, was Rs. 9,57,380, the all-round incidence being Rs. 5.42 per acre. The standard valuation of the whole area gives an incidence of Rs. 4.01 per acre, a figure which, compared with the incidence (Rs. 4.39) of a valuation of occupancy holdings at the same rates, indicates a clear inferiority in the average soil in non-occupancy holdings. As in the case of other tenant land a substantial area was excluded from assessment, and various other considerations led to a reduction of the rental accepted for the purposes of assessment to Rs. 8,40,226, giving an incidence of Rs. 5.31 per acre assessed. There is no doubt that non-occupancy tenants can and do pay rent at much higher rates than their protected neighbours, and consequently, in spite of some inferiority of soil an incidence exceeding that of the accepted occupancy rents is to be expected. The Settlement Officer, indeed, is more concerned to justify the rejection of recorded rents for instability than to defend a high incidence. The rejection of rents to the nett amount of Rs. 1,17,154, or over 12 per cent. of the whole, is in fact striking. It is justified by the very recent and rapid expansion of competition rents, and by the returns of collections, which show genuine arrears. Mr. Boas has noted in paragraph 45 of his report that the divergence between occupancy and non-occupancy rents is considerably greater in Moradabad than that observed at the settlements of other districts of Rohilkhand, and he attributes the phenomenon to the fact that some years have elapsed since those districts were assessed, that is, that the effect of the recent rise in prices was not visible a few years ago. In the rent-rate reports both he and Mr. Gaskell were frequently able to demonstrate clearly how recent the rise in competition rents had been. The present rents are, in fact, due to the great rise in the prices of produce, particularly of wheat, which stimulated the landlords to enter upon a campaign of ejectment, the results of which have been, chiefly, the re-letting of holdings at increased rents. For many years the district has been remarkable for the enormous and increasing number of ejectment suits, attributable, no doubt, to the anxiety of the landlords to secure for themselves a share of the rising profits of the cultivators—the prevention of the growth of fresh occupancy rights, which would result in a certain fixity of rent, being a means to that end. But rents forced up in this way, and at a comparatively recent date, cannot be regarded as established, and it is fully in keeping with modern principles to estimate the assets at a thoroughly safe figure. The detailed examination of the assessments made by the Board showed that the acceptance or rejection of non-occupancy rents had received careful consideration in all cases, and in very few instances was it possible to criticise adversely the Settlement Officer's action.

21. Proprietary cultivation was valued at the standard rates, modified as occasion required. The incidence of the valuation at those rates on the area included in proprietors' holdings is Rs. 4.16 in the case of *str* and Rs. 3.91 in the case of *khudkasht*. As in the case of tenants' holdings considerable areas were excluded, and the accepted valuation is Rs. 3,90,755 on an area of 93,787 acres, the average being Rs. 4.16. From the valuation, however, a total sum of Rs. 50,257, or about 13 per cent, has been deducted as an allowance to cultivating proprietors. The full deduction permissible, 25 per cent., was granted to coparcenary communities, but none was given on account of the *str* of substantial landlords who habitually sub-let.

22. The remaining assets include the assumed value of 3,922 acres of rent-free land, scattered in small plots over numerous mahals, and a moderate estimate

of the regular *sayar* income. The chief profits, apart from those of cultivated land, are derived from grazing dues in the *khadirs* of the Ganges and Ramganga; but the sale of reeds and grass, and the rent paid for tanks in which ground nuts are grown, also contribute something to the landlords' income. The total addition on account of *sayar* amounts to Rs. 35,013.

23. Apart from the deduction for *str* already alluded to, the nett assets were reduced by an allowance for improvements to the extent of only Rs. 3,802, and for land taken up, between the year of attestation of records and the coming into force of the new assessment, for the Moradabad-Ramnagar Railway line. The allowance for improvements is small, but improvements for which an allowance could be made were few: masonry wells for irrigation appear in a small part only of the district, and not many of these are of recent construction.

24. The area assessed may now be noticed. In the *bhur* and *khadir* tracts in particular the cultivated area fluctuates enormously. Thus in the *bhur* of pargana Hasanpur in the 20 years from 1292 to 1311 *fasli* there was a general decline for 14 years, followed by a rapid recovery in the last four years of the period. The minimum area recorded was 148,847 acres and the maximum 207,081, the difference being no less than 58,234 acres or 28 per cent. of the maximum. The variations in the Sambhal and Amroha *bhur* tracts are similar: and in the Ganges *khadir* they are as marked, though the cycle of variation is different. In other parts of the district also some of the more precarious areas are not regularly cultivated, and in some newly reclaimed land the cultivation is not yet firmly established. Consequently the question of a stable area for purposes of assessment demanded and received constant attention. In the *bhur* and the Ganges *khadir* the area assessed was usually the average cultivated area of 20 years, but if the 12 years' average was substantially different the mean of the two averages was assessed. On the other hand real extensions of cultivation, such as that in some reclaimed tracts in pargana Sambhal, were included in the assessed area, being well-established and not likely to relapse. In the result, no less than 74,383 acres were excluded from assessment in revenue-paying mahals, the estimated rent of the whole being Rs. 1,67,337. Over 61,000 acres of such land are found in parganas Hasanpur and Sambhal, which between them contain the whole of the Ganges *khadir* and almost all of the great *bhur* tract. Taking revenue-paying and revenue-free properties together the total assessed area is 1,056,867 acres, or 5·4 per cent. above the average cultivated area of the 23 years, 1287—1304 *fasli* and 1306—1310 *fasli*. The details by parganas of the revenue-paying area only are:—

Pargana.			Assessed area.	Average cultivated area.	Percentage of excess over average.
			Acres.	Acres.	
Moradabad	...	...	128,500	120,905	6·28
Thakurdwara	...	...	101,473	99,521	1·96
Sambhal	...	...	228,366	224,990	1·50
Bilari	...	...	173,423	165,841	4·57
Hasanpur	...	...	160,695	155,469	3·36
Amroha	...	...	80,727	77,244	4·51

The excess is not marked save in parganas Moradabad, Bilari and Amroha. In them it is due in some measure to actual extensions of cultivation, partly also to the inclusion of some fallow in cash-rented holdings of which the lump rent includes that of the fallow, and partly to the omission (as unnecessary) of any allowance for precariousness in revenue-free mahals. Generally also the average of the 23 years is lower than the average which has been assumed to be the safe average of cultivated area.

25. The nett assets of revenue-paying properties were calculated at Rs. 36,83,392, and the revenue approved by the Board and sanctioned by the Government is Rs. 17,54,928, falling at the rate of Rs. 2·01 on each acre assessed, and of Rs. 1·91 on each acre cultivated, in the year of attestation, and representing 47·64 per

cent. of the assets. The enhancement over the former demand is considerable, being 21·16 per cent; but it is unequal, a result due to the varying character of the tenth settlement. The Board concur in the view expressed by Mr. Boas in paragraph 34 of his report that the assessment of pargana Thakurdwara was severe, of Moradabad full, of Sambhal and Amroha lenient, of Bilari fair, and of Hasanpur very unequal. The results of the present assessment are shown below :—

Pargana.	Former revenue.	Revenue now assessed.	Percentage of enhancement.	Incidence of new revenue on	
				Assessed area.	Cultivated area.
	Rs.	Rs.			
Moradabad ...	2,56,908	2,97,535	15·82	2·31	2·38
Thakurdwara ...	1,84,547	2,04,920	11·04	2·01	2·07
Sambhal ...	3,53,891	4,34,610	22·81	1·90	1·79
Bilari ...	3,43,724	4,32,737	25·89	2·50	2·50
Hasanpur ...	1,92,532	2,25,742	17·25	1·40	1·17
Amroha ...	1,16,844	1,59,381	36·45	1·97	1·90
Total ...	14,48,446	17,54,928	21·16	2·01	1·91

The inequalities at the previous settlement were partly due to the difference in the methods followed by Messrs. Crosthwaite and Smeaton, and partly to varieties of procedure in different parganas by Mr. Smeaton. In respect of pargana Hasanpur in particular Mr. Boas has shown that it is not easy now to understand on what principles Mr. Smeaton's assessments were based. In that pargana specially the result of the assessments in different villages has been very various, enhancements and reductions being alike frequent. Elsewhere, except in Thakurdwara, where the old settlement was severe, reductions of revenue in individual mahals have been rare; and, when granted, have been due chiefly to the allowance for proprietary cultivation which was unknown at the former revision. The present assessment has been carefully considered in all its aspects, and in particular the stable assets have been estimated with scrupulous care, on a uniform system. The percentage of the assets to be assessed as revenue has been determined by various considerations—the degree of enhancement, the circumstances and character of the proprietors and so forth—and the Board have no doubt that the present settlement is fair both to the landlords and to the State. The revenue should be payable without difficulty except in years of widespread calamity, when, of course, suspensions or remissions will be admissible. Only in a few mahals in the *bhur* tract is it at all probable that an area sufficient to pay the revenue will not be regularly cultivated, and for these the Government has already sanctioned a special form of engagement which will entitle the holders to a temporary reduction of revenue if the cultivation falls below a certain minimum. The settlement is therefore recommended for confirmation for the periods already sanctioned, viz :—

Pargana.	Date of expiry of last settlement.	Period of new settlement.	Date of expiry of new settlement.
Moradabad ...	30th June 1908	29 years.	30th June 1937.
Thakurdwara ...	Ditto ...	30 "	Do 1938.
Sambhal ...	Ditto ...	30 "	Do. 1938.
Bilari... ..	Ditto ...	29 "	Do. 1937.
Hasanpur ...	30th June 1909	30 "	Do. 1939.
Amroha ...	Ditto ...	30 "	Do. 1939.

26. A few other points arising out of the settlement may now be noticed. The first is the large area held free of revenue, or at a fixed nominal revenue (*nazarana*). In revenue-free mahals the total area included is no less than 216,039 acres, or 14·72 per cent. of the whole area of the district: while there are also 16,898 acres held in revenue-free plots within revenue-paying mahals. The Settlement Officer's proceedings affected these mahals and plots in three ways—first, a nominal assessment had to be worked out for the purpose of ascertaining the 'annual value' for the assessment of the consolidated local rate; second, the applicability of the

standard rates to each mahal had to be considered with reference to the determination of occupancy rents; and third, a study of each mahal was necessary to the decision of applications for commutation of rents from kind to cash. The revenue-free title is based chiefly upon grants by the Muhammadan governments which preceded the British, and the most prominent *muafidars* are the Saiyids of Amroha. These gentlemen, however, have lost relatively more ground during the past settlement than any other class, except the Thakurs, a fact which indicates that the causes of land-transfer are not necessarily bound up with the revenue assessments. The assets of revenue-free properties have been determined generally on the same lines as the actual assessments of revenue-paying land, but *sir* allowances were seldom necessary as nearly all the proprietors are absentees, and the nominal assessments were usually fixed in round figures at half the assets, for no leniency was necessary; leniency would, in fact, be ineffective, for the difference in the resulting local rates would be trifling. The nominal assessment of revenue-free mahals and plots amounts to no less than Rs. 4,01,091-8-0, that in pargana Amroha alone being more than 2½ lakhs; but certain of the mahals pay fixed *nazarana*, amounting in the aggregate to Rs. 24,773-6-8. The latter is an addition to the actual land revenue of the district, raising the total demand to Rs. 17,79,701-6-8, but if the whole of the revenue-free land paid revenue the total demand would be about 21½ lakhs. Apart from the fact that they absorb a large part of the rental which would otherwise be available for public purposes, the *muafidars* include some of the most tyrannous landlords in the district. They are largely responsible for maintaining the system of grain rents which is no longer generally necessary in pargana Amroha; for, although they pay no revenue, they are not content with a fair and assured rental, but resort to numerous devices to squeeze their tenants. The relations between them and the cultivators are usually very bad, and the assessing officers have more than once noticed the complete subjection of the villagers to their masters, the *muafidar* landlords. In the long run, there is no doubt, rents in kind are more profitable than cash rents to the landowner in a tract of well-established cultivation; for he reaps the benefit of every rise in prices, his share of the gross produce being constant: and if fair dealing were the rule and not the exception, the system of crop rents would not be open to severe criticism. But the system itself affords many opportunities of abuse, and for many landlords, whether *muafidars* or not, in Moradabad, as elsewhere, the temptations are irresistible. The result is, in many estates that the tenantry are oppressed and disheartened.

27. Fortunately, ejectment being unnecessary as a process for securing an increased rental from a tenant paying rent in kind, the owners of grain-rented estates, possibly without a clear appreciation of the consequence, have allowed occupancy rights to accrue; and the occupancy tenants have seized the opportunity afforded by the settlement—an opportunity which arises at no other time—to claim commutation of their rents to cash. Indeed, whether the relations between landlord and tenant were good or not, nearly all the tenants who could do so, i.e., nearly all the occupancy and ex-proprietary tenants paying rent in kind, applied to the Settlement Officer for commutation, and cash rents were fixed on no less than 113,879 acres, only 20,977 acres held by tenants of these classes continuing on the old terms. The law does not allow of the commutation of rents by order, in the case of non-occupancy tenants, for the obvious reason that the landlord can, by ejectment, easily restore grain rents; in consequence, the large area of 214,536 acres held by tenants-at-will must continue to be rented in kind until landlords and tenants agree to commute.

It should not be thought, however, that the Board condemn grain rents absolutely. Such rents are convenient, and almost necessary, in tracts where violent fluctuations in the cultivated area are inevitable; or where, even if the area is maintained, the produce is seriously affected by accidents of season. Such tracts are extensive in Moradabad—notably the *bhur*, the Ganges *khadir* and the single-cropped rice land in pargana Thakurdwara—and in them a survival of grain rents

for a considerable period may be anticipated without serious misgiving; but commutation elsewhere must be regarded as a blessing, not only as affording protection to the tenantry, but as securing to the cultivator the fruits of his increased labour and stimulating him to improve his methods. While admitting generally that rather greater stability of cultivation is probable under a system of cash rents, the Board do not, however, concur entirely in the inference which Mr. Boas draws from the figures quoted in paragraph 29 of his report. His contention appears to be that were the whole of the Hasanpur pargana cash rented the fluctuations in cultivation would be markedly less violent than they are at present: but the argument is vitiated by the fact that, speaking generally, only those areas are cash rented in which seasonal influences are likely to have the least effect, while the maximum grain-rented areas are composed largely of land which has lain uncultivated in a long unfavourable cycle of years, and may again lie fallow should a series of wet years supervene. The argument is therefore inconclusive.

28. The eagerness with which commutation has been sought and the scale on which it has been granted may, however, enhance the bitter feeling already existing between tenants and some landlords of the more exacting type; and for this reason a strong and intelligent administration will probably be required for some years, particularly in the Amroha tahsil, and possibly in Hasanpur also. Mr. Boas's suggestion that selected officers, whether Indian or European, should be attached to the district for the charge of that tahsil or those tahsils is therefore strongly commended to the consideration of Government.

29. The returns of case work are not remarkable. The bulk of it was concerned with the determination of rent—whether by way of enhancement, abatement or commutation—and with the correction of the land records. Hardly any appeals or applications for revision have come before the Board, but the Commissioner hears testimony to the high character of the case-work done by Mr. Boas and Kazi Makhdum Husain: he says nothing, however, regarding Mr. Gaskell's work, probably because the few appeals from that officer's decisions were finally disposed of by the Settlement Officer.

30. The whole cost of the settlement and survey is estimated to reach a total of Rs. 4,31,269 by the time the remnants of the establishment are finally disbanded, but this sum will be almost if not entirely recouped by the enhancement of revenue within the current revenue year.

31. In conclusion I am to commend to the favourable notice of Government the excellent work done by Messrs. Boas, Gaskell and Kazi Makhdum Husain.

Mr. Boas's proceedings throughout have been marked by thoroughness and ability, and an intelligent appreciation of the problems before him. Difficulties—which were many—were surmounted in a most satisfactory way, and the Board believe that the settlement will stand the test of time.

Mr. Gaskell is an enthusiastic and able officer, almost too thorough in his methods: at first he was apt to fill his assessment notes with too great a wealth of detail and to be swayed by prejudices, but with fuller experience his notes became excellent and his views broader, and he showed himself to be thoroughly competent as a Settlement Officer.

Kazi Makhdum Husain, the Deputy Collector attached to the settlement has been highly commended both by Mr. Boas and by the Commissioner. His reputation for industry, ability and integrity stands high.

I have the honour to be,

SIR,

Your most obedient servant

A. W. PIM,

Joint Secretary.



सत्यमेव जयते

No. $\frac{3515}{1-402}$, dated Bareilly, the 27th April 1909.

From—G. A. TWEEDY, Esq., Commissioner, Rohilkhand division,

To—Secretary to the Board of Revenue, United Provinces.

SIR,—The final report of the Moradabad settlement is a careful and thorough piece of work. It does not seem necessary to repeat what has been said in the reviews of the rent-rate and assessment reports. The rent-rates have been personally discussed by the settlement officer with the Members of the Board who have expressed their satisfaction both with the rates and with the way in which they have been applied by the Settlement Officer and Assistant Settlement Officer. I would only notice particularly the judicial work of the settlement which has been little commented on. There have been 194 appeals from the decisions of Mr. Boas, of which only 7 have been decreed. These figures speak for themselves.

In third appeal the work of the court of first instance necessarily comes under review as much as that of the lower appellate court, and I have been particularly struck by the thoroughness with which Kazi Makhdum Husain, the Settlement Deputy Collector, does his cases and by the sound knowledge of revenue law which his judgements exhibit.



FINAL REPORT ON THE ELEVENTH SETTLEMENT OF THE MORADABAD DISTRICT.

CHAPTER I.

GENERAL DESCRIPTION.

1. The Moradabad district lies in north latitude 28°-2' to 29°-16' and east longitude 78°-0'9" to 79°-0'3". With the exception of Bijnor it is the westernmost district of the Rohilkhand division. Its boundaries are :—

Boundaries and area.

On the west, the river Ganges which divides it from Meerut and Bulandshahr; on the south, Budaun; on the east, Rampur State; on the north, the Naini Tal Tarai and Bijnor. Its shape is roughly rectangular with a large projection northwards at the south-east and a somewhat less defined one at the south centre. Its breadth at the centre from west to east is 52 miles; and its length from north to south 40 at the west, 50 in the centre and 56 at the east. The total area is 2,293 square miles.

2. The district is divided into six tahsils, Moradabad, Thakurdwara, Amroha, Hasanpur, Sambhal and Bilari. Each tahsil coincides with a pargana of the same name. The tahsils vary in size from Hasanpur with an area of 553 square miles to Thakurdwara which comprises only 240. The total number of villages is 2,930, but as 57 of these (in parganas Hasanpur and Thakurdwara) are in effect alluvial mahals and not separate villages, the real number is 2,873 and the average size 0·79 square miles.

Administrative divisions.

3. For the plains of northern India the climate is a good one, the cold weather being more prolonged and the hot weather shorter than in districts further east. The extremes are however great. The most unhealthy time is from the middle of September when the rains come to an end till the setting in of the cold weather at the end of October. In common with all submontane districts fever is very prevalent during that portion of the year, and in years of heavy rainfall the mortality from malaria is heavy.

Climate.

4. The district is affected by both the south-western and south-eastern monsoons, though the latter is the most important. The following shows the average rainfall by months over a period of thirty years.

Rainfall.

	Inches.
January	1·34
February	1·06
March	·66
April	·22
May	·67
June	3·84
July	12·19
August	11·89
September	5·31
October	1·07
November	·12
December	·58
Total	38·95

The average varies by tahsils from 44·36 in Thakurdwara to 34·07 in Hasanpur. The heaviest rainfall for the thirty years ending 1905 was 57·54 inches in 1894 and the driest year was 1905 when the average rainfall of the six tahsils was only 21·10 inches. The rainfall is as a rule well distributed, the normal period for the breaking of the monsoon being the end of June. The rainy season in a normal year continues till the third week of September. The cold weather

rains fall very rarely and storms from the hills give occasional heavy downpours in May and early June which are of very great benefit to the cane.

→ The river system.

5. The physical features of the district are mainly determined by the numerous rivers by which it is intersected. Starting from the west the most important are the Ganges, the Sot, the Gangan, the Ramganga, the Dhela and the Kosi. Largely under their influence the district is divided into seven well defined tracts, the main characteristics of which can be best described in conjunction with the rivers which intersect them. The differences between them are very marked, the district presenting as varied features as any in the Province. The tracts with their approximate areas are :—

					Square miles.
The Ganges Khadir	...	...	...	...	269
The Bhur	...	...	...	...	424
The Udla	...	...	...	...	88
The Katehr	...	...	...	...	597
The North central block	...	...	...	...	406
The Ramganga and Kosi Khadirs	...	...	...	...	159
The North-eastern block	...	...	...	...	350
Total				...	2,293

The Ganges
khadir.

6. The main stream of the Ganges is confined to no fixed bed and large blocks of country are constantly alternating between this district and the Meerut division. The breadth of the *khadir* varies from two miles at the north to eight at the south. Its length is 40 miles. It is divided into four narrow parallel belts; the *jhil* at the foot of the uplands, followed by a higher lying tract of country, much of it still covered with dense palm and *dhak* jungle; next to this the open *Khadir* in which this jungle gives way to *babul* trees, and finally on the extreme west the diluvial tract on the edge of the river, consisting partly of a thick growth of *jhanu* and partly of very fertile alluvial soil. The *Khadir* is intersected by numerous *nalas* and streams, the latter taking off at successive points from the *jhil*. The most important one is the Mahawa which rises a short way north-west of Bachraon and which joins the Ganges in Budaun. At one point in this district it is dangerously close to that river and the canal authorities have to be constantly erecting dams to prevent the main stream taking the line of the Mahawa and leaving the headworks of the Lower Ganges Canal at Narora high and dry. Very great damage is caused by flood over the whole *Khadir* and the *kharif* cultivation is of the most precarious nature; after heavy rainfall the whole tract from the river to the *jhil* is under water, in which case only cane and the *jhil* rice survive. Large areas are liable to deterioration from the "reh" or "kallar" which the floods deposit. The *rabi* crop is the principal one as it flourishes in a dry year in the *jhil* and the diluvial belts, and throughout the entire *Khadir* in a year of normal rainfall. The tract is sparsely populated and the cultivated area shows great fluctuations, many of the inhabitants being of nomadic habits. There are large fodder reserves especially at the north where cultivation is more scattered and of a poorer kind than on the Budaun border and the zamindars derive a considerable revenue from the farm of grazing dues as well as from the sale of timber and of the various jungle grasses.

The bhur.

7. Above the *khadir* and parallel with it runs the *bhur*. It comprises the remainder of Hasanpur (save a small tract at the north-east corner) the western portion of Sambhal and a very small area in Amroha. It runs the entire length of the district (some 56 miles) its breadth being eight to nine miles. Throughout the entire area there is no stream of any kind. It consists of a series of sand-billows running fairly parallel to one another east and west with firmer soil in the troughs. The troughs are really drainage channels and are called *Choiyas*. These *Choiyas* assume definite channel shape just before they force their way through the sand hills to the *khadir*. They afford the key to the physical geography of the *bhur* as outside their influence there are no naturally firm soils. The better crops are

sown only in the '*Choiya*' lands or close to some of the village sites where Bagwans have reclaimed patches of garden cultivation from the Bhur. The contrast between the '*bāra*', which is often surrounded by a fence of *sarpat* grass, and the adjoining fields is very striking. The staples of the *Bhur* are *bajra*, *mung*, *moth*, and barley and the tract prospers in years of moderate rainfall. The variations of cultivation are very large and a series of wet years entails a great decrease in the cultivated area. The drainage lines are frequently blocked by cross lines of sand-hills; much land is thereby rendered unfit for cultivation after excessive rainfall and is abandoned till a drier cycle comes round. The *rabi* crop is poor even in a favourable year, a good yield of wheat being obtained only in the '*Choiya*' lands. In a year of very short rainfall the *rabi* area is much restricted as the nature of the sub-soil is such that wells cannot be generally sunk. The *Bhur* is thinly populated, most of the village sites are small, save in the vicinity of large centres of population there are very few groves to relieve the eye, and there is a striking absence of any sign of rustic wealth or comfort. *Shils* and ponds are practically non-existent and the whole aspect, especially in a dry year, is dreary in the extreme. The descent to the *khadir* is in places very abrupt, in others the slope is a gentle one. The difference in level is from twelve to fifteen feet.

8. To the east of the northern half of the Sambhal *Bhur* lies a small tract of puzzling country. It extends from the south of Amroha pargana to a point a short way west of Sambhal town. It is neither *Bhur* nor *Katehr*, the soil being hard and gritty and yet water-logged. The drainage is blocked on the west and east by high sand-hills and, as there is no slope southwards and no adequate outlet, the flood water does not run off but is absorbed in the fields. Water is very close to the surface and as, during a wet cycle, moisture is stated to ooze up on but little pressure, the tract is known as "*Udla*." Like the *Bhur* it suffers more from excessive rainfall than from drought.

The Udla.

9. The south centre and south-east of the district—the eastern half of Sambhal and the whole of Bilari—comprise the *katehr*. This consists of a wide level plain of great fertility broken here and there by small ridges of lighter and sandier soil. Village sites are large and numerous, the countryside well wooded, and the whole tract gives the impression of undoubted prosperity. The prevailing soil is a rich and easily worked loam and the clay area is small. Very fine crops of wheat, cotton and *jowar* are grown, and the soil is well adapted to the cultivation of the finer qualities of cane, but as will be shown later the area under this crop in the *katehr* has fallen off very largely during the last thirty years. Irrigation as a rule is plentiful, the spring being tapped in well defined tracts. The villages which lie in the '*mota*' well zone are the best in the district and the wheat grown in them enjoys a very high reputation. The Sot and Ari rivers drain the *katehr* efficiently and except in the actual valleys of these streams there is no danger of water-logging. The Sot rises in the Amroha pargana a short distance north of the Meerut road and leaves for Budaun below Chandausi. It has a good supply of water throughout the year. The Ari assumes channel shape close to Mainather on the Moradabad-Sambhal road but it is fed by the flood water which pours down from the high-lying lands at the south centre of Amroha and the north-east of Sambhal. The Ari and Sot valleys are subject to fluctuations of cultivation, as land is abandoned after a series of wet years. Otherwise the cultivated area of the *katehr* is stable, subject to temporary sets-back in dry years when the whole of the *rabi* cannot be sown.

The Katehr.

10. The north central block stretches from the Bijnor border on the north to the *katehr* on the south and from the Hasanpur *bhur* on the west to the Ramganga *khadir* on the east. It comprises almost the whole of Amroha, a small portion of Hasanpur and the south-west of Moradabad pargana. It is drained by the Karula, Gangan and Ban rivers which come in from Bijnor and unite a short way west of the Moradabad border, the united stream being known as the Gangan and passing on into Rampur at the east centre of the district. The tract varies

The North Centre.

considerably in fertility. The eastern portion between the Ramganga and the Gangan consists of a high broad ridge of poor soil in which wells cannot be made. The centre is a large ridge of *bhur* stretching from almost the north to the south-east of the pargana. The remainder of the tract consists mainly of loam of mediocre fertility, *jowar*, *bajra*, *urd*, *mung*, wheat and barley being the staples, though a considerable amount of the inferior kinds of rice is also grown. It is inferior to the *katehr* in fertility and the prevalence of grain rents tends to still further accentuate the difference. The *bhur* ridge and the unirrigated plateau are the only precarious areas, cultivation fluctuating very considerably in the former tract. The upper Gangan valley is the most fertile portion of this block.

The Ramganga *khadir*.

11. The Ramganga enters the district close to the point where parganas Amroha and Thakurdwara meet Bijnor and leaves it for Rampur near the east centre. As far as Moradabad city its *khadir* is well defined on the southern side by a steep cliff varying from ten to twenty feet in height. East of the city this disappears and the Gangan and Ramganga valleys blend imperceptibly with one another.

Similarly on the northern side the rise is so gradual that it is difficult to say at what point the actual *khadir* ceases. The river wanders in a shallow bed and sudden and disastrous changes of its course are constantly occurring. The soil is fertile, a great contrast to the Ganges *khadir*. The floods bring only fertilizing silt and the absence of *reh* is very marked. Serious damage is done to the *kharif* only in years of very heavy flood and the *rabi* is excellent even in the driest year. Some of the best cultivation in the district lies in the Ramganga *khadir* close to Moradabad city. The soil is stiff, part clay, part loam and yields fine crops of the better qualities of rice, cane (*Chinn*), maize, wheat, gram and barley. The double-cropped area is large. Considerable areas are kept for grazing as large sums are paid for the grass lands within easy reach of Moradabad and Rampur.

The north-east tract.

12. This comprises those portions of parganas Moradabad and Thakurdwara which lie to the north of the Ramganga *khadir*. It is intersected by a large number of rivers and streams which flow southwards into the Ramganga. The Dhela and the Kosi are the most important. The former is for some distance the boundary between the two parganas and joins the Ramganga just above the city. The Kosi merely fringes the district but south of the Bareilly road it sweeps westwards leaving a small block on its eastern side. The channels of the Dhela and the Kosi like the Ramganga are constantly shifting; the Kosi which at Mr. Smeaton's settlement joined the Ramganga in this district does not now meet that river till some miles beyond the Rampur border.

The whole of this tract partakes of a submontane character but is very diversified owing to constant changes of level and to the fact that the numerous streams cut the two parganas into many small blocks. The prevailing soil is a stiff loam in which wheat alternates with rice (*sathi*) followed in the *rabi* by gram and linseed. Cane is also extensively grown, practically all "*Chinn*." There are also wide plains of single cropped rice land known as "*Jhada*." The higher portions of these are sown with *sathi*, the lower with the more valuable varieties. The centre and north of Thakurdwara lie higher and are poorer, the soil being lighter and irrigation facilities less. The centre in particular (known as the Bajjar Patti) is distinctly precarious. Thakurdwara is generally inferior to Moradabad as the *Jhada* area is larger, the population less dense and the climate more malarious. Owing to the large rice area the *kharif* harvest over the whole tract is poor in a year of short rainfall, but a good *rabi* is secured even in a dry year as percolation wells can be dug almost everywhere, water being obtained at a depth of from ten to twelve feet. Cultivation is full and stable (the shortage in a dry year being temporary) and there are many large prosperous villages, particularly in Moradabad pargana.

General.

13. Excluding the Ganges *khadir*, the *bhur*, the unirrigated plateau of the central and the *Jhada* tracts of the north-eastern block the district is naturally fertile and for a non-canal tract exceptionally well protected against drought.

CHAPTER II.

ECONOMIC CONDITIONS AND PROGRESS.

14. The variations of the populations since 1872 are :—

Population.

1872	...	...	...	...	1,122,437
1881	...	...	...	...	1,155,173
1891	...	...	...	...	1,179,398
1901	...	...	...	...	1,191,993

There has thus been a steady increase in the last thirty years and the population in 1901 was 69,556 more than in 1872. It is however highly probable that the ravages of plague of late years have largely reduced this surplus. By far the largest increase has taken place in Amroha pargana which alone accounts for about 31,000 of the total rise. Bilari contains practically the same population as it did in 1872. Hasanpur as is to be expected shows variations, the population having decreased by 8,000 in the decade ending 1891, and recovered itself by almost the same amount during the dry cycle of 1891-1901.

The figures for the large towns are :—

				1872.	1901.
Moradabad	...	...	...	59,570	75,085
Sambhal	...	...	...	46,974	39,715
Chandausi	...	...	...	23,686	25,711
Amroha	...	...	...	34,904	39,958

The density of population is 520 per square mile of the total and 689 of the cultivated area. It varies from 781 in Moradabad to 291 in Hasanpur. The most sparsely populated tract is the Ganges *Khadir* in which the density is only 241 per square mile.

15. The district is mainly an agricultural one ; in addition to the four large towns mentioned in the preceding paragraph the principal markets are at Kanth (in Amroha), (through which town the surplus produce of pargana Thakurdwara is exported,) Gajraula and Dhanaura in Hasanpur, and Bahjoi in Sambhal. Dhanaura is likely to decline in importance as Gajraula lies on the Dehli-Moradabad railway line and is attracting much business previously transacted at the former place. Markets held at other Act XX towns serve purely local trade.

Towns, Markets and Manufactures.

This railway workshops at Moradabad provide employment for a considerable number of men, as do the numerous brick-kilns on the outskirts of the town. Other manufactures and trades are :—

Moradabad	...	Brass-work.
Chandausi	...	Cotton-pressing and ginning.
Sambhal	...	Comb and ornament manufacture from horn.
Hasanpur	...	Making twine and sieves from munj grass.

Sugar-refining on a small scale is carried on by a large number of zamindars and small capitalists throughout the district.

16. Railway communication has developed very largely during the last thirty years. Till 1884, the only railway line in the district was from Moradabad to Chandausi, the former place being the then terminus of the Oudh and Rohilkhand Railway. In that year the line was extended to Saharanpur and since then further extensions have taken place.

Communications.
Railways.

Moradabad to Bareilly <i>via</i> Rampur	...	...	1894
Moradabad to Dehli	...	...	1900

In 1907, the metre-gauge line was opened from Moradabad to Ramnagar *via* Kashipur. This line will open up the northern parts of pargana Moradabad and, to a certain extent, Thakurdwara, both of which have hitherto been very badly served. The Dehli line has made Hasanpur much more accessible.

17. Metalled roads connect Moradabad with Rampur, Meerut, Sambhal and Darhial on the way to Naini Tal. Hasanpur, Dhanaura and Amroha are also connected with the Meerut-Moradabad road by metalled branches. Only the Hasanpur-Gajraula and Moradabad-Sambhal roads have been metalled since Mr. Smeaton's settlement, so that very little progress has been made within the past thirty years. There is a net-work of earthen roads over the entire district, the principal ones being shown in the map accompanying this report. The bulk of

Roads.

them are in bad condition and the most urgent needs of the district are an extension of the metalled roads and the raising of the more important unmetalled ones above the level of the surrounding country. The large increase in the income of the District Board from the revision of settlement should be expended in this direction. The rich Bilari pargana is devoid of metalled roads save for a few miles at the north-west corner, and Chandausi is connected with the rest of the district solely by earthen roads.

General statistics.

18. The general agricultural statistics for the entire district are contained in appendix I. For the purposes of comparison it is necessary to exclude the figures of revenue-free plots in *khalsa* villages as, for the last settlement, details are not available. Exclusive of them the figures are—

	Unculturable.	Grove.	Culturable.	Cultivated.
Last settlement ...	1,14,449	16,321	4,00,620	9,08,152
Present ,, ...	1,13,953	18,330	2,25,742	10,91,461

The increase in the grove area is really larger than would appear from this statement as a considerable area of grove land is nominally cropped and has been included in the cultivated area. The increase of cultivation is 183,309 acres or slightly over 20 per cent. The real increase is, however, very much less than would appear from these figures. The peculiar circumstances of pargana Hasanpur in 1285 fasli are pointed out in the next paragraph, and, for the *bhur*, generally, no comparison between the statistics of any two given years can be satisfactory. In statement IX of appendix I are given the details of the cultivated area of the district from 1287 *Fasli* to 1310 *Fasli*. The figures for the last twenty years for the whole of Hasanpur pargana are:—

1292 ...	1,99,987	1302 ...	1,61,632
1293 ...	1,89,031	1308 ...	1,57,928
1294 ...	1,84,392	1304 ...	1,48,847
1295 ...	1,85,746	1305 ...	Not available.
1296 ...	1,85,238	1306 ...	1,67,936
1297 ...	1,75,899	1307 ...	1,55,141
1298 ...	1,77,398	1308 ...	1,82,530
1299 ...	1,71,817	1309 ...	1,94,913
1300 ...	1,68,593	1310 ...	2,01,344
1301 ...	1,73,923	1311 ...	2,07,081

and the Sambhal *bhur* shows similar variations. Eliminating the whole of Hasanpur and the *bhur* circles of Amroha and Sambhal, the cultivated area of which (excluding revenue-free plots) was 2,09,653 acres last settlement as against 3,21,244 in the present one, the figures for the remainder of the district are—

Last settlement.	Present settlement.
6,98,500	7,70,217

Thus the increase in the stable portions of the district is 71,717 acres, or 10·27 per cent.

The figures for *khalsa* and *muafi* are:—

	Unculturable.	Grove.	Culturable.	Cultivated.	Total.
<i>Khalsa</i> ...	99,178	15,742	2,02,008	9,16,523	1,233,447
<i>Muafi</i> ... { Revenue-free mahals ...	14,777	2,588	23,736	1,74,938	2,16,039
... { Revenue-free plots ...	1,247	354	1,710	14,784	18,095
Total <i>muafi</i> ...	16,024	2,942	25,446	1,89,722	2,34,134
GRAND TOTAL ...	1,15,200	18,684	2,27,452	11,06,245	1,467,581

Thus, of the entire district some 16 per cent. is revenue-free. The bulk of the *muafi* lies in pargana Amroha of which considerably over half the entire area is revenue-free. Of the entire area the percentages of cultivation are:—

<i>Khalsa</i> ...	... 74·3
<i>Muafi</i> ...	... 81·0
Total	... 75·3

The largest percentage is in Sambhal (85·6) and the lowest in Hasanpur (61·49).

19. The crop figures for the district are given in Appendix VI. The Settlement year for Moradabad and Thakurdwara is 1311 *Fasli*, (1903-1904) 1312 *Fasli*, (1904-1905) for the other four parganas.

In the case of a few of the alluvial villages figures for later years have been taken. The years of last settlement are :—

	<i>Fasli.</i>		<i>Fasli.</i>
Moradabad ...	1280 (1872·8)	Sambhal ...	1282 (1874·5)
Thakurdwara ...	1281 (1873·4)	Amroha ...	1283 (1875·6)
Bilari ...	1282 (1874·5)	Hasanpur ...	1285 (1877·8)

All these years were normal years save 1285, which was one of severe drought. In that year the cultivated area of Hasanpur (*khalsa* and *muafi*) was only 1,18,000 acres against 1,90,000 acres of the preceding year and 1,40,000 of the subsequent year.

The normal cultivated area was assumed to be 1,65,000 acres, the mean between the figures of 1876-7 and 1878-9. This fact should not be lost sight of when the crop statement and cultivated area of the two settlements are contrasted.

In the previous chapter, the crop characteristics of the various tracts have been already pointed out. The main features of the district, as a whole, are best brought out by the following table, the percentages being those of the average of five years :—

Total <i>rabi</i> ...	...	...	51·2
Wheat alone ...	...	28·5	...
Wheat in combination ...	...	10·1	...
Gram alone ...	...	3·5	...
Gram in combination ...	...	2·8	...
Barley ...	...	4·3	...
Total <i>Kharif</i> ...	...	...	60·5
Rice ...	...	15·4	...
Jowar ...	...	9·2	...
Bajra ...	...	13·5	...
Moth, mung and urd ...	...	7·4	...
Maize ...	...	3·1	...
Cotton ...	...	3·6	...
Cane ...	...	4·6	...
Zaid ...	...	...	1·2
<i>Dofasli</i> ...	...	...	12·9

The double-cropped and maize areas have increased very largely since last settlement. The cane area has increased in all tracts save the *katehr*, in which it has fallen off enormously. This is entirely a question of water level and of prices. Outside the *katehr*, water is obtained at a depth varying from eight to twelve feet ; where that is the case, there is no tendency for the cane area to contract. In the *katehr*, the depth of the water level runs from 15 to 20 feet. The cost of irrigation increases with the continuous rise in the price of labour, and as the prices of food grains and of cotton have risen very much more than that of gur and sugar, it has been gradually borne in on the mind of the cultivator that when water has to be lifted over twelve feet it pays him nearly as well to grow cotton or wheat as cane, while severe manual labour in the hot weather months is thereby avoided. If the projected scheme of running a canal from the Sarda through Sambhal to the Gauges is carried out the cane area in the *katehr* will be largely increased.

20. Canal irrigation exists only in the northern part of Moradabad pargana ; thirteen villages in this tract receive water from the Tarai canals, the extension having been made in the late eighties by Mr. Macdonald. Elsewhere irrigation is effected from tanks, streams and wells, but principally from the last-named source. In a normal year, as the rainfall is ample and well distributed, nothing is irrigated save cane and garden crops. If the monsoon current ceases prematurely and the

Crops.

Irrigation.

rabi cannot germinate without irrigation, earthen wells are dug in very great quantity during October. This is also done in January if the winter rains are delayed and the wheat shows signs of withering. The pot and lever are used generally except in the *katehr* where the water level is much lower; here either the leathern bucket, or the double pot worked by a pulley, is the method employed. A depth of 12 feet or so marks the limit of the lever system. Save in the *mota* well tract, the earthen well falls in during the following rainy season. Where *mota* wells exist, not only is the spring tapped but the wells last for many years without lining. Several of the smaller streams in Thakurdwara and Moradabad are dammed in dry years and water lifted with baskets, and the Mahawa in the Ganges *khadir* is sometimes utilized for the same purpose. The Ari, Sot and Gangan are not dammed, but in case of need the water is lifted with a lever on to the surrounding fields. A great deal more effective use could be made of the numerous small streams by more systematic management, and if the Sardar canal is brought down through Thakurdwara, Amroha and Sambhal to the Ganges, some use might well be made of the supply of water which at present runs to waste. Where tanks exist, they are also used in dry years, but there are few tanks of importance in the district and most of the small ones are sown with ground-nut and rendered useless for irrigation.

Pakka wells are practically unknown except in the south of Bilari and the south-east of Sambhal where a fair number have been built of late years from advances made by the opium department. Save in the *khadir* and submontane tracts—where they are not required—there is ample scope for improvement in the building of *pakka* wells, but before money is expended in this direction expert advice is necessary as, unless the *mota* can be reached, the money will be wasted. For the *bhur* especially the extension of *pakka* wells would be invaluable; canal irrigation would do as much harm there as good and would be, I think, unremunerative.

The variations of the irrigated area are clearly brought out by the following return :—

		Acres.			Acres.		
1300	<i>Fasli</i>	(1892-3)	82,394	1306	<i>Fasli</i>	(1898-9)	56,264
1301	"	(1893-4)	37,872	1307	"	(1899-1900)	214,626
1302	"	(1894-5)	43,925	1308	"	(1900-01)	50,938
1303	"	(1895-6)	83,259	1309	"	(1901-02)	65,255
1304	"	(1896-7)	107,147	1310	"	(1902-03)	81,282
1305	"	(1897-8)	Not available.	1315	"	(1907-08)	1,87,201

Forms of tenure.

21. The following shows that the great bulk of the district is held in zamindari tenure, almost a third being held in single zamindari:

Area in acres.																						
Single zamindari.			Joint zamindari.			Held by communities.									Miscellaneous.			Total.				
						Perfect pattidari.			Imperfect pattidari.			Bhatyachara.						No. of proprietors.				
No. of mahals.	Area.	No. of proprietors.	No. of mahals.	Area.	No. of proprietors.	No. of mahals.	Area.	No. of proprietors.	No. of mahals.	Area.	No. of proprietors.	No. of mahals.	Area.	No. of proprietors.	No. of mahals.	Area.	No. of proprietors.	No. of mahals.	Area.	Resident.	No. of proprietors.	Absent.
2,783	4,63,049	2,783	4,209	5,63,059	26,313	524	92,133	5,530	763	2,06,939	12,853	29	11,110	17,711	...	1,31,341	39,190	9,308	14,67,581	44,189	60,193	

The number of mahals has risen in thirty years from 4,205 to 8,308.

Tenures are simple, the only exception being that of the superior zamindari right in *muafi* villages, of which a description is given on pages 25 and 26, Mr. Alexander's report. In all cases in which the *muafidars* have bought out the zamindari right, I have had no zamindari *khewat* prepared. The zamindari right entitles the owners to a certain number of seers per maund of the produce if rents are in grain, and to a percentage of the cash rents. They deal with the *muafidars* and not with the tenants. Owing to an oversight in the Rent Law, suits lie in the civil courts and not in the revenue courts; the payment of the zamindars/

due is honoured as much in the breach as in the observance. The miscellaneous property consists of resumed *muafis*, (known as *milks*) and of revenue-free plots, many of which are of exceedingly small extent. The owners of the small plots can scarcely be considered as zamindars. Excluding the miscellaneous property the average area of land held by each proprietor is 20·5 acres, but the figures are misleading as there are a very large number of zamindars who own property in more than one village, and as the figures are the aggregate by villages they have been enumerated separately several times over.

22. The position of the various castes at this and the preceding settlement is shown in the accompanying statement :—

Castes.			Area held at last settlement.	Area held at present settlement.
Sheikh ...	...	...	2,75,166	2,60,208
Bania ...	...	...	1,41,601	2,32,394
Saiyid ...	...	...	1,97,676	1,63,448
Pathan ...	...	...	1,56,851	1,44,702
Thakur ...	...	...	1,84,018	1,39,769
Jat ...	...	...	86,194	96,167
Brahman ...	...	...	63,252	70,533
Kayasth ...	...	...	59,264	52,245
Khatti ...	...	...	31,290	51,165
Taga ...	...	...	46,749	45,735
Vishnoi ...	...	...	35,876	36,199
Ahar ...	...	...	35,841	34,681
Chauhan ...	...	...	36,301	32,421
Guslain ...	...	...	15,698	16,065
Turk ...	...	...	11,139	10,650
Mughal ...	...	...	11,430	9,963
Thakur Rajput ...	...	...	9,336	8,126
Gujar ...	...	...	5,292	5,589
Ahir ...	...	...	3,597	5,006
Khagi ...	...	...	3,623	3,412
Mewati ...	...	...	3,241	1,380
Christian ...	...	...	40	135
Others ... { Hindu	...	...	16,853	19,466
{ Muhammadans	...	...	16,696	18,744
Dedicated to religious purposes ...	...	...	356	680
Government property	...	...	12,908	8,718
Total ...			14,60,293	14,67,551

Musalman have lost ground but they still own nearly half the district, (about 607,000 acres). The most noticeable feature is the large advance made by the Banias and Khattris, at the expense mainly of Thakurs and Saiyids, who have lost ground steadily. The most important Bania family is that of Sahu Ram Rattan of Thakurdwara (Government Treasurer) and his relatives, who own a large property in that pargana and who manage their property well, but there is a large Bania element in all the parganas except Moradabad. The largest share of the Khattri possessions is in the lands of Raja Kishan Kumar of Sahaspur Bilari, whose estate is excellently managed and who placed all his papers unreservedly at our disposal. The Thakur community reside principally in Bilari and the Sambhal *katehr*, and belong largely to the Barhgujar clan. Gajendar Singh of Narauli and Kalyan Singh of Chandaury are well-to-do, but the smaller men have fared badly. The only large Jât estate belongs to Laltu Singh, who inherited it a year ago from Rani Kishori Kunwar. It is scattered all over the district and is almost entirely leased. The bulk of the Jât zamindars consist of small and thrifty men resident on their property. The same remark applies to the Chauhan, Ahar and Taga communities. Except the Chauhans of Thakurdwara all the Hindu yeomen classes have held their own well. The only other Hindu estates calling for mention are those of the Mahant of Salempur and of Chaudhrai Jumna Kunwar, Vishnoi, of Kanth. The estate of the former lies in Hasanpur, that of the latter in Amroha and Thakurdwara, Chaudhri Dharam Singh being the manager for his mother-in-law. Both estates are flourishing but the management of both has been distinguished by the most ruthless disregard of all tenant rights.

As regards the Muhammadans—the largest Sheikh estate is that of the sons of Maulvi Ibrahim Ali of Bachraon. Almost the whole of it lies in Hasanpur and is the worst managed property in the district, unscrupulous *karindas* having succeeded in combining the impoverishment of their masters with oppression of the tonantry. There are numerous bodies of resident Sheikhs, in various townships in Hasanpur; they are known as Chaudhris and are converted Tagas. The other important Muhammadan communities are the Saiyids of Amroha and of Sirsi in Sambhal, the Pathans of Hasanpur and the Khokars of Sambhal, but a considerable amount of property is held by Muhammadan gentry residing at Moradabad and Rampur.

Owing to constant subdivision but few of these Muhammadan families are well-to-do and the state of the Amroha Saiyids in particular is far from satisfactory. Their number is very large; as they increase their property diminishes; want of occupation results in constant intrigues; religious animosity is bitter, and municipal administration extremely difficult. Until the large majority of them learn that they must seek their livelihood elsewhere than from the land, matters will not improve.

Cultivating classes.

23. The following shows the area cultivated by each caste :—

	Caste of cultivators.	Cash-rented.			Grain-rented.	Sir and khud-kasht.	Rent free.	Total area.
		Area.	Rent.	Incidence.				
1	Jât ...	69,046	2,81,268	4.07	56,036	12,528	178	1,37,788
2	Sheikh ...	68,955	3,13,733	4.55	27,671	17,835	365	1,14,786
3	Chamar ...	67,695	3,24,571	4.79	39,246	181	453	1,07,525
4	Ahar ...	54,554	1,88,024	3.44	9,522	5,967	88	70,066
5	Chauhan ...	34,875	1,47,288	4.22	27,233	6,304	293	68,705
6	Baghwan ...	36,006	1,94,041	5.39	26,157	416	1,039	63,618
7	Thakur ...	37,848	1,64,419	4.34	3,307	20,122	231	61,508
8	Brahman ...	34,473	1,42,597	4.14	10,314	3,888	457	49,132
9	Turk ...	38,754	1,77,832	4.59	6,132	2,700	94	46,680
10	Khagi ...	20,702	74,647	3.61	22,946	295	45	43,888
11	Gujar ...	7,933	28,389	3.70	16,522	1,192	25	25,672
12	Taga ...	9,782	36,331	3.71	6,679	8,742	46	25,249
13	Ahr ...	9,196	39,099	4.25	10,845	1,107	50	21,198
14	Gadaria ...	11,847	58,305	4.92	7,326	42	22	19,237
15	Barhai ...	6,619	32,004	4.81	6,999	22	22	13,692
16	Bania ...	7,031	30,375	4.32	1,964	4,535	95	13,625
17	Pathan ...	5,421	24,450	4.51	4,185	3,488	36	13,130
18	Kahar ...	9,868	48,565	4.92	2,481	48	86	12,483
19	Saiyid ...	4,398	18,826	4.28	1,502	6,156	93	12,149
20	Mura ...	10,193	58,738	5.76	14	29	36	10,272
21	Lodha ...	7,077	32,526	4.60	1,087	106	20	8,290
22	Lohar ...	3,770	18,595	4.93	4,265	27	6	8,068
23	Kumbar ...	4,081	20,647	5.06	3,847	13	13	7,954
24	Kayasth ...	5,293	20,166	3.81	630	1,611	88	7,572
25	Vishnoi ...	2,350	10,568	4.50	2,124	992	12	5,478
26	Teli ...	2,940	15,722	5.35	2,073	29	5	5,038
27	Ghosi ...	3,623	13,258	3.66	753	124	40	4,540
28	Mewati ...	1,379	6,185	4.49	2,332	72	6	3,790
29	Pasia ...	3,337	18,662	5.59	194	138	18	3,687
30	Faqir ...	1,409	7,300	5.18	1,031	133	188	2,761
31	Hajjam ...	2,252	12,122	5.38	58	1	11	2,322
32	Dhobi ...	2,226	12,436	5.61	32	...	2	2,260
33	Banjara ...	1,014	4,763	4.56	273	157	...	1,474
34	Rhangi ...	852	4,589	5.39	10	...	433	1,295
35	Julaha ...	305	1,355	4.44	808	85	6	1,154
36	Mali ...	652	4,005	7.06	1	14	10	677
37	Mogal ...	42	175	4.17	65	87	2	196
38	Christian ...	64	348	5.44	80	1	30	175
39	Municipality ...	9	191	21.22	...	...	...	9
40	Hindus	43,371	2,03,673	4.70	29,520	4,202	1,645	78,738
41	Others { Muhammadans.	37,604	1,78,736	4.75	14,170	4,120	429	56,323
42	Miscellaneous...	9,533	50,200	5.27	+158	+973	-72	10,592
	Total ...	678,439	30,21,394	4.45	3,49,392	1,08,374	6,591	1,142,796

Miscellaneous figures represent the difference between the figures of the rent-rate reports and assessment reports, which is due chiefly to the fact that in the rent-rate reports of parganas Moradabad, Thakurdwara and Bilari the figures of revenue-free plots were not included as well as the figures of whole of Rasulpur Nagli in pargana Moradabad.

Baghwans pay higher rents than others as they hold a much larger portion of land close to the village site. The area held by the better class of cultivator is large; the best cultivators are the Baghwans (including Muraos and

Malis), Jâts, Chamars, Chauhans, Tagas and Turks. The style of cultivation varies enormously; it would be difficult to find more skilful or more extensive cultivation than that of the Baghwans round Sambhal, while in the grain-rented villages in the Hasanpur *bhur* no more labour is expended than is sufficient to provide the villager with the means to support life. Bilari, Sambhal, Moradabad and parts of Thakurdwara are well cultivated parganas; in the remainder of the district much less industry is displayed. The incidence of the rent depends almost entirely on the locality in which the bulk of any caste resides and not on the caste itself. To the Barhgujar Thakurs and the Chaudhris of Hasanpur reference has already been made. The other Thakur clans are the Gaurs of north-east Sambhal and the Katehrias of the south-east of Moradabad. The Jâts consist of two well defined sub-divisions—the *desi* Jâts of Sambhal and Bilari who are excellent cultivators of sturdy physique and independent character and the Pachada Jâts who abound in Amroha and the Hasanpur *bhur* and are of altogether an inferior stamp, but the different circumstances under which they live largely account for this. Chamars and Baghwans are scattered all over the district. The Ahars are found mainly in the Sambhal *bhur*, by which caste this tract is almost exclusively peopled. Turks are most numerous in Moradabad pargana, central Sambhal and a portion of Amroha; Tagas inhabit the Sambhal *udla* tract and the south of Hasanpur. Khagis, Gujars and Mewatis find the Ganges *khadir* congenial to their tastes.

In the cash-rented parganas the condition of the tenants as a whole is good and the fact that tenants have in many instances been able to purchase during the last thirty years shares in their villages is a proof of their prosperity. They have undoubtedly benefited largely from the general rise in prices, as the large area in which occupancy rights prevail has protected them from being rack-rented.

24. The following gives the average size of holdings :—

Size of holdings.

Tahsil.	Number of tenants.		Khatas.				Holdings area excluding sir and khudkasht.	Average size.	Remarks.
	Resident.	Absentee.	Resident tenants.		Absentee tenants				
			Total number.	Real number.	Total number.	Real number.			
1	2	3	4	5	6	7	8	9	
Moradabad...	44,041	8,838	48,033	*28,201	8,034	6,023	1,36,093	4.77	* Total number 28,201+341.
Thakurdwara	23,223	6,473	30,445	14,640	6,462	4,357	97,635	6.67	Pahikasht in Suburban circle.
Sambhal ...	62,412	21,757	79,212	†33,516	21,212	13,643	2,30,490	6.44	
Bilari ...	46,499	14,658	63,139	26,272	14,491	9,425	1,67,067	6.36	† Total number of holdings 33,516 resident +2291 Pahikasht 35,807 in circles VIII and IX.
Hasanpur ...	35,954	18,922	52,536	23,900	19,810	13,741	2,08,405	8.72	
Amroha ...	34,045	13,134	57,758	23,463	15,958	9,300	1,94,732	8.30	
Total ...	2,46,179	83,782	3,31,123	1,49,992	85,967	56,489	10,34,422	6.77	1,49,992 + 2,632 Do.Do. 1,52,624

Great care has been taken in the preparation of this statement. The numbers entered in columns 2, 3, 5 and 7 are those obtained after eliminating all names which have previously occurred in the village either in another mahal or patti or under another section of the khatauni. To obtain the average size of each holding the total tenant-held area has been divided by the real number of resident holdings; the *pahikasht* holdings need not be considered as such tenants almost invariably

hold land in their own villages as well. The *pakikasht* holdings in the suburban circles of Moradabad and Sambhal have however been added to the number of holdings of residents as many persons residing in those two cities till small plots in neighbouring villages without having any land in the city area itself. The average size varies from 1.20 acres in the Moradabad suburban circle to almost 15 in the Hasanpur 2nd *bhur* circle. The number of inhabited sites is 3,247. There has been a slight increase since last settlement owing to the founding of new hamlets but I have discovered no tendency for the cultivator to leave the main site and to settle in the middle of his cultivation: the fact that the fields of a holding are as a rule scattered holds out no inducement for him to do so.

Holdings area.

25. The details of the holdings area are :—

Description.	Holdings area.	Percentage of total area.		
Occupancy cash ...	4,63,203	40.53	} 52.14	
Occupancy grain ...	1,32,671	11.61		
Exproprietary cash ...	9,542	.83	} 1.03	
Do. grain ...	2,185	.20		
Non-occupancy cash ...	2,05,694	18.00	} 36.77	
Do. grain ...	2,14,536	18.77		
Sir ...	72,477	6.34	...	
Khudkasht ...	* 95,897	8.14	...	
Rent free ...	6,591	.58	...	
Total ...	1,142,796	100.00	...	

* (Includes 141 acres of bungalow compound in Moradabad cantonment not shown in appendix VII).

The occupancy and exproprietary area is thus somewhat over 59 per cent. of the tenant-held area. To compare the growth of occupancy rights since last settlement it is necessary to exclude the revenue-free plots (7,395 acres of cash and 982 of grain). The figures then become :—

	Last settlement.	Present settlement.	
Cash ...	3,52,811	4,55,808	+1,02,997
Grain ...	2,12,460	1,31,689	- 80,771
Total ...	5,65,271	5,87,497	+ 22,226

Appendix III shows the large advance made in the cash area. The decrease in the grain area is relatively not a large one, but this fact is mainly due to the recent temporary increase of cultivation in the Hasanpur sand-hills. The progress made is however great as the following figures for the tenant-held area show :—

	Percentage of cash-rented land.	Percentage of grain-rented.
Last settlement ...	55.3	44.7
Present settlement	66.1	33.9

In Amroha the cash-rented area has been almost doubled and in Hasanpur it has increased by over 300 per cent. Of the grain area 2,348 acres lie in the revenue-free plots.

26. The following statement shows concisely the large difference in prices for the twenty years preceding last settlement and for the period preceding 1905. The prices are those prevailing in Moradabad. The record for other tahsils is too faulty to permit of a combined statement being prepared for the whole district:—

		1853-1858.	1858-1863.	1863-1868.	1868-1873.	1883-1888.	1888-1893.	1893-1899. (Omit- ting 1896- 1897).	1899-1904 (Omit- ting 1899. 1900).
Wheat	...	42	35	32	24	19	15	15	15
Gram	...	49	39	33	25	23	20	22	18
Barley	...	65	52	60	40	28	22	23	23
Juar	...	Not avail- able.	42	34	26	24	20	21	25
Bajra	...	Do.	41	30	24	22	17	17	20
Sathi rice (un- husked).	...	80	46	40	37	27	23	21	23
Gur	...	Not avail- able.	15	10	9	11	11	11	11

Wheat	...	38		28		17		15	
Gram	...	44		29		21		20	
Barley	...	58		45		25		23	
Juar	...	42		28		22		23	
Bajra	...	41		27		19		18	
Sathi	...	63		38		25		22	
Gur	...	15		9		11		11	

Wheat	...		33			16		Rice. 106 per cent.	
Gram	...		36			20		80	..
Barley	...		52			24		116	..
Juar	...		35			22		59	..
Bajra	...		34			18		88	..
Sathi	...		50			23		117	..
Gur	...		12			11		9	..

The striking features of this statement are the relatively small rise in the price of gur (due to the importation of cheap sugar from Europe) and the arrest in the rise of prices in 1899-1904 due to the currency legislation and the partial restoration of the value of the rupee.

27. That rents have risen in sympathy the following figures show:—

Expansion of rents.

	Last settle- ment.	Present settle- ment.
Occupancy (including favoured rents and excluding exproprie- tary).	3.56	4.03
Non-occupancy	3.57	5.46

The figures of last settlement as explained in paragraph 34 are, for all parganas but Moradabad, those of the actual settlement year. The figures for that pargana are for 1282 Fasli, and contain the rents which were enhanced or commuted according to Sir C. Crosthwaite's rates. The rise in incidence is 13 per cent. in occupancy and 52 per cent. in non-occupancy rents. The real rise is however larger, as in the grain-rented parganas a large amount of commutation took place in land the quality of which was inferior to the previously cash-rented land, much of which lay round the village sites. This affects the occupancy incidence. The non-occupancy incidence has been affected by the breaking-up of a considerable quantity of inferior land during the currency of settlement. The rise in rents is a very considerable one in any case.

28. The area held by exproprietary, occupancy and non-occupancy tenants has already been shown. The great divergence between rents paid by the various classes of occupancy tenants is demonstrated in paragraph 49. Owing to some inevitable differences between the figures of the rent-rate and assessment reports and to the occupancy area not being classified in the latter it is impossible to give

Rental system.
Cash rents.

the exact area of each class. The percentages of the total occupancy area as given by the rent-rate figures are :—

Old occupancy unenhanced in Moradabad, Bilari and Thakurdwara (including rents enhanced or commuted at settlement and not since)	...	...	...	24.4
Old occupancy unenhanced in Sambhal, Hasanpur and Amroha. (<i>viz.</i> only rents which have run on unchanged, since before last settlement)	...	...	...	14.8
Old occupancy enhanced in Moradabad, Bilari and Thakurdwara (rents enhanced since last settlement)	...	...	...	10.5
Old occupancy enhanced in Sambhal, Amroha and Hasanpur (rents enhanced or commuted at last settlement and since)	...	...	...	22.6
Twenty years and over	...	...	...	19.8
Twelve years and over	...	...	...	7.9
Total	...	...	...	100.

The rents fixed at settlement are based entirely on soils; those fixed by agreement depend solely on what the tenant is willing to give and bear but little relation to soil values.

Non-occupancy rents have expanded with great rapidity of late years, particularly in the *kotehr*. In villages in which the non-occupancy area is very small it is not uncommon to find the land put up to auction each year. Nearly one-third of the non-occupancy land is held by tenants who have occupancy rights in other land; I had all such land extracted in pargana Moradabad as it had occurred to me that zamindars recouped themselves for low rents in occupancy land by exacting specially high rents for the tenant-at-will area held by occupancy tenants. The result however showed that the excess of the rent over the valuation for such land is no greater than in the case of purely non-occupancy land. Non-occupancy rents are regulated only by the laws of supply and demand, and the tenant will give as much as he can afford for it, irrespective of other conditions.

Grain rents.

29. Though the cash-rented area has increased very appreciably during the last thirty years (*vide* appendix III) grain rents still prevail over a wide area in parganas Hasanpur, Amroha and Thakurdwara. The grain is either divided or appraised, the former system being known as '*batai*', the latter as '*amaldāri*.' The zamindars adopt either as they please, varying their practice as suits them best. In Amroha, the prevailing practice is '*batai*', in Hasanpur '*amaldāri*.' Elsewhere the *khariḥ* as a rule is appraised and the *rabi* divided. The share taken is usually half, but sinks as low as a fifth in some of the Ganges *khādir* villages; various additions are made to compensate the zamindar for expenses of watching the crop, weighman's dues and kindred charges. In case of *batai* the actual crop is divided, the amount paid to the reapers having been previously deducted. In *amaldāri* a corresponding allowance is made as a rule, the usual deduction being four seers per maund. The grain system is worked properly by small zamindars resident in their villages who can attend to the matter themselves and divide the crop without undue delay; in such cases the method is not unpopular and provided a reasonable share is taken the tenants are not anxious to commute. In large estates however the system lends itself readily to abuse, and unscrupulous *karindās* are not slow to avail themselves of the opportunities offered them. An obnoxious tenant can be easily ruined by delay in *batai* or by unfair *amaldāri*, and although the law gives him relief theoretically, it is ineffective in most cases. The *amaldāri* system is twofold: either the grain is handed over or more usually the cash equivalent. In the latter case the grain is converted at one seer per rupee less than the market rate. The origin of this custom is most probably the difference between prices prevailing at harvest and at other times, but with the rise in prices the impost is a cruel one. In Hasanpur the system is still further abused by the addition to the value of a '*dhala*' or '*malba*' varying from four annas to two pice in the rupee. The tenant has to pay this whether he likes it or not, but the cess is illegal and is not recorded in the papers. The disputes and bickerings over both *batai* and *amaldāri* are interminable and cause most lamentable friction, and it is no wonder that even in the poorest villages the tenants look upon cash rents as their only means of escape from an intolerable situation. The economic loss entailed is

very large and is very evident in this district where cash and grain-rented villages exist side by side. While assessing Hasanpur I was so struck by the fact that the fluctuations in cultivation were so much less violent in cash-rented than one would have expected from the figures in similar grain villages that I had the figures extracted separately for cash and grain villages by circles and the result was so striking that I venture to insert the figures for those circles in which the cash area is large enough to render comparison effective :—

		Lowest cultivated area.	Highest cultivated area.	Average cultivated area of 20 years.	Percentage by which lowest area falls below the average.	Percentage by which the lowest area falls below the highest.
Circle II ...	Cash ...	13,085	14,627	13,982	6·42	10·54
	Grain ...	28,684	35,212	31,999	10·36	18·53
Circle III ...	Cash ...	8,323	9,398	8,888	6·35	11·46
	Grain ...	29,574	41,522	35,042	15·60	28·77
Circle VI ...	Cash ...	5,601	7,293	6,414	12·67	23·20
	Grain ...	5,980	10,770	7,898	24·28	44·47
Circle VIII...	Cash ...	8,975	10,428	9,737	7·82	13·93
	Grain ...	9,329	17,050	12,159	23·27	45·28

On these figures no comment is needed. *Zabti* rents are part and parcel of the grain system. They are cash rents paid for certain crops when sown in grain-rented fields. The system is an elastic one as an allowance of one-tenth is almost invariably given even for a full crop, and if the crop is a poor one further allowance is made. Cane, *chari*, *gual* and cotton are almost invariably cash-rented and maize, *san*, tobacco and garden crops frequently so. The rates range as follows :—

	Highest rate.	Lowest rate.
	Rs. a. p.	Rs. a. p.
Bhadwar cane i. e. if the land has lain fallow during the previous kharif.	4 0 0	1 8 0
Bhadwar Basthi i. e. if the land has borne a crop during the previous kharif.	2 0 0	1 0 0
Cotton ...	1 8 0	0 12 0
Maize ...	1 4 0	0 8 0
Chari and gual ...	1 0 0	0 6 0

The rates quoted are bigha rates, 6·4 going to the acre (6·5 in Thakurdwara). The rupee rate per acre is obtained by multiplying the anna rate per bigha by 4.

The system of '*Halbandi*' has almost disappeared ; under this system, in grain villages a *zamiudar* is entitled to levy a fixed cash rent on a certain amount of bighas per plough ; so too has the allied system of applying *zabti* rates to a fixed minimum area in each holding. The rise in the price of grain accounts for the gradual extinction of these modifications of grain rents.

30. In the cash-rented parganas relations on the whole are good. There are undoubtedly instances of oppressive zamindars but it is a pleasure to be able to record the names of many enlightened landlords who are well aware that the interests of the tenants are identical with their own ; amongst them I would mention Kuar Banarsi Das (the representative of the family of the late Raja Jai Kishan Das), Khan Sahib Mazhar Husain, Sheikh Rahmat Ullah, Babu Bishambhar Nath, Khan Bahadur Hamid-uz-Zafar and Maulvi Abdus Salam (retired sub-judge who lives at Rampur). On the properties of Raja Kishan Kumar and Chaudhri Gajondar Singh of Narauli high rents are taken and the estates are managed on strict business principles ; but the tenants are well treated, and in bad years remissions are fully made. Owing to the great divergence between occupancy and non-occupancy rents and the extreme difficulty of enhancing the former the zamindars

Relations between
zamindar and
tenant.

as a body are naturally unwilling to allow any fresh occupancy rights to accrue ; the constant necessity for ejecting does not tend to improve relations and I feel strongly convinced that the simplification of the enhancement law and procedure would do more than any other measure to check litigation and to promote harmony between zamindar and tenant. I have already separately submitted suggestions on this point. In Thakurdwara pargana although grain rents prevail over a wide area relations are normal, and the large area of single-cropped rice land is a justification for the continuance of the system.

Hasanpur and Amroha however present a very different picture, and it is difficult to write on the subject without laying oneself open to the charge of exaggeration. In Amroha there is no reason why grain rents should still exist ; the pargana is not a precarious one, but the Saiyids cling to them tenaciously, partly from pride and partly from greed, and other zamindars follow their lead. For the bulk of Hasanpur it is an admirable system if worked fairly and generously. Used as it is in order that the zamindar or his *karinda* may work his will unchecked throughout his estate it is impossible to defend it. Mr. Smeaton described the position of affairs most accurately when he referred to ' the subjection of a humble Hindu population to the rule of a haughty Muhammadan aristocracy.' The result of this lengthy period of subjection is an entire absence of independence and manliness ; otherwise the cultivators would have refused to endure the many acts of petty tyranny and oppression to which they are subjected. But though they do not break out into acts of lawlessness their resentment is none the less fierce and the feeling between the two classes is deplorable. The commutation proceedings have served to make the enmity still more bitter. The tenants have commuted wherever they could ; the zamindars are indignant with them for doing so, and with the settlement staff for complying with the provisions of the law. They fear that their '*hakumat*' will disappear and they also feel the loss of income, coupled as it often is with a rise in revenue. The loss in income is certainly exaggerated, as, when they compare the cash rent decreed with the income from grain, they forget that cash rents must be paid whether the land is cultivated or not, and they further estimate their grain income on the basis of a full crop valued at famine prices. However there is no denying the fact that commutation of a half grain rent does mean an initial loss of income and many of the zamindars will strain every nerve and use every means in their power to compel their tenants to revert to grain rents. The situation in the two parganas will require most careful watching on the part of the Collector and it would be well if Government could arrange that for the next few years they be put in charge of experienced energetic and tactful Assistant or Deputy Collectors.

31. That there has been substantial progress in the last thirty years admits of no doubt ; the rise in prices and rents, the increase of cultivation, the growth of the cash-rented area and the opening up of the district by improved railway communication all justify a substantial increase in the revenue.

CHAPTER III.

FISCAL HISTORY.

32. The present is the eleventh settlement of the district, the limits having been fixed as they now stand by the transfer of pargana Kashipur in 1870 to the Tarai. The first settlement was made in 1803 and the following are the figures given in last settlement report. Former Settlements.

				Revenue. Rs.
1st settlement	...	1803—5	...	7,34,703
2nd "	...	1806—8	...	7,50,177
3rd "	...	1809—12	...	7,95,085
4th "	}	...	...	8,91,779
5th "				
6th "				
7th "				
8th "	}	...	...	12,01,468
9th "		1842—1875	...	

The figures for the ninth settlement appear to be for the district as it is now constituted, but probably for the previous settlements the area was different; it is clear however from Mr. Alexander's report (Chapter IX, paragraph 1 of the final report) that the figures do not include the revenue of pargana Kashipur. The ninth settlement was conducted by Mr. Dick for Thakurdwara and by Mr. Money for the rest of the district. From the comments made by Sir Charles Crosthwaite the Thakurdwara settlement must have been a very severe one and from 1859—1863 half the tahsil was held under direct management. Mr. Money's methods were adversely criticised by Mr. Smeaton, but little was said as to the severity or leniency of the actual revenue imposed. There is however no doubt that sufficient distinction was not drawn between the fertile and the precarious parts of the district, and that the assessment of the *kotehr* was very light and of the *bhur* heavy. Many of the jamas fixed in 1842 on bad villages in Hasanpur were much higher than those which have now been assessed; a larger percentage of assets was taken then and probably a large addition made for waste, but that the difference in the assessment of the best and worst parganas of the district was much less marked formerly than now, the following clearly shows:—

	Revenue at 9th settlement. Rs.	Revenue at 11th settlement. Rs.
Bilari	... 2,47,030	4,32,737
Hasanpur	... 1,81,850	2,26,629

33. The tenth settlement was begun in 1872 by Mr. (now Sir Charles) Crosthwaite and lasted till 1880. Sir Charles Crosthwaite assessed Moradabad and Thakurdwara, Mr. Donald Smeaton all the other parganas save the southern portion of Hasanpur which was assessed by Mr. E. B. Alexander. It fell to the last-named officer to announce the jamas of Amroha and the whole of Hasanpur and in doing so he reduced Mr. Smeaton's jamas freely. It is impossible to discuss the settlement as a whole as conditions vary so much in the different tracts and the methods employed by the various settlement officers were not the same. The jama imposed in Moradabad was, for the condition of the time, a full one. The rates imposed by the settlement officer anticipated considerably the rise in rents which has since taken place, and in almost every case an increase of cultivation was discounted by the addition to the assets of Re. 1-6 per acre of waste. There was however ample scope for an increase in the rent-rolls of the pargana and the jama cannot have been oppressive save immediately after its imposition. A reduction of revenue in Moradabad has seldom been necessary save in villages held by numerous proprietors, whose *sir* allowances have entitled them to an abatement. The assessment of Thakurdwara was on the high side, and undoubtedly a point was strained to avoid reducing the revenue. Sir C. Crosthwaite did not divide either tahsil into topographical circles (save a small suburban one in the vicinity of Moradabad) but made three circles in each tahsil according to the impressions made on his mind by each village. His system was however elastic in that he varied the rates considerably and did not apply one set of rates throughout every village in the same circle. Mr. Smeaton made no circles in Bilari; in the

The Tenth Settlement.

other three tahsils his circles were strictly topographical. Some of his circles were on the large side as the whole of the Sambhal *katehr* and the Hasanpur *bhur* each formed one circle, and instead of treating each village as a unit he attempted the impossible task of considering the whole circle as a unit as regards soils. If the best loam in a village was not up to the standard of the best soil in the whole circle he valued it first loam inferior or second loam superior or average as the case might be. In Amroha where the circles were smaller—he applied his circle rates to every village without discrimination, though it is impossible to expect that the circumstances of every village in any topographical circle can be exactly similar. Despite these defects the circle classification was carried out with great care and judgement and in the present settlement the same lines have been followed. His assessment of Bilari was a very fair one, his valuation being 8 per cent below the non-occupancy rents as they stood in 1284 Fasli (two years after the settlement year). In no pargana did he add anything for waste. In Sambhal the assessment was a light one and in almost half the villages in which cash rents existed the recorded rents (previous to any enhancement of occupancy rent) exceeded the valuation by the rates. The principal defect in the settlement of this pargana (as in Hasanpur) was that Mr. Smeaton failed to grasp the fluctuating character of the *bhur*, so that during the currency of settlement it became necessary to revise the revenue of 34 mahals in 28 villages. The reduction of jama amounted to Rs. 2,502; at the subsequent revision five years later the reduced revenue was raised by Rs. 401. A considerable number of other mahals required reduction but none was granted as the owners were men of considerable means, whose profits from other villages were large. The assessment of Amroha was a very light one, but the cash area in the pargana was then too small to permit of an effective comparison being made between the rents then prevailing and Mr. Smeaton's rates.

The assessment of pargana Hasanpur was undoubtedly the least satisfactory part of Mr. Smeaton's work. It has already been pointed out that the settlement year was 1877-8 when the cultivated area fell very far short of the normal. The expedient adopted of taking the mean of two years to give a normal cultivated area instead of taking the average of a much longer period resulted in the assessment of too high an area in the weak and of too low an area in the better circles. The rate for first *bhur* (20 per cent. below that taken for similar soil in Sambhal) was very low for the better villages and the omission to class the cash-rented *gauhan* as such led to great inequalities in distribution. As pointed out in the pargana report the valuation was used principally as a guide as to whether the revenue should be reduced or raised; it was seldom that it was utilised as a means to decide what jama should actually be assessed. Re-adjustments of revenue in this pargana have therefore been very numerous.

34. In this connection I must note that in parganas Sambhal, Amroha and Hasanpur the jamabandis of last settlement are for the actual year of settlement. The rents contained in them are those which were in existence before any rents had been commuted or enhanced by the settlement courts; in the other three parganas the position is different, the jamabandis being for 1282 in Moradabad and for 1284 in Bilari and Thakurdwara, while the settlement year was two and three years earlier. In order to obtain the enhanced and unenhanced rents the comparison has of necessity been made with the jamabandis of the later years and the figures in the rent-rate reports have also been taken for them. From the old assessment volumes the figures for the settlement years in Bilari and Thakurdwara are available in the gross (but not for Moradabad) and the comparison now made is—with the exception of that pargana—with the rents which prevailed before the settlement courts had interfered with them in any way. This comparison is obviously a more satisfactory one. In working out the incidences of the old rents I have omitted the favoured rents as the figures for them are available and such rents should not be included in a test of this kind. In pargana Moradabad too the rent of 1,645 acres of non-occupancy land is included in the occupancy rents (owing to some holdings

Comparison of the valuation at last settlement with the rents then prevailing.

being partly occupancy in 1232F. and partly non-occupancy) so in striking the incidences 1,645 acres have been added to the occupancy and deducted from the non-occupancy area. The result is for *khalsa* and *muafi* combined :—

Occupancy incidence ...	...	3.60
Non-occupancy incidence ...	...	3.57

The incidences of the valuation of occupancy area by standard rates is 4.38, of non-occupancy 4.03, and of the total area 4.28. Raising and lowering the old incidences in this proportion the occupancy incidence becomes 3.51 and non-occupancy 3.79. The valuation of the entire area—945,340 acres—was Rs. 33,15,119, an incidence of 3.50 per acre, practically identical with the occupancy and 8 per cent. below the non-occupancy rate.

The comparison however for parganas Hasanpur, Amroha and Thakurdwara is misleading as the cash-rental area in those parganas was such a small proportion of the entire area, the area being :—

Cash (excluding favoured)			Total area valued.
Rs.			Rs.
Thakurdwara ...	...	24,600 odd	96,000 odd.
Amroha ...	...	44,600 odd	1,68,000 odd.
Hasanpur ...	...	19,500 odd	1,64,000 odd.

Eliminating these parganas and making the calculation in the above manner the following results are obtained :—

	Real occupancy incidences.	Real non-occupancy incidences.	Incidences of settlement officer's valuation.	Remarks.
Moradabad ...	3.81	4.02	4.23	11 Per cent. above occupancy and 5 per cent. above non-occupancy valuation.
Bilari ...	3.52	4.04	4.25	20 per cent. above occupancy and 5 per cent. above non-occupancy.
Sambhal ...	3.12	3.36	3.82	6 per cent. above occupancy and 1 per cent. below non-occupancy.

If the Bilari comparison be made with the 1234F. figures (to put it in the same position as Moradabad) the result is that the valuation is 4 per cent. above the occupancy rate and 8 per cent. below the non-occupancy rate.

The following shows *parganawar* the rise in revenue effected at the last settlement (page 141 of Mr. Alexander's report).

Revenue at end of 9th settlement.			Assessed at 10th settlement.
Rs.			Rs.
Moradabad ...	...	2,02,254	2,59,738
Bilari ...	...	2,47,030	3,38,969
Thakurdwara ...	...	1,81,963	1,82,075
Sambhal ...	...	2,87,925	3,51,016
Amroha ...	...	1,00,448	1,15,827
Hasanpur ...	...	1,81,849	1,83,063

The assessment can be summarised :—

Thakurdwara ...	Severe.
Moradabad ...	Full.
Bilari ...	Fair.
Sambhal ...	Lenient.
Amroha ...	
Hasanpur ...	Very unequal.

35. The following statement shows the number of the various coercive processes issued during the years 1879—1908 :—

Coercive processes.

	Writes of demand.	Citations to appear.	Warrants of arrest.		Attachments.		Sales.		Annulment of settlement.	Transfer.
			Num-ber.	Cases in which persons were actually detained.	Of move-able property.	Of immove-able property.	Of move-able property.	Of immove-able property.		
Total ...	28,046	3,185	2,719	261	6,350	268	113	...	...	6
Yearly average	935	*531	90	8	212	9	4	...	...	...

* Six years' average.

The collection of revenue has not given any difficulty save in the case of large *pattidari* bodies or in those villages in which the number of resumed *muafis* is large. In such cases whether the revenue be light or the reverse there are a certain number of bad payers who will always try to pass the burden of the revenue on to some one else's shoulders. Sirsi in particular has given great trouble, five of the transfers having taken place in this village. Arrangements have now been made in Sirsi and similar villages by which it is hoped that the collection of revenue will be less difficult in the future.

Suspensions and remissions.

36. The amount of suspensions and remissions during years of scarcity subsequent to the jama of 1877-8 are:—

1304 Fasli (1896-97).		1307 Fasli (1899-1900)	
Suspended.	Remitted.	Remitted.	Suspended.
Rs.	Rs.	Rs.	Rs.
1,92,128	21,505	286	Nil.

Figures cannot be given for 1315 Fasli as the amount of remissions is not yet known.

Transfers.

37. In statement XI of appendix I is given the statement of transfers. Of the total *khalsa* area 5,25,872 acres or 42 per cent. has changed hands, while of the *muafi* 97,389 acres (42 per cent.) has been the subject of transfer. Much land has changed hands more than once. The question of the castes who have lost ground has already been dealt with. These figures show clearly that the necessity for transfer depends less on the revenue assessed than on the character of the owners.

Rise in values.

38. It is impossible to draw any satisfactory deductions from the prices entered, as the returns are seldom accurate. Mr. Alexander gave the price per acre in the decade preceding last settlement as varying from Rs. 17-14-6 in Bilari to Rs. 13-5-4 in Moradabad, that of the *muafi* being slightly more than double. The average price per acre realised during the last thirty years is Rs. 35-7-0 for *khalsa* and almost Rs. 69 for *muafi*, so however inaccurate the figures may be there is no doubt of the large rise in value and that the relation between *muafi* and *khalsa* is the same as it was. The price per acre varies from Rs. 42-10-0 per acre in Sambhal to Rs. 18-9-0 in Hasanpur and for *muafi* from 72 in Amroha to Rs. 45-5-0 in Hasanpur. The average number of years' purchase is highest in Amroha (29) and lowest in Thakurdwara (19). The prices paid for grain-rented villages in Hasanpur are high—rarely under 50 years' purchase, and frequently considerably higher.

CHAPTER IV.

SETTLEMENT OPERATIONS.

39. The survey operations commenced on 1st October 1903 and closed on 21st December 1905. The whole of parganas Thakurdwara and Hasanpur and portions of parganas Sambhal, Moradabad and Amroha were surveyed. The total number of villages surveyed out of 2,930 is :—

Hasanpur	...	688
Thakurdwara	...	328
Moradabad	...	104
Amroha	...	329
Sambhal	...	119
		<hr/>
Total	...	1,568
		<hr/>

and in Sambhal new numbers were given and maps prepared for 129 non-surveyed villages in which the old numbers had been largely subdivided since the previous settlement. The maps made by the survey are excellent ones, but it is a matter for regret that greater care was not exercised over the patwaris in the preparation of the lists of corresponding numbers (*fard-imutabaqat*). A great deal of extra work has been caused by the necessity for the most careful scrutiny of these lists. In one aggravated case a patwari had deliberately prepared the whole list wrong in order to cause litigation among the landlords and tenants, yet the list was passed by the Survey Inspector and entirely wrong entries attested as correct by all parties.

40. Qazi Makhdum Husain, Deputy Collector, was posted to the district on 29th November 1904, and has carried out single-handed the entire attestation. All the records of the surveyed villages have been attested as well as the khewats of the entire district. This was rendered necessary by the fact that a large number of khewats contained no specification of share ; with the khewats the whole of the *khudkasht* and *sir* entries also have been attested. Qazi Makhdum Husain has worked with the greatest despatch and diligence and in no case has the work of assessment been retarded owing to the attestation being behindhand. It is however my opinion that it is a mistake to attest the papers (except the khewats) under the present system. The correctness of the original attestation depends entirely on the patwari ; if he is both capable and honest the attestation will be correct ; if not, the attested *parchas* are as likely to be wrong as not. All the cultivators and most of the zamindars depend entirely on the patwari ; if he says the entries are right they usually attest them without a murmur ; and during the course of commutation and enhancement cases it was fully proved that the cultivators never had any idea of what they had attested. In many cases too in the grain-rented tracts zamindars had attested entries of occupancy rights in fields which had lain fallow for years or which had long since passed out of the tenants' possession. They were not slow to object when it was proposed to commute the rent of such fields. Undoubtedly the only satisfactory method is a field-to-field attestation on the spot. A cultivator is rarely aware of the number of his field, and, though the total area may be correct, some grievous error may have crept in as to a particular field which

will not be put right by the present method of attestation. To attest in the manner suggested would be a most expensive and laborious proceeding, and would require a large staff. The present method is however ineffective and does not repay the cost and labour or justify the dislocation entailed in the working of the district. I would have only the khewat attested and nothing else and make the district staff responsible for keeping the records up to date. The records in this district have been very inaccurately kept up and the fairing work has been very much complicated thereby. Discrepancies between the map and the khasra are difficult to reconcile after the lapse of some years, but no effort has been spared by the Deputy Collector to do so in both surveyed and non-surveyed villages.

Inspection and soil
classification.

41. Mr. Gaskell and I both took over charge on 2nd October 1905. The original orders were that no new soil classification was to be carried out, but after inspecting a few villages in Moradabad pargana it became apparent that these orders would not be carried out. Even had it been possible to accept the old classification in the parganas inspected by Sir C. Crosthwaite it would have been clearly impossible to have done so in the other four, owing to the totally different system on which Mr. Smeaton worked. Mr. Hardy, the then Senior Member of the Board of Revenue, satisfied himself by personal inspection in the cold weather of 1905-6 that new soil classification was necessary and in every pargana this was done. I would take this opportunity of acknowledging the assistance which both Mr. Gaskell and myself derived from the guidance and advice given by Mr. Hardy in the early stages of the settlement. Parganas Thakurdwara, Bilari and Amroha (957 square miles) were inspected and assessed by Mr. Gaskell, the other parganas by me. The years in which they were inspected were :—

Moradabad and Thakurdwara	...	...	1905-6
Sambhal and Bilari	...	...	1906-7
Hasanpur and Amroha	...	...	1907-8

No pains were spared to make the soil classification as accurate and consistent as possible. As regards the relations between Government and the zamindar this may make no great difference, but as regards zamindar and tenant it is of supreme importance, especially in a district in which so much depended on the enhancement of occupancy rental and in which grain rents over so wide an area had to be commuted. Selected kanungos were trained and deputed to pencil in the various blocks by soils, and within a few days the Assistant Settlement officer and myself went over each block in detail, altering where necessary. The kanungos in question did most excellent work and accepted cheerfully the long hours of out-door labour necessary for the completion of the task. The advice and assistance of the cultivators have been freely taken as regards the relative qualities of the blocks in their villages, and the aim has been throughout to avoid minute differentiation and yet to bring into one class all soils of the same value in one village. The soils used have been the same as at last settlement and are those generally recognized in the district loam (*dumat*) clay (*matiyar*) and sand (*bhur*). Each main soil has been divided into two classes, and further differentiation has been made by the use of the terms 'kallan' and 'tarai.' 'Tarai' has been used to designate land liable from its position to damage by flood, while 'kallai' is applied to the bald leprous spots in fields in which in a dry year nothing germinates. The word is also used to denote inferiority of any kind and it has therefore been applied to blocks which are markedly inferior to the class to which they belong but yet not sufficiently so to justify their relegation to a lower class. *Gauhan* has been used only in villages where garden cultivation is combined with a special rent for the fields round the site. It thus would be possible to find nineteen soils in one village but it has rarely been necessary to employ more than six or eight, and in the *bhur* villages two or three different classes have usually sufficed to denote the soil variations. It has not been necessary to draw any distinction between wet and dry. Over the bulk of the district the whole of a village can be irrigated when necessary. Those in which irrigation is impossible are classed in a circle of their own. In villages of which a portion only is irrigable the soil classification allows for the difference.

42. The following gives the result of the soil classification for the entire Result of soil classification.
holdings area of the district :—

Soil with circle rates.		Tenants cash rented area in acres.		Assumption areas in acres with rates applied for valuation.								Total columns, 2, 3, 4, 5, 6 and 7.
		Tenants at will.	Occupancy tenants.	Sir.	Rates.	Khudkasht.	Rates.	Grain-rented.	Rates.	Rent free.	Rates.	
	1(a)	2	3	4	4(a)	5	5(a)	6	6(a)	7	7(a)	8
1 Gauban	1,293	2,346	199	...	242	...	371	...	94	...	4,545
2 Dumat I	53,566	1,80,298	27,610	...	10,328	...	57,061	...	2,880	...	3,31,143
3 Do I Kallar	...	3,942	8,500	1,318	...	408	...	3,012	...	58	...	17,238
4 Do. I Tarai	...	3,918	5,782	1,208	...	960	...	6,487	...	116	...	18,471
5 Do. II	57,581	1,31,606	18,550	...	10,074	...	95,186	...	1,636	...	3,14,633
6 Do. II Kallar	...	10,488	20,743	3,254	...	2,041	...	24,984	...	289	...	61,799
7 Do. II Tarai	...	5,337	5,114	1,175	...	1,375	...	15,365	...	243	...	28,609
8 Mattyar I	11,516	31,621	4,167	...	1,324	...	15,066	...	301	...	63,995
9 Do. I Kallar	...	1,734	3,374	397	...	187	...	1,689	...	39	...	7,420
10 Do. I Tarai	...	411	484	103	...	73	...	677	...	5	...	1,753
11 Do. II	8,450	20,386	3,439	...	1,472	...	26,971	...	248	...	60,966
12 Do. II Kallar	...	104	209	35	...	6	...	526	...	3	...	883
13 Do. II Tarai	...	65	28	1	...	2	...	81	...	...	...	177
14 Bhur I	35,379	51,318	8,938	...	5,018	...	62,944	...	945	...	1,64,593
15 Do. I Kallar	...	33	192	65	...	59	...	685	...	2	...	1,036
16 Do. I Tarai	...	416	88	19	...	38	...	713	...	11	...	1,285
17 Do. II	11,461	10,656	2,049	...	2,149	...	37,574	...	221	...	64,110
Total	...	2,05,694	4,72,745	72,477	...	35,756	...	3,49,392	...	6,591	...	11,42,655

43. The total number of assessment circles is 51, ranging from 12 in Amroha to 6 in Thakurdwara. Assessment circles.

They are mainly topographical, but tracts which include a very large number of villages have been divided into circles based on the qualities of the various units. Thus both the Sambhal *katchr*, and the Hasanpur *bhur* have each been classed in three circles. The highly-rented villages in the vicinity of Sambhal, Moradabad and Amroha have been classed in separate suburban circles, the Sambhal city area having been divided into two.

44. Standard rates have been selected after an ^{exhaustive} ~~exhausted~~ scrutiny of the entire cash-rented holdings of each circle. Rents are almost invariably paid in the lump; soil proportions were obtained from the single soil non-occupancy holdings in all circles in which the area was large enough to serve the purpose. These proportions were employed to split up the rent of all selected *khata*s which contained more than one soil. The selected *khata*s were almost exclusively those of tenants who had held their land for twenty years and longer, as such rents are stable and at the same time afford a better clue to present values than those paid by tenants who had acquired occupancy rights before the preceding settlement. After eliminating all abnormally rented holdings the area so obtained was sufficient in most circles to form a safe basis for the selection of standard rates. In no case were holdings of less than 20 years selected, but in some circles, in which the cash area was small, holdings of occupancy-tenants whose rents were at all similar to those paid by tenants of twenty years' standing were also taken, as otherwise the area on which the rates were based would have been perilously small. The total area from which rates have been selected is 131,984 acres. The rates vary from Rs. 22 4 per acre for *gauban* in the Moradabad urban circles to Rs. 1 0 for 2nd *bhur* in the 3rd *bhur* circle in Hasanpur.

45. The following shows the relations between the recorded rental and the valuation by circle rates :—

Comparison of recorded with standard rental.

	Khasa.		Muafi.		Total.	
	Non-occupancy.	Occupancy.	Non-occupancy.	Occupancy.	Non-occupancy.	Occupancy.
Recorded Rent	9,57,380	16,08,178	1,66,559	2,89,277	11,23,939	18,97,455
Valuation by standard rates.	7,07,191	17,76,297	1,22,899	2,98,565	8,30,090	20,74,862
Percentage of variation of standard rental.	...	10.4	...	3.2	...	9.3
	26.1	...	26.2	...	26.1	...

Incidentally it may be noticed that rents in the revenue-free area are higher than elsewhere, which is as good evidence as it is possible to obtain that rents do not depend on revenue but revenue on rents. Taking the standard rental as Rs. 100, the occupancy tenant pays (after allowing for soils) Rs. 90·7 while the tenant-at-will pays Rs. 135·4. In other words were it not for the protection afforded to the occupancy tenant by statute they would be paying Rs. 28,32,584 for the land for which they now pay only Rs. 18,97,455, a difference of Rs. 9,35,129. The divergence between occupancy and non-occupancy rents is much more marked in this district than elsewhere in the Rohilkhand division. This is in part due to the later date at which this settlement has been carried out. From figures given in the final reports the following shows the divergence :—

	Occu- pancy.	Non- occu- pancy.	
Shahjahanpur ...	100	109	
Budaun ...	100	128	Mr. Meston gives no figures but states that the occupancy tenant pays Re. 0-12-6 for 1 rupee paid by the tenant-at-will.
Bareilly ...	92·5	115	
Bijnor ...	differential rate unknown.		

The position in this district is much more akin to that prevailing west of the Ganges, the figures in the two recently settled districts in the Meerut Division being—

Meerut	... 86·8	131·9
Aligarh	... 89·9	131·3

Grain rates.

46. Owing to the large area held on grain rents in parganas Thakurdwara, Amroha and Hasanpur it was necessary in those parganas to discuss the propriety of applying special rates to the grain-rented area. It has been possible however in each pargana to demonstrate clearly from figures what was abundantly apparent at inspection that in this district although the prevalence of grain rents indicates that the tract as a whole is inferior to the cash-rented tracts, the grain-rented area is in no way inferior to the cash-rented area in the same circles. It was further proved that the recorded income (grossly inaccurate as many of the returns are) justified the application of the cash rates to the grain area and this with a few trifling exceptions was done in all parganas. In many villages the old occupancy tenants hold their land on cash rents which they obtained at last settlement, while every other acre of land is held on grain. In other villages one mahal is held on grain and another exactly similar mahal on cash rents. All this indicates that the grain system is adhered to not only on account of the superior authority (*hukumat*) which the system gives the zamindars over their tenants, but because they find it more profitable. The zamindars admit this fact perfectly freely, and several of them have begged for the refusal of commutation on the ground of the large reduction in their income involved thereby. I have addressed the Board separately on the subject of grain rates as under the present rules it is in many cases impossible to assess with equality two mahals in the same village, if one is held on grain and the other on cash rents.

Main problems of assessment.

47. Standard rates having been obtained the main problems in the assessment of the district were :—

- (1) The area to be assessed, especially in the precarious tracts.
- (2) The enhancement of occupancy rents.
- (3) The allowance to be made for instability of non-occupancy rents.

The area assessed.

48. It has already been pointed out that the fluctuations in the cultivated area of certain portions of the district are very violent, and great care had to be exercised in the assessment of these tracts. In the *bhur* the figures of the cultivated area run in the form of a long curve spread over a series of twenty years, the recovery being more rapid than the decline; the cultivated area in 1292 Fasli

was very much the same as in 1312. The principle adopted (for both cash and grain villages) was to assess only the cultivated average of 20 years if that area did not differ largely from the twelve years average. In case of any large variation the mean between the two was accepted as a stable area. It was necessary however to make special provision for certain zamindars who are dependant on a single village for their livelihood and who, when the inevitable period of depression in the *bhur* comes round, will have difficulty in paying even the moderate jama now assessed. It has therefore been arranged that in the case of ten mahals the owners will be entitled to a temporary reduction of revenue when the cultivated area falls below a specified figure.

The assessment of the Ganges *khadir* was a more difficult task as the fluctuations of cultivation in that tract are much less regular than in the *bhur*. Each village has been dealt with on its merits such of them as showed very violent fluctuations owing to the desertion of hamlets, and for which no stable area could be ascertained, have been brought on to the quinquennial register even though there be no immediate fear of diluvion. The same procedure has been adopted with regard to villages of which only a very small fractional area is at present cultivated.

In the best portions of the district the holdings area (subject to small deductions for groves or unculturable land) has been taken as stable. In the intermediate tracts in which slight variations of cultivation occur the average holdings area has as a rule been assessed, due regard being paid to the question of permanent reclamation within the last twelve years. There were no cases of zamindars deliberately throwing land out of cultivation in view of settlement, but in a few of the rice villages in Moradabad and Thakurdwara the cultivated area of 1311, owing to the late arrival of the monsoon, was below the normal, and in such cases a small addition was made to the holdings area. The result for the whole of the *khalsa* area is as follows :—

	Description.					Area assessed.
	Cultivated area of last settlement.	Assessed area of last settlement.	Average cultivated area of 12 years preceding survey.	Actual cultivated area of survey.	The holdings area at survey.	
	1	2	3	4	5	6
For the district.	(a) 7,60,177	8,10,634	(b) 8,44,715	9,16,523	9,47,426 (c) 141	(d) 8,73,043 (e) 141

(a) From this area are excluded 1,916 acres *khalsa* in villages containing both *khalsa* and *muafi* for which details are not available.

In this area are included 724 acres of *muafi* ditto ditto ditto.

(b) For the diluvial circle of Hasaupur pargana the average figures are for 5 years and not for 12 years.

(c) Bungalow compound area in Moradabad cantonment.

(d) The difference of 412 acres between this and accepted area of appendix VII is due to land taken up for the railway after the settlement year being included in statement VII and excluded from this statement.

Column 3 contains the average cultivated area of *khalsa* villages after deducting the actual cultivated area for the settlement year of revenue-free plots contained in those villages and adding the cultivated area of resumed *muafi* plots in revenue free villages. This adjustment is necessary as columns 4, 5, and 6 comprise no *muafi* area of any kind but include all resumed *muafi* plots. The total deduction from the holdings area is thus 74,383 acres and from the cultivated area 43,480. The assessed area is 28,328 acres above the average cultivated area of 12 years. At first sight it would appear that the assessed area is on the high side, but although it is perhaps scarcely necessary in this report to justify the area assessed, the following facts should be borne in mind :—

- (1) Included in the area is a large alluvial tract subject to quinquennial revision, the assessed area of which is much above the average owing to the dry cycle having caused a large extension of cultivation.

- (2) The twenty years' average is considerably higher than the twelve in many Hasanpur villages.
- (3) Land permanently reclaimed within the last twelve years has been assessed.
- (4) Included in holdings is a large area of land let at light rents, part of which is cultivated and the bulk used for grazing, and the whole included in the assessed area.

The allowance made varies very much by parganas. In Moradabad the area assessed is 3,174 acres less than the holdings but 3,223 acres more than the cultivated area of the settlement year. In Hasanpur the deductions made amount to 41,819 and 32,360 acres respectively.

Enhancement of
occupancy rental.

49. The treatment of occupancy rents is best shown by the following figures :—

		Recorded rent.	Valuation by circle rates.	Accepted rent.
		Rs.	Rs.	Rs.
Khalsa	...	16,08,178	17,76,297	17,56,558
Muafi	...	2,89,277	2,98,565	3,08,574
Total	...	18,97,455	20,74,862	20,65,132

The accepted rental is thus 1,67,677 above the recorded rental; the net enhancements actually decreed (vide paragraph 61) amount to Rs. 1,61,963 and enhancements were for various reasons not applied for in all cases where rents were inadequate. Circle rates were applied in 1,563 villages; modified rates in others. Modified rates were applied in villages which were distinctly above or below the circle averages or for which circle rates were proved to be unsuitable by the rents paid by tenants of twenty years' standing. Although the rental enquiry showed that there was no necessity to employ special rates for high-caste tenants, the use of modified rates prevented a burdensome enhancement being decreed in any lightly-rented Thakur villages. As a rule however Thakurs were not found to be paying lower rents than other occupancy tenants except in villages owned by their caste fellows. Every care has been taken to avoid excessive enhancements being decreed, and where the enhancement in the bulk exceeded 20 per cent. a margin was invariably left. The amount of enhancement decreed varied with the proportion of old and new occupancy rents. Many of the former have run on unchanged since before the preceding settlement and the interests of the zamindars demanded that in such cases a substantial enhancement should be decreed; the new rents were usually found to be adequate, frequently above the valuation. If a tenant held both new and old occupancy land the enhancement was decreed on the combined holding as henceforth they are treated as one. It was also discovered that rents had been most unequally distributed at partition and to prevent injustice to the tenants it was necessary to collate all holdings which had been divided for this reason since last settlement and to arrange that an excessive rent in one patti or mahal was counterbalanced by a short enhancement in another. The very marked difference between the rents paid by the different classes of occupancy tenants is clearly shown by the following, the standard rental being Rs. 100 :—

* Old occupancy unenhanced in Moradabad, Bilari and Thakurdwara	...	85.5
Old occupancy unenhanced in Sambhal, Hasanpur and Amroha	...	84.2
Old occupancy enhanced in Moradabad, Bilari and Thakurdwara	...	89.4
Old occupancy enhanced in Sambhal, Hasanpur and Amroha	...	90.6
Twenty years and over	...	100.8
Twelve years and over	...	114.6

* The necessity for showing three parganas separately from the others is explained in Chapter III, paragraph 34. Rents which were enhanced at settlement and not since are shown as enhanced in Sambhal, Hasanpur and Amroha, and as unenhanced in the other three parganas. The figures from which the calculations are made are taken from the rent-rate reports, as the assessment reports do not contain the necessary details. Although some changes occurred between the writing of the rent-rate reports and the actual assessment they are not sufficient to vitiate the proportions.

The enhancements decreed have been I think adequate save in some of the best villages in Moradabad pargana. A large enhancement was required in many of these villages as the existing rents were quite inadequate and had not been enhanced for over thirty years. The then senior Member of the Board (Mr. Hardy having by that time retired) was however of opinion that the enhancement was excessive and that the assets were "speculative and prospective" and made large deductions which prevented me from enhancing the rents up to what I held to be a fair rental. In such cases the zamindars were told that they could get a full enhancement at the end of ten years.

50. As regards the rents paid by tenants-at-will it is necessary only to deal with the revenue-paying portion of the district. In the revenue-free area deductions have not as a rule been made for short collections. The result with regard to them is shown in statement VII (a) of appendix I. The figures for the *khalsa* are :—

Treatment of
non-occupancy
rental.

			Area.	Rent.	Incidence.
			Acres.	Rs.	
Recorded	...	...	1,76,536	9,57,380	5.42
Valuation	...	...	1,76,536	7,07,191	4.01
Accepted	...	...	1,68,928	8,40,226	5.31

The incidence of the accepted rental is raised by the exclusion of the inferior soils from assessment, and this is the case with the assumption area as well. The total deduction is Rs. 1,17,154 over 12 per cent. Of this (*vide* statement VIII of appendix I) Rs. 73,955 have been deducted for instability of rent and Rs. 39,428 for fluctuating cultivation. The balance is for fallow, groves and unculturable land. The method of calculating allowances for excess cultivation has already been described. To enable one to arrive at a fair estimate of the amount to be deducted for short collections the following points were considered :—

- (1) The excess of the rental above the valuation.
- (2) The quality of the soils; if the soils consisted mainly of the superior classes a smaller proportionate deduction was considered necessary than in the case of the poorer soils.
- (3) The period during which the high rents had been paid. In cases when large expansion had occurred immediately before settlement large deductions were made.
- (4) The proportion of the non-occupancy land held by occupancy tenants. If this was large, and occupancy rents were being enhanced, a much larger deduction was made than was done in mahals in which occupancy tenants held only a small non-occupancy area. The record of collection was but seldom of much assistance, as it was usually faulty especially in pattidari mahals. Concealment of cash rents is practically unknown and it was necessary to make additions for non-occupancy rental in only 136 mahals to the extent of Rs. 3,067.

51. The figures for the assumption area (*khalsa* only) are :—

Assumption area.

		Holdings.			Accepted.		
		Area.	Valuation by circle rates.	Incidence.	Area.	Rent.	Incidence.
Sir	...	68,995	2,86,968	4.16	64,677	2,74,353	4.24
Khudkasht	...	32,352	1,26,606	3.91	29,110	1,16,402	4.0
Grain-rented	...	2,59,436	8,00,682	3.09	2,14,702	7,05,174	3.28
Rent free	...	5,388	23,126	4.29	3,922	10,887	2.78

The deduction from the assumption area for unstable cultivation is Rs. 78,153 for 42,308 acres, the balance being for fallow, groves and unculturable land. The additions made for short cultivation are small (statement VIIC. of appendix I).

All the rent-free area in the possession of village menials in return for service has been valued at half rates.

Sayar.

52. The total assets under this head are Rs. 35,013, the largest income being from grazing in the Ganges and Ramganga *khadirs* and from sale of *babul* trees in the former. The income from *sayar* has been very leniently treated although concealment of *sayar* assets is rife. Small sources of income have been given in although in the cash-rented tracts every small patch of uncultivated land is sold to the tenants for grazing. Money paid for tanks sown with *singhara* (ground-nut) has been treated as *sayar* and not as rent.

The gross assets.

53. The gross assets amount to Rs. 37,39,529.

Deductions.

54. The deduction for proprietary cultivation is Rs. 50,257, nearly 13 per cent. of the sir and khudkasht assets. A full allowance has been given to all large proprietary bodies, although this frequently involved a reduction in revenue. In such cases, however, leniency is politic and much appreciated. The deduction for improvements has necessarily been small in a district in which the building of a *pakka* well is practically unknown. For the small number which have been made 10 per cent. of the cost has been deducted from the gross assets. The bulk of the allowance is for the founding of hamlets. The allowance of Rs. 2,078 represents the sum which it was necessary to deduct on account of land taken up for the Moradabad-Ramnagar railway line. The land was acquired after the year of attestation; hence the necessity for the deduction.

Net assets and revenue.

55. The net assets are Rs. 36,83,392, and on this sum a revenue of Rs. *17,56,321 has been assessed, or 47·6 per cent. A low percentage has been proposed in the case of impoverished proprietors, in mahals in which the rise of revenue is large and is uncompensated by a rise in rents, and on estates in which the zamindars have treated their tenants generously. The figures for the revenue-free properties are contained in statement VII (a) of appendix I.

56. The following brings out the marked difference between the several parganas of the district:—

	Expiring revenue.	New revenue.	Increase.	Percent- age of increase.	Percent- age of increase of culti- vated area.	Inci- dence per assessed acre.	Inci- dence per cultivat- ed acre.
	Rs.	Rs.	Rs.				
Moradabad ...	2,56,908	2,97,638	40,630	15·82	7·87	2·31	2·38
Thakurdwara ...	1,84,547	2,04,920	20,373	11·04	4·71	2·01	2·07
Sambhal ...	3,53,891	4,34,610	80,719	22·81	11·97	1·90	1·79
Bilari ...	3,43,724	4,32,737	89,013	25·89	7·86	2·50	2·50
Hasanpur ...	1,92,532	2,26,629	34,097	17·71	†25·81	1·41	1·17
Amroha ...	1,16,844	1,59,887	43,043	36·84	22·94	1·98	1·90
Total ...	14,48,446	17,56,321	3,07,875	21·26	†13·19	2·01	1·91

Progressions.

57. The full jama will not however come into force till the tenth year, the progressions being as follows:—

	Revenue.
	Rs.
1st year ...	17,03,490
2nd „ ...	17,03,585
3rd „ ...	17,03,645
From 6th „ ...	17,36,168
From 11th „ ...	17,56,321

The progressions over three years have been proposed in the case of mahals which have now for the first time been brought on the alluvial register and in which the enhancement is large; under the rules the owners are entitled to no progressions but as the revenue has not hitherto been subject to revision I have made special proposals on the subject to the Board.

* For Amroha and Hasanpur the revenue entered is the amount proposed. The Board's orders have not yet been received.

† The assessed area of last settlement has been taken as the cultivated area in Hasanpur.

58. The most important part of the distribution work in this district was connected with the numerous *milks*. As the number was so large I was of opinion that the system of working backward would be fraught with endless difficulties, so the *milks* were all assessed separately for the entire district. In four parganas the revenue in pattidari mahals has been distributed by Qazi Makhdum Husain. In Hasanpur and Amroha *pattis* have been treated in exactly the same manner as the *milks*, so that the distribution was made at the same time as the assessment. This system gives more trouble initially but eventually causes a great saving of labour and expense and also renders the work of assessment infinitely easier. It should, in my opinion, be made obligatory on the settlement officer to assess in this way.

Distribution.

59. The new settlement has been in force in four parganas only since 1st October last; in Hasanpur and Amroha, it will not come into force till 1st October 1909. It is therefore somewhat premature to make any remark on this subject. In the cash-rented parganas the zamindars have with very few exceptions expressed their gratitude for the generosity with which they have been treated; there is no doubt that their assets have been computed with great leniency. A great number are in a better nett financial position than they were, as the enhancement of occupancy rents has frequently been higher than the enhancement of revenue.

Working of the new settlement.

Zamindars who had previously had their occupancy rents enhanced and whose revenue has now been raised are not so well satisfied, though such mahals (except in the case of purchasers) have always been assessed very lightly. Throughout Hasanpur and Amroha dissatisfaction is general in spite of the fact that these two parganas have been treated with greater leniency than any others. The dissatisfaction is not on account of revenue, but on account of commutation. The zamindars would willingly agree to pay revenue 50 per cent. higher than that now assessed if commutation were refused. Personally I believe that the spread of cash-rents will eventually benefit the zamindars too, as their property will improve under the stimulus to cultivation and a very large rise in rents will ensue during the next twenty years.

60. The periods for which the new revenues are to run have already been sanctioned by Government (G. O. no. 2947/L-5.H. of 15th October 1907). They are:—

Moradabad and Bihari—1st October 1908 to 30th September 1937.

Thakurdwara and Sambhal—1st October 1908 to 30th September 1938.

Amroha and Hasanpur—1st October 1909 to 30th September 1939.

The necessity for the varying terms was pointed out at the time and need not be repeated in this report.

CHAPTER V.
MISCELLANEOUS.

61. The following is the statement of case work up to the 17th of March 1909 :—

Combined.	1	2	Class of application or case.	Disposed of.										Appeals to Settlement Officers from their subordinates.															
				On the merits.				Otherwise than on their merits.						Remaining.	Pending at commencement of.	Decided.				Total.	Reversed.	Remanded.	Total.	Remaining.	Remarks.				
				For plaintiff.	For defendant.	Total on merits.	By confession, consent.	By default of plaintiff.	By personal service of summons.	By substituted service of summons.	Total ex parte.	Withdrawn.	From any other cause.			Total decided otherwise than on merits.	Instituted.	Total.	Confirmed.							Reversed.	Remanded.		
				3	4	5	Total for disposal.	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
			I.—Cases connected with patwaris	...	3,174	3,174		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			II.—Boundary disputes	...	884	884		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			III.—Distribution of assessment	...	845	845		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(a) Proprietary right	...	4,120	4,120		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(b) Cultivating right	...	8,120	8,120		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(c) Rent-free tenure	...	36	36		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(d) Revenue free out of the tenure.	...	542	542		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(e) Cases, section 66...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(f) Any other matter of record of rights.	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(a) Determination of rent on dispute.	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(b) Determination of rent of excluded proprietors.	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(c) Enhancement of rent.	...	7,086	7,086		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(d) Abatement of rent	...	2,123	2,123		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(e) Commutation of rent.	...	5,237	5,237		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			VI.—Partition of mahals	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(a) Imperfect	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(b) Perfect	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			VII.—Union of mahals	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			VIII.—Miscellaneous	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Total	...	33,892	33,892		19,011	6,340	25,351	620	1,076	144	23	167	292	5,744	7,899	491	...	485	485	314	134	26	473	12	...	

* Includes 161 cases transferred to Deputy Collector's Court.

The enhancement, commutation and abatement cases were all disposed of by the Assistant Settlement Officer and myself with the following results :—

Name of tahsil.	Enhancement of rent.			Abatement of rent.			Commutation of rent.		Determination of rent.	
	Area.	Present rent.	Rent decreed.	Area.	Present rent.	Rent decreed.	Area.	Rent decreed.	Area.	Rent decreed.
		Rs.	Rs.		Rs.	Rs.		Rs.		Rs.
Moradabad ...	36,340	1,45,723	1,73,513	862	3,721	2,918	4,609	19,536	...	...
Sambhal ...	60,523	2,08,373	2,44,841	538	2,922	2,318	5,849	18,285	21	82
Haesampur ...	15,344	40,240	47,942	3,836	14,878	11,741	48,798	1,32,811	7	13
Thakurdwara ...	26,315	1,07,990	1,23,241	2,091	9,883	9,330	13,645	51,289	...	...
Bilari ...	61,762	2,62,535	2,97,811	3,311	17,881	16,834	237	949	8	32
Amroha ...	29,352	95,356	1,36,694	7,892	46,863	40,144	40,741	1,55,629	21	73
Total ...	2,29,636	8,60,217	10,24,042	18,530	95,148	83,285	1,13,879	3,78,499	57	200

The above includes only the area and rent with respect to which any alteration was made. A large area besides came under review, the existing rents of which were left untouched.

62. In Appendix XII is entered the cost of settlement operations. Including the expenditure up to 24th March 1909 and the probable expenditure up to 28th February 1910 the total cost is Rs. 3,46,149 or Rs. 151 per square mile. The cost of the survey* has not been intimated to me by the Accountant-General though he was asked for it sometime ago. Although the gazetted staff was extremely small (only one Deputy Collector in addition to the Assistant Settlement Officer and myself) the expenditure under that head has been heavy owing to Mr. Gaskell and myself having longer service than is generally the case.

Cost.

The cost has been further added to by the inaccurate state of the existing papers and by the orders of the Government of India under which since 1907 the patwaris have had to prepare their annual papers in addition to their settlement work. It was anticipated that this would lead to an increase in the cost of settlement and this has proved to be the case. The accuracy of the annual papers prepared in this way is also open to grave doubt. The entire cost (exclusive of survey) will be recovered in a little over a year.

63. I must acknowledge the courtesy of Mr. P. Harrison, C.S., and of Mr. F. J. Cooke, C.S., who have been in charge of the district during the period of settlement operations. The resources of their office have been placed unreservedly at my disposal. Mr. Luker, the Superintendent of the Government Press, has also never failed to respond to any calls that have been made upon him as regards the printing of maps and reports and the work has been very accurate.

Acknowledgments.

As regards the settlement staff I have the greatest pleasure in bringing to the notice of the Board the most excellent work done by Mr. Gaskell. He has assessed three parganas practically independently. Having full cognizance of his zeal, energy and judgment, I have treated him as an additional and not as assistant settlement officer and he has fully repaid the confidence placed in him. I consider myself to have been most fortunate in having had him associated with me in the work of settlement.

Qazi Makhdum Husain has worked with devoted industry and has never spared himself. I believe the records to be as correct as they can be considering the weakness of the foundation on which they rest. For their accuracy he should be given the credit. He has disposed of a large number of cases and when confronted with a difficult and intricate case has displayed great industry and acumen in unearthing the facts. His ability is much above the average. I have separately brought his services to the notice of the Board.

Babu Dina Nath was Head Clerk for close on three years. He worked hard but lacked organising power and failed to supervise his subordinates.

* The figures have since been supplied by the Director of Land Records and Agriculture. The cost of the survey was Rs. 86,120 making the total cost Rs. 4,31,269 or Rs. 188 per square mile.

Babu Munna Lal had independent charge of half the office for three years, and since B. Dina Nath's departure to Ajmere has been Head Clerk. He is a most capable organiser and has dealt most expeditiously with a very large volume of work in the last six months. I hope he will be rewarded with a pensionable post. He thoroughly deserves it.

M. Abdul Karim, the Sadr Munsarim, worked with untiring energy, but lacked method, probably the result of increasing age.

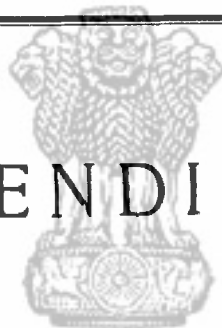
M. Shambhu Nath, my Sarishtadar, has been of the utmost assistance to me throughout the entire settlement. He has capacity and industry quite out of the common and is well fitted for an administrative post. He has, I am glad to say, been appointed Revenue Assistant in the Budaun Collectorate. I have already referred to the services of the Kanungos employed on soil classification; their names are M. Govind Prasad, M. Ram Chandra, M. Jamiyat Rai, M. Habibur Rahman, M. Shambhu Dayal and M. Salig Ram.

Finally I would tender my best thanks to the whole office staff who have worked throughout in the most loyal spirit, frequently, in times of pressure, without regard to office hours or holidays.

H. J. BOAS, I. C. S.,
Settlement Officer.



APPENDICES.



सत्यमेव जयते

APPENDIX I.
STATEMENT I.—Comparative areas (khalsa and muafi combined).

	Total area.	Revenue-free plots.	Not culturable.				Grove.	Culturable.				Cultivated.							Total culturable and cultivated.	
			Village site.	Covered with water.	Other-wise barren.	Total.		Waste.	Fallow.		Total.	Irrigated.				Dry.	Total.			
									Old.	New.		Canals.	Wells.	Other sources.	Total.					
																		Flow.		Lift.
I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Former settlement	14,60,293	(a)20,751	17,294	48,249	48,906	1,14,449	16,321	25,812	2,38,804	1,36,004	4,00,620	21	..	62,915	36,754	99,690	8,08,462	9,08,152	13,08,772	
Present settlement	14,67,531	...	17,839	47,417	48,697	1,13,953	16,330	1,14,013	80,733	80,996	2,25,742	1,137	103	29,538	9,685	40,463	10,50,998	10,91,461	13,17,203	
	..	18,095	183	467	597	1,247	354	271	1,082	407	1,710	...	..	89	83	172	14,612	14,784	16,494

NOTE.—(a) Columns 4 to 20 for last settlement do not include details of revenue-free plots of 20,751 acres but include 1,197 acres of reserved *mitks* in revenue-free mahals. Columns 4 to 20 of present settlement do not include details of revenue-free plots in khalsa villages which are noted in the third line.

STATEMENT II.—Showing revenue for khalsa and resumed milks.

STATEMENT II (a) — Showing nominal revenue and nazrana (revenue-free mahals and revenue-free plots).									
Tahsil.	Current revenue.	Sanctioned.			Remarks.	Tahsil.	Nominal revenue.	Nazrana.	
		Initial.	Interme- diate.	Final.					
Moradabad	2,56,908	2,95,192	2,96,775	2,97,538	15.82	The Board's orders regarding these two parganas have not yet been received. The amount entered is the proposed revenue.	43,730	8 0	1,464 14 2
Thakurdwara	1,84,547	2,02,995	2,04,135	2,04,320	11.04		16,266	0 0	2,835 4 0
Sambhal	3,53,891	4,21,620	4,23,585	4,34,610	22.81		34,532	0 0	1,277 0 0
Bilari	3,43,724	4,21,692	4,29,422	4,32,737	25.89		18,241	0 0	246 0 0
Hasanpur	1,92,532	2,15,759A	2,22,309	2,26,629	17.71		35,814	0 0	1,840 13 0
Amroha	1,16,844	2,15,854B	...	...	...	2,52,548	0 0	17,109 7 6
		1,46,032	1,53,942	1,59,887	36.84				
		17,03,490A	17,36,168	17,56,321	21.26				
Total district...	• 14,48,446	17,03,585B	...	...	...	
		17,03,645C	...	...	...	
						Total	4,01,001	8 0	
								24,773 6 8	

STATEMENT II(a).—Showing nominal revenue and nazrana (revenue-free mahals and revenue-free plots).

Tahsil.	Nominal revenue.		Nazrana.	
	Rs.	a. p.	Rs.	a. p.
Moradabad	43,730	8 0	1,464	14 2
Thakurdwara	16,266	0 0	2,835	4 0
Sambhal	34,532	0 0	1,277	0 0
Bilari	18,241	0 0	246	0 0
Hasanpur	35,814	0 0	1,840	13 0
Amroha	2,52,548	0 0	17,109	7 6
Total	4,01,031	8 0	24,773	6 8

• Including Rs. 330 transferred from Meerut district in 1314 fasli.

A.—First year.

B.—Second year.

C.—From third year.

APPENDIX I.—(continued).
STATEMENT III.—Khalsa and muafi.

Years.	Unculti- vated area included.	Tenants land held in—					Siwai demand.	Total demand, columns 3, 5 and 6.	Collections including arrears.	Sir.		Khudkasht.		Rent-free area.	Total.		Remarks.
		Cash.		Kind.		Area.				Rent demand.	Area.	Rent demand.	Area.		Rent demand.		
		Area.	Rent demand.	Area.	Rent demand.												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Former settlement Average of 12 years	Acres. 58,365	Acres. 476,369	Rs. 17,00,185	Acres. 385,284	Rs. ...	Rs. 18,469	Rs. 17,18,654	Rs. ...	Acres 82,439	Rs. ...	Acres. 18,364	Rs. ...	Acres. 4,082	Rs. 986,537	Acres. 17,18,654		
	Not avail- able.	694,925	30,26,044	277,246	...	66,198	30,92,242	...	56,532	...	51,304	...	3,732	10,83,739	30,92,242		
Present settlement (Year of verifica- tion).	36,551	678,439	30,21,894	349,392	...	1,06,120	31,27,514	...	72,477	...	(a) 35,897	...	6,591	1,142,796	31,27,514		
	

N.R.—Figures for former settlement do not include revenue-free plots. In the average figures zabti rents are shown cash and not as kind. In the year of verification the zabti area is included in kind.
(a) Includes 141 acres of bungalow compound.

STATEMENT IV.—(Khalsa and muafi).

Last settlement.		Present settlement (year of verification).										Remarks.
Area.	Rent.	Description.	Number of khatas.	Cash-paying.		Grain-rented.		Under-tenants.		Remarks.		
				Area.	Rent.	Area.	Rent.	Area.	Rent.			
Acres.	Rs.			Acres.	Rs.	Acres.	Rs.	Acres.	Rs.			
82,439	...	Sir ...	13,738	72,477	...	...	...	C12,210	87,791	
18,364	...	Khudkasht ..	10,433	35,897	...	...	...	K6,693	...	
100,803	...	Total	24,171	108,374	...	...	...	18,903	87,791	
C.—65	220	Exproprietary tenants	2,738	9,542	30,168	2,185	...	{ C3,366	{ 23,156			
K.—17		...	...	...	...	...	...	{ K711	{ ...	
C.—333,116	*12,04,009	Occupancy tenants	2,26,128	463,203	18,67,287	182,671	...	{ C50,027	{ 3,29,038			
K.—187,275		...	...	...	...	...	...	{ K17,021	{ ...	
C.—123,493	†4,35,261	Tenants-at-will	1,79,259	205,694	11,23,939	214,636	...	9,313	49,099			
K.—172,806		...	...	...	...	...	...	...	...
8,16,772	16,39,490	Total	4,08,125	678,439	30,21,394	349,392	...	80,438	4,01,293			
4,082	...	Rent-free for service and favoured tenures	9,534	5,591	...	...	...	769	3,928	
C.—19,695	60,695	...	...	...	...	...	...	...	...
K.—25,185		...	...	...	...	...	...	...	...
966,537	17,00,185	GRAND TOTAL	4,41,630	†793,404	30,21,394	949,392	...	1,00,110	4,93,012			

* Includes rent of 1,645 non-occupancy area.

† Rent of 1,645 acres included in occupancy rent.

‡ Includes 141 acres of bungalow compound.

N.B.—In the figures of last settlement revenue-free plots are not included.

APPENDIX I.—(continued).

STATEMENT V.

Masonry wells.		Ploughs	Plough cattle.	Population of—		Area per plough.	
Old.	New.			1872.	1901.	Holdings Cultivated area.	Cultivated area.
331	199	1,41,602	2,83,736	1,122,457	1,191,993	8.07	7.70

STATEMENT VI.

Crops.

Total cultivated area as per khasra.	Rabi.						Kharif.								Zaid.	Dofasli.							
	Wheat		Barley.	Gram alone.	Gram in combination.	Gar-den crops.	Poppy.	Oil seeds.	Other crops.	Total.	Rice.	Cot-ten.	Maize.	Bajra alone and in combination.			Juar alone and in combination.	Mung, moth and urd.	Sugar-cane.	Gar-den crops.	Other crops.	Total.	
	alone.	in combination.																					
Former settlement...	2,46,262	52,765	69,554	58,384	4,946	7,231	27	1,449	75,173	5,15,791	33,464	38,503	3,707	1,20,022	42,006	39,758	65,436	7,063	52,071	4,62,211	41	73,284	
Average of five years	1,039,679	2,96,688	1,05,420	45,433	36,632	29,625	2,979	294	2,500	12,908	5,32,479	1,60,973	38,265	32,848	1,40,689	96,645	77,681	48,409	6,475	27,336	6,20,337	12,338	1,34,475
Present settlement (Year of verification).	(b) 1,102,378	3,40,492	1,01,672	57,595	49,325	35,391	3,300	1,501	2,787	19,798	6,11,861	1,21,354	45,321	32,048	1,47,291	1,01,606	76,147	58,627	3,929	36,376	6,22,689	10,720	1,42,892

(a) Includes 798 acres revenue free plots.

" 25 " Government property.

" 173 " resumed milk.

Excludes 3,904 " revenue-free plots in musli mahalas.

" 144 " for two villages, the statement of which was not prepared (100 acres of Moradabad khas and 44 acres of Gobindpur, pargana Thakurdwara).

" 30 " resumed milk.

" 311 " the difference between statement 1 and 6 is due to figures taken for different years.

(b) Includes 14,723 " revenue-free plots.

" 219 " Government property.

" 103 " difference owing to preparation of milan khasra for 1313 fasli.

Excludes 3,381 " bahan.

" 263 " difference owing to preparation of milan khasra for 1313 fasli.

" 500 " of mauza Rajpur, pargana Hasanpur and Dhanaura (Amroha) of which Statement VI was not prepared owing to papers being missing.

APPENDIX I—(continued.)
STATEMENT VII.—(Khalsa with resumed milks.)

Soils.		Tenants cash-rent- ed area in acres.		Assumption area in acres.				Total columns 2, 3, 4, 5, 6 and 7.
		Tenants- at-will.	Occu- pancy tenants.	Sir.	Khud- kasht.	Grain- rented.	Rent- free.	
1		2	3	4	5	6	7	8
						Rs.	Rs.	
Recorded,	Area Acres	1,76,536	4,04,719	68,995	32,352	2,59,436	5,388	9,47,426
	Rent Rs.	9,57,380	16,08,178	...	...	...	...	...
	Incidence „	5.42	3.97	...	...	...	...	...
By circle rates.	Area Acres	1,76,536	4,04,719	68,995	32,352	2,59,436	5,388	9,47,426
	Rent Rs.	7,07,191	17,76,297	2,86,968	1,26,606	8,00,682	23,126	37,20,870
	Incidence „	4.01	4.39	4.16	3.91	3.09	4.29	3.93
Accepted	Area Acres.	1,58,323	4,02,721	64,677	29,110	2,14,702	3,922	8,73,455
	Rent Rs	8,40,226	17,56,558	2,74,353	1,16,402	7,05,174	10,887	37,03,600
	Incidence „	5.31	4.36	4.24	4.00	3.28	2.78	37,04,516
Sayar	... Rs.	...	...	...	...	...	...	4 24 35,013
Assets	... „	...	...	...	...	...	...	37,39,529
Deduc- tions.	Sir Rs.	...	...	...	...	...	...	50,257
	Improve- ment. „	...	...	...	...	...	...	3,802
	Railway line in	...	...	...	...	...	...	Rs. 2,078
	Morad- abad.	...	...	...	...	...	...
Net assets	Rs.	...	...	...	...	...	...	36,83,392

STATEMENT VII. (a).—(Muafi with revenue-free plots).

Soils.		Tenants cash-rent- ed area in acres.		Assumption area in acres.				Total columns 2, 3, 4, 5, 6 and 7.
		Tenants- at-will.	Occu- pancy tenants.	Sir.	Khud- kasht.	Grain- rented.	Rent- free.	
1		2	3	4	5	6	7	8
Recorded	Area Acres	29,158	68,026	3,482	3,404	89,956	1,203	1,95,229
	Rent Rs.	1,66,559	2,89,277	...	...	...	...	...
	Incidence „	5.71	4.25	...	...	...	...	...
By circle rates.	Area Acres	29,158	68,026	3,482	3,404	89,956	1,203	1,95,229
	Rent Rs.	1,22,899	2,98,565	15,925	14,062	3,25,090	5,739	7,82,280
	Incidence „	4.21	4.39	4.57	4.13	3.61	4.77	4.01
Accepted	Area Acres	27,398	67,929	3,327	3,137	80,543	937	1,83,271
	Rent Rs.	1,58,923	3,08,574	15,521	13,465	8,05,213	2,972	8,04,668
	Incidence „	5.80	4.54	14.66	4.29	3.79	3.17	4.39
Sayar	... Rs.	...	...	...	...	...	...	2,275
Assets	... „	...	...	...	...	...	...	8,06,943
Deduc- tions.	Sir ...	...	...	...	...	...	...	...
	Railway line in	...	...	...	...	...	...	Rs. 152
	Morad- abad.	...	...	...	...	...	...	...
Net assets	Rs.	...	...	...	...	...	...	8,06,791

APPENDIX I—(continued).

STATEMENT VIII.—Showing area excluded from assessment (*khalsa only*).

Pargana.	Excess cultivation.						New fallow.		Old fallow.		Unculturable.		Cultivated grove.		Uncultivated grove.		Grand total.		Number of mahala in which any deduction has been made.	Amount deducted for instability.	
	Cash.		Assumption.		Total.		Area.	Rent.	Ac.	Area.	Rent.	Ac.	Area.	Rent.	Ac.	Area.	Rent.	Ac.		Non-occu-pancy.	Occu-pancy.
	Area.	Rent.	Area.	Rent.	Area.	Rent.															
Moradabad	Ac. 32	Rs. 1,489	Ac. 232	Rs. 597	Ac. 561	Rs. 2,086	36	122	395	1,065	3,947	300	1,485	191	895	2,930	9,600	374	Rs. 6,765	198	
Thakurdwara	34	109	906	2,458	940	2,567	180	491	375	1,020	265	1,009	60	269	38	190	1,858	5,546	370	5,490	292
Sambhal ...	11,191	24,153	5,227	8,973	16,418	33,126	532	1,667	615	1,799	120	441	1,008	4,634	678	2,907	19,371	44,574	1,058	24,197	1,103
Bilari ...	1,783	6,422	350	1,033	2,133	7,455	...	...	239	1,022	162	611	501	2,655	463	2,406	3,498	14,149	1,040	28,709	73
Hasanpur	1,856	4,805	31,913	55,916	33,769	66,721	3,984	9,706	3,134	6,798	120	301	634	1,419	203	549	41,844	79,494	1,335	5,633	2,123
Amroha ...	701	2,450	3,690	9,176	4,951	11,626	...	...	308	965	153	392	162	613	109	438	5,113	13,974	541	3,170	319
Total, district	15,894	39,428	42,308	78,153	58,221	117,981	4,732	11,986	5,066	12,609	2,267	6,701	2,665	11,075	1,982	7,385	74,614	1,67,337	4,718	73,955	4,108

In addition in Moradabad pargana 412 acres of land taken for railway purposes after the settlement year have been excluded from assessment (Rs. 2,078).

STATEMENT VIII(a).—Valuation at special rates (*khalsa only*).

Pargana.	Old fallow.				Cultivated and uncultivated grove.				Total.		Number of mahals in which deductions have been made.	
	Area.		Amount of deduction.		Area.		Amount of deduction.		Area.		Amount of deduction.	
	Ac.	Rs.	Ac.	Rs.	Ac.	Rs.	Ac.	Rs.	Ac.	Rs.	Ac.	Rs.
Moradabad	...	1,127	1,850	36	199	1,959	90	4	1,163	1,959	90	4
Thakurdwara	...	27	44	...	...	...	...	...	27	44	...	...
Sambhal	...	340	636	287	755	1,391	627	1,391	627	1,391	204	111
Bilari	...	195	486	106	262	747	306	747	306	747	111	111
Hasanpur	...	457	558	11	...	585	468	585	114	198	111	111
Amroha	...	114	198	...	...	188	30	188	114	188	30	30
Total, district	...	2,260	3,771	439	1,153	4,924	2,699	4,924	2,699	4,924	650	650

APPENDIX I—(continued).
STATEMENT VIII b.—(Khalsa only).

Pargana.	Area added for deficient cultivation.		Number of mahals.	Remarks.
	Area.	Amount.		
	Acres.	Rs.		
Moradabad ...	168	494	8	For fresh cultivation.
Thakurdwara ...	290	690	...	
Sambhal ...	39	50	1	
Bilari ..	40	160	1	
Hasanpur ...	25	...	...	For fresh cultivation since 1312 fasli.
Amroha {	38 }	207	1	
{	43 }			
Total, district ...	643	1,601	11	Ditto.

STATEMENT IX.—(Cultivated area).

Year.	Cultivated area.
1287 ...	988,952
1288 ...	1,003,109
1289 ...	1,004,389
1290 ...	977,221
1291 ...	985,468
1292 ...	994,368
1293 ...	1,012,511
1294 ...	1,008,151
1295 ...	1,000,256
1296 ...	1,017,012
1297 ...	1,000,053
1298 ...	1,004,267
1299 ...	996,682
1300 ...	1,010,558
1301 ...	1,017,297
1302 ...	982,021
1303 ...	959,427
1304 ...	940,935
1305 ...	...
1306 ...	1,000,478
1307 ...	9,72,580
1308 ...	1,037,225
1309 ...	1,062,237
1310 ...	1,076,333
Total ...	23,051,530
Average ...	1,002,240

STATEMENT X.

District.	Occupancy.						Non-occupancy.						Percentage of increase.	
	Former settlement.			Present settlement.			Former settlement.			Present settlement.			Occupancy.	Non-occupancy.
	Area.	Rent.	Incidence.	Area.	Rent.	Incidence.	Area.	Rent.	Incidence.	Area.	Rent.	Incidence.		
Moradabad } Khalsa and muafi Revenue-free plots	352,811	Rs 12,84,704	3.57	455,808	Rs 18,33,173	4.02	†123,493	Rs 4,35,261	3.57	201,529	Rs 10,97,251	5.44	12.61	52.38
	Not available	...	...	7,395	Rs 34,114	4.61	Not available	...	...	4,165	Rs 26,688	6.41	...	...

* Includes rent of 1,645 acres of non-occupancy land.

† Rent of 1,645 acres included in occupancy.

STATEMENT XI.—Proprietary transfer (khalsa).

Period.	By private sale.					By public auction.				
	Area.	Revenue.	Price.	Average price per acre.	Number of years' purchase.	Area.	Revenue.	Price.	Average price per acre.	Number of years' purchase.
	Acres.	Rs.	Rs.	Rs. s. p.		Acres.	Rs.	Rs.	Rs. s. p.	
First decade ...	19,764	61,587	11,47,079	58 0 7	19	7,681	11,796	1,77,654	23 2 1	15
Second decade ...	Unknown	93,138	16,03,793	...	17	Unknown	37,956	3,27,938	...	9
Third decade ...	1,89,612	2,47,450	61,60,443	92 7 10	25	64,627	80,497	11,10,408	17 2 10	14
For the whole settlement. }	2,01,750	2,68,998	72,62,388	35 15 11	27	42,438	56,513	9,38,735	22 1 11	17
	4,11,126	6,78,035	14,669,910	35 7 0	25	1,14,746	1,48,806	22,26,797	19 6 6	15
	Unknown	93,138	16,03,793	...	...	Unknown	37,956	3,27,938	...	...
Total ...	...	6,71,173	16,173,703	...	24	...	1,86,762	25,54,735	...	14

APPENDIX I—(continued).

STATEMENT XI(a).—Proprietary transfers (muafi).

Period.	By private sale.			By public auction.		
	Area.	Price.	Average price per acre.	Area.	Price.	Average price per acre.
	Acres.	Rs.	Ra. a. p.	Acres.	Rs.	Ra. a. p.
First decade	...	52,476	78 10 10	1,497	2,693	1 12 9
Second decade	Unknown	6,62,253	...	Unknown	6,85,802	...
Third decade	41,974	24,86,697	59 6 2	10,188	2,24,523	23 0 7
For the whole settlement	40,010	31,44,045	78 9 4	3,153	1,41,761	44 15 4
	82,551	56,83,218	68 13 6	14,838	3,68,982	24 13 10
	...	6,62,253	...	...	6,85,802	...
	...	63,45,471	...	...	10,54,784	...

STATEMENT XII.—Showing total expenditure up to 24th March 1909.

Year.	Salary of gazetted officers.	Salary of fixed establishment.	Salary of variable and temporary establishments.	Extra tour establishment.	Travelling allowance to officers.	Travelling allowance to fixed, variable and temporary establishments.	Contingencies	Stationery.	Charges for the service of processes.	Job work.	Total charges during the year.
1	2	3	4	5	6	7	8	9	10	11	12
	Ra. a. p.	Ra. a. p.	Ra. a. p.	Ra. a. p.	Ra. a. p.	Ra. a. p.	Ra. a. p.	Ra. a. p.	Ra. a. p.	Ra. a. p.	Ra. a. p.
1904-05	1,200 0 0	317 15 3	701 15 11	14 0 6	184 12 0	23 12 6	981 1 0	44 9 0	34 8 4	65 5 6	3,568 0 0
1905-06	17,961 7 5	6,875 1 11	8,297 9 2	207 2 3	2,195 14 0	637 6 9	4,599 15 11	648 4 9	608 1 0	461 13 3	41,495 12 5
1906-07	40,718 3 1	10,299 8 3	17,497 3 7	373 3 8	2,094 2 0	404 3 6	3,755 7 0	740 14 2	1,198 5 6	1,390 4 8	78,471 7 5
1907-08	43,365 2 10	11,171 11 8	25,695 3 3	328 1 10	2,639 9 0	845 13 6	4,119 12 0	970 10 5	1,091 0 9	1,683 3 10	91,910 5 1
1908-09	44,566 0 0	10,547 10 4	31,517 9 2	166 11 6	842 10 0	209 3 0	3,137 7 4	906 11 9	1,006 14 4	2,370 13 9	95,231 11 2
Probable expenditure for 1909-10.	7,587 0 0	3,746 0 0	19,484 0 0	...	100 0 0	25 0 0	2,010 0 0	603 0 0	360 0 0	1,500 0 0	35,412 0 0
Total	1,55,417 13 4	41,957 15 5	1,03,193 9 1	1,089 3 9	8,056 15 0	2,145 7 3	18,603 11 3	3,911 2 1	4,298 13 11	7,474 9 0	3,46,149 4 1
To record	39,482 9 2	4,195 12 9	36,228 0 0	272 0 0	3,200 15 0	1,072 12 0	9,302 0 0	1,304 0 0	2,865 14 0	2,431 8 0	1,00,413 6 11
To assessment ...	1,15,935 4 2	37,762 2 8	66,967 9 1	817 3 9	4,856 0 0	1,072 11 3	9,301 11 3	2,607 2 1	1,432 15 11	4,983 1 0	2,45,735 13 2

NOTE.—Under instructions from Accountant-General in the probable expenditure for 1909-10 has been included pay of Assistant Settlement Officer up to 9th March and of Settlement Officer to 7th April 1909.

APPENDIX II—(Khalsa only).

I.—Comparative area statement.

Period.	Not culturable.							Culturable.				Cultivated.							Total culturable and cultivated.	Incidence of revenue per acre of cultivation.	Incidence of revenue per acre in column 20.
	Total area.	Re-venue free.	Grove.				Waste.	Fallow.		Total.	Irrigated.			Dry.	Total.						
			Vil- lage site.	Cov- ured with water ren.	Other- wise bar- ren.	Total.		Acres.	Acres.		Acres.	Acres.	Acres.			Acres.	Acres.				
																		Old.				New.	Flow.	Lift.	Wells.	Other sources.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Former settlement ...	Acres.	19,554	14,796	42,146	43,470	100,412	13,756	23,963	267,894	116,521	348,318	21	...	52,761	33,552	86,334	672,832	759,166	1,107,484	...	Rs. a. p.
Present settlement (year of verification)	...	...	14,900	41,936	42,280	99,176	15,742	1,04,271	70,693	27,042	202,006	1,137	103	22,722	9,043	33,005	883,518	916,523	1,118,529	...	...
Increase	...	...	104	...	...	...	1,986	80,308	...	...	...	1,116	103	...	...	...	210,686	157,367	11,045	...	...
Decrease	...	7,759	19,554	...	150	1,190	1,236	...	137,141	89,479	146,312	...	...	30,039	24,509	53,329	...	...	...	...	...

III.—Rent-rolls and Collections.

Years.	Tenants' land held in—										Total demand (columns 3, 5 and 6).	Collections, including arrears.	Sir.		Khudkasht.				Total.		Shikmi.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	Cash.		Kind.		Area.	Rent demand.	Area.	Rent demand.	Rent-free area.	Area.			Rent demand.	Area.	Rent demand.	Area.	Rent demand.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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* Uncultivated 31,044.

APPENDIX II—(Khalda only)—(continued).

V.—Census and agricultural statistics.

[illegible]

* Including Ra. 330 transferred from Meerut

district in 1314 fasli.
 † For 1st year 17,03,490.

* Includes 141 acres of bungalow compound area.
Uncultivated 31,044.

It excludes area of revenue-free plots.

VI.—Comparative Crop Statement.

Year.	Kabul.										Kharif.												Total.	Zaid.	Dofasli.
	Total cultivated area per kharsa.	Wheat alone.	Wheat combined.	Barley.	Gram alone.	Gram in combination.	Masur.	Gard. en crops.	Poppy.	Oil seeds.	Other crops.	Total.	Rice.	Cotton alone.	Maise.	Wajra alone and in combination.	Juar alone and in combination.	Munr. and moth urd.	Sugar-cane.	Gard en crops.	Indi. go. crops.	Other crops.			
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
Former settle- ment.	Acres. 904,759	Acres. 246,262	Acres. 52,765	Acres. 69,554	Acres. 65,384	Acres. 4,946	Acres. 3,707	Acres. 7,231	Acres. 27	Acres. 1,449	Acres. 71,466	Acres. 515,791	Acres. 93,464	Acres. 38,503	Acres. 3,707	Acres. 120,022	Acres. 42,006	Acres. 39,758	Acres. 65,436	Acres. 7,063	Acres. 181	Acres. 52,071	Acres. 462,211	Acres. 41	Acres. 73,284
Average of five years.	1,039,679	296,688	105,490	45,433	36,632	29,625	5,982	2,979	294	2,500	6,926	532,479	1,60,973	38,265	32,848	140,689	96,645	77,681	48,409	6,475	16	27,836	629,337	12,338	134,475
Year of verifi- cation.	11,102,378	340,492	101,672	57,595	49,325	35,391	5,295	3,300	1,501	2,787	14,503	611,661	1,21,364	45,321	32,048	147,281	101,608	76,147	58,627	3,929	---	36,376	622,689	10,720	142,892

* Includes 798 acres revenue-free plots.

25 " Government property.

" 173 resumed milk.
 " revenue-free plots in mused mahals.
 Excludes 3,904

144	"	"	for two villages the Statement VI of which was not prepared (100 of Moredabad thas and 44 acres of Gobindpur, pargana Thakurdwara).
80	"	"	Resumed milks.
311	"	"	The difference between statements 1 and 6 is due to figures taken for different years.

APPENDIX II—(*Khalsa only*)—(continued).VIII—*Proprietors.*

Serial number.	Name of mahal.	Tenure.	Caste of proprietors.	Aggregate share held by caste.	Area in acres.	Number of sharers		Remarks.
						Resident.	Absentee.	
1	2	3	4	5	6	7	8	9
		Single zamindari ...	...	...	4,12,802	409	2,000	
		Joint ditto ...	...	...	5,10,400	7,450	16,484	
		Perfect pattidari ...	...	...	68,459	1,140	3,280	
		Imperfect ditto ...	...	...	1,56,400	5,792	5,027	
		Bhaiyachara ...	...	...	2 231	514	1,107	
		Total ...	...	...	11,50,292	15,355	27,898	
		Miscellaneous property ...	...	...	6,576	3,350	2,467	
		Resumed milk ...	...	...	79,430	7,341	17,789	
		Perpetual muafi ...	...	...	18,042	1,395	2,493	
		Conditional muafi ...	...	...	7	...	2	
		Government property ...	...	...	6,649	...	...
		GRAND TOTAL ...	...	...	12,60,996	27,441	50,649	



सत्यमेव जयते

APPENDIX III.—(Revenue free plots).

I.—Comparative area statement.

Period.	Not culturable.				Culturable.				Cultivated.						Total culturable and revenue per acre of cultivation column 20.	Incidence of revenue per acre in cultivation column 20.	Incidence of Rs. a p.					
	Total area.	Revenue free.	Covered with water.		Grove.	Fallow.		Total.	Irrigated.			Dry.	Total.									
			Village site.	Other-wise barren.		Waste.	Old.		New.	Canals.				Wells.				Other sources.	Total.			
										Flow.	Lift.											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Former settlement	Not available.
Present settlement (year of verification).	18,095	...	183	467	597	1,247	354	271	1,032	407	1,710	...	...	89	83	172	14,612	14,784	...	...	...

III.—Rent-rolls and collections.

Years.	Tenant's land held in—						Total demand (columns 3, 5 and 6)	Collections, including arrears.	Sir.		Khudkasht.		Rent-free area.	Total.		Shikmi.			
	Cash.		Kind.		Siwai demand.	Rent demand.			Area.	Rent demand.	Area.	Rent demand.		Area.	Rent demand.	Area.	Rent demand.		
	Area.	Rent demand.	Area.	Rent demand.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			
	Acres	Rs.	Acres.	Rs.	Rs.	Rs.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Acres.	Rs.	Acres.	Rs.			
Year of verification ...	11,592	60,911	2,348	440	...	61,351	...	729	...	382	...	85	61,351	326	2,169				

* Uncultivated 362 acres.

APPENDIX III—(Revenue-free plots)—(concluded).
VII.—Statement of assets.

Soil with circle rates.			Tenants' cash-rented area in acres.		Assumption areas in acres with rates applied for valuation.							Total columns 2, 3, 4, 5, 6 and 7.	Remarks.			
1			2		3	Sir.	Rates.	Khud-kasht.	Rates.	Grain-rented.	Rates.	Rent-free.	Rates.	7(a)	8	9
1(a)						4	4(a)	5	5(a)	6	6(a)	7	7(a)			
Gaohan	...	...	54	...	92	17	...	27	...	...	...	...	...	...	190	
Dumat I	...	...	1,562	...	3,527	286	...	168	...	606	...	41	...	...	6,090	
Dumat I Kallar	...	...	83	...	107	18	...	4	...	15	...	...	...	...	222	
Dumat I Farai	...	...	34	...	68	...	...	1	...	1	...	...	...	...	105	
Dumat II	...	...	1,063	...	1,663	228	...	105	...	674	...	19	...	...	8,752	
Dumat II Kallar	...	...	80	...	226	23	...	4	...	95	...	2	...	...	430	
Dumat II Farai	...	...	77	...	29	11	...	2	...	57	...	...	...	...	176	
Mattiyar I	...	...	403	...	746	82	...	34	...	162	...	5	...	...	1,432	
Mattiyar I Kallar	...	...	53	...	119	3	...	7	...	25	...	1	...	...	208	
Mattiyar II	...	...	320	...	435	27	...	13	...	391	...	4	...	...	1,190	
Mattiyar II Kallar	...	...	9	...	23	...	...	...	...	...	...	...	...	...	32	
Bhur I	...	...	373	...	325	36	...	15	...	332	...	12	...	...	1,093	
Bhur I Farai	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	
Bhur II	...	...	54	...	66	3	...	2	...	90	...	...	...	...	215	
RECORDED	{ Area ... Rent ... Incidence	Acres Rs. "	4,165 26,688 6'40	...	7,427 34,223 4'58	729	...	382	...	2,348	...	85	...	...	16,136	
BY CIRCLE RATES	{ Area ... Rent ... Incidence	Acres Rs. "	4,165 20,268 4'87	...	7,427 37,624 5'07	729	...	382	...	2,348	...	85	...	...	15,136	
ACCEPTED	{ Area ... Rent ... Incidence	Acres Rs. "	4,150 26,691 6'43	...	7,422 37,864 5'10	694	...	369	...	2,292	...	72	...	...	14,999	
DEDUCTIONS.	{ Sayar ... Assets ... For sir ... For improvements ... For railway line in Moradabad ... Net assets	...	...	...	...	...	...	...	...	...	...	...	...	...	Rs. 12 79,476	
															...	
															...	
															Rs. 8 79,468	

APPENDIX IV—(Revenue-free mahals).

I.—Comparative area statement.

Period.	Not cultivable.										Culturable.					Cultivated.							Total culturable and cultivated.	Incidence of revenue per acre of cultivation.	Incidence of revenue per acre in column 20.				
	Total area.	Reve- nue free.	Grove.				Total.	Fallow.		Waste.	Irrigated.			Dry.	Total.	Total.	Total.												
			Vil- lege site.	Cover- ed with water.	Other- wise barren.	Total.		Old.	New.		Canals.	Wells.	Other sources.																
																		Flow.	Lift.	Acres.	Acres.	Acres.				Acres.	Acres.	Acres.	Acres.
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22									
Former settlement	...	219,087	1,197	2,498	6,103	5,436	14,037	2,565	1,849	30,970	19,483	52,302	...	10,154	3,202	13,356	135,636	148,986	201,288	...	...	...				
Present settlement (year of verification).	...	216,039	...	2,939	5,421	6,417	14,777	2,588	9,742	10,040	3,954	23,736	...	6,816	642	7,458	167,480	174,938	198,674	...	...	...				
Increase	441	...	981	740	23	7,893	...	...	...	...	...	...	...	...	31,850	25,952	...	...	...	...			
Decrease	...	3,048	1,197	...	682	...	...	...	20,930	15,529	28,566	...	...	3,338	2,560	5,898	...	...	2,614	...	...	...				

III.—Rent-Rolls and collections.

Years.	Tenant's land held in—						Total demand (columns 3, 5 and 6).	Collections including arrears.	Sir.		Khudkasht.		Rent-free area.	Total		Shikmi.		
	Cash.		Kind.						Area.	Rent demand.	Acres.	Rent demand.		Acres.	Area.	Rent demand.	Acres.	Rent demand.
	Area.	Rent demand.	Area.	Rent demand.	Area.	Rent demand.												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
Former settlement	...	50,601	1,91,510	88,620	...	...	...	3,315	1,983	1,457	852	...	...	...	...	...
Year of verification	...	85,592	3,94,925	87,608	185,800	7,084	5,87,809	2,753	...	3,022	...	1,118	180,093	5,37,809	7,792	28,042		

Uncultivated 5,155.

APPENDIX IV—(Revenue-free mahals)—(continued).

II.—Comparative statement of jamas.				IV.—Area table and verified rent-roll.										V.—Census and agricultural statistics.						
1	Period.	Revenue.	Own-er's rate.	Last settlement.		Description.	Present (year of verification).				Grain-rented.		Under-tenants.		Masonry well ... { Old ... New ... }	Depth to water...	Ploughs Plough cattle ...	Agricultural po- pulation. { Year of last settle- ment. Year of verification }	Non-Agricultural population. { Year of last settle- ment. Year of verification }	Number of inhabited sites ...
				Area.	Rent.		Number of khats.	Area.	Rent.	Area.	Rent.	Area.	Rent.	Area.							Rent.
1	2	3	4	1	2	3	4	5	6	7	8	9	10	...	...	...	...	...	...	...
1		Rs. a. p.		Acres.	Rs.	Sir ...	1,245	2,753	...	...	Rs.	Acres.	Rs.	425	1,345	...	...	...	...	...
2		...	...	1,457	852	Khudkasht ...	1,036	3,022	...	...	...	11	35	...	...	...	...	...	...	...
3		...	...	4,772	2,835	Total ...	2,281	5,775	...	...	...	436	1,380	...	...	...	...	...	...	...
4		...	...	17	...	Exproprietary tenant as such.	158	220	840	221	365	74	380	...	...	...	...	...	...	...
	Current Settlement	...	...	76,719	1,26,858	Occupancy tenant as such.	32,260	60,379	2,54,214	39,916	97,710	6,173	22,769	...	...	...	...	...	...	...
	Year of verification	...	...	50,561	50,422	Tenants-at-will at full rates.	27,297	24,993	1,39,871	47,471	87,725	1,045	3,362	...	...	...	...	...	...	...
	Proposed { Nominal Nazrana	3,61,815 0 0	...	1,27,297	1,77,280	Total ...	59,715	85,592	3,94,925	87,608	1,85,800	7,292	26,511	...	...	...	...	...	...	...
	Percentage of increase	...	...	...	...	Rent-free for service and favoured tenures.	1,857	1,118	...	...	...	64	151	...	...	...	...	...	...	...
	{ Initial Intermediate	...	...	621 11,924	14,230	GRAND TOTAL	63,863	92,465	3,94,925	87,608	1,85,800	7,792	28,042	...	...	...	...	...	...	...
	{ Final	...	...	144,614	1,94,345									...	...	...	...	...	...	...
Progressions.				Kind ... 88,620										Included in Khats.						

APPENDIX IV—(Revenue-free mahals)—(concluded).

VIII.—Proprietors.

Serial number.	Name of mahal.	Tenure.	Caste of proprietors.	Aggregate share held by caste.	Area in acres.	Number of sharers.		Remarks
						Resident.	Absentees.	
1	2	3	4	5	6	7	8	9
		Single zamindari ...	...	...	50,247	16	366	
		Joint ditto ...	...	...	52,659	169	2,202	
		Perfect pattidari ...	...	...	23,674	27	1,033	
		Imperfect ditto ...	...	...	50,489	129	19,05	
		Bhaiyachara ...	...	...	8,879	15,774	316	
		Total ...	...	...	1,85,948	16,115	5,822	
		Miscellaneous property ...	...	...	14,561	555	2,892	
		Resumed milk ...	...	...	3,940	77	829	
		Government property ...	...	...	1,618	...	...
		Grand Total ...	...	...	*2,06,585	16,747	9,543	

* Includes 518 acres of mauza Shaikhupur Intazam Ali which has not yet been received from Urdu office and hence the detail is not given.

H. J. BOAS,
Settlement Officer.



ORDERS OF GOVERNMENT.

No. $\frac{2300}{1-5H}$ OF 1909.

RESOLUTION.

REVENUE DEPARTMENT.

Dated Allahabad, the 4th December 1909.

READ—

Letter from the Joint Secretary to the Board of Revenue, United Provinces, no. $\frac{475}{1-509B}$ dated the 23rd September 1909, submitting the final report of the eleventh settlement of the Moradabad district by Mr. H. J. Boas, I.C.S., with a review thereof by the Board of Revenue.

OBSERVATIONS.—The river system of the district is the principal factor in determining its physical features. It is divided into seven main tracts differing widely in their characteristics. Two of these, the Ganges *khadir*, or low lying alluvial land, which is liable to flooding, and the *bhur*, or sandy upland, which suffers alike in years of excessive or of markedly deficient rainfall, may be classed as distinctly precarious. Apart from these and other minor exceptions the district, which is mainly an agricultural one, is fertile and well protected against drought. Communications, both by rail and by road, are good.

2. No less than 16 per cent. of the entire area is held free of revenue. Some of the worst and least considerate landlords in the district are reported to be those who pay no revenue, and this fact constitutes a striking comment on the argument that a permanent settlement would necessarily ensure the lenient treatment by landlords of their tenants and the encouragement of improvements.

The occupancy and ex-proprietary areas constitute somewhat over 59 per cent. of the total tenant-held area, and the settlement officer estimates that were it not for the protection afforded to the occupancy tenants by statute they would be paying over nine lakhs more than their present rents.

The grain-rented area amounted to no less than one-third of the total area held by tenants, and the prevalence of this tenure forms one of the main economic features of the district. The occupancy tenants availed themselves freely of the opportunity which the settlement afforded to claim commutation of their grain rents to cash, and in the result only a comparatively small portion of the area held by such tenants on rent in kind remained on the former terms. The Lieutenant Governor has read with interest the remarks of the settlement officer and of the Board of Revenue on this subject, and the need for the exercise of special care in the selection of the sub-divisional officers in charge of the Amroha and Hasanpur tahsils will not be lost sight of.

3. Since the last settlement the cultivated area of the stable portions of the district, in respect of which only any real comparison is possible, has risen by over ten per cent. Population is larger, and there has been a substantial advance in prices and rents, and also in the tenant area for which cash rents are paid.

The main problems of the assessment were, as the settlement officer points out, three in number. In the first place the determination of the stable area to be assessed in the precarious tracts, in which the extent

of cultivation varies enormously from year to year, was a matter which required careful attention and discriminating treatment. The valuation of occupancy holdings also was an operation of great importance, and was conducted with conspicuous moderation, the figure arrived at corresponding closely with the actual rents realizable from the date on which the new assessments took effect. Lastly may be mentioned the allowance made for the instability of the rents paid by tenants-at-will, either owing to their high incidence or to fluctuating cultivation. Deductions for these and other causes of less importance reached the high figure of Rs. 1,17,154, while the addition on account of concealment of rent was only a trifling sum.

With the addition of Rs. 35,013 for *sayar*, chiefly for grazing and the sale of *babul* trees, the gross assets amounted to Rs. 37,39,529. A liberal deduction of Rs. 50,257 was made on account of proprietary cultivation, a sum equal to nearly 13 per cent. of the assets of land cultivated by the landholders themselves; but it was found possible to deduct only Rs. 3,802 for improvements. After another minor adjustment the net assets which emerged for assessment were Rs. 36,83,392, and the final revenue assessed was Rs. 17,56,321 or 47·6 per cent. of the net assets. This constituted an enhancement of over 21 per cent. on the existing demand, which, though full in parts of the district, was unequal in its incidence. The Government accepts the conclusion of the Board that the settlement is fair both to the State and to the proprietors, and it is confirmed for a period of twenty-nine years in the Moradabad and Bilari tahsils and for thirty years in the remainder of the district. Under the rules in force the end of the last term of assessment of alluvial mahals should coincide with the expiry of the last term of settlement, and if the date of expiry were the same all over the district this would cause inconvenience in dealing with the numerous alluvial mahals which have to be assessed.

4. The expenditure on settlement and survey operations amounted to 4½ lakhs, a noticeable contrast to the 13½ lakhs which the previous operations had cost.

5. The difficulties which the settlement officer had to face were met with judgment and discrimination, and the Lieutenant Governor has pleasure in acknowledging the excellent work done by Mr. Boas and his assistants, Mr. Gaskell and Kazi Muhammad Makhdum Husain.

ORDER.—Ordered that a copy of the above resolution be forwarded to the Joint Secretary to the Board of Revenue, United Provinces, for the information of the Board.

By order of the Hon'ble the Lieutenant Governor, United Provinces,

J. M. HOLMS,

Chief Secy. to Govt., United Provinces.