Revenue Department

Rules of Consultation

18th August 1857

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Order No. 815 dated 4th August 18

பாதுகாப்புப் பிரிவு-1
செப்பனிடுபவர் பெயர் :
செப்பனிடுவதற்காக எடுத்துக் கொள்ளப்பட்ட நாள் 27.11.2006
செப்பனிட்டு முடித்த நாள் 15.3.2007
சரிபார்க்கும் முதல் மு.நி.பா.எ. கையொப்பம்
சரிபார்க்கும் 2-ம்-மு.நி.பா.எ. கையொப்பம்
ஆராய்ச்சி உதவியாளர் கையொப்பம்

Fort Saint George, Revenue Consultation of 18th August 1857.

No. 10. Read the following Extract from the Proceedings of the Board of Revenue, dated 15th July 1857, No. 2400.

Read Extract from the Minutes of Consultation dated 22d April 1857, Revenue Department.

(Here enter No. 372.)

In the Extract Minutes Consultation of 22d April 1857, the Government direct the attention of the Board of Revenue to certain paras. of the Honorable Court's despatch of 17th December 1856, on the proposed scheme of a revised survey and assessment for the Madras Presidency, in order to their considering the subjects discussed in certain paras. in connection with a Minute by the Honorable Mr. Grant.

2. The Paras. of the despatch to which Government seem to refer, are the following.

3. I. Para. 13. The Court suggest a *water rate* on all irrigated land, independent of its assessment as unirrigated instead of the present (and proposed) plan of classifying and assessing lands as either "Irrigated" or "Unirrigated."

II. Paras. 15-20. The Court object to an assessment founded on a per centage of the *Gross* produce.

III. Paras. 21-22. The Court object to a periodical revision of the assessment with reference to fluctuations in the price of grain, and consider that it should be fixed for 30 years.

IV. Paras. 23-27. The Court, with reference to the vast number of minute holdings by individual ryots, suggest the introduction of the Bombay system of "Survey fields" whereby several adjacent occupiers of small fields, are considered co-sharers of one large field.

V. Paras. 28, 29, 30. The Court desire that their previous instructions regarding "Meerassee" tenure be not departed from.

VI. Paras. 31-34. The Court object to the plan for securing "permanent occupancy" by allowing a reduction of assessment to ryots agreeing to take up large holdings for a term of years.

VII. Para. 44. The Court consider that the suggestions in the Honorable Mr. Grant's Minute referring to the system of assessment in Cuttack should receive careful consideration.

4. The Board will now, in pursuance of the wish of Government, proceed to offer their observations, as briefly as the subject will admit, on the above points. They would however in the first place beg the consideration of Government to the fact that questions of this nature have been for many years constantly brought before Government and the chief Revenue officers, without the possibility of their being decided in a manner that shall not admit of farther discussion. What may be the opinion of the Government or of the Board of Revenue one year may be quite at variance with the views expressed by the same authorities another year, in consequence of those changes in office which cause official opinions to be in fact the opinion of individuals, who in matters of this kind will seldom be unanimous. Even among the most experienced and careful this great contrariety exists, for proof of which the Board need only refer to the Minutes, and the official letters printed with the Extract Minutes Consultation of 14th August 1855. It is therefore with deference that the Board of Revenue, as at present constituted, submit their views on the points in discussion, and if they should appear to have omitted the consideration of any disputed point, it is because they desire to present to Government only such views as they can generally agree upon, without extending their proceedings by discussion on those few details in which they are not agreed, and which after all had in their unanimous opinion better be left to the officer whom the Government shall think fit to entrust with the sole management of the important duty of revising the survey and assessment of the Presidency.

5. With reference to para. 3 of these Proceedings, it will be seen that the first question is in regard to the *water rate*. The Court consider it worthy of consideration whether the "distinctive classification of lands according as they are or are not capable of irrigation from a Government source, should not be abolished, and all land classified simply with reference to its soil and its productiveness *without irrigation*, a *water rate* being charged when Government water is used." The Court observe that this practice prevails in the N. W. Provinces, and that the Madras Government have expressed an opinion that it might be done without inconvenience.

6. The Board, as far as their judgment and experience go, are unable to concur in the opinion that the plan adverted to by the Court could be adopted without inconvenience, and they consider the present system so well known and assented to by the ryots to be the best. The case of the N. W. Provinces is very different from Madras. There the assessment is fixed on the whole village with reference chiefly to what it had usually paid before. A new and most comprehensive system of irrigation by canals was then commencing, and the mode of supplying water, in all its details was entrusted to the Engineer Department, who in consequence of the mechanical arrangements they were able to make, could tell how many cubic feet were supplied to each village. In this Presidency we have to make an undeviating assessment on each *field*, and even under such a perfect system of irrigation as has been opened out in the N. W. Provinces, the Board doubt if the officers of Government could register the water supplied to each field. Much greater would be the difficulty in a country the irrigation of which depends on numberless small tanks, the supply of water from which is exceedingly variable and uncertain. It is possible that in some localities such as the channels supplied by the Coleroon and Godavery Annicuts a uniform water rate per acre (without reference to the cubic feet supplied) might be introduced, but even then it would necessitate constant interference of the petty revenue officers who would have to be always on inspection to see what fields had taken water, for under the system proposed by the Court the Board presume that the water rate would not be levied unless water were actually taken from the Government source. Again, where a village is assessed 'en gros' as in the N. W. Provinces, and a complete Hydraulic system exists it is easy to fix a sum to be paid extra for the supply of so many thousand cubic feet of water; but in Kahétwar (or field) settlement each field would have to be assessed first as an unirrigated field; and then an uniform water rate, even if no notice were taken of the *quantity* of water used, would often press unfairly, and vitiate all the labour of the primary assessment. It would constantly happen that lands in different classes, and therefore bearing different rates of primary assessment would produce much about the same when irrigated. It does not at all follow that a field of an inferior class of soil would retain that inferiority with regard to another, when both were irrigated. To carry out the principle therefore of equable assessment under all circumstances, it would be necessary to assess every field twice over; once with reference to its class as unirrigated land, and secondly with reference to its relative capability when irrigated,* in order that with its water rate added (irrespective of the quantity of water used) it might be on a par with other lands inferior to it when unirrigated, but equal or superior when irrigated. The Board consider a khetwar assessment sufficiently laborious and liable to error, without farther complicating the process; nor do they comprehend what advantage is to be gained by a water rate in the sense it appears to be used in the N. W. Provinces, and by the Court of Directors, unless the Hydraulic arrangements are such, that the quantity of water supplied to each field can be ascertained. The term water rate, has been applied in Madras to denote the extra assessment levied on lands originally assessed at a low rate as unirrigated, but which occasionally are able to take advantage of water from a Government source. A water rate in this sense appears reasonable, but where lands are *constantly* irrigated, the Board prefer a short series of rates on "irrigated land" as distinct from the series on "unirrigated land."

* *When land has never yet been irrigated, it would be mere guess work to fix an assessment with reference to its productive powers in the event of its being irrigated at some future time.*

7. The next point to be considered is the observation of the Court on the proposition that 30 per cent. of the *gross* produce should be taken as the maximum Government demand. The Court consider this part of the scheme as the one most open to objection, and inconsistent with the principle that the right of Government is only to a share of the *rent*. They remark that such a plan would be to favor the most fertile lands which might probably pay much more than 30 per cent. of the gross produce, whilst 30 per cent. of the gross produce of inferior soils would leave the ryot little or no profit at all. They are of opinion that the assessment should be proportioned to the *net* and not to the *gross* produce, and state that this course was followed in the N. W. Provinces, where the net produce was estimated, and two-thirds of that taken as the Government share.

8. The Board are not disposed to deny that the views expressed by the Court are correct in theory, but they at the same time believe that to carry them out would not be practicable in

a Khétwar settlement. In the N. W. Provinces the settlement officer after discussing the subject with his employés and with the head ryots, the representatives of the villagers, fixed at their discretion what they considered the *net* rent of the whole village. On what data they went is not explained in any of the printed reports, but it seems at best to have been but an approximation, and this might be possible taking a whole village by itself; but to attempt to estimate the net rent derived from each field must in the Board's opinion be futile. They doubt if there is a nearer plan than that of estimating for a considerable tract of country the average expenses of cultivation at so much per acre, and with these data making a per centage reduction from the estimated *gross* produce, considering the remainder as the net produce. That the gross produce of every field or rather of each class of land must be estimated first, is very clear, or else no classification could be made. This task is far from easy at the best, but to attempt field by field to estimate the *net* profit derived from it would be altogether impracticable, especially when it is well known that any ryot when pressed to give a statement of his cultivating expenses, always arrives at the conclusion that he is a loser on every acre. In estimating the relative values of fields, the Board would invest the settlement officer with very full powers. None but those employed on the spot in personal investigations can presume to lay down detailed and inflexible rules, and it is not to be expected that the assessment eventually fixed on any field will be exactly a proportion either of the *gross* or the *net* produce, as there is a vast variety of local circumstances to cause variation from what may be taken as the primary data. The Government have already stated that they consider the share of Government should *not exceed* 30 per cent. of the gross produce, and they expect that this will be about two-thirds of the net produce. This should be a sufficient guide for the settlement officer, whether he makes his original calculations on the gross or the net. The Board greatly doubt if the settlement officers of the N. W. Provinces could have attempted to apportion the two-thirds net produce on *every field*, and from the very earliest periods of history the ryots of the Carnatic have been accustomed to, and understand the system of yielding to Government a certain per centage of the gross produce, leaving it to the assessing authority to make this per centage lighter on the inferior soils; a plan which in practice would seem to meet the objections of the Court, that the better soils would be favoured.

9. The next subject (para. 3 of these Proceedings) is that of the term or period during which the assessment should remain unaltered. The Court object to the proposition of Government that the assessment should be fixed in terms of so much grain, that converted into money at the average prices of the last 7 years, and this price to remain fixed for 7 years, and then revised again: also that the *grain* estimate be revised every 50 years. The Court prefer that the rates of assessment should be fixed so low as to cover all ordinary fluctuations of price and that these rates should as in Bombay remain permanent for 30 years.

10. Where the land of a country is classified field by field with reference to the amount of staple grain it produces, and the assessment fixed almost entirely with reference to those classes, it seems but reasonable when great fluctuations occur in the basis on which the assessment is made (i. e. on the value of the produce) that a corresponding alteration should be made in the rates of assessment. The Board however must acknowledge that there are practical difficulties in the way which cannot be overcome. In the first place if a reduction is to be made when the price of grain falls, an enhancement must be made when the price rises, and this would cause very great dissatisfaction among the ryots. It is also to be remembered that we have not the means in this country for ascertaining the real prices of grain with sufficient accuracy for the important process of revising the assessment periodically. The plan proposed by the Government seems to have been taken from the plan pursued in England under the Act for the commutation of tithes, but it was found so difficult to put a grain valuation on each field that by a later Act this is not required, and the farmers fix among themselves, for sanction by the Commissioner what each shall pay so as to make up the average total tithe. The Registers no longer shew the grain produce of each field, but simply its tithe charge in money when first settled, and this subsequently varies, as prices vary from the standard prices originally decided on by Government. It is also to be remembered that the tithe charge is but a small payment in comparison with an Indian land assessment, and it is not a matter of much consequence to know the produce of a field very exactly.

11. It will be in the recollection of Government that 3 or 4 years ago there was a general demand for reduction of assessment, on the plea that prices had fallen to a serious extent since

the original assessment was fixed. Though there was no doubt of a great fall in price, it was found almost impossible to trust to the various statements of prices past and present, submitted from the Provinces, and though Government were disposed to make reductions, and did do so on other grounds, yet before it could really be determined what actual prices were, they again rose, and the original ground for complaint disappeared.

12. The Board therefore are inclined to urge the adoption of the plan approved of by the Court, and to make the assessment when once fixed, unalterable for 30 years.

13. It may not here be out of place to notice that a general opinion prevails in England that the Bombay Settlement for 30 years secures a far greater permanency of tenure to the landholder, than the present ryotwary tenure of Madras. This is altogether an error, for a Madras ryot is able to retain his land in *perpetuity* without any increase of assessment, as long as he continues to fulfil his engagements.

14. The next subject is that of the evils arising from the present system of minute holdings, and pauper ryots, arising from the practice of equal partition of property among heirs; and the facility given by Government to the acquisition of small plots of land by persons of no capital or means. The Court consider that the rule introduced in Bombay at the time of the new Survey of that Presidency, might, in principle at least, be carried into effect at Madras, and they do not admit the force of the objections made by this Government in para. 25 of the Extract Minutes Consultation of 14th August 1855. The rule in Bombay, the Board believe to be as follows: During the Survey several small fields were clubbed together, and constituted a "Revenue field," without any consideration as to whether the occupiers of these small fields were different parties or not. In the event of one of the small fields becoming vacant, some one, or all jointly, of the "Revenue field" were obliged to take up the vacant portion, or be rejected from their own. The size of the "Revenue field" was to be not less than 12 acres of unirrigated, or 4 acres of irrigated land.

15. The Board are not in a position to give any opinion as to the extent to which these rules have been carried out in Bombay, or how far they have been the cause of discontent, but with the most anxious desire to introduce a system of large holdings, they cannot see the justice of forcing any man to take up more land than he requires, and they believe that in the Madras Presidency such a rule would give rise to serious opposition. From what the Board have seen of the Bombay village maps, it appears that the usual size of the fields were already above that specified as the minimum for a revenue field, and therefore in practice there may have been little inconvenience*, but in Madras, where there is a much larger extent of irrigated land, comparatively valuable, and yet generally split up into fields of less than an acre, the effect of an arbitrary rule of the nature above referred to, would be to affect the value of the land of every respectable ryot. It is true that the Madras Government might make the minimum very much less than in Bombay, but this would then hardly meet the object in view, and still give rise to constant complaint.

* *Mr. Commissioner Townshead states that the Bombay rule would only apply in a "few cases" in his district.*

16. As far as the operation of *Surveying* is concerned, it may be a saving of time and expense to survey and compute the area of a small tract, containing several minute fields, but the areas of these must still be marked out, though by a rougher process, and this the Board have already proposed, and Government sanctioned, the minimum being 2 acres for unirrigated, and 1 acre for irrigated. Still the interior sub-divisions are separate fields in a revenue point of view, and the Board very much doubt whether as the law now stands, if a ryot should sue the Revenue authorities for compensation, for having ejected him because he refused to take the land of a deceased neighbour, they would not be cast.

17. In the judgment therefore of the Board, the principle laid down by Government in para. 26 of the Extract Minutes Consultation of 14th August 1855 is best adapted to meet the object in view as regards the Madras Presidency that "it is better to trust to the indirect operation of wholesome rules, and an improved system, than to attempt to apply any direct remedy."

Enclosure in from Government 22d April 1857, No. 372, Rev. Dept.

The rules which the Court propose in the latter part of para. 26 of their Despatch of 17th December 1856 will, in the opinion of the Board, go far to introduce a change as regards pauper occupations without interfering with the

rights of existing occupants. These rules are, I. Persons desirous of engaging for fresh land will not be permitted to take it except in a quantity comprising not less than a certain area hereafter to be determined on. II. Occupants of petty holdings when they fall into arrear, shall not be allowed to renew their puttahs. III. No ryot desirous of contracting his cultivation shall be allowed to give up so much as would bring his holding within the prescribed limit.

18. The Board are not prepared to state positively what should be the minimum holding, but they would suggest that it be decided with reference to the money amount of the puttah rather than that of the extent of land, and they would in the first instance make the rule as light as possible. At present more than half the puttahs in the Presidency are for sums under 10 Rs. a year, and the Board think that in future the object should be to have no puttahs under 10 Rupees. They think that in the new Survey, when tracts of land long waste are measured, no attempt should be made to re-trace the old boundary marks of small fields, but that new portions should be set out, not less than say 4 acres of unirrigated and 1 acre of irrigated. This is considerably above the average size of fields in the Carnatic. No field however large when once defined in the survey *Map* should be hereafter sub-divided, though in making the Survey it would be at the discretion of the settlement officer to allow very large fields to be sub-divided and mapped accordingly.

19. It will be necessary when the time comes to put into force some of the above rules to define what amounts to a "relinquishment" of land, and the Board think that a ryot who has held a particular field for 3 years consecutively should be allowed to leave it fallow or waste for a 4th year without liability for revenue.

20. With reference to the discussions on this subject, the Board would remark that it is not so much the small size of the *fields*, as the small amount of the *puttahs* that complicate and enfeeble a ryotwar system of revenue. No doubt as far as regards the mechanical operation of surveying, the minute separate plots of land give rise to great loss of time, labour, and money, but if a ryot holds 50 different fields of ½ acre each, and pays 40 Rupees a year to Government, there is not much object (as regards the revenue operation) in altering the *size* of those fields.* If the Bombay rule were carried into effect, it might so happen that a ryot holding a dozen small fields in different parts of the village, might find himself fettered by as many co-parcenary obligations, each of his separate fields being perhaps included as a portion of a "*Revenue* field." The grouping together of small fields into a "*Survey* field" (which means nothing more than that the area of the whole is accurately determined, but its component small sub-divisions more roughly) would not affect such a ryot's tenure at all.

* *In the District of Malabar the separate holdings or gardens are very small, yet still the occupant of one of these is in a respectable position as a ryot and landholder, on account of their value.*

21. The Board are also of opinion that a maximum as well as a minimum should be fixed for a "Survey-field," as if fields are set out of a very large size it is a hindrance to a careful extension of cultivation.

22. In paras. 28, 29, 30 of their despatch the Court observe that the Government appear to deal with the subject of "Meerassee" in a manner at variance with the practice which has hitherto prevailed. The Court were no doubt under the impression, that in the new scheme for Survey and assessment, the Government intended to acknowledge the claims of the so called Meerassidars in districts where since our acquisition of the country these rights have been merely nominal, and to give up to them the disposed of the waste land in their villages. The Government certainly speak in para. 27 of the Extract Minutes Consultation of 14th August 1855 of "individuals and classes *exclusively* entitled by the ancient custom of the country to the occupation of the soil, and look for the time when the rightful holders will occupy it themselves, sub-letting it, or part of it, and no longer quietly submitting to its being given away to those who have no rightful interest in it." The views of Government regarding Meerassee were also so interpreted by the Board, in reference to other correspondence, and they have fully recorded their opinions in their Proceedings of the 14th May 1856, which the Government took into consideration in the Extract Minutes Consultation of 23d January 1857. The Board are still disposed to adhere to the views of Sir T. Munro (in his Minute of 31st December 1824), regarding Meerassee in preference to those of Mr. Ellis, and they cannot but

think they had reason to apprehend an undue extension of what are supposed to be Meerassee villages, when the Government in Extract Minutes Consultation of 8th March 1856, objected to the usual and well known system of receiving Durkhasts for waste lands, and condemning it as an interference, desired that the villagers should be left to make their own arrangements as to the disposal of the waste. It was also the deliberate opinion of the Advocate General (Board's Proceedings 29th April 1856, No. 1271) that the Government had officially declared their adherence to Mr. Ellis' views on Meerassee, and that in any question before the Supreme Court, they could not attempt to oust a so called Meerassidar who surreptitiously obtained possession of waste land. The Board trust that as regards the provinces the question is now so far set at rest by the decision of the Court of Directors as to guide the Revenue officers, and that when the old residents of a village whether they call themselves Meerassidars or not, decline to cultivate (or else pay for) waste land, the usual puttahs may be given to Durkhastdars without forcing them to become sub-tenants of the old residents, and that the influence which the so called Meerassidars have hitherto exercised in keeping much land out of the occupation of others though not occupying it themselves, may be put an end to.

23. The next subject for consideration is that of adopting measures to introduce a more permanent occupancy of the land. The Government propose to make all the present Puttahs permanent for so long as the ryot shall not desire to contract or increase his holding, and to allow ryots who are willing to take up holdings of considerable size to compound for a term of years at a lower rate than the standard, regulated by certain fixed rules as to deductions for waste, for fallow, for bad seasons, &c. The Government also propose that where villages are still held in *shares* by Meerassidars, (though nominally ryotwar) that these shares may be recognized, and village rents made for a term of years.

24. The Court do not notice the last proposition, but object to the second, on the ground that if the assessment is made moderately low, and of course with reference to an average of good and bad seasons, there seem no necessity for lowering it still farther to induce ryots to cultivate; and they apprehend that such a premium as an abatement would lead ryots to enter on these favourable engagements, and keep to them only so long as seasons were favourable. In these views the Board concur, and though they would wish to see an increase of large holdings, they would prefer to look for them as the result of moderate assessments and a gradual increase of agricultural prosperity, than as the sudden effects of an artificial stimulus. It would also be next to impossible to draw up defined rules as to waste, fallow, bad seasons, &c., in such a manner as to meet all exigencies.

25. The Board observe that the Court approve of the Puttah being permanent, though perhaps the term permanent expresses too much. Hitherto the Puttah has been merely a *bill made out* at the end of the season of the revenue demand upon the ryot, charging him with what land he has agreed to take up at the commencement of the season, and *deducting* for land unavoidably left waste, for land washed away, sometimes for withered crops, and other difficulties he has had to contend with; and *adding* where he has made use of Government water for irrigation on land not assessed with water tax. This account is presented to each ryot in attendance at the yearly settlement, and any objections he may have to make are investigated. In very many cases the ryot is content to receive his Puttah as it stands, and year after year cultivates the same land, on the same terms. It has been the wish of the Board of Revenue (and the Government have authorised it) that in these cases the attendance of the ryot may be dispensed with, and the Puttah simply *endorsed* year after year. It is therefore so far permanent; but if the ryot wishes to contract his holding he may do so under a ryotwary settlement, and the assessment on the land given up, is deducted. Also if he claims and obtains some alteration in the puttah in the way of remission in exceptional cases, the paper is altered. In this sense therefore the puttah is *not* permanent, and to make it so, would be actually a hardship to the ryot, instead of a benefit. If the ryotwary system is open to the objection of *interference* with the people, it is in this case an interference much more for the convenience of the ryot than that of the Revenue authorities, as would soon be apparent if a puttah were in the full sense of the word permanent. As the system now stands a ryot may take as much or as little land as he likes, and having a puttah, and paying his dues, he never can be ejected.

26. With respect to the proposition of Government to authorize *village rents* with the Meerassidars, or headmen of the village, the Court offer no opinion. The general objection on

the part of the Board of Revenue is that it gives a favoured portion of the village community a power of oppression over the weak, and is apt to discourage individual and independent exertion. Yet in those cases where certain known parties have for years actually paid the village assessment, though the names of their dependants have been entered in the joint rent, as a matter of form there might be an opening for a village rent for a term of years which would be productive of good, but these are details for consideration which would be out of place in the present Proceedings.

27. The last point for consideration is as regards the suggestions contained in the Honorable Mr. Grant's Minute, as regards the agency through which the Government demand upon the ryots is to be realized. Mr. Grant proposes that the villagers should nominate annually one or more persons through whom their payments should be made, on certain fixed dates, and thus "restrict the necessity of interference on the part of the Tahsildar with the private affairs of the cultivator." The Board cannot but think Mr. Grant has been misinformed as to the agency employed in the Madras Presidency. It is not the duty of a Tahsildar and his people to enter villages for the purpose of making collections of Revenue. The fact is that there is in every village a headman, under the name of Potail, Monigar, Mocuddim, &c., holding land of his own, who is recognized by Regulation IV. of 1816 as "the person who collects the revenue." It is to him that the ryots pay their instalments when due and he remits the money to the Tahsildar's Cutcherry. The Tahsildar does not interfere unless there occurs some special difficulty, or process to be gone through for the recovery of arrears.

28. Mr. Grant seems however to consider the Cuttack system as one that affords security against the interference and extortion of the native revenue officers, and suggests its introduction in the Northern Circars. This system as explained by the Honorable Mr. Elliot, in his Minute appended to the Extract Minutes Consultation of 14th August 1855, is shortly as follows. The assessment is fixed on the fields, and the settlement is called ryotwar. Each ryot receives a Puttah for 25 or 30 years,* and the realization of the whole village revenue is committed to 4 or 5 headmen (or rather what corresponds to the Carnatic Curnum) called Surberakars, who engage to make good the whole revenue of the village on receiving a commission of 15 or 20 per cent. They are also allowed to avail themselves of whatever profit they can make out of the waste land.

* *It is not stated if the ryot is bound to pay the whole amount of his Puttah even should he be unable to cultivate the land described in it.*

29. It appears to the Board that these Surberakars of Cuttack are not merely an agency for collection of revenue, but to all intents and purposes, renters of the village, and it will be for future consideration on the spot whether the customs and usages of the Northern Circars are adopted to this mode of settlement. The Board do not suppose it is intended to introduce the system generally. Something of the kind was tried formerly in the Triennial and Decennial Leases, but was a failure in the Carnatic and Ceded Districts.

30. The different subjects to which the Government have drawn attention having now been discussed, it only remains for the Board to observe that in the proposed scheme for a revised survey and assessment, they are most unwilling to hamper the officer who shall be placed in charge of that important work, with restrictive details. It will be their duty, under sanction of Government to enunciate general principles only, and leave it to the local examination and experience of the assessing officer to suggest such a mode of procedure as to details, as he may see best adapted to the circumstances of the case. Detailed rules that may be applicable to one District may not apply to another, and precise plans that may appear theoretically correct may on trial be found practically impossible. The size for "survey" or "revenue" field, the gradations of soil, the variety of classes, the mode of estimating the price of grain, the separation of the single from the double crop rates, and numberless other questions that are sure to occur as soon as a commencement is made of this great work, will no doubt be duly considered and reported on by the assessment officer, and it would be most inexpedient to attempt to lay down defined rules beforehand for his guidance, especially as the Board presume the duty will be committed to one whose judgment can be relied upon.

(A true Extract.)

(Signed) J. D. SIM, *Acting Secretary.*

No. 11. Extract from the Proceedings of the Board of Revenue; dated 1st August 1857, No. 2585.

Read Extract Minutes of Consultation dated 25th July 1857, Revenue Department.

(Here enter No. 741.)

The first point which occurs to the Board in reference to the above letter forwarded to them by Government "for consideration," is the view Major Thuillier seems to have taken of their objection to connecting the proposed Revenue Survey with the Grand Trigonometrical. Every person of ordinary education and intelligence, must recognize the value of an accurate and detailed Topographical map of the country, but that was *not the question* before the Board when framing their letter of 27th February 1854. All they required, and all they considered themselves justified in asking for, was such amount of professional accuracy as would place before them in a correct and tangible form the details necessary to enable them *at once* to commence upon the long desired revision of the land assessment. In paras. 23, 24, 25 Major Thuillier seems to think the Board despised the aid of what was already recorded of Colonel Lambton's operations; but in stating that Captain Priestley's survey required "no such aid" the Board said nothing more than what the Tithe Commission and Inclosure Act Office in England say when they accept and *seal*, as *correct*, the maps of thousands of Parishes prepared without any reference whatever to the stations of the Trigonometrical survey of Great Britain. The Board required certain information for fiscal purposes, and wanted it soon; they therefore limited themselves to a scheme which could at once be put into operation, the materials being at hand, and which has been found to satisfy all fiscal requirements. If the nature of the operations is to be so extended as to produce a valuable Topographical map of the country, and the Government are willing to incur the extra expense, the Board can of course not offer the slightest objection as long as the more rigorous process does not delay the preparation of the village and field maps. That they have ground for supposing that these operations must entail extra expense and delay, they need only refer to Chapters VI. and VII. Part. V. of the "Manual of Surveying," and to para. 30 of Major Thuillier's letter, which states that; "Not only must the whole work "be based on the *true* meridian, carefully established for the initial Azimuth, as derived from "Astronomical observations, but such true meridian must again be frequently checked by cor-"responding Astronomical observations, and the Azimuth as conveyed through the angular work "from Circuit to Circuit, constantly tested." Again, in para. 31 "if any thing beyond the isolated "village plan is expected, a rigorous prosecution of the professional part of the work must be "adopted." The Board of Revenue cannot be supposed to possess much knowledge of Geodetical operations, but it is evident that the plan now proposed requires a higher class of professional agency than that which has hitherto been employed, and the estimate submitted by the Board, on which was based that in Extract Minutes of Consultation 14th August 1855 will probably have to be revised accordingly and submitted again for sanction to the Court of Directors. Major Thuillier however states (para. 21) that "the utmost facilities exist for connecting the present "operations with the old points"* and if so the delay which the Board anticipated, and still strongly deprecate, will be avoided. Rajahmundry from the necessity of the case, will probably be the first District to be surveyed under the sanction lately received, and it remains to be seen how far the facilities mentioned by Major Thuillier will permit an early commencement and completion of the survey.

* *i. e. those of Collector Lambton's Triangulation.*

2. Major Thuillier (para. 7) correctly describes the nature of the survey which the Board recommended as sufficient for *their* purposes. "A scientific Khusrah or superior land—measure-"ment of fields, somewhat on the principle of the Bombay Revenue survey, only with the village "boundaries laid down by theodolite, professionally, in addition." If in the course of the work, the professional officer in charge could have recommended some simple means of so tying the village circuits as to *combine* them into a Topographical Map, the Board would have been still better satisfied, but they did not consider that a failure to do this would at all vitiate the value of the work for the purpose for which it was solely originated, namely a revision of a ryotwar assessment.

It is not as if Madras possessed no good Topographical Maps. Every District has been surveyed on a scale of 1 inch to a mile* (Rajahmundry was so surveyed by Captain Snell in 1824), which is the largest scale of the Topographical Maps recommended by Major Thuillier (para. 38 of letter, and pages 201, 467, 468 of Manual 2d Ed.)

* *The originals were sent to the Surveyor General's Office in Calcutta some years ago, and reduced copies are those now used in Madras.*

3. In para. 20 of his letter, Major Thuillier notices an apparent discrepancy in the letter of the Board under date February 27th, 1854. He supposes them to say in one place that the average size of the fields is ½ an acre, whereas in another place they estimate the size at nearly 2½. It will be observed that in para. 23 of the Proceedings referred to, the Board mention the ½ acre fields in connection with "the villages hitherto surveyed by Captain Priestley," but it was proposed to group very small fields into one, and the Board of course were aware that in other parts of the country especially in the Northern Circars, the fields are much larger; they therefore in paras. 72 and 73 when speaking of the whole Presidency assumed about 2½ acres. The actual experience of Captain Priestley as to the extent of land that his people will survey in a given time has fallen short† of what the Board still anticipate (if the same system is continued) when "the work is in full operation" (vide para. 74 of letter of 27th February 1854). The survey has not yet been in full operation. For month after month it has been a matter of doubt if its existence would be permitted; great reserve has been therefore exercised in applying for instruments (of which the supply is very indifferent) and other appurtenances which might have accelerated the work, and which no doubt will be sanctioned now that the full scheme is definitively decided on. Even the subordinates looked on the duty as one of a temporary nature, and lost no opportunity as soon as the experience gained under Captain Priestley qualified them, of transferring their services to the permanent and well paid "Department of Public Works." Add to this the circumstance that the arrangements for marking out village boundaries and settling disputed points were yet in their infancy, and that some misconception arose in consequence of a requisition by the Collector as to measuring the very smallest fields, (which added to the labor,) and Government will probably be satisfied that the operations have not as yet been on that scale as to permit of an unqualified determination as to the capabilities of the system. This has apparently been admitted in the Extract Minutes Consultation above referred to marginally.

† *Vide Ex. Mins. Cons. 4th July 1857, No. 676 Revenue Department. The average has been 450 square miles, and 37 acres a day. But then this has been in a well cultivated country, where there is very little waste land, and the average area of the fields 1 acre. The cost 83¾ Rupees per square mile. The Govt. in Ex. Mins. Con. 14th Aug. 1855, estimated 64 Rupees.*

4. With regard to the distinction of duty to be observed between the professional and the Revenue officers, the Board quite concur with the views of Major Thuillier as expressed in paras. 41 et seq. of his letter. Provision should be made for the complete demarcation and adjustment of boundaries by the Revenue Department, before the Survey officer commences his operations, and when the field map of a village is complete, the Revenue establishment will commence their duties of classification and valuation. Any survey of either boundaries, or interior detail, if left to a Department which has no professional knowledge can never be better than a sketch, and in the opinion of the Board, a *shew* of accuracy where accuracy does not exist, is likely to be more mischievous than useful. Of course a mere outline or "Thakbust" map does not pretend to accuracy, and is therefore useful as a *guide*.

5. In paras. 47 and 48, Major Thuillier refers to the subject of permanent field marks, and the Board have always urged their importance. It was with this view that they obtained the Legislative Enactment XX. of 1855 which they trust will meet all the requirements adverted to by Major Thuillier. The practicability of enforcing all the details must be left in a great measure to the officer in charge of the survey.

6. In para. 44 of his letter, Major Thuillier considers there would be no difficulty in the Superintendent supervising more than 4 "parties," and mentions that he himself has the superintendence of 14. But it is to be remembered that Captain Priestley is a *personal* Superintendent, involving a close daily inspection of the work of his subordinates, and much labour of

computation on his own hands, besides giving general directions. This is very different from the kind of superintendence exercised by the Deputy Surveyor General of India whose duties keep him to Calcutta from one end of the year to the other, but who can still superintend survey parties in the Punjaub and Sind. To do this requires an Establishment on a scale far beyond what the Board contemplate for the Madras Revenue Survey.

7. In conclusion, the Board would express their hope that the more rigorous method of procedure apparently required in order to connect the Revenue and Trigonometrical Survey will not stand in the way of the employment of Captain Priestley's services. They think it but due to him to record their sense of the services hitherto, commencing as he did with very inferior materials, and by dint of perseverance and energy organizing a system which is now fully sufficient for all fiscal purposes. He has shewn every readiness to adopt his operations to meet the wishes of the Revenue authorities, and his proceedings have given great satisfaction.

(A true Extract.)

(Signed) J. D. SIM, *Acting Secretary.*

No. 12. ORDER THEREON No. 815; dated 14th August 1857.

The Right Honorable the Governor in Council resolves to forward for the consideration of Mr. Newill, the officer recently appointed Superintendent of settlement for the General survey, copies of the Proceedings of the Board of Revenue above recorded, and of the papers noted in the margin, relating to the proposed survey and assessment of the lands of this Presidency. The Governor in Council will not add any remarks on the present occasion, further than to express his opinion, that the survey should decidedly be a perfect one, and should be connected with the grand triangulation, the stations of which as marked by Colonel Lambton are understood to be very generally recognizable. Major Thuillier, it is observed from para. 21 of his letter to the Government of India dated 6th May last No. 13, apprehends no difficulty in the matter.

Extract Minutes Consultation	14th August	1855,	No.	951.
To Honorable Court of Directors	11th October	,,	,,	44.
From Government of India	16th October	1856,	,,	1396.
From Honorable Court of Directors	17th Decr.	,,	,,	17.
Extract Minutes Consultation	22d April	1857,	,,	372.
From Government of India with enclosures and Maps.	5th June	,,	,,	810.

(Signed) H. FORBES,
Acting Secretary to Government.

REVENUE DEPARTMENT.

No. 815.

Extract from the Minutes of Consultation under date the 14th August 1857.

Read the following papers,

Extracts from the Proceedings of the Board of Revenue.

Submitting observations on certain paras. of the Honorable Court's Despatch dated 17th December 1856, relating to the proposed scheme of a revised survey and assessment for the Madras Presidency.	(Here enter 15th July 1857, No. 2400.)
Submitting observations with reference to the remarks of Major Thuillier conveyed in Extract Minutes Consultation of 25th July 1857, relative to the projected survey of the Madras Presidency.	(Here enter 1st August 1857, No. 2585.)

The Right Honorable the Governor in Council resolves to forward for the consideration of Mr. Newill, the officer recently appointed Superintendent of settlement for the General survey, copies of the Proceedings of the Board of Revenue above recorded, and of the papers noted in the margin, relating to the proposed survey and assessment of the lands of this Presidency. The Governor in Council will not add any remarks on the present occasion, further than to express his opinion, that the survey should decidedly be a perfect one, and should be connected with the grand triangulation, the stations of which as marked by Colonel Lambton are understood to be very generally recognizable. Major Thuillier, it is observed from para. 21 of his letter to the Government of India dated 6th May last No. 13, apprehends no difficulty in the matter.

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Extract Minutes Consultation	22d April	1857,	,,	372.
From Government of India with enclosures and Maps.	5th June	,,	,,	810.

(A true Extract.)

Acting Secretary to Government.

Revenue Department.

No. 2400.

Extract from the Proceedings of the Board of Revenue, dated 15 July, 1857.

Read Extract from the Minutes of Consultation, dated 22d April 1857 Revenue Department.

(Mem. Enter No. 372.)

In the Extract Minutes of Consultation of 22d April 1857, the Government direct the attention of the Board of Revenue to certain paras of the Honorable Court's Despatch of 17th December 1856 on the proposed scheme of a revised Survey and Assessment for the Madras Presidency, in order to their considering the subjects discussed in certain paras, in connection with a Minute by the Honorable Mr Grant.

2 The Paras of the Despatch to which Government seem to refer, are the following:

3 1. Para. 13. The Court suggest a Water rate on all irrigated land, independent of the assessment

assessment as unirrigated in lieu of the present (and proposed) plan of classifying and assessing lands as either "Irrigated" or "un-irrigated."

II. Paras: 18. 20. The Court object to assessment founded on a per-centage of the Gross produce.

III. Paras: 21. 22. The Court object to a periodical revision of the assessment with reference to fluctuations in the price of grain, and consider that it should be fixed for 30 years.

IV. Paras: 23. 27. The Court, with reference to the vast number of minute holdings by individual ryots, suggest the introduction of the Bombay System of "Survey Fields" whereby several adjacent occupiers of small fields are considered to be part of one large field.

V. Paras: 28. 29. 30. The Court desire that the previous instructions regarding "Meerassee" tenure be not departed from.

VI. Paras: 31. 34. The Court object to the plan for leasing "permanent occupancy" by allowing a reduction of assessment to ryots agreeing to take up large holdings for a term of years.

VII. Paras: 44. The Court consider that the suggestions in the Honble Mr Grant's minute, referring

referring to the system of assessment as Calicut should receive careful consideration.

The Board will now, in pursuance of the wish of Government, proceed to offer their observations as briefly as the subject will admit, on the above points. They would however in the first place beg the consideration of Government to the fact that questions of this nature have been for many years constantly brought before Government and the chief Revenue Officers, without the possibility of their being decided in a manner that shall not admit of further discussion. What may be the opinion of the Government or of the Board of Revenue one year may be quite at variance with the views expressed by the same authorities another year, in consequence of those changes in office which cause different opinions to be in fact the opinions of individuals, while in matters of this kind will seldom be unanimous. Even among the most experienced and careful this great contrariety exists, for proof of which the Board need only refer to the minutes, and the different letters printed with the Extract Minutes

Consultation

Consultation of the August 1865. It is there-
fore with deference that the Board of
Revenue as at present constituted submit
their views on the points so discussed
and if they should appear to have
neglected the consideration of any disputed
point, it is because they desire to present
to Government only such views as they
can generally agree upon, without extending
their Proceedings by discussion on those
few details in which they are not agreed
and which after all had in their unanimous
opinion better be left to the Officer whom
the Government shall think fit to entrust
with the sole management of the important
duty of revising the Survey and Assessment
of the Presidency.

With reference to para 3
of these Proceedings it will be seen that
the first question is in regard to the Water-
rate. The Court consider it worthy of con-
sideration whether the distinctive classi-
fication of lands according as they are
or are not capable of irrigation from a
Government source should not be abolished
and all land classified simply with
reference to its soil and its productiveness
without irrigation, a Water-rate being charged
when Government water is used. The Court
observe that this practice prevails in
the N.W. Provinces, and that the Madras
Government have expressed an opinion
that it might be done without inconvenience.

The Board as far as their
judgment and experience go, are unable
to concur in the opinion that the plan
adverted to by the Court could be adopted
without inconvenience, and they consider
the present system so well known and
assented to by the Ryots to be the best.
The case of the N.W. Provinces is very
different from Madras. There the assess-
ment is fixed on the whole village with
reference chiefly to what it had usually
paid before. A new and most comprehen-
sive system of irrigation by Canals was
then commencing and the mode of sup-
plying water in all its details was en-
trusted to the Engineer Department who
in consequence of the mechanical arrange-
ments they were able to make could tell
how many cubic feet were supplied to
each

each village. In this Presidency we have to make an undeviating assessment on each field, and even under such a perfect system of irrigation as has been opened out in the N.W. Provinces, we doubt if the Officers of Government could register the water supplied to each field. Much greater would be the difficulty in a country the irrigation of which depends on numberless small tanks, the supply of water from which is exceedingly variable and uncertain. It is possible that in some localities such as the channels supplied by the Colaroon and Godavery annicuts a uniform water rate per acre (without reference to the cubic feet supplied) might be introduced, but even then it would necessitate constant interference of the petty revenue officers who would have to be always on inspection to see what fields had taken water, for under the system proposed by the Court the Board presume that the water rate would not be levied unless water were actually taken from the Government source. Again where a village

IID 4

village is assessed on gross as in the N.W. Provinces, and a complete Hydraulic system exists it is easy to fix a sum to be paid extra for the supply of so many thousand cubic feet of water; but in a Presidency for which settlement each field would have to be assessed first as an unirrigated field, and then an uniform water rate, even if no notice was taken of the quantity of water used, would often press unfairly, and vitiate all the labour of the primary assessment. It would constantly happen that lands in different classes, and therefore bearing different rates of primary assessment would produce much about the same when irrigated. It does not at all follow that a field of an inferior class of soil would retain that inferiority with regard to another, when both were irrigated. To carry out the principle therefore of equable assessment under all circumstances it would be necessary to assess every field twice over, once with reference to its class as unirrigated land, and secondly with reference to its

relative

relative capability when irrigated* in order that with the water rate added (irrespective of the quantity of water used) it might be on a par with other lands inferior to it when unirrigated but equal or superior when irrigated. The Board consider a thirtieth assessment sufficiently laborious and liable to error, without further complicating the process; nor do they comprehend what advantage is to be gained by a water rate in the sense it appears to be used in the N.W. Provinces, and by the Court of Directors, unless the Hydraulic arrangements are such, that the quantity of water supplied to each field can be ascertained. The term water rate, has been applied in Madras to denote the extra assessment levied on lands originally assessed at a low rate as unirrigated, but which occasionally are able to take advantage of water from a Government source. A water rate in this sense appears reasonable, but when lands are constantly irrigated the Board foresee a short series of rates on "Irrigated land" as distinct from the series on "Unirrigated land."

The

* When land has never yet been irrigated, it would be mere guess work to fix an assessment with reference to its productive powers in the event of it being irrigated at some future time.

7. The next point to be considered is the observation of the Court on the proposition that 30 per cent of the Gross produce should be the rent or the minimum Government demand. The Court consider this part of the scheme as the most open to objection, and in even is that with the principle that the right of Government is only to a share of the rent. They remark that such a plan would be to favour the most fertile lands which might probably pay much more than 30 per cent of the Gross produce, whilst 30 per cent of the Gross produce of inferior soils would leave the ryot little or no profit at all. They are of opinion that the assessment should be proportioned to the Net and not to the Gross produce, and state that this course was followed in the N.W. Provinces, where the net produce was estimated, and 2/3ds of that taken as the Government share.

8. The Board are not disposed to deny that the views expressed by the Court are correct in theory, but they

at

at the same time believe that to carry them out would not be practicable in a Settlement. In the N.W. Provinces the Settlement officer after discussing the subject with his employés and with the head men, the representatives of the villages, fixed at their discretion what they considered the net rent of the whole village. On what data they went is not explained in any of the printed Reports, but it seems at best to have been but an approximate, and this might be possible in the case of a whole village by itself; but to attempt to estimate the net rent derived from each field must in the Board's opinion be futile. They doubt if there is a more considerable part of Country the average experience of cultivation at so much per acre, and with these data making a percentage reduction from the estimated gross produce, considering the condition of every field or rather of each class of land must be estimated first, as they clear, or else no classification could be

be made. This task is far from easy at the best, but to attempt field by field to estimate the net profit derived from it would be altogether impracticable, especially when it is well known that any ryot when pressed to give a statement of his cultivating expenses, always arrives at the conclusion that he is a loser on every acre. In estimating the relative value of fields, the Board would invest the Settlement officer with very full powers. None but those employed on the spot in personal investigations can presume to lay down detailed and inflexible rules, and it is not to be expected that the assessment eventually fixed on any field will be exactly a proportion either of the Gross or the Net produce, as there is a vast variety of local circumstances to cause variation from what may be taken as the primary data. The Government have already stated that they consider the share of Government should not exceed 50 per Cent of the gross produce, and they expect that this will be about ½ of the Net produce. This should be a sufficient guide

guide for the settlement officer, whether he
makes his original calculations on the
gross or the net. The Board greatly doubt
if the settlement officers of the N. W.
Provinces could have attempted to appor-
tion the 2/3rd net produce on every field,
and from the very earliest periods of history
the ryots of the Carnatic have been
accustomed to, and understand the system
of yielding to Government a certain per
centage of the gross produce, leaving it
to the assessing authority to make this
percentage lighter on the inferior soils;
a plan which in practice would seem
to meet the objections of the Court, that
the better soils would be favoured.

9. The next subject (Paras 3 of
these Proceedings) is that of the term or
period during which the assessment
should remain unaltered. The Court object
to the proposition of Government that
the assessment should be fixed in terms
of so much grain, that converted into
money at the average prices of the last
7 years, and this price to remain fixed
for 7 years, and then revised again: also
that

that the grain estimate be revised every
50 years. The Court prefer that the rates
of assessment should be fixed so low
as to cover all ordinary fluctuations
of price and that those rates should not
in Bombay remain permanent for 30 years.

10. Where the land of a country
is classified field by field with reference
to the amount of staple grain it produces,
and the assessment fixed almost entirely
with reference to those classes, it seems
but reasonable when great fluctuations
occur in the prices on which the assess-
ment is made (i.e. in the value of the
produce) that a corresponding alteration
should be made in the rates of assessment.
The Board however must acknowledge that
there are practical difficulties in the
way which cannot be overcome. In the
first place if a reduction is to be made
when the price of grain falls, an enhance-
ment must be made when the price rises,
and this would cause very great dissatis-
faction among the ryots. It is also to be
remembered that we have not the means
in this Country for ascertaining the real

prices

prices of grain with sufficient accuracy for the important process of revising the assessment periodically. The plan proposed by the Government seems to have been taken from the plan pursued in England under the act for the commutation of tithes, but it was found so difficult to put a grain valuation on each field that by a later act this is not required, and the farmers fix among themselves, for sanction by the Commissioner what each shall pay so as to make up the average total tithe. The Registers no longer show the grain produce of each field, but simply the tithe charge in money when first settled, and this subsequently varies as prices vary from the standard prices originally decided on by Government. It is also to be remembered that the tithe charge is but a small payment in comparison with an Indian land assessment, and it is not a matter of much consequence to know the produce of a field very exactly.

11. It will be in the recollection of Government that both years there was a general demand for reduction of assessment on the plea that prices had fallen to a serious extent since the original assessment was fixed. Though there was no doubt of a great fall in price, it was found almost impossible to frame table various Statements of prices past and present, submitted from the Provinces, and though Government were disposed to make reductions, and did do so on other grounds, yet before it could really be determined what actual prices were, they again rose, and the original ground for complaint disappeared.

12. The Board therefore are inclined to urge the adoption of the plan approved of by the Court, and to make the assessment when once fixed, unalterable for 30 years.

13. It may not here be out of place to notice that a general opinion prevails in England that the Bombay Settlement for 30 years secures a far greater permanency of tenure to the landholder, than the present Ryatwari tenure of Madras. This is altogether an error, for a Madras Ryot is able to retain his

his land in perpetuity without any increase of assessment, as long as he continued to fulfil his engagements.

14. The next subject is that of the evils arising from the present system of minute holdings, and pauper ryots, arising from the practice of equal partition of property among heirs, and the facility given by Government to the acquisition of small plots of land by persons of no capital or means. The Court consider that the rule introduced in Bombay at the time of the new Survey of that Presidency, might, in principle at least, be carried into effect at Madras, and they do not admit the force of the objections made by this Government in para: 25 of the Extract Minutes Consultation of 14 August 1855. The rule in Bombay, the Board believe to be as follows: During the Survey several small fields were clubbed together, and constituted a "Revenue field", without any consideration as to whether the occupiers of these different small fields were different parties or not. In the event of one of the small fields becoming vacant, some one, or all jointly, of the "Revenue field" were obliged to take up the vacant portion, or be ejected from their own. The size of the "Revenue field" was to be not less than 12 acres of unirrigated, or 4 acres of irrigated land.

15. The Board are not in a position to give any opinion as to the extent to which these rules have been carried out in Bombay, or how far they have been the cause of discontent, but with the most anxious desire to introduce a system of large holdings, they cannot see the justice of forcing any man to take up more land than he requires, and they believe that in the Madras Presidency such a rule would give rise to serious opposition. From what the Board have seen of the Bombay village maps it appears that the usual size of the fields were already above that specified as the minimum for a Revenue field, and therefore in practice there may have been little *inconvenience, but in Madras, where there is a much larger extent

*...turns: ...tes that the rule would ...ly in a few ...his District.

extent of irrigated land, comparatively valu-
able, and yet generally split up into
fields of less than an acre, the effect
of an arbitrary rule of the nature above
referred to would be to affect the value
of the land of every respectable ryot.
It is true that the Madras Government
might make the minimum very much
less than in Bombay, but this would
then hardly meet the object in view and
still give rise to constant complaint.

16 As far as the operation
of Surveying is concerned, it may be a
saving of time and expense to survey
and compute the area of a small tract
containing several minute fields, but the
areas of these must still be marked
out though by a rougher process, and
this the Board have already proposed
and Government sanctioned, the minimum
being 7 acres for un irrigated, and 1 acre
for Irrigated. Still the interior subdivisions
are separate fields in a revenue point
of view, and the Board very much
doubt whether as the Law now stands,
if a ryot should sue the Revenue Authorities

for

for compensation, for having ejected him
because he refused to take the land
of a deceased neighbour, they would
not be cast.

17 In the judgment therefore
of the Board, the principle laid down
by Government in para: 26 of the Extract
Minutes Consultation of 14 August 1855
is best adapted to meet the object in
view as regards the Madras Presidency
that "it is better to trust to the indirect
operation of wholesome rules, and an
improved system, than to attempt to
apply any direct remedy." The rules
which the Court propose in the latter
part of para: 26 of their Despatch
of 17 December 1856 will in the opinion
of the Board go far to introduce a
change as regards pauper occupations
without interfering with the rights of existing
occupants. These rules are I. Persons desir-
ous of engaging for fresh land will not
be permitted to take it except in a quantity
comprising not less than a certain area
hereafter to be determined on. II Occupants
of petty holdings when they fall into

To Govt 29 Sept No. 372 Rev Dept

arrear

arrear, shall not be allowed to renew their pattahs. III No ryot desirous of contracting his cultivation shall be allowed to give up so much as would bring his holding within the prescribed limit.

18 The Board are not prepared to state positively what should be the minimum holding, but they would suggest that it be decided with reference to the money amount of the puttah rather than that of the extent of land, and they would in the first instance make the rule as light as possible. At present more than half the puttahs in the Presidency are for sums under Rs 10 a year, and the Board think that in future the object should be to have no puttahs under Rs 10. They think that in the new Survey where tracts of land large [illegible] are [illegible]d, no attempt should be made to re-trace the old boundary marks of small fields, but that new portions should be set out, not less than say 4 acres of unirrigated and 1 acre of Irrigated. This is considerably above the average size of fields in the

Carnatic. No field however large when once defined in the Survey map should be hereafter subdivided, though in making the Survey it would be at the discretion of the Settlement Officer to allow very large fields to be subdivided and mapped accordingly.

19 It will be necessary when the time comes to put into force some of the above rules to define what amounts to a "relinquishment" of land, and the Board think that a ryot who has held a particular field for 3 years consecutively should be allowed to leave it fallow or waste for a 4th year without liability for Revenue.

20. With reference to the discussions on this subject, the Board would remark that it is not so much the small size of the fields, as the small amount of the puttahs that complicate and enfeeble a Ryotwar system of Revenue. No doubt as far as regards the mechanical operation of Surveying, the minute separate plots of land give rise to great loss of time, labour, and money, but if a ryot holds

holds 50 different fields of ½ acre each and pays 40 Rs a year to Government, there is not much object (as regards the revenue operation) in altering the size of those fields.* If the Bombay rule were carried into effect it might so happen that a Ryot holding a dozen small fields in different parts of the village, might find himself fettered by as many coparcenary obligations, each of his separate fields being perhaps included as a portion of a "Survey field". The grouping together of small fields into a "Survey field" (which means nothing more than that the size of the whole is accurately determined, but its component small subdivisions more roughly) would not affect such a Ryot's tenure at all.

* In the District of Malabar the separate holdings or gardens are very small, yet still the occupant of one of them is in a responsible position as regards and [illegible] on account of their value

21. The Board are also of opinion that a maximum as well as a minimum should be fixed for a "Survey field", as if fields are set out of a very large size it is a hindrance to a careful extension of cultivation.

22. In paras 28, 29, 30 of the Despatch the Court observe that the Government

Government appear to deal with the subject of Meerassee in a manner at variance with the practice which has hitherto prevailed. The Court were no doubt under the impression that in the new Scheme for Survey and Assessment, the Government intended to acknowledge the claims of the so called Meerassidars in Districts where since our acquisition of the Country their rights have been merely nominal, and to give up to them the disposal of the waste land in their villages. The Government certainly speak in para 27 of the Extract Minutes Consultation of the August 1855 of "individuals and classes exclusively entitled by the ancient custom of the country to the occupation of the soil, and look for the time when the rightful holders will occupy it themselves, subletting it, or part of it, and no longer quietly submitting to its being given away to those who have no rightful interest in it." The views of Government regarding Meerassee were also so interpreted by the Board, in reference to other correspondence, and they have fully

fully recorded their opinions in their Proceed-ings of the 4th May 1856, which the Govern-ment took into consideration in the Extract Minutes Consultation of 23rd January 1857. The Board are still disposed to adhere to the views of Sir T. Munro (in his minute of 31st December 1824) regarding Meerassee in preference to those of Mr Ellis, and they cannot but think they had reason to apprehend an undue extension of what are supposed to be meerassee villages, when the Government in Extract Minutes Consultation of 5th March 1856 objected to the usual and well known system of reserving Durkhausts for waste lands, and condemning it as an interference, desired that the villagers should be left to make their own arrangements as to the disposal of the waste. It was also the deliberate opinion of the Advocate General (Board's Proceedings 29th April 1856 No 174) that the Government had officially declared their adherence to Mr Ellis' views on Meerassee, and that in any question before the Supreme Court they could not attempt to resist a so

called

called Meerassidar who surreptitiously obtained possession of waste land. The Board trust that as regards the Province the question is now so far set at rest by the decision of the Court of Directors as to guide the Revenue Officers, and that when the old residents of a Village whether they call themselves Meerassidars or not, decline to cultivate (or else pay for) waste land, the usual pattahs may be given to Durkhastdars without forcing them to become sub-tenants of the old Residents, and that the influence which the so called Meerassidars have hitherto exercised in keeping much land out of the occupation of others though not occupying it themselves, may be put an end to.

23. The next subject for considera-tion is that of adopting measures to in-troduce a more permanent occupancy of the land. The Government propose to make all the present Pattahs permanent for so long as the ryot shall not desire to contract or increase his holding, and to allow Ryots who are willing to take up holdings of considerable size to compound

for

for a term of years at a lower rate than the Standard, regulated by certain fixed rules as to deductions for waste, for fallow, for bad seasons, &c. The Government also propose that where villages are still held in Shares by Meerassidars (though nominally ryotwar) that these shares be fixed, and village rent be made for a term of years.

24. The Court do not notice the last proposition, but object to the second, on the ground that if the assessment is made moderately low, and of course with reference to an average of good and bad seasons, there seems no necessity for lowering it still further to induce ryots to cultivate, and they apprehend that such a permanent [?] as an abatement would lead ryots to enter on these fixed engagements, and keep to them only so long as seasons were favorable. In these views the Board concur, and though they would wish to see an increase of large holdings, they would prefer to look for them as the result of moderate assessments and of a gradual increase

increase of agricultural prosperity, than as the sudden effects of an artificial stimulus. It would also be next to impossible to draw up defined rules as to waste, fallow, bad seasons, &c. in such a manner as to meet all exigencies.

25. The Board observe that the Court approve of the Puttah being permanent, though perhaps the term permanent expresses too much. Hitherto the Puttah has been merely a bill made out at the end of the season of the Revenue demand upon the Ryot, charging him with what land he has agreed to take up at the commencement of the season, and deducting for land unavoidably left waste, for land washed away, sometimes for withered crops, and other difficulties he has had to contend with, and adding where he has made use of Government water for irrigation on land not assessed with the water tax. This account is presented to each ryot in attendance at the yearly settlement, and any objections he may have to make are investigated. In very many cases the

the ryot is content to receive his Puttah
as it stands, and year after year cultivates
the same land, on the same terms. It has
been the wish of the Board of Revenue
(and the Government have authorized it)
that in these cases the attendance of
the Ryot may be dispensed with, and
the Puttahs simply endorsed year after
year. It is therefore so far permanent;
but if the ryot wishes to extend his
holding he may do so under a system of
settlement, and the reassessment in the
land given up, or deducted, also if he
claims and obtains some alteration
in the puttah on the ground of remission
in exceptional cases, the puttah is altered.
In this sense therefore the puttah is
not permanent, and to make it so
would be actually a hardship to the
ryot, instead of a benefit. As the Ryot-
wary system is open to the objection
of interference with the people, it is
in this case an interference much more
for the convenience of the ryot than that
of the Revenue authorities, as would soon
be apparent if a Puttah were in the full
sense

sense of the word permanent. As the system
now stands a ryot may take as much
or as little land as he likes, and having
a puttah, and paying his dues, he never
can be ejected.

26. With respect to the pro-
position of Government to authorize
village rents with the Meerassidars, or
headmen of the village, the Court offer
no opinion. The general objection on the
part of the Board of Revenue is that
it gives a favored portion of the village
community a power of oppression over
the weak, and is apt to discourage
individual and independent exertion.
Yet in those cases where certain Meeras-
parties have for years actually paid
the village assessment, though the names
of their dependants have been entered
in the joint Rent as a matter of form,
there might be an opening for a village
rent for a term of years which would
be productive of good, but these are
details for consideration which would
be out of place in the present Proceed-
ings.

The

27. The last point for considera-
tion is as regards the suggestions contained in the Hon'ble Mr Grant's Minute as regards the agency through which the Government demand upon the ryots is to be realized. Mr Grant proposes that the villagers should nominate annually one or more persons through whom their payments should be made, on certain fixed dates, and thus "restrict "the necessity of interference on the "part of the Tahsildar with the private "affairs of the cultivator." The Board cannot but think Mr Grant has been misinformed as to the agency employed in the Madras Presidency. It is not the duty of a Tahsildar and his people to enter villages for the purpose of making collections of Revenue. The fact is that there is in every village a headman, under the name of Potail, Monigar, Muccuddum, &c holding land of his own, who is recognized by Reg IV of 1816 as "the person who collects the Revenue." It is to him that the Ryots pay their instalments when due and he

he remits the money to the Tahsildar's Cutcherry. The Tahsildar does not interfere unless there occurs some special difficulty, or process to be gone through for the recovery of arrears.

28. Mr Grant seems however to consider the Cuttack system as one that affords security against the interference and extortion of the native revenue officers, and suggests its introduction in the Northern Circars. This system as explained by the Hon'ble Mr Elliot in his minute appended to the Extract Minutes Consultation of 14 August 1855 is shortly as follows. The assessment is fixed on the fields, and the settlement is called Ryotwar. Each ryot receives a Puttah for 25 or 30 years* and the realization of the whole village Revenue is committed to 4 or 5 Headmen (or rather what corresponds to the Carnatic Curnum) called Surberakar, who engage to make good the whole revenue of the village on receiving a Commission of 15 or 20 per cent. They are also allowed to avail themselves of whatever profit they can make out

* It is not stated if the ryot is bound to pay the whole amount of his puttah even should he be unable to cultivate the land described in it.

out of the waste lands.

29. It appears to the Board that these Surveyors of Cuttack are not merely an agency for Collection of revenue, but to all intents and purposes, renters of the villages, and it will be for future consideration on the spot whether the customs and usages of the Northern Circars are adapted to this mode of Settlement. The Board do not suppose it is intended to introduce the system generally. Some Chief of the kind was tried formerly in the Triennial and Decennial Leases, but was a failure in the Carnatic and Ceded Districts.

30. The different subjects to which the Government have drawn attention having now been discussed it only remains for the Board to observe that in the proposed scheme for a revised survey and assessment, they are most unwilling to hamper the Officer who shall be placed in charge of that important work with restrictive details. It will be their duty under sanction of Government to enunciate general principles

principles only, and leave it to the local examination and experience of the assessing Officer to suggest such a mode of procedure as to details, as he may see best adapted to the circumstances of the case. Detailed rules that may be applicable to one District may not apply to another, and precise plans that may appear theoretically correct may on trial be found practically impossible. The size of Farms, "a revenue field," the gradations of Soil, the variety of Classes, the mode of estimating the price of grain, the separation of the single from the double crop rates, and numberless other questions that are sure to occur as soon as a commencement is made of this great work, will no doubt be duly considered and reported on by the Assessment Officer, and it would be most inexpedient to attempt to lay down defined rules beforehand for his guidance, especially as the Board presume the duty will be committed to one whose judgment

can

can be relied upon

(A true Extract)

J. F. Lucas

Actg. Secretary

To
H. Forbes Esqr.
Actg. Secretary to Government
Revenue Department

x'd D. Gils

R – Cons: 14 August 1855 No. 19-29
" " 28th April / 57 " 7 – to 11
" " 27th Janry / do. Do. 29 – 30
" " 11 March – 56 " 36-37 –

319 – 71

Revenue 1857 Departt.
Do. to Cons 18th Augt.

No. 813

Extract from the Proceedings of the Board of Revenue

Dated 15th July 1857

Recd. 17 Do. "

S. E. Cr. 815
14 Augt.
No. 2400

Submitting observations on certain parts of the Honorable Courts' Despatch dated 17th December 1856 relating to the proposed scheme of a revised survey and assessment for the Madras Presidency

Copy to Mr. Lewith
14 Aug / 57 –
No. 815

No. 10.

cyd Augt. R 11

260 [illegible]

Revenue Department.

No 2585

Extract from the Proceedings of the Board of Revenue dated 1st August 1857

Read Extract Minutes of Consultation dated 25th July 1857 Revenue Department

(Here Enter No 741)

The first point which occurs to the Board in reference to the above letter forwarded to them by Government for consideration, is the new Major Scullen seems to have taken of the objection to connecting the proposed Revenue Survey with the Grand Trigonometrical. Every person of ordinary education and intelligence, must recognise the value of an accurate and detailed Topographical map of the Country; but that was not the question before the Board when framing their letter of 27th March 1856. All they required and all they considered themselves qualified in asking for, was such amount of professional accuracy as would place before them in a correct and tangible form the details necessary

to

to enable them at once to commence upon
the long desired revision of the Land
Assessment. In paras 23. 24. 25 Major
Thuillier seems to think the Board despised
the aid of what was already recorded of
Colonel Lambton's operations, but in stating
that Captain Priestley's survey required "no
such aid" the Board said nothing more
than what the Tithe Commission and
Inclosure Act Office in England say when
they accept and seal as correct the maps
of thousands of Parishes prepared without
any reference whatever to the Stations of
the Trigonometrical Survey of Great Britain.
The Board required certain information
for fiscal purposes, and wanted it soon;
they therefore limited themselves to a
scheme which could at once be put into
operation, the materials being at hand
and which has been found to satisfy
all fiscal requirements. If the nature
of the operations is to be extended as
to produce a valuable Topographical map
of the Country, and the Government are
willing to incur the extra expense, the
Board can of course not offer the slightest
objection

objection as long as the more rigorous process
does not delay the preparation of the
Village and Field maps. That they have
ground for supposing that these operations
must entail extra expence and delay,
they need only refer to Chapters VI and VII
Part V of the "Manual of Surveying", and
to para 30 of Major Thuillier's letter- which
states that "Not only must the whole work
"be based on the True meridian, carefully
"established for the initial azimuth, as
"derived from astronomical observations, but
"such true Meridian must again be fre-
"quently checked by corresponding astrono-
"mical observations, and the azimuth as
"conveyed through the angular work from
"Circuit to Circuit, constantly tested." again
in para 31 "If any thing beyond the detailed
"Village plan is expected, a rigorous process
"sion of the Professional part of the work
"must be adopted." The Board of Revenue
cannot be supposed to possess much
knowledge of Geodetical operations, but it
is evident that the plan now proposed
requires a higher class of Professional
agency than that which has hitherto
been

...ven employed, and the Estimate submitted
...the Board, on which was based that
... Extract Minutes of Consultation 16th
... August 1855 will probably have to be
...vised accordingly and submitted again
...r sanction to the Court of Directors.
... Major Thuillier however states (para 21)
...hat "the utmost facilities exist for con-
...ecting the present observations with the
...old "Points"* and if so the delay which
...the Board anticipated, and still strongly
...deprecate, will be avoided. Rajahmundry
...from the necessity of the case, will proba-
...bly be the first District to be surveyed
...under the sanction lately received, and
...it remains to be seen how far the facilities
...mentioned by Major Thuillier will permit
...an early commencement and completion
...of the Survey.

2.

Major Thuillier (para 7) correctly describes the nature of the Survey which the Board recommended as sufficient for their purposes. "A scientific Khusrah "or superior Land measurement of Fields, "somewhat on the principle of the Bombay "Revenue Survey, only with the Village Boundaries

* vide those of Col Lambton's Triangulation.

The originals were sent to the Surveyor General's Office in Calcutta some years ago, and reduced Copies are those now used in Madras.

"Boundaries laid down by the Cadastre, pro-
"fessionally, in addition." If in the course
of the work, the Professional Officer
in charge could have recommended some
simple means of so tying the Village
Circuits as to combine them into a
Topographical Map, the Board would
have been still better satisfied, but they
did not consider that a failure to do
this would at all vitiate the value of
the work for the purpose for which it
was solely originated, namely a revision
of Ryotwar assessment. It is not as if
Madras possessed no good Topographical
Maps. Every District has been surveyed
on a Scale of 1 inch to a mile* (Rajah-
mundry was so surveyed by Captain Snell
in 1856), which is the largest Scale of
the Topographical Maps recommended
by Major Thuillier (para 38 of letter, and
pages 201, 267, 268 of Manual 2nd Ed.)

3.

In para 20 of this letter,
Major Thuillier notices an apparent dis-
crepancy in the letter of the Board
under date February 27th 1856. He supposes
them to say in one place that the

average

verage size of the fields is ½ an acre, where-
s in another place they estimate the size
t nearly 2½. It will be observed that
 para 43 of the Proceedings referred to,
he Board mention the ½ acre fields in
onnection with "the villages hitherto
surveyed by Captain Priestley," but it
as proposed to group very small fields
nto one, and the Board of course were
aware that in other parts of the country
specially in the Northern Circars, the
fields are much larger; they therefore
 paras 42 and 43 when speaking of the
whole Presidency assumed about 2½ acres.
The actual experience of Captain Priestley
s to the extent of land that his people
will survey in a given time has fallen
short* of what the Board still anticipate
(if the same system is continued) when
the work is in full operation" (vide para
44 of letter of 24th February 1854). The
Survey has not yet been in full operation.
For month after month it has been a
matter of doubt if its existence would
be permitted; great reserve has been
therefore exercised in applying for instruments
(of

* Vide Ex: Mins Cons 4 July 1857 No 696 Rev Dept. The average has been 450 Square Miles and 37 acres a day. But then this has been in a well cultivated Country where there is very little waste land and the average area of the fields 1 acre. The cost 83 per Re per Square Mile. The Govt in Ex: Mins Cons 14th August 1855 estimated 64 Rs.

(of which the supply is very indifferent)
and other appurtenances which might
have accelerated the work, and which
no doubt will be sanctioned now that
the full scheme is definitively decided
on. Even the subordinates looked on the
duty as one of a temporary nature,
and lost no opportunity as soon as the
experience gained under Captain Priestley
qualified them, of transferring their
services to the permanent and well paid
"Department of Public Works." Add to
this the circumstance that the arrange-
ments for marking out village boundaries
and settling disputed points were yet
in their infancy, and that some mis-
conception arose in consequence of a
requisition by the Collector as to mea-
suring the very smallest fields, (which
added to the labour) and Government
will probably be satisfied that the
operations have not as yet been on that
scale as to permit of an unqualified
determination as to the capabilities
of the system. This has apparently
been admitted in the Extract Minutes
Consultation

Consultation above referred to marginally.

4. With regard to the distinction of duty to be observed between the Professional and the Revenue Officers, the Board quite concur with the views of Major Thuillier as expressed in para 44 et seq. of his letter. Provision should be made for the complete demarcation and adjustment of boundaries by the Revenue Department, before the Survey Officer commences his operations, and when the Field Maps of a Village is complete, the Revenue Establishment will commence their duties of classification and valuation. Any survey of either boundaries, or interior detail, if left to a Department which has no professional knowledge can never be better than a sketch, and in the opinion of the Board, a show of accuracy, where accuracy does not exist, is likely to be more mischievous than useful. Of course a mere outline or "Thākhust" map does not pretend to accuracy, and is therefore useful as a guide.

In

5. In paras 47 and 48 Major Thuillier refers to the subject of permanent Field marks, and the Board have always urged their importance. It was with this view that they obtained the Legislative Enactment XX of 1855 which they trust will meet all the requirements adverted to by Major Thuillier. The practicability of enforcing all the details must be left in a great measure to the Officer in charge of the Survey.

6 In para 46 of his letter Major Thuillier considers there would be no difficulty in the Superintendent superintending more than 6 parties, and mentions that he himself has the superintendence of 10. But it is to be remembered that Captain Priestley is a personal superintendent, involving a close daily inspection of the work of his subordinates, and much labour of computation on his own hands, besides giving general direction. This is very different from the kind of superintendence exercised by the Deputy Surveyor General of India whose duties keep him to Calcutta from one end of the

the year to the other, but who can still superintend Survey parties in the Punjaub and Sind. To do this requires an Establishment on a scale far beyond what the Board contemplate for the Madras Revenue Survey.

7. In conclusion the Board would express their hope that the more rigorous method of procedure apparently required in order to connect the Revenue and Trigonometrical Survey will not stand in the way of the employment of Captain Priestley's services. They think it but due to him to record their sense of the services hitherto, commencing as he did with very inferior materials, and by dint of perseverance and energy organizing a system which is now fully sufficient for all fiscal purposes. He has shewn every readiness to adopt his operations to meet the wishes of the Revenue authorities, and his proceedings have given great satisfaction.

(A true Extract)

J. A. Lin...
ag Secretary

To
H. Forbes Esqr
ag Secretary to Government
Revenue Department.

Ro: Cons. 29 July/57 No 25-26
a 7 July ... 15-16

23-10-22

Revenue 1857 Septr.
No 6 Cons 18th Sept 6

No 875

Extract from the Proceedings of the Board of Revenue.
Dated 3rd August 1857
Recd 5th ...
... No 2585

Submitting observations with reference to the remarks of Major Thuillier conveyed in Extract Minutes of 25th July 1857 relative to the Trigonometrical Survey of the Madras Presidency.

Copy to the Board
14 Aug/57
No 5875

Nil

27 Aug Nil

321 31

Revenue Depart.

No 44 of 1855

To

The Honorable the Court of Directors
of the East India Company

Honorable Sirs,

1 In our letter in this Depart. ment dated 7th March 1846 No 10 para 8, we forwarded to your Honorable Court a copy of a correspondence, and of a report from Mr Walter Elliot, then third member of the Board of Revenue and Commissioner in Guntoor, on the Survey and assessment of the Guntoor Tanah or Talook, which had been undertaken at the commencement of the Survey and assessment of the entire District, and had been completed by him. Viewing the question as one of the first importance not only as regarded the future well being of the Guntoor District, but, if a sound and recognized system

Cons 14th August 1856 No 19 to 29.

was

was introduced, of that of all the Provinces under this Presidency, the Government in Extract Minutes of Consultation 30th August 1845, desired the Board, in Communication with their members or deputation, to give the subject full consideration, and report in detail on all material points comprehended in it, and the measures they would recommend to be followed with respect to each; and at the same time directed their attention to some of the more important points requiring their consideration and report.

*/ 1 Classification and assessment.
2 Scale of classes.
3 The commutation of
4 The best mode of
ring permanent leases
dries.
5 Unauthorized alienation
6 & 7 Nature and extent of
the Survey.
8 and the expenses attend
ing it.

2. The subject was resumed by the Board in their Proceedings of the 26th March 1846, and noticed by Government in Extract Minutes of Consultation 19th May following, Copies of which were forwarded to your Honorable Court with the letter of the 22d June 1847; on which occasion it was intimated, that before laying down a system

System of survey and assessment for general adoption, the Government deemed it necessary in the first instance clearly to ascertain the results and effects of Sir Thos. Munro's ryotwar system in the Ceded Districts.

3 Since the date of those Proceedings, the subject of a General revenue survey and settlement of this Presidency has been under the consideration of this Government; and some valuable and interesting Minutes in connection with it have been recorded during the Government of the Marquis of Tweeddale and Sir Henry Pottinger. We have now the honor to forward Copies of all these documents as well as of Minutes recorded by the Right Honorable the President and the members of the present Government, together with an Extract from the Minutes of Consultation of the 14th August

August 1855, Nº 951, in which the entire question in all its bearings has been reviewed and for the present finally disposed of as far as concerns the Madras Government.

4. This review is so complete in itself, that we need hardly do more than refer your Honorable Court to the details it contains, for a full exposition of our views on the subject, and the means we propose to adopt for carrying them out. It describes the imperative necessity for a revenue survey and settlement of the lands of the Madras provinces, and discusses the general questions which are intimately connected with such operations; such as, the size of fields, the survey of Enam lands, the system of settlement; freedom of occupation, Classification of soils, Valuation of land; the proportion which the assessment shall bear to the gross produce, the principle on which the produce is to be converted into money, the necessity for establishing grain markets as a means of obtaining correct data of prices of grain, the mode of remedying the evil under the ryotwar settlement, of small holdings and pauper ryots, and the advantage of giving ryots a more permanent tenure of their lands.

P 11 5. Your Honorable Court will observe that we propose to adhere generally to the Ryotwar or individual System so long established in this Presidency; and that with the view of giving the ryot a real proprietary interest in the soil, and to induce extended cultivation, we consider that 30 per cent of the gross produce should

P 15 @ 19. under

under the most favorable Conditions
Constitute the maximum of the Govern-
ment demand., Subject to dimmu-
tions according to circumstances, which
would probably bring the average of
the whole to about 25 per cent - of
the gross produce. This proportion is
intended to be that taken for the gene-
ral purposes of the State; but we have
it in Contemplation, besides, to esta-
blish cesses for local objects as in
the north Western Provinces; especially
for the maintenance and improvement
of the District Roads, and for education.

6. The operations of the Survey
and assessment will include all land P. 30
usually cultivated, and all land that
ever has been cultivated within Memory
or according to the Village accounts; and
will also extend to such land not
included in these Classes as may
seem

seem likely in each Village to be brought
under the plough, in the extension of
Cultivation consequent on lighter assess-
ments and a simpler and less annoy-
ing revenue System. But no attempt
will be now made to survey in detail
the Jungle and the utterly unreclaimed
waste

P. 31 & 36 7 The present revenue from
Ryotwar Districts and parts of Districts
amounts to about 347 lacs of Rupees, and
it seems probable that the present actual
assessment takes not less than 30 per
cent - of the produce of irrigated lands
and 25 of unirrigated lands, employed
in both cases in the ordinary manner
of each kind, omitting the effect of
private improvements, and of special
cultivation. The reduction of the demand
to 25 per cent of the ordinary produce,
would, other things remaining the same,
cause

cause a very material loss of revenue; but
it is to be observed that the present
assessments are much higher than they
were originally, owing to a general
and progressive fall in prices subsequent
by to the introduction of the existing
money rates, that they are now admit-
ted to be excessively heavy, and
that they have certainly operated to keep
much land out of cultivation. There is
no doubt that under a moderate ass-
essment a great extension will speed-
ily take place in the occupation of
land, and that frauds will be much
diminished, and that a systematic exami-
nation of the Enams or free holdings
which ought to accompany the survey,
will lead to a material addition to the
Revenue from that source. We feel assur-
ed from these and other Considerations
noticed in P. 31 to 35 of our Proceed-
ings, that the result of the proposed
measures, instead of a falling off, will be
an accession to the revenue; while as
respects the payers and the Public, the
gain will be enormous; the revenue
will be derived from resources double or
treble those upon which it is levied
now, and will be paid with corresponding
ease.

36 to 43 8 We propose to have separate
Agencies for the Survey and for the
assessment - as regards the former, we propose
to have a Surveyor General or Superintend-
ent of the Survey as the head of the De-
partment, with four or more Deputy Sur-
veyors General, at a charge inclusive
of Establishments for each of these offi-
cers of Rupees 180,000. We compute that
with only four Deputy Surveyors General,
the work will occupy twenty two years, and
that its cost will amount to Rupees 38,40,000;

1000
600
2,500
310,900
10,000
180,000

but

but if the scale of the operations is enlarged, the period occupied will be shortened, and the total cost will be diminished.

9 For the assessment and settlement, including the classification and valuation of the lands, we propose to constitute a Superintendent of Settlement, who will be a Revenue Officer of some experience, and who will be aided by Deputies to work under his orders in the actual operations necessary to fixing the assessment and settlement. The salary of the Superintendent, we are of opinion, should not be less than that of a Member of the Board of Revenue, and that of the Deputy Superintendent's Rupees 1,000 a month, and the cost of the work performed by them at 10 Rupees per hundred acres on 38 Million acres is computed at 3800,000 Rupees making the total charge inclusive of Survey operations, Rupees 761,0,000.

10. This is a large sum. But it must be remembered that it will be

P. 43.

Spread

Spread pretty equally over a period of fifteen or twenty years; and that so distributed the yearly charge will amount to no more than from one to one and a half per cent on the present annual revenues from the lands to be subjected to the operations, which including Jody or quit rent on certain Enams, may be taken at 320 lacs.

11. We have submitted our Proceedings on this important subject to the Government of India for their orders, and in recommending to their early and favorable attention the propositions sketched out by us as to the course to be followed, we have solicited their assistance and advice as to the details of the Establishments both for the survey and settlement. And we intend as soon as we are furnished with the information asked for, and with the views of the Supreme Government on the

Enclosure No. 1 of 1857
from Ct of Directors
D/ 11 Oct/55
No 44.

the General propositions, to submit for their sanction more detailed Statements of the Establishments required. Meanwhile, we beg to report our Proceedings for the information and approval of your Honorable Court.

12. For facility of reference we have caused the papers on this subject to be printed, and we now beg to forward ten printed Copies of our Proceedings.

Fort St. George
11th October 1855

We have the honor to be
With the greatest respect
Honorable Sir,
Your faithful humble
Servants

(Signed) " / " / " / " H. C. Montgomery

A true Copy
[signature]
Actg Secy to Govt.

Qu B. 17 Augt./57

3RD

REVENUE DEPARTMENT.

Extract from the Proceedings of the Board of Revenue, dated 15th July 1857, No. 2400.

Read Extract from the Minutes of Consultation dated 22d April 1857, Revenue Department.

(Here enter No. 372.)

In the Extract Minutes Consultation of 22d April 1857, the Government direct the attention of the Board of Revenue to certain paras. of the Honorable Court's despatch of 17th December 1856, on the proposed scheme of a revised survey and assessment for the Madras Presidency, in order to their considering the subjects discussed in certain paras. in connection with a Minute by the Honorable Mr. Grant.

2. The Paras. of the despatch to which Government seem to refer, are the following.

3. I. Para. 13. The Court suggest a *water rate* on all irrigated land, independent of its assessment as unirrigated instead of the present (and proposed) plan of classifying and assessing lands as either "Irrigated" or "Unirrigated."

II. Paras. 15-20. The Court object to an assessment founded on a per centage of the *Gross* produce.

III. Paras. 21-22. The Court object to a periodical revision of the assessment with reference to fluctuations in the price of grain, and consider that it should be fixed for 30 years.

IV. Paras. 23-27. The Court, with reference to the vast number of minute holdings by individual ryots, suggest the introduction of the Bombay system of "Survey fields" whereby several adjacent occupiers of small fields, are considered co-sharers of one large field.

V. Paras. 28, 29, 30. The Court desire that their previous instructions regarding "Meerassee" tenure be not departed from.

VI. Paras. 31-34. The Court object to the plan for securing "permanent occupancy" by allowing a reduction of assessment to ryots agreeing to take up large holdings for a term of years.

VII. Para. 44. The Court consider that the suggestions in the Honorable Mr. Grant's Minute referring to the system of assessment in Cuttack should receive careful consideration.

4. The Board will now, in pursuance of the wish of Government, proceed to offer their observations, as briefly as the subject will admit, on the above points. They would however in the first place beg the consideration of Government to the fact that questions of this nature have been for many years constantly brought before Government and the chief Revenue officers, without the possibility of their being decided in a manner that shall not admit of farther discussion. What may be the opinion of the Government or of the Board of Revenue one year may be quite at variance with the views expressed by the same authorities another year, in consequence of those changes in office which cause official opinions to be in fact the opinion of individuals, who in matters of this kind will seldom be unanimous. Even among the most experienced and careful this great contrariety exists, for proof of which the Board need only refer to the Minutes, and the official letters printed with the Extract Minutes Consultation of 14th August 1855. It is therefore with deference that the Board of Revenue, as at present constituted, submit their views on the points in discussion, and if they should appear to have omitted the consideration of any disputed point, it is because they desire to present to Government only such views as they can generally agree upon, without extending their proceedings by discussion on those few details in which they are not agreed, and which after all had in their unanimous opinion better be left to the officer whom the Government shall think fit to entrust with the sole management of the important duty of revising the survey and assessment of the Presidency.

5. With reference to para. 3 of these Proceedings, it will be seen that the first question is in regard to the *water rate.* The Court consider it worthy of consideration whether the "distinctive classification of lands according as they are or are not capable of irrigation from a Government source, should not be abolished, and all land classified simply with reference to its soil and its productiveness *without irrigation*, a *water rate* being charged when Government water is used." The Court observe that this practice prevails in the N. W. Provinces, and that the Madras Government have expressed an opinion that it might be done without inconvenience.

6. The Board, as far as their judgment and experience go, are unable to concur in the opinion that the plan adverted to by the Court could be adopted without inconvenience, and they

consider the present system so well known and assented to by the ryots to be the best. The case of the N. W. Provinces is very different from Madras. There the assessment is fixed on the whole village with reference chiefly to what it had usually paid before. A new and most comprehensive system of irrigation by canals was then commencing, and the mode of supplying water, in all its details was entrusted to the Engineer Department, who in consequence of the mechanical arrangements they were able to make, could tell how many cubic feet were supplied to each village. In this Presidency we have to make an undeviating assessment on each *field*, and even under such a perfect system of irrigation as has been opened out in the N. W. Provinces, the Board doubt if the officers of Government could register the water supplied to each field. Much greater would be the difficulty in a country the irrigation of which depends on numberless small tanks, the supply of water from which is exceedingly variable and uncertain. It is possible that in some localities such as the channels supplied by the Coleroon and Godavery Annicuts a uniform water rate per acre (without reference to the cubic feet supplied) might be introduced, but even then it would necessitate constant interference of the petty revenue officers who would have to be always on inspection to see what fields had taken water, for under the system proposed by the Court the Board presume that the water rate would not be levied unless water were actually taken from the Government source. Again, where a village is assessed 'en gros' as in the N. W. Provinces, and a complete Hydraulic system exists it is easy to fix a sum to be paid extra for the supply of so many thousand cubic feet of water; but in Kahétwar (or field) settlement each field would have to be assessed first as an unirrigated field; and then an uniform water rate, even if no notice were taken of the *quantity* of water used, would often press unfairly, and vitiate all the labour of the primary assessment. It would constantly happen that lands in different classes, and therefore bearing different rates of primary assessment would produce much about the same when irrigated. It does not at all follow that a field of an inferior class of soil would retain that inferiority with regard to another, when both were irrigated. To carry out the principle therefore of equable assessment under all circumstances, it would be necessary to assess every field twice over; once with reference to its class as unirrigated land, and secondly with reference to its relative capability when irrigated,* in order that with its water rate added (irrespective of the quantity of water used) it might be on a par with other lands inferior to it when unirrigated, but equal or superior when irrigated. The Board consider a khetwar assessment sufficiently laborious and liable to error, without farther complicating the process; nor do they comprehend what advantage is to be gained by a water rate in the sense it appears to be used in the N. W. Provinces, and by the Court of Directors, unless the Hydraulic arrangements are such, that the quantity of water supplied to each field can be ascertained. The term water rate, has been applied in Madras to denote the extra assessment levied on lands originally assessed at a low rate as unirrigated, but which occasionally are able to take advantage of water from a Government source. A water rate in this sense appears reasonable, but where lands are *constantly* irrigated, the Board prefer a short series of rates on "irrigated land" as distinct from the series on "unirrigated land."

* *When land has never yet been irrigated, it would be mere guess work to fix an assessment with reference to its productive powers in the event of its being irrigated at some future time.*

7. The next point to be considered is the observation of the Court on the proposition that 30 per cent. of the *gross* produce should be taken as the maximum Government demand. The Court consider this part of the scheme as the one most open to objection, and inconsistent with the principle that the right of Government is only to a share of the *rent*. They remark that such a plan would be to favor the most fertile lands which might probably pay much more than 30 per cent. of the gross produce, whilst 30 per cent. of the gross produce of inferior soils would leave the ryot little or no profit at all. They are of opinion that the assessment should be proportioned to the *net* and not to the *gross* produce, and state that this course was followed in the N. W. Provinces, where the net produce was estimated, and two-thirds of that taken as the Government share.

8. The Board are not disposed to deny that the views expressed by the Court are correct in theory, but they at the same time believe that to carry them out would not be practicable in a Khétwar settlement. In the N. W. Provinces the settlement officer after discussing the subject with his employés and with the head ryots, the representatives of the villagers, fixed at their discretion what they considered the *net* rent of the whole village. On what data they went is not explained in any of the printed reports, but it seems at best to have been but an approximation, and this might be possible taking a whole village by itself; but to attempt to estimate the net rent derived from each field must in the Board's opinion be futile. They doubt if there is a nearer plan than that of estimating for a considerable tract of country the average expenses of cultivation at so much per acre, and with these data making a per centage reduction from the estimated *gross* produce, considering the remainder as the net produce. That the gross produce of every field or rather of each class of land must be estimated first, is very clear, or else no classification could be made. This task is far from easy at the best, but to attempt field by field to estimate the *net* profit derived from it would be altogether impracticable, especially when it is well known that any ryot when pressed to give a statement of his cultivating expenses, always arrives at the conclusion that he is a loser on every acre. In estimating the relative values of fields, the Board would invest the settlement officer with very full powers. None but those employed on the spot in personal investigations can presume to lay down detailed and inflexible rules, and it is not to be expected that the assessment eventually fixed on any field will be exactly a proportion either of the *gross* or the *net* produce, as there is a vast variety of local circumstances to cause variation from what may be taken as the primary data. The Government have already stated that they consider the share of Government should *not exceed* 30 per cent. of the gross produce, and they expect that this will be about two-thirds of the net produce. This should be a sufficient guide for the settlement officer, whether he makes his original calculations on the gross or the net. The Board greatly doubt if the settlement officers of the N. W. Provinces could have attempted to apportion the two-thirds net produce on *every field*, and from the very earliest periods of history the ryots of the Carnatic have been accustomed to, and understand the system of yielding to Government a certain per centage of the gross produce, leaving it to the assessing authority to make this per centage lighter on the inferior soils; a plan which in practice would seem to meet the objections of the Court, that the better soils would be favoured.

9. The next subject (para. 3 of these Proceedings) is that of the term or period during which the assessment should remain unaltered. The Court object to the proposition of Government that the assessment should be fixed in terms of so much grain, that converted into money at the average prices of the last 7 years, and this price to remain fixed for 7 years, and then revised again: also that the *grain* estimate be revised every 50 years. The Court prefer that the rates of assessment should be fixed so low as to cover all ordinary fluctuations of price and that these rates should as in Bombay remain permanent for 30 years.

10. Where the land of a country is classified field by field with reference to the amount of staple grain it produces, and the assessment fixed almost entirely with reference to those classes, it seems but reasonable when great fluctuations occur in the basis on which the assessment is made (i. e. on the value of the produce) that a corresponding alteration should be made in the rates of assessment. The Board however must acknowledge that there are practical difficulties in the way which cannot be overcome. In the first place if a reduction is to be made when the price of grain falls, an enhancement must be made when the price rises, and this would cause very great dissatisfaction among the ryots. It is also to be remembered that we have not the means in this country for ascertaining the real prices of grain with sufficient accuracy for the important process of revising the assessment periodically. The plan proposed by the Government seems to have been taken from the plan pursued in England under the Act for the commutation of tithes, but it was found so difficult to put a grain valuation on each field that by a later Act this is not required, and the farmers fix among themselves, for sanction by the Commissioner what each shall pay so as to make up the average total tithe. The Registers no longer shew the grain produce of each field, but simply its tithe charge in money when first settled, and this subsequently varies, as prices vary from the standard prices originally decided on by Government. It is also to be remembered that the tithe charge is but a small payment in comparison with an Indian land assessment, and it is not a matter of much consequence to know the produce of a field very exactly.

11. It will be in the recollection of Government that 3 or 4 years ago there was a general demand for reduction of assessment, on the plea that prices had fallen to a serious extent since the original assessment was fixed. Though there was no doubt of a great fall in price, it was found almost impossible to trust to the various statements of prices past and present, submitted from the Provinces, and though Government were disposed to make reductions, and did do so on other grounds, yet before it could really be determined what actual prices were, they again rose, and the original ground for complaint disappeared.

12. The Board therefore are inclined to urge the adoption of the plan approved of by the Court, and to make the assessment when once fixed, unalterable for 30 years.

13. It may not here be out of place to notice that a general opinion prevails in England that the Bombay Settlement for 30 years secures a far greater permanency of tenure to the landholder, than the present ryotwary tenure of Madras. This is altogether an error, for a Madras ryot is able to retain his land in *perpetuity* without any increase of assessment, as long as he continues to fulfil his engagements.

14. The next subject is that of the evils arising from the present system of minute holdings, and pauper ryots, arising from the practice of equal partition of property among heirs, and the facility given by Government to the acquisition of small plots of land by persons of no capital or means. The Court consider that the rule introduced in Bombay at the time of the new Survey of that Presidency, might, in principle at least, be carried into effect at Madras, and they do not admit the force of the objections made by this Government in para. 25 of the Extract Minutes Consultation of 14th August 1855. The rule in Bombay, the Board believe to be as follows: During the Survey several small fields were clubbed together, and constituted a "Revenue field," without any consideration as to whether the occupiers of these small fields were different parties or not. In the event of one of the small fields becoming vacant, some one, or all jointly, of the "Revenue field" were obliged to take up the vacant portion, or be rejected from their own. The size of the "Revenue field" was to be not less than 12 acres of unirrigated, or 4 acres of irrigated land.

15. The Board are not in a position to give any opinion as to the extent to which these rules have been carried out in Bombay, or how far they have been the cause of discontent, but with the most anxious desire to introduce a system of large holdings, they cannot see the justice of forcing any man to take up more land than he requires, and they believe that in the Madras Presidency such a rule would give rise to serious opposition. From what the Board have seen of the Bombay village maps, it appears that the usual size of the fields were already above that specified as the minimum for a revenue field, and therefore in practice there may have been little inconvenience*, but in Madras, where there is a much larger extent of irrigated land, comparatively valuable, and yet generally split up into fields of less than an acre, the effect of an arbitrary rule of the nature above referred to, would be to affect the value of the land of every respectable ryot. It is true that the Madras Government might make the minimum very much less than in Bombay, but this would then hardly meet the object in view, and still give rise to constant complaint.

* *Mr. Commissioner Townshead states that the Bombay rule would only apply in a "few cases" in his district.*

16. As far as the operation of *Surveying* is concerned, it may be a saving of time and expense to survey and compute the area of a small tract, containing several minute fields, but the areas of these must still be marked out, though by a rougher process, and this the Board have already proposed, and Government sanctioned, the minimum being 2 acres for unirrigated, and 1 acre for irrigated. Still the interior sub-divisions are separate fields in a revenue point of view, and the Board very much doubt whether as the law now stands, if a ryot should sue the Revenue authorities for compensation, for having ejected him because he refused to take the land of a deceased neighbour, they would not be cast.

17. In the judgment therefore of the Board, the principle laid down by Government in para. 26 of the Extract Minutes Consultation of 14th August 1855 is best adapted to meet the object in view as regards the Madras Presidency that "it is better to trust to the indirect operation of wholesome rules, and an improved system, than to attempt to apply any direct remedy."

Enclosure in from Government 22d April 1857, No. 372, Rev. Dept.

The rules which the Court propose in the latter part of para. 26 of their Despatch of 17th December 1856 will, in the opinion of the Board, go far to introduce a change as regards pauper occupations without interfering with the rights of existing occupants. These rules are, I. Persons desirous of engaging for fresh land will not be permitted to take it except in a quantity comprising not less than a certain area hereafter to be determined on. II. Occupants of petty holdings when they fall into arrear, shall not be allowed to renew their puttahs. III. No ryot desirous of contracting his cultivation shall be allowed to give up so much as would bring his holding within the prescribed limit.

18. The Board are not prepared to state positively what should be the minimum holding, but they would suggest that it be decided with reference to the money amount of the puttah rather than that of the extent of land, and they would in the first instance make the rule as light as possible. At present more than half the puttahs in the Presidency are for sums under 10 Rs. a year, and the Board think that in future the object should be to have no puttahs under 10 Rupees. They think that in the new Survey, when tracts of land long waste are measured, no attempt should be made to re-trace the old boundary marks of small fields, but that new portions should be set out, not less than say 4 acres of unirrigated and 1 acre of irrigated. This is considerably above the average size of fields in the Carnatic. No field however large when once defined in the survey *Map* should be hereafter sub-divided, though in making the Survey it would be at the discretion of the settlement officer to allow very large fields to be sub-divided and mapped accordingly.

19. It will be necessary when the time comes to put into force some of the above rules to define what amounts to a "relinquishment" of land, and the Board think that a ryot who has held a particular field for 3 years consecutively should be allowed to leave it fallow or waste for a 4th year without liability for revenue.

20. With reference to the discussions on this subject, the Board would remark that it is not so much the small size of the *fields*, as the small amount of the *puttahs* that complicate and enfeeble a ryotwar system of revenue. No doubt as far as regards the mechanical operation of surveying, the minute separate plots of land give rise to great loss of time, labour, and money, but if a ryot holds 50 different fields of ½ acre each, and pays 40 Rupees a year to Government, there is not much object (as regards the revenue operation) in altering the *size* of those fields.* If the Bombay rule were carried into effect, it might so happen that a ryot holding a dozen small fields in different parts of the village, might find himself fettered by as many coparcenary obligations, each of his separate fields being perhaps included as a portion of a "*Revenue* field." The grouping together of small fields into a "*Survey* field" (which means nothing more than that the area of the whole is accurately determined, but its component small sub-divisions more roughly) would not affect such a ryot's tenure at all.

* *In the District of Malabar the separate holdings or gardens are very small, yet still the occupant of one of these is in a respectable position as a ryot and landholder, on account of their value.*

21. The Board are also of opinion that a maximum as well as a minimum should be fixed for a "Survey-field," as if fields are set out of a very large size it is a hindrance to a careful extension of cultivation.

22. In paras. 28, 29, 30 of their despatch the Court observe that the Government appear to deal with the subject of "Meerassee" in a manner at variance with the practice which has hitherto prevailed. The Court were no doubt under the impression, that in the new scheme for Survey and assessment, the Government intended to acknowledge the claims of the so called Meerassidars in districts where since our acquisition of the country these rights have been merely nominal, and to give up to them the disposed of the waste land in their villages. The Government certainly speak in para. 27 of the Extract Minutes Consultation of 14th August 1855 of "individuals and classes *exclusively* entitled by the ancient custom of the country to the occupation of the soil, and look for the time when the rightful holders will occupy it themselves, sub-letting it, or part of it, and no longer quietly submitting to its being given away to those who have no rightful interest in it." The views of Government regarding Meerassee were also so interpreted by the Board, in reference to other correspondence, and they have fully recorded their opinions in their Proceedings of the 14th May 1856, which the Government took into consideration in the Extract Minutes Consultation of 23d January 1857. The Board are still disposed to adhere to the views of Sir T. Munro (in his Minute of 31st December 1824), regarding Meerassee in preference to those of Mr. Ellis, and they cannot but think they had reason to apprehend an undue extension of what are supposed to be Meerassee villages, when the Government in Extract Minutes Consultation of 8th March 1856, objected to the usual and well known system of receiving Durkhasts for waste lands, and condemning it as an interference, desired that the villagers should be left to make their own arrangements as to the disposal of the waste. It was also the deliberate opinion of the Advocate General (Board's Proceedings 29th April 1856, No. 1271) that the Government had officially declared their adherence to Mr. Ellis' views on Meerassee, and that in any question before the Supreme Court, they could not attempt to oust a so called Meerassidar who surreptitiously obtained possession of waste land. The Board trust that as regards the provinces the question is now so far set at rest by the decision of the Court of Directors as to guide the Revenue officers, and that when the old residents of a village whether they call themselves Meerassidars or not, decline

to cultivate (or else pay for) waste land, the usual puttahs may be given to Durkhastdars without forcing them to become sub-tenants of the old residents, and that the influence which the so called Meerassidars have hitherto exercised in keeping much land out of the occupation of others though not occupying it themselves, may be put an end to.

23. The next subject for consideration is that of adopting measures to introduce a more permanent occupancy of the land. The Government propose to make all the present Puttahs permanent for so long as the ryot shall not desire to contract or increase his holding, and to allow ryots who are willing to take up holdings of considerable size to compound for a term of years at a lower rate than the standard, regulated by certain fixed rules as to deductions for waste, for fallow, for bad seasons, &c. The Government also propose that where villages are still held in *shares* by Meerassidars, (though nominally ryotwar) that these shares may be recognized, and village rents made for a term of years.

24. The Court do not notice the last proposition, but object to the second, on the ground that if the assessment is made moderately low, and of course with reference to an average of good and bad seasons, there seem no necessity for lowering it still farther to induce ryots to cultivate; and they apprehend that such a premium as an abatement would lead ryots to enter on these favourable engagements, and keep to them only so long as seasons were favourable. In these views the Board concur, and though they would wish to see an increase of large holdings, they would prefer to look for them as the result of moderate assessments and a gradual increase of agricultural prosperity, than as the sudden effects of an artificial stimulus. It would also be next to impossible to draw up defined rules as to waste, fallow, bad seasons, &c., in such a manner as to meet all exigencies.

25. The Board observe that the Court approve of the Puttah being permanent, though perhaps the term permanent expresses too much. Hitherto the Puttah has been merely a *bill made out* at the end of the season of the revenue demand upon the ryot, charging him with what land he has agreed to take up at the commencement of the season, and *deducting* for land unavoidably left waste, for land washed away, sometimes for withered crops, and other difficulties he has had to contend with; and *adding* where he has made use of Government water for irrigation on land not assessed with water tax. This account is presented to each ryot in attendance at the yearly settlement, and any objections he may have to make are investigated. In very many cases the ryot is content to receive his Puttah as it stands, and year after year cultivates the same land, on the same terms. It has been the wish of the Board of Revenue (and the Government have authorised it) that in these cases the attendance of the ryot may be dispensed with, and the Puttah simply *endorsed* year after year. It is therefore so far permanent; but if the ryot wishes to contract his holding he may do so under a ryotwary settlement, and the assessment on the land given up, is deducted. Also if he claims and obtains some alteration in the puttah in the way of remission in exceptional cases, the paper is altered. In this sense therefore the puttah is *not* permanent, and to make it so, would be actually a hardship to the ryot, instead of a benefit. If the ryotwary system is open to the objection of *interference* with the people, it is in this case an interference much more for the convenience of the ryot than that of the Revenue authorities, as would soon be apparent if a puttah were in the full sense of the word permanent. As the system now stands a ryot may take as much or as little land as he likes, and having a puttah, and paying his dues, he never can be ejected.

26. With respect to the proposition of Government to authorize *village rents* with the Meerassidars, or headmen of the village, the Court offer no opinion. The general objection on the part of the Board of Revenue is that it gives a favoured portion of the village community a power of oppression over the weak, and is apt to discourage individual and independent exertion. Yet in those cases where certain known parties have for years actually paid the village assessment, though the names of their dependants have been entered in the joint rent, as a matter of form there might be an opening for a village rent for a term of years which would be productive of good, but these are details for consideration which would be out of place in the present Proceedings.

27. The last point for consideration is as regards the suggestions contained in the Honorable Mr. Grant's Minute, as regards the agency through which the Government demand upon the ryots is to be realized. Mr. Grant proposes that the villagers should nominate annually one or more persons through whom their payments should be made, on certain fixed dates, and thus "restrict the necessity of interference on the part of the Tahsildar with the private affairs of the cultivator." The Board cannot but think Mr. Grant has been misinformed as to the agency employed in the Madras Presidency. It is not the duty of a Tahsildar and his people to enter villages for the purpose of making collections of Revenue. The fact is that there is in every village a headman, under the name of Potail, Monigar, Mocuddim, &c., holding land of his own, who is recognized by Regulation IV. of 1816 as "the person who collects the revenue." It is to him that the ryots pay their instalments when due and he remits the money to the Tahsildar's Cutcherry. The Tahsildar does not interfere unless there occurs some special difficulty, or process to be gone through for the recovery of arrears.

28. Mr. Grant seems however to consider the Cuttack system as one that affords security against the interference and extortion of the native revenue officers, and suggests its introduction in the Northern Circars. This system as explained by the Honorable Mr. Elliot, in his Minute appended to the Extract Minutes Consultation of 14th August 1855, is shortly as follows. The assessment is fixed on the fields, and the settlement is called ryotwar. Each ryot receives a Puttah for 25 or 30 years,* and the realization of the whole village revenue is committed to 4 or 5 headmen (or rather what corresponds to the Carnatic Curnum) called Surberakars, who engage to make good the whole revenue of the village on receiving a commission of 15 or 20 per cent. They are also allowed to avail themselves of whatever profit they can make out of the waste land.

* *It is not stated if the ryot is bound to pay the whole amount of his Puttah even should he be unable to cultivate the land described in it.*

29. It appears to the Board that these Surberakars of Cuttack are not merely an agency for collection of revenue, but to all intents and purposes, renters of the village, and it will be for future consideration on the spot whether the customs and usages of the Northern Circars are adopted to this mode of settlement. The Board do not suppose it is intended to introduce the system generally. Something of the kind was tried formerly in the Triennial and Decennial Leases, but was a failure in the Carnatic and Ceded Districts.

30. The different subjects to which the Government have drawn attention having now been discussed, it only remains for the Board to observe that in the proposed scheme for a revised survey and assessment, they are most unwilling to hamper the officer who shall be placed in charge of that important work, with restrictive details. It will be their duty, under sanction of Government to enunciate general principles only, and leave it to the local examination and experience of the assessing officer to suggest such a mode of procedure as to details, as he may see best adapted to the circumstances of the case. Detailed rules that may be applicable to one District may not apply to another, and precise plans that may appear theoretically correct may on trial be found practically impossible. The size for "survey" or "revenue" field, the gradations of soil, the variety of classes, the mode of estimating the price of grain, the separation of the single from the double crop rates, and numberless other questions that are sure to occur as soon as a commencement is made of this great work, will no doubt be duly considered and reported on by the assessment officer, and it would be most inexpedient to attempt to lay down defined rules beforehand for his guidance, especially as the Board presume the duty will be committed to one whose judgment can be relied upon.

(A true Extract.)

(Signed) J. D. SIM, *Acting Secretary.*

(A true Copy.)

Acting Secretary to Government.

Enclo: in No. 11/2 of 1857.
Ex: Pro: Bd of Revenue dd.
15 July 1857 No 2400.
Lie B: 17 Augt /57

REVENUE DEPARTMENT.

Extract from the Proceedings of the Board of Revenue; dated 1st August 1857, No. 2585.

Read Extract Minutes of Consultation dated 25th July 1857, Revenue Department.

(Here enter No. 741.)

The first point which occurs to the Board in reference to the above letter forwarded to them by Government "for consideration," is the view Major Thuillier seems to have taken of their objection to connecting the proposed Revenue Survey with the Grand Trigonometrical. Every person of ordinary education and intelligence, must recognize the value of an accurate and detailed Topographical map of the country, but that was *not the question* before the Board when framing their letter of 27th February 1854. All they required, and all they considered themselves justified in asking for, was such amount of professional accuracy as would place before them in a correct and tangible form the details necessary to enable them *at once* to commence upon the long desired revision of the land assessment. In paras. 23,24,25 Major Thuillier seems to think the Board despised the aid of what was already recorded of Colonel Lambton's operations; but in stating that Captain Priestley's survey required "no such aid" the Board said nothing more than what the Tithe Commission and Inclosure Act Office in England say when they accept and *seal*, as *correct*, the maps of thousands of Parishes prepared without any reference whatever to the stations of the Trigonometrical survey of Great Britain. The Board required certain information for fiscal purposes, and wanted it soon; they therefore limited themselves to a scheme which could at once be put into operation, the materials being at hand, and which has been found to satisfy all fiscal requirements. If the nature of the operations is to be so extended as to produce a valuable Topographical map of the country, and the Government are willing to incur the extra expense, the Board can of course not offer the slightest objection as long as the more rigorous process does not delay the preparation of the village and field maps. That they have ground for supposing that these operations must entail extra expense and delay, they need only refer to Chapters VI. and VII. Part. V. of the "Manual of Surveying," and to para. 30 of Major Thuillier's letter, which states that; "Not only must the whole work "be based on the *true* meridian, carefully established for the initial Azimuth, as derived from "Astronomical observations, but such true meridian must again be frequently checked by cor-"responding Astronomical observations, and the Azimuth as conveyed through the angular work "from Circuit to Circuit, constantly tested." Again, in para. 31 "if any thing beyond the isolated "village plan is expected, a rigorous prosecution of the professional part of the work must be "adopted." The Board of Revenue cannot be supposed to possess much knowledge of Geodetical operations, but it is evident that the plan now proposed requires a higher class of professional agency than that which has hitherto been employed, and the estimate submitted by the Board, on which was based that in Extract Minutes of Consultation 14th August 1855 will probably have to be revised accordingly and submitted again for sanction to the Court of Directors. Major Thuillier however states (para. 21) that "the utmost facilities exist for connecting the present "operations with the old points"* and if so the delay which the Board anticipated, and still strongly deprecate, will be avoided. Rajahmundry from the necessity of the case, will probably be the first District to be surveyed under the sanction lately received, and it remains to be seen how far the facilities mentioned by Major Thuillier will permit an early commencement and completion of the survey.

* *i. e. those of Collector Lambton's Triangulation.*

2. Major Thuillier (para. 7) correctly describes the nature of the survey which the Board recommended as sufficient for *their* purposes. "A scientific Khusrah or superior land—measure-"ment of fields, somewhat on the principle of the Bombay Revenue survey, only with the village "boundaries laid down by theodolite, professionally, in addition." If in the course of the work, the professional officer in charge could have recommended some simple means of so tying the village circuits as to *combine* them into a Topographical Map, the Board would have been still better satisfied, but they did not consider that a failure to do this would at all vitiate the value of

the work for the purpose for which it was solely originated, namely a revision of a ryotwar assessment.

It is not as if Madras possessed no good Topographical Maps. Every District has been surveyed on a scale of 1 inch to a mile* (Rajahmundry was so surveyed by Captain Snell in 1824), which is the largest scale of the Topographical Maps recommended by Major Thuillier (para. 38 of letter, and pages 201, 467, 468 of Manual 2d Ed.)

* *The originals were sent to the Surveyor General's Office in Calcutta some years ago, and reduced copies are those now used in Madras.*

3. In para. 20 of his letter, Major Thuillier notices an apparent discrepancy in the letter of the Board under date February 27th, 1854. He supposes them to say in one place that the average size of the fields is ½ an acre, whereas in another place they estimate the size at nearly 2½. It will be observed that in para. 23 of the Proceedings referred to, the Board mention the ½ acre fields in connection with "the villages hitherto surveyed by Captain Priestley," but it was proposed to group very small fields into one, and the Board of course were aware that in other parts of the country especially in the Northern Circars, the fields are much larger; they therefore in paras. 72 and 73 when speaking of the whole Presidency assumed about 2½ acres. The actual experience of Captain Priestley as to the extent of land that his people will survey in a given time has fallen short† of what the Board still anticipate (if the same system is continued) when "the work is in full operation" (vide para. 74 of letter of 27th February 1854). The survey has not yet been in full operation. For month after month it has been a matter of doubt if its existence would be permitted; great reserve has been therefore exercised in applying for instruments (of which the supply is very indifferent) and other appurtenances which might have accelerated the work, and which no doubt will be sanctioned now that the full scheme is definitively decided on. Even the subordinates looked on the duty as one of a temporary nature, and lost no opportunity as soon as the experience gained under Captain Priestley qualified them, of transferring their services to the permanent and well paid "Department of Public Works." Add to this the circumstance that the arrangements for marking out village boundaries and settling disputed points were yet in their infancy, and that some misconception arose in consequence of a requisition by the Collector as to measuring the very smallest fields, (which added to the labor,) and Government will probably be satisfied that the operations have not as yet been on that scale as to permit of an unqualified determination as to the capabilities of the system. This has apparently been admitted in the Extract Minutes Consultation above referred to marginally.

† *Vide Ex. Mins. Cons. 4th July* 1857, *No.* 676 *Revenue Department. The average has been* 450 *square miles, and* 37 *acres a day. But then this has been in a well cultivated country, where there is very little waste land, and the average area of the fields* 1 *acre. The cost* 83¾ *Rupees per square mile. The Govt. in Ex. Mins. Con.* 14*th Aug.* 1855, *estimated* 64 *Rupees.*

4. With regard to the distinction of duty to be observed between the professional and the Revenue officers, the Board quite concur with the views of Major Thuillier as expressed in paras. 41 et seq. of his letter. Provision should be made for the complete demarcation and adjustment of boundaries by the Revenue Department, before the Survey officer commences his operations, and when the field map of a village is complete, the Revenue establishment will commence their duties of classification and valuation. Any survey of either boundaries, or interior detail, if left to a Department which has no professional knowledge can never be better than a sketch, and in the opinion of the Board, a *show* of accuracy where accuracy does not exist, is likely to be more mischievous than useful. Of course a mere outline or "Thakbust" map does not pretend to accuracy, and is therefore useful as a *guide*.

5. In paras. 47 and 48, Major Thuillier refers to the subject of permanent field marks, and the Board have always urged their importance. It was with this view that they obtained the Legislative Enactment XX. of 1855 which they trust will meet all the requirements adverted to by Major Thuillier. The practicability of enforcing all the details must be left in a great measure to the officer in charge of the survey.

6. In para. 44 of his letter, Major Thuillier considers there would be no difficulty in the Superintendent supervising more than 4 "parties," and mentions that he himself has the superintendence of 14. But it is to be remembered that Captain Priestley is a *personal* Superintendent, involving a close daily inspection of the work of his subordinates, and much labour computation on his own hands, besides giving general directions. This is very different from the kind of superintendence exercised by the Deputy Surveyor General of India whose duties keep him to Calcutta from one end of the year to the other, but who can still superintend survey parties in the Punjaub and Sind. To do this requires an Establishment on a scale far beyond what the Board contemplate for the Madras Revenue Survey.

7. In conclusion, the Board would express their hope that the more rigorous method of procedure apparently required in order to connect the Revenue and Trigonometrical Survey will not stand in the way of the employment of Captain Priestley's services. They think it but due to him to record their sense of the services hitherto, commencing as he did with very inferior materials, and by dint of perseverance and energy organizing a system which is now fully sufficient for all fiscal purposes. He has shewn every readiness to adopt his operations to meet the wishes of the Revenue authorities, and his proceedings have given great satisfaction.

(A true Extract.)

(Signed) J. D. SIM, *Acting Secretary.*

(A true Copy.)

Acting Secretary to Government.

Enclosure to ✱ 17th 1857
Exp: Pro: Board of Revenue
1st August 1857 No 2585
Sec B. 17 D

44D

Fort Saint George, Revenue Consultation of 2d December 1856.

No. 43. Read the following letter *from CECIL BEADON, Esq., Secretary to the Government of India; to J. D. BOURDILLON, Esq., Secretary to the Government of Fort Saint George; dated Fort William the 16th October 1856, No. 1306.*

SIR,

I have the honor by direction of the Right Honorable the Governor General in Council to acknowledge the receipt of your letter No. 1073, dated the 22d September 1855, forwarding an Extract from the Minutes of Consultation of the Government of Madras dated the 14th August with annexed papers relative to a proposal for the general survey and settlement of the Madras Presidency.

2. To these able and very interesting papers, and to the important subject to which they relate, the attentive consideration of the Governor General in Council has been given: and by the Mail of the 19th May last, His Lordship in Council strongly recommended to the Honorable Court that the measures proposed by the Madras Government should be generally sanctioned and that authority should be given to carry them into effect.

3. In anticipation of the orders which may be expected from the Honorable Court, I am now directed to forward for the consideration of the Government of Madras a Minute by the Honorable Mr. Grant, containing remarks on the several points raised in the resolution of the Madras Government of the 14th August 1855. The views expressed in this Minute will doubtless receive from the Right Honorable the Governor in Council the most careful attention.

4. With regard to the details of the proposed survey, a report has been called for from Major Thuillier the Deputy Surveyor General of Bengal whose great experience in survey operations of every kind, and thorough knowledge of the subject, will render his observations eminently useful to those who may be entrusted with the execution of this great work in the Madras Presidency. Five copies of the second edition of Thuillier and Smyth's work on surveying in India, giving minute and valuable details in every branch of the subject theoretical and practical, and as many copies of the directions for settlement officers in the North Western Provinces are herewith forwarded for information.

5. It has been rightly determined to put no limit on the size of ryots' holdings which are to be separately measured and assessed. But the professional survey of small fields is found so expensive as to be practically impossible. The Right Honorable the Governor in Council will gather from the works referred to in the preceding paragraph, how much success has attended the instruction and employment of native Ameens in surveying with the chain and prismatic compass in subordination to the scientific survey.

6. The Governor General in Council particularly desires to recommend to the consideration of the Government of Madras the possibility of combining with the Ryotwaree settlement such an arrangement as shall allow the ryots to make themselves responsible for the revenue of a village for a term of years, and having done so, to reclaim as much of the waste land of the village as they choose during that term. His Lordship in Council believes that such a system would be more continuously and premanently efficacious in bringing waste lands under cultivation, than the adoption of the lowest possible rate payable on each acre of waste land as soon as reclaimed; and he is not persuaded that there is any insuperable difficulty in applying a system of this kind to Madras, or that it is essential to a Roytwaree system that all waste land as soon as it has been brought into cultivation should become liable to its full rate of tax modified only by a temporary exemption to repay the immediate cost of reclaiming it.

7. Considering the liberal spirit and earnestness with which the Government of Madras have applied themselves to the reform of the Revenue system, the reduction of assessment to

which they have already given effect, and the results which have followed this reduction, the Governor General in Council is disposed to leave to their discretion, subject to the orders of the Honorable Court, the final disposal of the various questions discussed in connection with the present project. The foregoing observations, therefore, and those contained in the Honorable Mr. Grant's Minute are communicated to the Government of Madras, more with the view of promoting discussion and bringing to bear the experience of the revenue system of other parts of India, than with any intention of controlling the judgment to which the Right Honorable the Governor in Council may ultimately arrive.

8. In conclusion, I am directed to acknowledge the receipt of your letter No. 890, dated the 22d August last, upon which no orders are at present necessary.

Minute by the Honorable J. P. GRANT, dated the 13th March 1856.

1. This reference from the Government of Madras was circulated in January; and from its taking the form of a printed and bound volume, whilst it appeared that the subject matter of it had already been reported for the approval of the Court of Directors, I was not aware that it pressed for orders. I was lately made aware by General Anson that the Government of Madras was anxious for orders upon it, and I have taken it up as soon after I became aware of that fact as still more urgent matters have allowed me to do so.

2. I have now attentively studied this volume, which contains a series of very able and very interesting papers on the Madras Revenue System, with advertence to the necessity of a survey and a careful adjustment of the assessment of land, written since 1845, when the project first took a definite shape. This measure was formally suggested by Mr. Walter Elliot in 1845, and recommended by the Board of Revenue in 1846. It was discussed by Lord Tweeddale's Government in 1848, and again by Sir Henry Pottinger's Government in 1853. It has now, towards the close of 1855, been referred by Lord Harris's Government for the information and approval of the Honorable Court; and in order to obtain an expression of the views of this Government, as well as to obtain certain particulars of information regarding the survey and settlement of the North Western Provinces, it has also been now referred to the Governor General in Council.

3. The Secretary's office will probably be able to furnish the particulars of information required, as to the details of establishment both in the Surveying and Assessing Departments. As to the views of the Government of India, it would take a long time properly to discuss all the difficult and important questions treated in the several papers contained in this volume. But perhaps it may be possible, in a reasonable compass, to advert sufficiently to the general questions raised in the final resolution of the Right Honorable the Governor in Council dated the 14th of August 1855, No. 951.

The necessity of a Revenue Survey and Settlement, paras. 1 *to* 7.

4. It appears to me that the Madras Government has most completely established its case; and that economy and true policy demand that these operations should be commenced immediately, and carried through completely, and as rapidly as the means available will allow.

Details of the Survey, paras. 8 *to* 10.

5. I agree entirely in the propriety of the plan sketched by the Madras Government. It may be useful to furnish that Government with information which will be readily obtainable from Bengal, of the success which has here attended the instruction of Native Ameens in the use of the chain and prismatic compass, in subordination to a scientific survey.

6. I most fully concur in the remarks made at the close of paragraph 9, on the inexpediency of adopting the Bombay rule of refusing to survey separately, or to permit to be held separately any ryot's holding which may be less in extent than a certain quantity of land arbitrarily fixed by an order of the executive Government. In Madras, certainly, whatever may be the case in Bombay, such a rule would be, and would be felt by every ryot in the country to be, to speak plainly, robbery. So it would be in the case of the mass of ryots in all old villages, in every part of India that I know.

Settlement whether Ryotwar or otherwise, paras. 11 *and* 12.

7. There cannot be a doubt that the settlement should be Ryotwar, as proposed; that is to say that the amount which each individual ryot is to contribute to the revenue of the country, for his holding, should be fairly adjusted, and recorded. Any other settlement in Madras as in any other part of India, would be superficial and imperfect. It may be well, in order to correct some misapprehension which exists at Madras on the part of some of the authorities there, to explain that the late settlement of the North Western Provinces, and indeed all the settlements that have been made there since the settlement law of 1822 was passed, as well as all re-settlements occasionally made in the permanently settled Provinces, are ryotwar. The recognition, where it actually exists, of the Bhyachara tenure, is not inconsistent with a general ryotwar system.

Who shall pay the revenue into the public treasury, and be responsible to Government for it?—Same paras.

8. This question, as is often the case, is confounded in the resolution of the Madras Government with the question last treated; though in reality the two are quite distinct. It is plain that by saying that the settlement should be roytwar, the Governor in Council means it to be further inferred that there shall be no middleman between the public treasury and the ryot; that every ryot shall pay his own assessment directly to the public Collector, and shall be the person responsible to Gvernment for it.

9. A question has been raised by Mr. Walter Elliot in his Minute, whether a suggestion made by the Honorable Court to introduce the Cuttack system (which he describes) into the Northern Circars, should not be adopted. Mr. Elliot seems to approve of the suggestion; and to think that there are people in the Circars who would naturally fall into the position of the Cuttack Mocuddums, and do the duty to the satisfaction of the people. Zemindars, of course, would not be introduced where they do not exist. Nothing could have worked better than the last Settlement of Cuttack; and I believe that there is no doubt that Cuttack is improving and that the Northern Circars are not improving. This suggestion, therefore, may perhaps be worthy of more consideration than it appears to have received. There are two advantages which the Cuttack Ryotwar system has over every possible variety of the plan under which the smallest ryot pays directly to the public officer; the practical importance of which advantages to the happiness of the agriculturists, and the prosperity of the country, it is not easy to exaggerate: namely, first, the security which that system affords against the interference, oppression and extortion of the native revenue officers, not one of whom can have an excuse, under it, for even setting foot in a village; and second, the facility with which under that system the extension of cultivation can be encouraged to the fullest possible extent, without risking the loss of one anna of revenue from the old cultivated land. The impossibility of combining both these objects under the system of direct payment, as practised in Madras, is only too apparent,

10. But however this question may be decided in regard to the Northern Circars, I believe it may be taken as certain that for the rest of the Madras districts the system of collection must be direct, as intended by the Madras Government.

11. The question then arises; is it unavoidable, in the nature of things, that a system of collection directly from the ryots must be afflicted with the two great evils I have above mentioned; (1) official interference, oppression and extortion, and (2) the discouragement of the reclaiming of uncultivated land. It is unnecessary to stop to argue that in fact these evils now exist: reasoning a priori we are led to conclude that under the existing practice both evils must exist; whilst the Madras Torture Enquiry, and a glance at the Revenue Returns of the last

half century shew that they do exist. In the present resolution it is stated that three-fourths of the culturable land are lying waste; and that for the last thirty four years, ever since the present Ryotwar settlement was made, though population has largely increased, there has been scarcely any increase of cultivation or of land revenue. The question then whether evils having such effects can be avoided, or not, under the system of direct collection which is said to be unavoidable, is of extreme importance.

12. I cannot help thinking that under the fair and moderate assessment which the Madras Government, so greatly to their honor, fully intend to introduce, all that is necessary to reduce the first evil to a minimum (beyond that degree of good local administration without which every system is bad,) is to allow the villagers *annually* to nominate one or more persons through whom their payments shall be made on certain fixed dates. If the full instalments are paid on those days, the Tahsildar and his people will have no excuse for entering the village which has paid up; and if otherwise, they will have no excuse for communicating with any ryots but those whose instalments are in arrear. With some such arrangement as this, added to the other precautions which the Madras Government propose to introduce in order to restrict the necessity of interference on the part of the Tahsildar with the private affairs of the cultivator, I believe infinite good could be done. But then it must be remembered that however simple this reform may appear, it cannot bear fruit till the officers of the department, generally, can be got to change the principles on which all existing practice has been formed: minute daily interference with the ryot is reckoned amongst native officers the test of fiscal capacity; and to let people alone to manage their own affairs their own way is what no Madras Tahsildar would own to doing.

13. To escape in any material degree the second evil, the existence of which is now the opprobrium of Southern India, is perhaps more difficult. The system, in its material points, I understand to be this. Every ryot has a right to continue to cultivate his holding, at his fixed rates of assessment, field by field; and he cannot be ousted or have his rent raised (if he really pay the true rate) so long as he pays his assessment. His holding is his property, subject to the fixed charge of the assessment. Every ryot has also a right to throw up the whole *or any specific portion* of his holding; and if he does so any other ryot may take it who will pay its fixed assessment. In practice, owing to the inequality and severity of the rates, ryots have not been allowed to throw up what is called bad land, meaning land of any quality unfairly over-assessed, without also throwing up a proportionate quantity of good land, meaning land of any quality fairly assessed. But this is a monstrous abuse, contrary to common law and feeling, which most justly and most wisely the Madras Government intends to put a stop to. Under this system a vast quantity of land lies uncultivated, as useless to mankind as if it were under the sea; a great proportion of which is owned by individual ryots, who only leave it uncultivated because they are not allowed to cultivate it, unless they pay for permission to do so, more than the land is worth. Under any natural order of things, the charge for cultivating this waste land would be reduced without reference to any but this one consideration, namely what will any one be induced to offer for it. The landlord, if there were one, and if he were in possession of his reason, or the ruler, where there was no landlord, would say "if I cannot get two Rupees an acre for this land I will take one Rupee rather go without any thing for it; if I cannot get one Rupee I will take eight annas, or one anna; if I cannot get any thing at all for it now, rather than let it lie waste, I will allow any one to cultivate it who will agree to pay me something for it some years hence." But in the artificial and false order of things which exists at Madras at this day, exactly as we found it when we took the country from the semi-barbarians who preceded us, (whose whole design was to raise rents to an unnatural height, in order to squeeze the entire population to the utmost,) it is obvious that this simple and just line of conduct would not do. The overassessed ryot would throw up all his old land, and would betake himself to the more lightly assessed or the free waste land. So enormous is the quantity of dry land lying waste in Southern India,* that it is impossible for a Government which cannot exist without a land revenue to adopt at once, and without restriction, the

*Note.—*I perceive that in the ryotwar districts, above forty millions of acres of culturable land are estimated to be now lying uncultivated; a quantity about three times greater than the quantity of cultivated land in the same districts.*

natural and sound system. Under this oppressive difficulty, the Madras Government hitherto has done nothing; certainly nothing general and effectual.

14. Where the proportion of uncultivated to cultivated land is not excessive, and where you have an *intelligent and acceptable* middleman, who makes himself responsible for the existing assessment you get over the difficulty with the greatest facility by giving him for the term of years for which he is responsible for the revenue the rights of Government, *whatever they may happen to be*, in the whole waste land of the village. This is what has been done here, from the commencement, and we see how agriculture has been encouraged by the plan. For his own interest the middleman will not allow transfers whereby the aggregate rental of the village would be reduced. All increase of cultivation whereby that aggregate is not reduced benefits the whole country without loss to Government. In the Southern Districts of Madras, however, we are told that this system of middleman must not be adopted in any shape. But are we sure that the same object cannot be gained by any other modification of the ryotwar system other than the introduction of middleman? I believe that it can.

15. The Right Honorable the Governor of Madras in Council conceives that the reduction of the rates of the existing assessment of assessed land, both cultivated and uncultivated, will greatly encourage the increase of cultivation. And beyond a doubt this must be the result. But after the increase due to the reduction of rates has taken place, the present state of things prohibitory of *further* increase must recur. The lower the rate insisted upon for land taken newly into cultivation, the less land does that rate forbid to be newly cultivated; but any such rate whatever must forbid some land to be cultivated, which would be cultivated if there were no rate at all.

16. I cannot see why the system of fixing the Government demand for a term, without regard to any improvement and increase of cultivation that may take place during that term, (which with very various terms has had such magnificent results in Bengal, the North West, the Punjaub, Arrakan, and Pegu,*) should not be applied to a Madras village under Ryotwaree settlement, without the intervention of any middleman. I cannot see why the ryots of a Madras village, or any number of them, who may choose to make themselves jointly responsible for a term of years for the aggregate amount of revenue now paid by the village, ought not to be allowed, during all that term, to cultivate as much or as little of the whole land of the village as they pleased; under a promise that so long as the aggregate revenue was duly paid, they should never see the face of a revenue peon. Nor can I doubt what the result would be. They might be left to settle their own internal rights to the waste, by their own Punchayats, who I must believe more capable to settle them reasonably and justly than the Tahsildar, or the Collector, or the Board of Revenue itself.

*Note.—*In Arrakan and Pegu the system is to allow every ryot who reclaims waste land to hold it free of assessment for a term. The principle is the same.*

17. This is the plan combined with the moderate rates on land already under cultivation, which I regard as already determined upon, that I would recommend to the candid consideration of the Madras Government, and their Revenue Authorities.

Clasification of the soil, paras. 12 *to* 15.

18. I entirely agree with the remarks of the Madras Government on the expediency of simplifying this matter, by restricting the number of classes. Indeed, I myself attach very little importance to this point. It is admitted that the assessment cannot be made to depend on the quality of the soil alone; and after infinite pains taken in classifying the soil, and ascertaining its productive qualities, the fair assessment can only be ascertained after the rackrent has been ascertained; and this depends upon such an infinite variety of circumstances that the classification of the soil loses most of its apparent significance.

Valuation of the land, para. 16.

19. I entirely agreed with those who, on this all important point, advise constant recourse to Sir Thomas Munro's system of going to the cultivators themselves for the determination of this question each instance where doubt exists. Though many of those who have written on this point hold this opinion, I do not find that it is recognised distinctly in the Government resolution.

Rate of assessment, paras. 17 *to* 19.

20. I very much doubt the soundness of the principle which would fix the Government assessment at any fixed proportion of the value of the crop, or even with any direct reference to the value of the crop. My notion of a fair and equable assessment is that every ryot, whatever be the nature and quality of his land, shall be required as nearly as possible to pay the same per centage of the annual value thereof; excepting where that annual value has been increased by an expenditure of his own capital. Now it is well known that the more fertile the land, the greater as a general rule is the proportion of the crop that represents its annual value or rent. It constantly happens that for two fields not far from one another, one third of the value of the crop would be a light rent for one, and a tenth of the value of the crop would be an excessive rent for the other. This is well known in British farming, and the two cases of wet land and dry land in India afford still more striking examples of the truth of this recognised theory than any thing to be seen in Britain. On the other hand there are particular crops, as in the case of gardens, where labor, &c. form so large an item in the expenditure that the value of the crop is no criterion of the rent whatever. On this point the principles laid down in the Resolution seem to me to require revision. In my judgment the point to be settled is what share of the rack rent should be left to the holder of land, whatever the nature and quality of the land may be.

Principle of a grain rent, paras. 22 *to* 23.

21. It is proposed to alter the money asssessment every seven or ten years, with reference to the price of two particular sorts of grain. I do not see the advantage of this complication. Where the assessment is light it is certainly no necessary. And if it were necessary, it seems to me that it would be necessary to fix the rate, with reference to the price of grain, not once in ten years, but every year, for the price of grain varies very little from one decade to another, but it varies very greatly from year to year. It is true that in Madras the price of grain, on the whole, from decade to decade, has diminished during the last half century; but there is no reason to suppose that this will continue; and it has not been shewn that this *secular* depreciation would have been of material importance to the ryot, under a moderate assessment. No similar complication has been found necessary in settling any other part of India. And it seems to me that the plan proposed of selecting as our scale one dry and one wet grain, is as likely to work against as in favor of the perpetual equality which is the object. The introduction of new crops, such as indigo or hemp, and the extension of old crops such as cotton, sugar, or mulberry, make a much greater revolution in the value of land from one decade to another than any slight secular change in the average prices of rice or millets.

Small Holdings, paras. 24 *to* 27.

22. All that is said on this point in the resolution has my entire concurrence.

Annual Summabundies, paras. 28 *and* 29.

23. It is of great promise to find that the evil of the annual and most vexatious interference of Government with the affairs of the ryot, involved in the annual settlements made all over the Madras Provinces, have been recognised in any degree. I do not however myself see any effectual means of getting rid of the evils of this practice, except by abolishing the practice wholly, as I have above suggested.

The Survey need not include all waste and jungle, para. 30.

24. In this opinion I quite agree.

25. The remainder of the resolution enforces the expediency of the proposed survey and settlement. I do not think the expediency of the measure will be contested in any quarter. As the North Western Provinces, Bombay, Bengal, and the Punjab have had surveys allowed them,

it would be unjust to refuse the same benefit to Madras. It is, however, the Honorable Court, to whom the Madras Government have already referred the question, that will determine this question. I cannot gather from the reference made, whether the Right Honorable the Governor of Madras in Council wishes the Government of India to make any communication to the Home Government on the subject. If any recommendation from hence is expected, I for one am prepared to give the Madras proposal my very humble but very cordial support. I do not see that there would be much advantage in entering upon such questions as the details of establishments, until the general sanction of the Honorable Court, in reply to the reference that has been made to them by the Madras Government, shall have been received.

(True Copy.)

(Signed) CECIL BEADON,
Secy. to the Govt. of India.

No. 44. ORDER THEREON, *No.* 1275; *dated 2d December* 1856.

Ordered that the foregoing letter be recorded.

(Signed) T. PYCROFT,
Chief Secretary.

Enclos in No. 1/n /1857

From G. I. d/ 16 Octr 1856.
No. 1356.

Rec B: 17 Augt /57

4BD

No. 372.

Extract from the Minutes of Consultation under date the 22d April 1857.

1. The Right Honorable the Governor in Council proceeds to pass orders on the letter, in this department, from the Honorable Court of Directors dated 17th December 1856, No. 17, communicating their observations and instructions on the course of proceeding proposed in Extract Minutes Consultation 14th August 1855, No. 951, to be adopted by this Government, for a general revenue survey and re-assessment of the lands of the several Districts in this Presidency.

2. A copy of this despatch will be furnished to the Board of Revenue for their information, with reference to the resolution of the 14th August 1855; and their attention will be directed generally to the views expressed by the Honorable Court.

Paras. 1 *to* 14 *and* 35 *to* 38.

3. In the paras. of the despatch quoted in the margin, the Honorable Court admit the necessity of a survey and revision of the assessment, and the advantages likely to result from these proceedings. They approve of the extent to which it is proposed to carry out the survey, and of its extension to enam lands, and agree as to the advisability of taking advantage of the opportunity offered by it, of instituting an investigation into rent free tenures. They concur moreover in the proposals made by this Government for dealing with enams held on invalid titles; for connecting the revenue survey by minor triangulations with the great Trigonometrical survey; and for the classification and valuation of land.

4. The only points which call for notice in this place, are those contained in para. 38, wherein the Court desire encouragement to be given to the production of sugar, cotton, and other articles suited for exportation; and in connection with it, advert to the importance of affording ready means of inter-communication between the several Districts.

5. As regards the formation of Road funds for the last mentioned purpose, similar to that established in South Arcot; which the Honorable Court presume will be made in the new arrangement, the Governor in Council observes it intimated in para. 5 of the letter to the Honorable Court, dated 11th October 1855, No. 44, that, besides the per centage of the gross produce which the Government propose to take in fixing the assessment of the land to serve for the general purposes of the State, it is in contemplation to establish cesses for local objects; one of which it was stated, would be the maintenance and improvement of District roads; the period at which this fund was to be created was pointed out in a later letter to the Honorable Court dated 27th May 1856, No. 7, para. 11, viz. "when the survey and the revision of the assessment" (which have been approved) "shall be fully carried out." This part of the subject will therefore be kept in view during the progress of the above measures.

Paras. 15 *to* 34.

6. In the paragraphs noted in the margin, the Honorable Court have entered largely on the discussion of the measures suggested by this Government, respecting the share of the produce to be taken as the Government demand, the mode of converting that demand into a money assessment, the means to be taken for checking the sub-division of small holdings, and the rights of Merassidars over the waste lands of their villages.

7. The Honorable Court regard the principle advocated by this Government of taking a certain share of the gross produce as the basis of the Government demand to be open to objection, and think that an assessment so obtained will prove unequal in its operation, favoring the most fertile lands, and pressing heavily on the poorer lands. They are of opinion that an assessment proportioned to the net, and not to the gross produce, though attended with difficulties in its attainment, would be found more equitable. The Honorable Court at the same time admit* that the operation of determining the assessment is not one of arithmetical calculation, but of judgment and sound discretion.

**Para.* 20.

8. The remarks of the Honorable Court on this and the other points indicated above, will receive consideration in due course, and need not interfere with the preliminary operations of the survey, for the commencement of which application will be made to the Government of India. But the Government desire to direct the attention of the Board to the Honorable Court's observations in the paras. previously quoted, as well as in para. 44, in order to their considering the subjects therein discussed in connection with the Honorable Mr. Grant's Minute, a copy of which will now be furnished to the Board of Revenue together with the letter* from the Government of India forwarding it.

*16th Oct. 1856 No. 1306.

9. On the subject of Meerassy rights, the orders communicated in paras. 28 to 30 are positive.

39 to 45. 10. The Honorable Court, having generally approved and sanctioned the arrangements proposed for the survey operations, and for the revision of the assessment, as well as the expenditure of 76,40,000 Rupees on that account, and having further desired that the work should be pushed on as fast as efficient establishments can be organized, and without any needless delay, the Governor in Council resolves to address the Government of India with the view of obtaining their sanction to the nomination of a settlement officer and a Surveyor General, in communication with whom the Government will prepare a further list of detailed establishments that may be needed. The Government remark that the services of the settlement officer may be made immediately available in assessing those talooks of South Arcot which Captain Priestley has lately surveyed.

(A true Extract.)

(Signed) H. FORBES,

Acting Secretary to Government.

A true Copy

H Forbes

Actg Secy. to Govt

501

Observatory. Madras
29th July 1837.

To
J.C. Forbes Esqre
Secy to Govt

My dear Sir,

I have received your note of 27th Instant (with the accompanying copy of letter from the Deputy Surveyor General) requesting my opinion, first on the desirableness of connecting the Madras Revenue Survey with the general triangulation of India and 2dly as to whether such connection will be more expensive than the revenue Survey alone.

As to the first point, no revenue Survey will in my opinion be of any permanent value unless arrangements be made for uniting with one the detailed measurements whether of separate fields or of Village boundaries, if this be

neglected there is nothing to pre
vent the perpetual recurrence of
boundary disputes thus necessitating
a periodical repetition of the Survey
measurements, whereas I should
imagine a permanent settlement
and the prevention of such dis-
putes to be the chief objects for
which a Revenue Survey is made
at all. Now the only way that
I am acquainted with by which
such a union can be effected is
a general triangulation of the
Country which to be thoroughly
effective ought to be minute
enough to admit of at least
one of its stations being seen
from two or more points in the
boundary of every Village so that
by means of their bearing and
distance from it, the exact po-
sition of the boundary might be
recovered at any time. For this

purpose it is of course essential
that the stations of the triangu-
lation should be carefully and
permanently marked in such
a manner as to be easily identi-
fied, and not easily destroyed,
and that they should be placed
in charge of the local authority,
who should be responsible for
their being maintained in fact
With regard to the second point
some expence will doubtless have
to be incurred in carrying the
connections, how much will de-
pend on the degree of minute-
ness to which the triangulation
made by the late Colonel Lambton
was carried out, and on the
certainty with which his
stations can be identified: two
points on which I have at
present no information, but what-
ever may be the expence I should
consider

consider that no real economy would result from evading it, as the whole of the operation would be thereby rendered nearly valueless -

These opinions are, I apprehend nearly identical with those of Major Muller and I certainly have no recollection of giving any such advice as that referred to by him in para 23. the result of which he states to be summed up in the expression "that Capt. Priestley's method of Survey requires no such aid".

I am further borne out by fact in the case of the Bowling survey which thro' neglect of the precautions above marked has twice had to be repeated three or more times I believe during the

last

Enclo: 7 in No. 11. of 1857
Ex: in Cos: D/. 22 April 1857
No. 372.

Rec. B. 17 Augt./57

General Scheme

1

REVENUE DEPARTMENT.

No. 17 OF 1856.

OUR GOVERNOR IN COUNCIL AT FORT SAINT GEORGE.

1. With your letter dated the 11th October (No. 44) 1855, you have submitted to us a Minute of Consultation dated the 14th August 1855, showing the final result of the consideration which has been given during the last ten years, to the question of a general survey and revision of assessment in the Districts subordinate to your Presidency.

2. You on the same date referred the whole matter for the orders of the Government of India. The vast importance of the subject and the necessity for dealing with it only with the fullest information, and after the most mature consideration, compelled us to await the communication of the views of that Government before issuing the instructions which you solicit.

3. The Minutes of the several Members of the Supreme Council have been forwarded to us, with a letter dated the 15th May last (No. 14) in which they give their "strong and "unanimous recommendation that the measures proposed by the Madras Government should be "generally sanctioned, and that authority should be given to carry them into effect."

4. The urgent necessity of a survey, with a view to the re-assessment of the Land Revenue in the greater portion of the Districts under your Presidency is, we consider, established beyond the possibility of doubt. We now proceed to review the several recommendations in the order in which we find them stated in your Minute of Consultation of the 14th August 1855.

Paras. 6 and 7. 5. We approve entirely of your proposal that the opportunity of the survey should be embraced for the purpose of instituting an investigation into the tenures on which land is now held rent-free. "It "is notorious," you observe, "that in every District enams to a large amount are held without any "valid title whatever;" and although we can scarcely join in your anticipation that an investigation of titles if "undertaken in a fair spirit, and with proper consideration for the presumptive interest which has grown out of a permissive enjoyment of above half a century, will not "be objected to," yet we are not on that account disposed to withhold our assent to a measure which is called for by a due regard to the interests and claims of the tax paying portion of the agricultural community, and of the general mass of our subjects.

Para. 34. 6. With respect to the mode of dealing with persons holding enam lands on titles found to be invalid, we agree with you that "after the long possession which "has been tacitly permitted, it would be only fair to deal liberally with "these cases, and to forbear to resume immediately, the proceedings "should rather be of the nature of those at Bombay under Act XI. of 1852. "Thus" you observe "the *immediate* recovery of revenue from this source would not be great, but ultimately "it would be very considerable."

Para. 8. 7. We approve your decision that, for the purpose of obtaining greater accuracy, the Revenue survey should be connected by minor triangulations with the great Trigonometrical survey, a point to which we referred in para. 7 of our Despatch of the 18th July (No. 11) 1855.

Para 9. 8. We have already expressed our approval of the proposed manner of mapping very small fields in paras. 4 and 5 of the above quoted Despatch. We shall hereafter have occasion to recur to the point of the size of the fields when discussing the question of the expediency of discouraging small holding and the consequent increase of pauper ryots. We shall only remark in this place as we have already stated in para. 6 of the Despatch before referred to, that we believe you are under a misapprehension in supposing that by the Bombay [illegible], any limitation was placed on the size of fields actually occupied, or any interference practic[illegible] with existing rights. Neither is it, we believe, a correct statement of the Bombay rule that "if a field were held in partnership, and

" one of the co-partners died or gave up his part, the other co-partner must take it, or abandon " his part also, unless he could find some one to take the vacant share". By the Bombay practice several small fields held on the same tenure by different occupants, are clubbed together to form a larger field, bearing a separate number, and approaching in size as nearly as can conveniently be accomplished to the minimum size permitted for unoccupied land. These small fields continue to be held by their occupants, who, although designated sharers, are not under any joint responsibility, nor are their previous rights in any way interfered with. No further sub-division is permitted; and in the event of one of the small fields or shares becoming vacant by death, default, or otherwise, the ryots holding the other shares or portions constituting the survey field, are required to arrange among themselves to take up the unoccupied portion, or to vacate their own shares so as to leave the whole field to be engaged for by one individual. The obvious and intentional tendency of this rule is to lead to the consolidation of the small holdings into larger ones; and although it may appear somewhat arbitrary, no difficulty has been found, so far as we are aware, in carrying it into practice under the reduced and equalized assessment.

Para. 10.

9. The extension of the survey to enam as well as Government lands is highly proper. The detailed survey of the Jungle and unreclaimed waste appears to be, at least for the present, unnecessary. The establishment and preservation of boundary marks, and the preparation of field maps, village maps, and talook maps, are essential to the permenency of the work.

Para. 11.

10. We agree with you that the best mode of settlement is that commonly termed ryotwar, although it may more correctly be designated Khetwar; that the assessment on each field should be defined and fixed, so that the cultivator should know precisely the amount of the Government demand on the land occupied by him. Whether the collection of the revenue from the individual ryots should be made directly by the stipendiary officers of Government, or by some intermediate Agency is a question which we propose to notice in a subsequent part of this Despatch. With a moderate assessment, it is to be hoped that remissions, except under rare and exceptional circumstances, will cease to be granted. We have observed with much satisfaction that, in the recently surveyed Districts of the Bombay Presidency remissions have already almost disappeared from the accounts.

Para. 12.

11. The discontinuance of the practice of granting remissions will render unnecessary all interference with, or enquiry into the agricultural operations of the ryot. He will be held liable for the assessment of all the land, whether actually cultivated, or not, for which he may have engaged, until he shall have formally relinquished it, and entire freedom will be given to him either to relinquish or to take up fresh land, as his inclination or means of cultivation may dictate to him.

Paras. 13 *and* 14.

12. In the classification of the soils, we agree with you in the opinion that exact accuracy is unattainable and that provided the assessment be sufficiently moderate, the want of it will not for a time be of much practical importance. We therefore concur with you in thinking that the classes should be few, and based on real and distinguishable differences of soil. The officers engaged in the duty of fixing the assessment should always bear in mind that, as you have expressed it " the " right of the Government is not a rent; which consists of all the surplus produce, after paying " the costs of cultivation and the profits of the agricultural stocks; but a land revenue only, which " ought, if possible, to be so lightly assessed as to leave a surplus or rent to the occupier, whether " he in fact let the land to others, or retain it in his own hands."

Para. 15.

13. The suggestion that the distinctive classification of lands according as they are or are not capable of irrigation from a Government source should be abolished, and that all land should be classified simply with reference to its soil, and its productiveness without irrigation, a water rate being charged when Government water is used or is permanently available, is one well worthy of mature consideration. This practice prevails in the North West Provinces, and although the universal practice under your Presidency is different the change might, you think, be made without inconvenience on the occasion of a survey if on the whole deemed expedient.

Para. 16.

14. The classification of the soils having been completed the next process to be undertaken is the valuation of the land. In the former operation, the inherent qualities of the land only are considered, while in the latter such accidental circumstances as the nearness of the village, facility of commutation, and whatever else may affect either the quantity or quality of the produce have to be taken into account. This may you consider, be most conveniently affected, as in Bombay, by placing the field or village, as the case may be, in a higher or lower class of assessment according to the aggregate of such circumstances.

Paras. 17 *to* 19.

15. The next and final process is the determination of the assessment. You are of opinion that, with certain exceptions, the proportion of the crop actually taken by Government at the present time, except when there have been recent reductions, is not less than 50 per cent. on irrigated, and 35 per cent. on unirrigated land. Under the revised assessment, you propose that 30 per cent. of the gross produce should be taken, as the maximum of the Government demand under the most favorable circumstances, but subject to reduction in the event of the absence or lower degree of any of the accidental advantages referred to in the preceding para. These reductions would, you apprehend, bring down the share taken by Government to about 25 per cent., or one fourth of the gross produce.

16. We consider that this part of your scheme, is the one most open to objection, and moreover that it is inconsistent with the principle laid down in para. 13 of your Resolution that the right of Government is not even to the whole rent, but only to a share of the rent. In lands of a high degree of fertility, possessing every means of communication and in the neighbourhood of good markets, 30 per cent. of the gross produce may fall considerably within the limit of the rent or net produce; in lands less fertile, and less favorably situated, a much smaller share of the gross produce might considerably exceed it. The natural and inevitable consequence, as it appears to us, of apportioning the assessment to the gross produce, is to favor the most fertile lands, and to press with increasing severity on the poorer lands, in an inverse ratio to their fertility.

17. In a natural state of things when the demand for agricultural produce is such as to render it necessary to bring all the available land under the plough, the least fertile land in cultivation would be that the gross produce of which would merely furnish the wages of labor and the profits of the stock employed in cultivating it, leaving no surplus out of which any rent or assesment could be paid. If, as under our revenue system, an assesment however small, is imposed such land must of necessity, all other circumstances remaining the same be abandoned, and cultivation will recede until it reaches the point at which the gross produce is just sufficient to provide for the payment of the assessment, in addition to the wages of labor and the profits of stock.

18. The fact that the holdings are generally of very small extent, that the labour is performed in most cases by the ryot and his family, and that the agricultural capital employed is of exceedingly small amount, does not, we apprehend, interfere with the operation of the principles to which we have adverted. The produce of the land must at least be sufficient to feed and clothe the laborer and his family, and to replace the cattle and agricultural implements as they become worn out; and, besides this, a surplus must remain for the payment of the assessment imposed by the State.

19. We are therefore of opinion that the assessment should be proportioned to the net and not to the gross produce. This course was followed in the North Western Provinces of Bengal when the proportion demanded by the Government as its land revenue wa taken at two thirds of the net produce.

Directions to Settlement Officers, N. W. P. para. 52.

You observe that, although this share of the net produce would bear various proportions to the gross produce, according to circumstances, on the whole, it may be assumed to be equal to about 30 per cent. on the grosss produce." Admitting this assumption to be sufficiently correct for practical purposes, we must observe that the question is in no respect one of averages. It may be true that 30 per cent. of the gross produce of a whole district may be equivalent to two thirds of the net produce; but the object of your proposed operations is to apportion the assessment fairly on the individual fields composing the district according to their varying degrees of value, and this object will not be attained by making the gross and not the net produce of each field the basis of assessment.

20. It may be argued that the net produce cannot be ascertained, or even estimated, with any near approach to accurary. No attempt to estimate the net produce has been made in the revised settlements of Bombay or of the North West Provinces, in the latter of which it is declared that the operation of determining the assessment is "not one of arithmetical calculation, but of judgment and sound discretion." We are well satisfied that absolute accuracy cannot be attained; but in endeavouring to fix the assessment on the basis of the net produce, or rent, we apprehend that you would be pursuing a course founded on correct principles, although but imperfectly attainable in practice. For the attainment of this object, as of many others contemplated in the revised settlement; it is probable that much useful information may be gathered by consulting the most intelligent and influential inhabitants of the villages in course of assessment. The main point to be regarded is that the assessment should be fixed at a rate sufficiently moderate to allow for errors of judgment on the part of the settling officer. If this be attended to, the effect of any irregularities which may occur, will only be to render the lower assessed fields more valuable than those on which a higher assessment is imposed; but, in all cases, the share of the net produce left to the cultivator after defraying the assessment, and the expenses of cultivation will still be sufficient to render his land a desirable property.

Directions to Settlement Officers, para 51.

Directions to Settlement Officers N. W. P. paras 53. 54.

21. The proportion of the produce to be taken as revenue being determined, the next step you observe, is to decide the principle on which to convert it into money. You propose that the assessment of each field should be fixed in terms of so much grain, and that the grain should be converted into money at the average price of the preceding seven or ten years (according to the period that it may be thought advisable to take) and that the prices so fixed should endure for a term of the same length, at the expiration of which they would again become liable to re-adjustment on the same principle. You are also of opinion that the grain assessment should not be fixed in perpetuity but declared unalterable for a period of fifty years

Paras. 20 *to* 23.

22. We entertain great doubts of the expediency of these proceedings. We think that the rates, as we propose them to be assessed should be sufficiently moderate to allow for all ordinary fluctuations in the prices of grain, and that all needlessly frequent alterations in the amount of the ryots' payments should be avoided. The grain assessment having been determined and converted into money at a fair and moderate rate, we should prefer that the assessment so fixed should be declared unalterable for a term of thirty years (as in Bombay and the North West Provinces) at the expiration of which period both the amount of the grain assessment and the rate of its conversion into money, would be subject to re-adjustment according to existing circumstances.

23. In these paras., you have discussed the means which it may be possible to adopt to diminish the evils arising from the existence of very small holdings and consequently of a class of ryots scarcely if at all, above the grade of paupers. The economical disadvantages of a minute sub-division of holdings are very generally admitted, both under your Presidency and that of Bombay. The two main causes of minute holdings you state to be; first, the practice of equal partitions of property among heirs; and secondly, the facility with which men, without any capital or any interest in the soil have been allowed to obtain land.

Paras. 24 *to* 27.

24. From a Statement appended to the Board's Report on the Land Revenue administration for 1853-54, it appears that, out of a total number of Puttahs (excluding Joint Puttahs) of 1,409,729 no less than 834,190 were for sums below 10 Rupees, and give an average assessment of 3½ Rupees for each holding.

25. You observe that "under the new settlement in Bombay an attempt has been made "to check the evil by positive restrictions on the size of holdings, and similar measures have been proposed for your Presidency." We have already called your attention to the Bombay rules, and to the effect which, without interfering with existing interests, it is hoped they may exercise eventually in the size of holdings. The small fields which now constitute separate and distinct occupancies may ultimately become consolidated into one survey field, and no land now uncultivated will be allowed to be taken up in a smaller quantity than a survey field. No further sub-division will be permitted, and although under the law of equal partition the interest in the land may be divided among the members of the family of a deceased occupant, the integral field will be held liable for the revenue assessed on it, in the event of default on the part of any or all of the joint tenants.

26. Although the Bombay rules may not be applicable in all respects to the circumstances of your presidency, we conceive that it will not be impracticable to establish regulations which while differing in form, may still tend to the same end. It is easy to conceive that, under the Hindoo law of inheritance, holdings (we do not under this term refer to single fields, but to all the fields in the occupation of one individual) may be so split up into minute portions that the produce of each shall be barely sufficient to maintain the cultivator and his family leaving, no surplus out of which to pay any assessment. We consider that the Government has a clear right to take measures to prevent the occurrence of a state of things which will ultimately dry up the source from which the revenue on which it mainly depends is derived. In the exercise of this right, they may justly declare that the fields actually occupied and cultivated at the time of the survey falling within a certain defined limit, shall not be further sub-divided, but that, whatever division of interests may hereafter arise under the law of equal partition, the whole field will continue liable for the whole revenue fixed upon it, that persons desirous of engaging for fresh land will not be permitted to take it except in fields of a definite size, unless together with that of the fields which they may already occupy, the assessment of the whole holding shall not fall below any amount which you shall hereafter determine. You might also declare that the holder of any small portion of land falling into arrear (a circumstance which will probably occur not unfrequently when the grant of remissions except under a general calamity of season, ceases to form a part of the revenue system) shall not be allowed to have a fresh puttah, but that it shall be added to the holding of any person willing to engage for it, provided the whole holding does not fall below the prescribed size. We would also suggest that no ryot desirous of contracting his cultivation should be allowed to do so by giving up land which would reduce his holding below the prescribed limit.

27. We cannot doubt that rules framed in accordance with the principles indicated in the preceding para. would have the beneficial effect of preventing further sub-division of holdings and ultimately of getting rid of a large proportion of the very small ones which now exist, and further, that they might be carried into effect without any objectionable interference with private rights.

28. In para. 27 you have referred to the rights of Meerassidars over the waste lands of their villages, and you observe that "under moderate assessment" land "will become valuable, "the rightful holders will occupy it themselves sub-letting it, or part of it, and will no longer "quietly submit to its being given away to those who have no rightful interest in it." The question involved in this para. is one of very considerable importance, and it would appear that you now propose to deal with it in a manner at variance with the practice which has hitherto prevailed. We desire that, in the disposal of waste land you will be guided by the principles laid down in para. 55 of our Despatch of the 28th July (No. 8) 1841, and paras. 31 and 32 of Despatch dated 3d July (No. 17) 1844, and which are more fully enunciated in your Minutes of Consultation of the 1st March and 24th July 1849.

Circular Orders of the Board of Revenue, para. 321.

29. We see no reason to change the opinions respecting the rights of Meerassidars which we entertained when those paras, were written. Wherever, as in Tanjore any remains of Meerassy right have survived to the present time, and have an actual existence, we do not desire that it should be interfered with; but where, as in the greater portion of your Presidency it has fallen into desuetude, and has only been known in name ever since we have obtained possession of the country, we think that it would be unwise and inexpedient to make any attempt for its revival.

N. B.—*It is also suggested that the mode practised in this country for the commutation of tithe into a rent charge might perhaps be beneficially adopted, viz., to take the conversion price of each year at the average price of the preceding seven years.*

30. When applications for waste land are made by strangers, they should be communicated to the resident cultivators of the village, whether claiming to be Meerassidars or not, and the option should be given to them of engaging for it, finding security for the payment of the assessment. Should they, or any of them think fit to do so, they would of course be at liberty either to cultivate the land themselves or to sublet it, but the payment should be strictly enforced, in order, on the one hand to prevent transactions in the nature of land jobbing, and, on the other, to deter the villagers from engaging for land merely for the purpose of excluding others who might be desirous of holding it direct from Government, but who objected to take it as their sub-tenant. In cases where the resident ryots should refuse to engage for the waste lands of their village, Government may exercise the right of granting them to the persons applying, who would then hold the same position and possess the same rights in all respects as the other ryots of the village.

Minutes Consultation 24th July 1849.

31. In these paras. you refer to the practice of yearly holdings, and you state that "it seems desirable to adopt measures to introduce a more per- "manent occupancy." "Under the present system," you observe "a ryot is "held to be entitled to hold his land so long as he pays the demand on it. The Govern- "ment cannot oust him to give the land to another; but he is free to throw up the lands when- "ever he pleases practically, under this system many fields are held permanently, although the "ostensible title is only the annual puttah."

Paras. 28 *and* 29.

32. The means by which you propose to give this greater permanency appear to be first, by converting the annual puttah into a perpetual one, or, at least for so long as the ryot shall not desire to contract, or to increase his holding; and secondly, by allowing ryots occupying holdings "of some considerable size" to compound for a fixed annual payment either for a term of years, or otherwise making certain allowances for waste, for fallow, for bad seasons, &c.

33. The objection to the latter of these plans appears to be that, although ryots would probably be willing to engage for their holdings for a sum somewhat below the aggregate amount of the assessment on the fields composing it, and would continue to pay it so long as the seasons were favorable, yet, in a year of failure, when scanty crops might be combined with low prices there would be no means of keeping them to their engagement. The contract in short, would be altogether and solely for the advantage of the ryot, and, under a moderate assessment, such an arrangement seems unnecessary either to induce extended cultivation, or to secure permanency of occupancy.

34. The first plan however appears highly desirable, and we observe with satisfaction that it has already been partially brought into operation. In their Report on the Revenue administration for 1853-54, the Board of Revenue say that they propose "establishing the rule that each ryot is answerable for his holding of the preceding year, unless "within a fixed time he presents a writing detailing any fields which he wishes to resign, or any "new land which he wishes to occupy. All these representations" they state "are to be "promptly settled, and on their completion the cultivation returns of the year showing the land "under occupancy will be drawn out. The Board have already sanctioned this change of "system in Nellore and South Arcot, and now that the assessment is in process of being placed "on a modified and sounder basis, they hope that the ryotwary system will gradually receive its "intended development and display a series of estates held by substantial proprietors with little "annual change." Under this arrangement, the interference of the native revenue officers will be reduced to the lowest possible amount, and in fact no interference will be called for except at the cultivator's own request.

Letter dated 4th July 1855, *para.* 21.

35. The extent to which it is proposed in this para. that the revenue survey and assessment should be carried, seems to be judicious. It will include all land usually cultivated, and all that has been cultivated within memory, or according to the village accounts, as well as such as may seem likely to be brought under the plough under the operation of an improved revenue system. Jungle and utterly unreclaimed waste will not be surveyed in detail, the total area only being determined.

Para. 30.

36. These paras. are devoted to the consideration of the probable effects of the proposed measures on the revenue of your Presidency. You are of opinion that they will be followed gradually but surely, by a great extension of cultivation, and you anticipate with confidence that the result "instead of "a falling off, will be an accession to the revenue, while, as respects the payers and the public, "the gain will be enormous, the revenue will be derived from resources double or treble those "upon which it is levied now, and will be paid with corresponding ease, and absence of "privation."

Paras. 31 *to* 35.

37. We are disposed to concur in these expectations, and the probability of their realization is borne out by the actual results of the revisions of assessment under the Presidency of Bombay, as well as by the effects of the introduction of reduced rates into the District of South Arcot.

Madras Selections, No. 22, papers relating to the revision of assessment in South Arcot.

Note ad finem.

38. It must however be borne in mind that the large augmentation of agricultural produce, which may be expected to ensue on the reduction of the assessment, will, if confined to grain for local consumption and especially if ready means for transporting it to distant markets are not simultaneously provided, probably lead to a considerable decrease in the price, and that the ability of the ryot to pay the lower assessment may be in reality no greater than that which he now possesses under a higher one. It is therefore of the utmost importance that encouragement should be given to the production of sugar, cotton, and other articles suited for exportation; and that, as we have already remarked in our despatch of the 8th November (No. 23) 1854, when referring to the expected increase of produce consequent on the construction of extensive works of irrigation, ready means of intercommunication between the several districts should be afforded. Although not specifically stated in the resolution which we have been reviewing, we presume that provision will be made in the new arrangement for the formation of District Road Funds, on a principle similar to that established in South Arcot, which was approved in para. 20 of our despatch dated 18th July (11) 1855.

39. The agency proper for effecting the survey and assessment and the cost of both operations, have next to be considered.

Paras. 36 *to* 44.

40. You propose that the survey should be conducted under the superintendence of a Surveyor General, who should be an officer of scientific acquirements, and who should receive a salary of Rupees 1,000 per mensem, in addition to the ordinary pay and allowances of his rank Under this officer you would place at least four Deputy Surveyors General, with staff pay at the rate of Rupees 650 per mensem, each in charge of a separate geographical division of the operations. The total cost of the Survey, assuming the area to be subjected to it, at thirty eight million acres, or sixty thousand square miles, you estimate at Rupees 38,40,000, and the time that it would occupy at twenty two years.

41. You are of opinion that the assessment and settlement, including the classification and valuation of the land should be entrusted to a different agency. You accordingly propose that a Revenue Officer of experience should be constituted Superintendent of settlement, with a salary (to avoid frequent changes of incumbency) not less than that of a Member of the Board of Revenue, with Deputies under him at Rupees 1,000 per mensem, one of whom it would probably be found expedient to have following each Deputy Surveyor General. Estimating the extent of land to be brought under settlement as thirty eight million acres, and the cost at ten rupees per hundred acres, the total amount will be Rupees 38,00,000, which added to the cost of the Survey will give an aggregate sum of Rupees 76,40,000.

42. You observe that the amount is large, but that as it will be spread pretty equally over a period of fifteen or twenty years, it will amount to no more than a charge of from one to one and a half per cent. on the annual revenue. The information which you have requested from the Government of India, as to the salaries and establishments of the Settlement Officers in the North West Provinces, and the nature of their duties, will, when received, probably lead you

Paras. 44 *and* 45.

Enclosure to ✠ 1/2 of 1857
From Ct of Directors D. 17 Dec 1856
No 17.
Rec'd 17 Aug 57

to modify in some respects the scheme of establishments which you have suggested, when this shall have been finally settled you propose to submit detailed statements for the sanction of the Government of India. We will here remind you that much information is possessed by the Bombay Government regarding Establishments, both of Survey and Assessment, and amongst other competent authorities, we refer you especially to the Reports of Major Wingate, and Mr. Goldsmid on this subject.

43. We fully concur in your opinion that the cost about to be incurred is not more than commensurate with the importance of the objects sought to be attained by it, and we therefore give our sanction to the expenditure required. We would only remind you that the work should be pushed on as fast as efficient Establishments can be organized, not only that the people and the Government may the sooner benefit by the projected measures executed with caution and judgment, but also from motives of economy, as it is obvious that the expense of superintendence need not be increased in a ratio proportionate to the increase of the work whether of survey or assessment which must be performed in the field.

44. In his Minute dated the 13th March 1856, Mr. J. P. Grant has pointed out that from the circumstance of the settlement being ryotwar, it does not necessarily follow that each individual ryot should pay his dues direct into the public treasury. In our Despatch dated the 31st January (No. 1) 1849, we suggested the expediency of your requesting information from the Government of Bengal, as to the mode in which the settlement of Cuttack had been conducted with the view of ascertaining whether any of the principles there adopted would be made applicable to the Northern Circars. This system was examined by

Minute 8th June 1854. Mr. Walter Elliot, who appears to have arrived at the conclusion that a system similar at least in some respects to that of Cuttack might be introduced with advantage into those districts. Mr. J. P. Grant also expresses a similar opinion, observing that "nothing could have worked better than

Minute 13th March 1856, *para.* 9. the last settlement of Cuttack," we do not wish to issue any positive instructions on this point; but we think that the recommendation of Mr. Elliot together with some other suggestions offered by Mr. Grant in his Minute before referred to, should receive your careful and deliberate consideration.

45. In conclusion, we have to express our entire satisfaction at the liberal and enlightened spirit in which this important subject has been discussed, and at the lucid and able manner in which your conclusions and recommendations have been placed before us in your Minutes of Consultation of the 14th August 1855. As you will now be in possession of our general sanction to the expenditure involved in the execution of this great measure, and of our view of the principles on which it should be conducted, we have only to state, in full

Para. 43. concurrence with the sentiments recorded by your Government that we should "deeply regret if any further delay were permitted to intervene in entering on a work which has been accomplished, or is in course of execution in all the "other divisions of the British Indian Empire; which is universally admitted to be urgently required," in the Madras Presidency, "and which is, indeed, absolutely necessary wherever a "land tax constitutes the chief part of the Public Revenue, because it affords the only sound "data for judging of the value of the land."

LONDON,
17*th December* 1856.

We are, &c.,
(Signed) W. H. SYKES.
(„) R. D. MANGLES.
&c. &c. &c.

(A true Copy.)
(Signed) H. FORBES,
Acting Secretary to Government.

A true Copy
H Forbes
Actg Secy to Govt

REVENUE DEPARTMENT.

No. 741.

Extract from the Minutes of Consultation under date the 25th July 1857.

Read the following letter from R. B. CHAPMAN, Esq., Officiating Under Secretary to the Government of India; to H. FORBES, Esq., Acting Secretary to the Government of Fort Saint George, dated Fort William; 5th June 1857, No. 810.

SIR,

With reference to para. 4 of my letter No. 1306 dated the 16th October last, I am directed to forward for the consideration of the Government of Fort

* *No.* 13 *dated 6th May* 1857. Saint George the accompanying copy of a report* from the Deputy Surveyor General on the details of the proposed survey of the Madras Presidency.

From Major H. L. THUILLIER, Deputy Surveyor General; to CECIL BEADON, Esq., Secretary to the Government of India, Home Department, Fort William; dated Calcutta, 6th May 1857, No. 13.

SIR,

I have the honor to acknowledge the receipt of your letter No. 1505 of the 16th October last, forwarding for my perusal, a volume of printed papers relative to a project for the Survey and settlement of the Madras Presidency, which has been approved generally by the Supreme Government and recommended for the sanction of the Honorable Court of Directors, desiring me to furnish an outline of a plan for organizing a professional Survey Establishment, capable of commencing the professional Survey of that Presidency simultaneously, at not more than four different points in concert and communication with the Revenue authorities under the control of a Surveyor General, and calling for any observations as to the mode of carrying on the Survey, as well as to the distinction of duty between the professional and Revenue officers, which my experience might suggest.

2d. In obedience to the above instructions, I beg to submit the following remarks on the several points alluded to.

3d. From the volume of printed papers relating to the proposed General Revenue Survey of the Madras Presidency received with your letter, and also from the "Selections from the Records of the Madras Government No. IX. on the Revenue Survey," it appears that a minute and accurate detail measurement of holdings, is contemplated to be carried out in the Madras Presidency, with a view to a ryotwarry assessment of the land; and I find that a small establishment has been employed in South Arcot under Captain Priestley since, or prior to 1854, when the Supreme Government authorised a full party at an aggregate cost of 41,790 Rupees as per margin,* for a period of two years, subject to a full report at the expiration of that period. The details of this establishment are specified in the resolution of Government in the Financial Department dated the 8th September 1854, printed with the Madras Selections No. IX.

	Rupees	*A.*	*P.*
* *For survey and measurement.*	39,510	0	0
For classification and assessment.	2,280	0	0
Per annum.	41,790	0	0

4th. In the excellent report dated 27th February 1854, of Captain Priestley's initiatory operations in South Arcot, drawn up by Mr. W. H. Bayley, the Secretary of the Revenue Board, printed in the selections, I gather that the main object of the Revenue Board and of the Surveyor Captain Priestley, is to conduct a Survey of *Fields* or Holdings, on the most approved principles, and that beyond a small amount of professional accuracy in fixing the village boundary, and in making three or four villages join together, no general scientific precautions are deemed either necessary or expedient, for securing professional accuracy over extended areas, either to ensure a congregated map of a Pergunnah, or of a Zillah, which shall have any pretensions to refinement or even ordinary approximation to truth.

5th. Before we can in any way form an idea as to what an Establishment should be for these Madras Surveys, it is absolutely essential that the system of Survey to be adopted, or the requirements of the local Government in respect of such Surveys, should be fully understood. To give the outline of a plan, or any suggestions for organizing a Professional Establishment, it would naturally be in consonance with the system prevailing on this side of India, which is essentially of a professional and scientific character, such as I conceive alone applicable to the delineation of large tracts of country, and sufficient for the formation of Maps which will increase our knowledge of the Geography of India, whilst at the same time the Revenue requirements of the operations are not lost sight of.

6th. The Establishment framed for the conduct of the Survey of South Arcot, is evidently of a mixed character, partly professional and partly for the Native Field Measurement, or what is termed here, the Khusrah, as I have endeavoured to analyze it in the margin.*

		Rs.
Professional.	* 1 Superintendent	575
	2 European Assistants	400
	3 Head Surveyors at 70	210
	6 Deputy at 30	180
	9 Writers, Computers and Draftsmen	195
	129 Measurers and Duffadars	549
	18 Peons	96
	Travelling allowance Tentage and Batta for Head and Deputy Surveyors.	60
	Total..	2,265
Khusrah.	30 Survey Aumeens	562
	30 Do. Gomastas	500
	Travelling allowance Tentage and Batta for Ditto	165
	Classifiers and Gomastas, &c.	190
	Total...	1,217
	Grand Total.....	3,482

With this disposition, the Revenue Board and Captain Priestley contemplated getting over 720 square miles of *Fields* per annum, and with unbroken, waste, jungle, hills, &c., about 800 square miles when the work was in full operation, and the Government of India expressed an opinion that if such an area of Fields could be disposed of annually, that the work would be cheaply purchased in a country like that of Arcot in which the ryotwarry system prevails.

7th. It is evident from the details given in the above scale of Establishment, that its formation has special reference to conducting the Khusrah, or the internal sub-division of Fields, simultaneously, and as a part in fact of the Professional work, and the Board's Report throughout leads to the same inference. The system may be termed, if I apprehend it rightly, nothing more than a scientific Khusrah, or a superior land measurement of fields, somewhat on the principle of the Bombay Revenue survey, only with village boundaries, laid down by Theodolite Professionally, in addition. The fields thus being the primary object and the village unit being almost the apparent limit of accuracy proposed by the surveyor, without any aim at generalization or general Topography, the ingredients composing the establishment proposed by the Madras Revenue Board, are doubtless made applicable and best adapted to that end, and with our imperfect knowledge of the ways and means and local peculiarities of the sister Presidency, it would be inexpedient my attempting to suggest any modifications in the machinery for carrying on a work of this peculiar nature.

8th. The nucleus of a professional establishment may be said to have already been formed by Captain Priestley, and from this, all the other survey parties required for the Madras Presidency, will have to be raised season by season, as every individual learns his duty and instructs others, so may drafts be gradually taken out of the parent establishment for the formation of other parties. All depends on the superintending officer and his administrative ability in training and instructing others, and ~~in~~ making every person useful in his own peculiar line. The best policy in all survey operations, is to begin with a well organised compact Establishment, vigilantly supervised, and then to expand it gradually as success and experience warrant development. If Captain Priestley has had two Covenanted Assistants for two years under him in all probability they are by this time so well versed in the general duties, as to be competent for detached independent employment; and if so, they in their turn must commence with a few hands and feel their way gradually, until by degrees they can teach a sufficient number, and thus complete their effective strength.

9th. On this side of India every survey Establishment, with one or two exceptions, has a Covenanted Superintendent and a Covenanted Assistant, the latter generally selected for his qualifications as a Mathematician and Draftsman, the preference being given to officers educated at Addiscombe or Sandhurst where an excellent elementary education is afforded, and a practical insight obtained also in the first principles of surveying and the use of Instruments. These Covenanted Assistant Surveyors, serving in a subordinate capacity under able guidance for two or three years, and in a large Establishment perfectly trained to its work, the succession to the charge of surveys is thus well kept up, and departmental experience and merit made the step to promotion.

10th. I would therefore venture strongly to recommend, that great care be observed in the selection of officers for this duty, and that none be admitted, into the Department who are not both physically strong and young, and whose pretensions as Draftsmen are not above mediocrity. Officers of the Ordnance Corps, Engineers and Artillery are obviously by their early training and attainments the best fitted for employment in a scientific profession, and I believe it has been found preferable to employ young officers of not more than 5 or 6 years' service, who are more likely to adopt proper habits of active exertion, and to imbibe a taste for hard and rough work, than those of more mature age and residence in India, with whom it may be irksome to commence learning a new and difficult profession, and whose tastes do not harmonize with the style of life; above all I believe a strong partiality and taste for such description of work as well as artistical talent as a Draftsman to be a sinê quâ non, on the part of the candidate.

11th. Many of the Bengal surveys were originally organised, without any experienced hands. Raw recruits both European and East Indian, as well as Native, had to be taken, and thoroughly instructed in every part of their duty, almost every officer has had to make his own party and according to the ingenuity, tact, and perseverance of the officer in charge so will an Establishment be rendered effective in more or less time. To teach and guide others, all new to the work, the Surveyor himself must be a competent officer fully acquainted with the theoretical part of his duty, if he has not had the advantage of any great amount of experience in the field.

12. The subordinate grades of Assistants and Sub-Assistants must be recruited in the same way. It is in vain to look for, or expect ready made Surveyors any where, wherefore if promising youths of good education and possessing a fair elementary knowledge of Mathematics, with some signs of a taste for drawing can be found in the Educational Establishments at Madras, they may prove the proper description of persons to join the Department, and receive their further education in practical matters afterwards. The test of qualification for such Sub-Assistants is laid down in the enclosure marked A, and we find no difficulty in obtaining very promising young men, both for the great Trigonometrical and Revenue surveys; possessing these qualifications, who are willing to join on the usual salary,* of either 107 or 75 Rupees as the case may be, giving the undertaking to serve 3 years, an important clause in the agreement, since it takes about 2 years to render an Assistant fully competent in all the duties expected of him, and before which time he in reality makes but little return for his salary, and the time and labor bestowed on him.

Appendix A.

	Rs.
* *Great Trigonomitrical survey.*	107.
Revenue Ditto.	75.

13th. As I conclude Captain Priestley's establishment is still employed in South Arcot, it appears to me that the object to be obtained of raising four full parties will best be consulted, by a certain number of both Covenanted and Uncovenanted Assistants being at once appointed and posted as supernumeraries to learn their duties under this experienced officer. Whether in Cantonment or the field at this season of the year there is much to learn, and into which a practical insight can alone be obtained in a Surveyor's office. These additions doubtless will not in any way aid or assist the work Captain Priestley may now have in hand, but on the contrary, his time and attention will be much occupied in teaching; consequently, the expense of the new hands might be kept separate, and not debited to this Surveyor's work to swell his average cost. It will however be true economy to the State to give both officers and subordinates this advantage, if it can possibly be managed.

14th. In proportion as the European agency is obtained and perfected, so can the Native Agency be cared for, entertained and trained up; and according to the employment of Native Agency under a proper system of check and supervision, the cost of the work will be affected.

1 *European Revenue Surveyor.*	} *Mily. Officers.*	
1 *ditto. Covenanted Assistant.*		
1 *ditto. full Assistant Surveyor.*	} *Uncovenanted.*	
5 *ditto. Sub-Assistants.*		
30 *Native Surveyors or Mootsuddees.*		
250 *Measurers, or Tindals and Classies.*		
19 *Guard* (18 *Burkundazes and* 1 *Jemadar*).		

In the Bengal Presidency the relative proportion of European and Native Agency for professional Survey alone may be estimated as per margin,* and as more fully detailed in the copy of one of the existing establishment's pay abstract for a month of the field season (Appendix B.)

15th. The Native Surveyors of the first class, salary varying from 20 to 60 Rupees per mensem, are competent to survey with the theodolite and chain, to keep field book and protract work, they as well as the 2nd class men, whose remuneration is from 10 to 25 Rupees can also use prismatic compass or circumferenter, and make field map of the interior details of cultivation, waste, and other topographical features. The former are employed in the boundary work, and having taken the horizontal angles round a village, and measured the lines of the polygonal figure, and taken the offsets to the boundary as marked off by mud pillars by the demarcation (or Civil) department, send their field book in to the European Assistant in charge of the camp or division, who after applying the proper bearing to the leading line, as deduced by astronomical observation, and carried on successively through each main, or grand circuit, computes the traverse of the village, and thus tests daily, the work of every Native Surveyor. The several duties of the component parts of a Bengal Establishment will however be found fully explained in the manual of surveying for India. Copies of which, I am informed by your letter under acknowledgment, have been supplied to the Madras Government.

16th. In the Bengal Presidency where the duties of the revenue surveyor are now universally confined to the Professional survey alone, an establishment of the above description may be considered to be the most appropriate and the most economical. The expenses are regulated under the monthly audit of this office by a fixed annual maximum grant, as authorized by Government, the amount of which is now fixed at 37,524 Rupees, and the larger expenditure of the 6 or 7 months of the field season, is balanced by corresponding reductions during the recess; when the survey party returns to contonments or a civil station, and all superfluous measurers are discharged, and many of the Native surveyors permitted to go to their homes on half pay. The recess can never be reckoned less than 5 months, and is generally of even longer duration in lower Bengal, and this period of cessation from actual survey is absolutely necessary to enable the surveyor to complete all his maps and computations, and to lodge them in this office in a satisfactory manner before he embarks in a new campaign.

17th. The above establishment and expenditure only provides for a complete village survey including a separation and record of all the usual details of "land under cultivation," "fallow" "fit for cultivation," "waste, jungle, jheel &c.," together with a regular delineation of all the Topographical features of the country on the large scale of 20 chains or ¼ mile to the Inch; no separate measurment of *fields* (khusrah) or even of small estates comprising portions of village, is included in this estimate. This duty is performed by the civil or settlement establishment, and entirely checked by the officer of that Department, the results of the Professional survey being their guide for the aggregate areas of each description of land, and of the entire village, and consequently this Department is in no ways responsible for, or concerned in the record of the separate fields or minor estates, which is exclusively managed and paid for by the civil branch.

18th. My own views on this question do not accord with those of many of the authorities who have had the control of extensive settlement operations, and very materially differ from the policy of the Revenue Board Lower Provinces during the last 6 or 7 years, in regard to the method of defining and mapping the mehals or small estates in the perpetually settled Provinces, where the specification of fields and of the description of the land is no object, all that is required being the area and position of every separate estate paying revenue to Government. I hold, that all measurements of whatever kind whether professional or khusrah, can best be checked and supervised by a professional Surveyor, and that the two combined operations of survey and measurement of fields, by advancing simultaneously under one head, must have an advantage over separately conducted, and separately superintended, operations. I believe that an active Surveyor who thoroughly understands his work, who is supported by 5 or 6 European Assistants scattered over the District under survey, and whose tenure of office is generally far more permanent than that of a Civilian, will be found more competent to keep a body of 100 or 150 Native Aumeens, the number usually required in a District, in proper check; my experience tells me that such men as measuring Aumeens require the most constant and vigilant watching, as well as the certain knowledge of the professional survey coming in their steps to keep them within bounds, so far therefore it appears to me that the Madras proposed system is worthy of admiration, for the fields will be laid down pari passu apparently with the village boundary, and with great precision and accuracy and essentially under the control and management of the Surveyor himself.

19th. In the Madras system in fact the attainment of the separate record of the fields, appears to be the one great and only object aimed at, to the exclusion almost of those general principles of professional practice, which are obviously called for, when projecting extensive surveys of immense areas, embracing zillahs or Districts and even provinces. That the object of this detail measurement, or khusrah, in a country about to come under a Ryotwarree assessment, is most important I am well aware, and of the expectations of Captain Priestley and of the Madras Revenue Board of getting over 700 square miles of *fields*, in this style, with the strength of establishment laid down, and if similar success can be guaranteed in all the four different surveys proposed to be carried on, the results thus obtained will be well worth the money expended.

20th. It would be very interesting to know what may be the actual experience of the working of Captain Priestley's establishment for the last two seasons. Whether he has been able to attain such progress with the allowed means or not. The average size of the fields is said (para. 23 Board's report) to be half an acre, a field of two acres being a rarity; according to the size of the fields of course must be the progress, and it certainly seems, according to the practical experience gained on this side of India, that for 30 Ameens the apparent number of men entertained to accomplish 700 Sq. Miles of fields of such an average equal to 896,000 fields per season, which gives 29,866.6 fields each man, or 2986 fields each man per mensem, or 114 fields per diem, 10 successive months in the year, is an enormous outturn, which when taken in consideration with the improved mode of measurement proposed is the more remarkable. In the Board's Report, page 20, paras. 73 and 74, the estimate is made at 25 Fields per diem for one Aumeen or $2\frac{4}{10}$ Sq. miles per mensem, taking 60 acres to the 25 fields, which however does not correspond with what has been previously stated as the probable average of the size of fields, but on the contrary is more than four times in excess of that average. It is possible that sufficient experience has now been attained by Captain Priestley to warrant a more definite estimate of progress.

21st. Whatever progress however may be gained in this minute delineation of the Revenue requirements of the survey, the laying down of the Fields, it strikes me that no General Survey of the Madras Provinces ought to be permitted to be commenced, and carried on in the present day, without full and ample precautions being taken for making the materials subservient to the general purposes of Geography. It is so evident from the published papers, that a very little more would suffice to secure this object, that it would be a thousand pities to neglect it. The Madras Peninsula already boasts of a Topographical survey on a moderate scale made from 30 to 40 years ago based on Colonel Lambton's Triangulation, and with the exception of a very small gap here and there, an absolute net work of Triangles covers the whole of Southern India, and consequently the utmost facilities exist for connecting the present operations with the old points, which will afford the surest means for adopting the present revenue materials to the same purpose, as we have so successfully done on this side of India.

22nd. The lapse of so many years makes a great difference, in the appearance of the face of any country, and it will naturally be found, that between the old surveys, made for the most part, apparently by plane table sketching, on the scale of one inch to the mile, and the new survey laid down with great minuteness of detail on the vast scale of 16 inches to the mile (or 16 times greater, which must be reduced to a smaller and more tangible scale suitable for general maps,) the detail shewn will be almost entirely different. Hence it cannot in my humble opinion, be urged that the old Topographical maps are sufficient for all purposes of the present day, or that the present very minute and careful survey could be incorporated or dovetailed therein; such a procedure I believe would be impracticable for many reasons which might be urged, and therefore good Topographical Maps should not be rejected, when they can be so easily rendered, and when every day shews the pressing want of them for new Engineering works of practical utility.

23rd. The first great principle which I look upon as of the most vital importance in subordinate survey operations, is the due and perfect connection and identification of the Topographical features, or stations of the Revenue Survey with the points of the Triangulation, whereby alone, the Maps of the former operations can be amalgamated, and adjusted in the great Atlas of India, or indeed in any general Map, on which lines of Latitude and Longitude are required, with any pretensions to accuracy. If therefore satisfactory Topographical Maps are expected or desired in the Madras Presidency, it will be very essential for the Surveyor to pay much more attention to the above condition than the Madras Revenue Board seem inclined to recommend. In paras. 13 & 14 of their report, allusion is made to this connection of the two Surveys, and the advice of Captain Jacob, the Honorable Company's Astronomer, (himself formerly employed in the Bombay Survey) taken, the result of which appears to be summed up in the very remarkable expression, that "Captain Priestley's method of survey requires no such aid."

24th. It would appear, as I have before remarked, that the proposed system for Madras, ranges no higher in the scale of Surveys, than that of a very good Khusrah, or Parish measurement of land, which in fact is no *survey* (properly so called) at all, and therefore if compared with the Bombay similar description of work, (which I have always understood to rank as a mere civil settlement operation,) then the connection with the G. T. Survey of India, may be deemed superfluous. But if the Madras Revenue village Maps are ever to be put together, so as to form a Pergunnah, or even a talook congregation of the entire number of villages composing such subdivisions of the country, and from which again a District or Zillah Geographical Map could alone be constructed, then the insertion of the points of the great Triangulation will be imperative, and if they still exist on the ground it would be difficult to understand, in what way such an observance, could either impede or obstruct Captain Priestley's work. The record of a known and well fixed point, of which the Latitude and Longitude is known, on the maps of a new survey of the Madras Provinces, can possibly do no harm, or prove inconvenient to fix where every village is surrounded by angular work obtained by a Theodolite; whilst on the other hand, its omission may, and assuredly will, hereafter cause serious trouble, doubt, and perplexity, when Geographical materials have to be compiled, not by the Surveyor himself, but by the Surveyor General or Superintendent of the whole of the surveys.

25th. On the above view of the case therefore, whatever Captain Priestley's method of survey may be, he can in no ways be independent of, or despise such aid, as that which an accurate survey on a Trigonometrical basis affords, and which very fortunately will be found to exist in all parts of the Peninsula of India. Each new District survey, ought to have some fixed, and well known point of departure from which, its operations should emanate and all its calculations be computed. I believe a large chart of the whole of this Triangulation has been already furnished to the Madras Revenue Board, and the numerical data of a great portion of it, with Extracts from Colonel Lambton's Memoirs and Papers are now under transcript in this office on the requisition of the Madras Government. There will be nothing wanting therefore to render the Proceedings of as many Surveyors as may be appointed, clear and unmistakable and my earnest recommendation is offered, that the great and lasting importance of this point may not be overlooked or neglected. Indeed, I am glad to perceive that the Government of Madras express a decided opinion on this subject in the Resolution dated 14th August 1855, para. 8.

26th. In the 15th para. of their report, the Madras Revenue Board are in error in stating that in the N. W. Provinces the *Professional* work of the Revenue survey was performed by officers employed in the great Trigonometrical survey, and that they did not extend their labors to village field work. The Revenue Survey Department is essentially distinct and separate from that of the great Trigonometrical survey, the officers of which, are strictly confined to the Principal and secondary *Triangulation*, they have nothing whatever to do with Topography or details of any sort, and their operations are pursued without reference to Districts or any other surveys which may be in progress. The Revenue Surveyors of the N. W. Provinces invariably maintained the measurement of fields (the khusrah) under their own guidance, the only part of the khusrah then performed by the settlement officer, was the insertion of the quality of the soil, or nature of crops, in the Aumeen's Chitta or field Register, the whole of the measurement duties were, as they always should be in my opinion, under the Surveyor. That failures in the khusrah occurred (as pointed out in the Board's 80 to 84th paras.) there can be no doubt; they were caused I apprehend by the inordinate race amongst the N. W. Surveyors of those days for large areas, when quality gave way to quantity, and when the whole of the operations were under the control of the Agra Revenue Board, instead of under the proper professional check and supervision of a Deputy Surveyor General.

27th. It is equally a fact, that even the results of the professional survey of the N. W. Provinces of those years were much neglected, and the combination of the village survey into proper Pergunnah Maps not carried out in the way it undoubtedly ought to have been, owing to the extraordinary haste, with which the Surveyors were urged to get over the ground for settlement purposes. The records of those surveys, from never having been deposited in the Surveyor General's office, are now incomplete, and many of them not forthcoming at all, and for many years past a series of Zillah Maps on the useful scale of 2 miles to the inch, exhibiting village boundaries, have been under preparation at Agra, and by the assistance of the local Collectors, but with very partial success, and it is estimated that this object which the N. W. Government have long had very much at heart, will still occupy ten years more, such a lamentable result may be attributed entirely to the two causes alluded to above, viz. the absence of direct and special competent superintendence over the whole of the operations, and the imprudent and rash speed of the executive Surveyors, large areas and low rates being the chief thing sought after.

28th. It is a consolation to be able to add that such a system has long since ceased to hold any sway in this Department. With the date of the cessation of the N. W. surveys, large areas and low rates with inferior work to match, have been exploded, and in the present day no Surveyor would risk his professional reputation by following such an example, the ill effects of which I may say are even now constantly felt in this office in the course of our general duties. The mention of these circumstances in this place, will, I hope, prove not entirely without its use as a beacon to the Madras Surveyors.

29th. Next in importance to a proper and complete identification with the points of the great triangulation and a permanent point of departure or first station for the survey, is the nature of the meridian on which the operations are based. The Board remark in their 44th para. that the Surveyor has not laid down a true meridian, but was working entirely from a magnetic one, and that the outline of every village being independently and carefully taken by traverse, a set of several villages will ultimately close "near enough for all practical purposes." They thought however with Captain Priestley that it was desirable to have a check of more accurate nature, but again in para. 47 they did not consider it necessary for the Surveyor "to lay down his Azimuths with that rigorous accuracy that was required in the N. W. Provinces, where the lines were connected with the G. T. Survey;" and the Board therefore left it to him to use such method as might be adapted to the instruments with which he was furnished. From the 48th para. it further appears that nothing beyond a 5 inch Theodolite forms the present equipment of the Surveyor.

30th. From the above it would seem that the Surveyor is at present obliged to adapt his style of Survey to the nature and capability of the instruments with which he is supplied, instead of first determining on a rigorous method, and then providing his instrumental equipment accordingly. In the 48th para. of the Board's Report, the proper and usual system of working from whole to part, and embracing large circuits of a whole talook or Pergunnah in the first instance, the smaller or village circuits being filled in within it afterwards, is hinted at, as having been proposed by Captain Priestley though his other duties would not permit him to carry it out. It is precisely such a course that I would earnestly enjoin, as the first step towards securing faithful maps of a Pergunnah or talook, and hence of a Zillah as the only way of conducting such a Survey, as we have in Bengal. To effect this also, every independent village laid down on a Magnetic meridian will never answer, because, although as the Board anticipate, a few village traverses might join well enough together for all practical purposes, yet the accumulation of error in many hundred village circuits would soon become so large, that the Surveyor would be thrown into inextricable difficulties. Not only must the whole work be based on the *true* meridian, carefully established for the Initial Azimuth, as derived from astronomical observations; but such true meridian must again be frequently checked by corresponding astronomical observations, and the Azimuth as conveyed through the angular work from circuit to circuit constantly tested. Without this is done there will be no prospect of the main circuits closing and proving with the necessary accuracy. The whole of this process to which I will only here briefly

allude, is described at great length in the "Manual of Surveying Chapter XII. Part III.," and will no doubt be familiar to the Madras Surveyor.

31st. Having in view therefore a Professional Survey of the Bengal stamp, as a very necessary ingredient of the Madras proposed operations, I would counsel the strictest observance as to the mode of establishing and laying down the true meridian, and in preserving the true inclination of the Azimuth as conveyed from circuit to circuit. It may be sufficient for all purposes of Revenue, and for the requirements of the Board of Revenue, that a set of a few villages join well together, but generalization and good Topographical Maps cannot be obtained by such a system; and if any thing beyond the isolated village plan is expected, or deemed requisite for the general purposes of Government, a rigorous prosecution of the Professional part of the work must be adopted. In the 10th para. of the Resolution of the Madras Government, I observe, it stated, that talook Maps should be prepared, and permanent boundary marks established, without which two securities, the work would in the opinion of the Government in a few years be lost.

32nd. In the 41st para. of their Report, the Revenue Board remark that they do not consider themselves qualified, in recommending the additional expense that would be incurred in preparing Maps *purely Topographical* and that all nullahs, roads, tanks, &c., being laid down *as fields* and clearly defined in the Khusrah measurement, a little extra coloring would give every Topographical information necessary. The question however appears to me, to be one of scale, and as to the nature and extent, of the Maps to be furnished by the surveyor. This khusrah or measurement of the fields, is to be on 16 inches to the mile, this is most appropriate for such minute detail work, and fields of half an acre average size could scarcely be shewn on a smaller scale, as the multiple of 4 it is also particularly convenient for all subsequent reductions and incorporation as Geographical materials. But I submit, if the duty of the surveyor is to be confined to these village plans on such a large scale, but the survey results will be useful alone to the settlement and village authorities, and that no one else could possibly make use of them, for even three villages joined together on that scale, would produce a sheet of paper altogether prohibitory; neither could such large plans for many Districts be multiplied except at a very heavy cost and with great expenditure of time.

33rd. To prepare *purely Topographical* Maps would perhaps be foreign to the immediate object in view, but if the Revenue measurements are to extend over many talooks, Pergunnahs and Districts, there must be some sort of general or Index Maps, prepared as guides, to a ready comprehension of the village plans and their relative position when congregated together. In fact some sort of generalization, and combination of the materials thus produced by the Revenue measurements seems to me indispensable. The question therefore appears to me to resolve itself into this, should the surveyor furnish Index Maps on a convenient scale, showing all the village jurisdictions comprised in a talook or Pergunnah, or other convenient size block of area, and ought such Map to be a mere outline skeleton of boundaries, or accompanied with the usual general Topographical features of the country which in reality have all been taken up in the field and only require reduction and compilation, to bring them into practical use?

34th. In other words should the labor bestowed in the field, be reaped in the office, and turned to practical account, or be allowed to be dormant, recorded only where a few persons can obtain access to it? or should the results of the Madras surveys be purely of a Revenue character or Revenue and Topographical combined, affording valuable information to the Engineer as well as the Collector? The difference in the expense will I believe be trifling in comparison with the superior advantages gained. It is beyond my competency in the present state of the question, and with the information before me, to predict what would be the relative cost of a purely Revenue or a Revenue and Topographical survey combined, in the Madras territories; this may possibly be estimated more closely by Captain Priestley, and with his experience before him, together with a fair consideration of what I have endeavoured to recommend, the question may be placed on fair grounds for the information and decision of Government.

35th. In first establishing large survey parties, their Instrumental equipment is a matter of primary importance. It would appear from the correspondence that the means of providing suitable instruments do not exist at the Madras Presidency, and if such should still be the case, or if proper arrangements have not been made to indent on the Honorable Court for a sufficient supply to meet the probable wants of the entire presidency, I would suggest that applications

be made on the stores of this Presidency, and I have no doubt all the immediate and necessary wants for four distinct surveys, could either be complied with, or procured from the European dealers in Calcutta in good time for the ensuing cold season. Annexed is a list of the instruments in use with a Bengal survey, and which may be said to be essentially necessary for carrying on the Professional operations. The number of Theodolites attached to a party, allows for keeping two or three in reserve to provide against accidents, which in very large establishments and with extensive native agency, must be anticipated. The wear and tear of a Theodolite in a Revenue survey is enormous, exposed for several months to all the changes of atmosphere and the influence of the dust, between sunrise and the sunset, it requires careful surveillance and cleansing on the part of the European Assistant at stated periods.

Appendix C.

36th. As the best and most intelligible way of illustrating my remarks, in respect to the style of Maps which I consider a Revenue Surveyor should produce, I beg to forward the specimens of one of the Bengal surveys as detailed in the margin.* It will be observed that the one Inch Maps, exhibit the unit of the survey the village jurisdiction, and consequently form a complete Index to the Revenue Plans of the villages. This is essentially the Revenue feature of the records, and by possessing a net work of village jurisdictions, the Pergunnah and the District can be divided off into any convenient number of larger jurisdictions such as Thannahs, Mconsiffees, or Deputy Magistracies without its being necessary in any case to deviate from an actually surveyed line, and consequently from a known, and recognisable line in the Field. In addition to this information, the whole of the Topographical details as laid down by the Professional survey by means of the Prismatic or surveying compass and chain, Plane Table or Circumferenter, are well shewn, to the fullest extent of which the scale is susceptible.

APPENDIX D.

4. The Baraset Division of the 24 Pergunnahs District, in four uniform Sections scale one mile to the Inch.
2. Separate Pergunnah Plans of the Nuddea District, scale one mile to the Inch.
1. District Map of Nuddea, forming an Index to the Pergunnahs scale 4 miles to the Inch.
1. District Map of 24 Pergunnahs, scale 4 miles to the Inch.
8 Total.

37th. From these materials the District or Zillah Map is compiled, with the aid of the numerical data duly recorded on the original manuscripts of the surveyors, and thence incorporated into the engraved sheets of the Atlas of India, dy the due identification of the points of the great Trigonometrical survey, which are all carefully shewn, and their direct distances as obtained by the Revenue operation, calculated, and then compared with the data of the former survey, from which the error of the work is deducible. By an inspection of these Maps the general features of the country are at once understood, the relative positions of the villages one with another are defined, and if more minute details are sought, or a boundary requires investigation, the village Plan can be referred to. As a combination of the Topographical and Revenue results, I believe these records will be found invaluable.

38th. In the North West Provinces this generalization is carried still further, and the village unit is even shewn on the District Maps, and by thus obtaining the whole of the village jurisdictions at one view great advantages are derived. Here the average size of the village is about 700 or 800 acres (or 1-14th square mile) which admits of their reduction to a scale of 2 miles to the Inch, but in the lower Provinces where the average size does not exceed 350 Acres or half a square mile, the 2 mile to the Inch scale, will not admit of such minute subdivision being shewn, and consequently the one Inch scale is obliged to be resorted to, and as that is too large for a whole Zillah, the Pergunnah Maps are separately published. A good specimen of a District Map shewing village boundaries is likewise forwarded as specified in the margin.*

* *In duplicate.*

APPENDIX E.

District Map of Secalkot 2d Edition.
Punjab Proper.
Scale 2 miles to the Inch District Gooroodaspore.
Scale 2 miles to the Inch.

39th. It is precisely such maps as these that the late Lieutenant Governor, N. W. Provinces, Mr. Thomason, declared were essential to make both Revenue and Judicial officers efficient in the performance of their local duties. I have, during my tenure of office, consulted many Revenue officers, and have heard but one opinion from them as to the superior utility of these maps, and therefore I commend them to the notice of the Madras Authorities.

40th. The above remarks will, I trust, be sufficient to explain my views as to the most desirable mode of carrying on the proposed survey as called for in your 2d para. It is now necessary to advert to the distinction of duty, usually observed between the Professional and Revenue officers.

41st. Allusion has already been made to the conduct of the khusrah or measurement of the fields, this I think has wisely been entrusted to the Surveyor, and he will no doubt do it justice; but although in the 20th para. of their Report the Board of Revenue, are evidently alive to the importance of the village boundaries being traced before the Surveyor commences his work, yet I perceive no distinct provision made in the correspondence before me, for the machinery by which the very important and primary duty of demarcating and adjusting the boundaries prior to, and well ahead of, the survey, is to be performed. On this, the progress and satisfactory results of the survey and measurement, will undoubtedly depend for if the Surveyor proceeds in advance of the settlement of disputes, his work is rendered liable to revision, and unless the field marks are erected before the Surveyor goes on the ground, it will be impossible for him to proceed with that regularity and expedition which is so essential in extensive operations. It is not only necessary therefore to provide for this important point, but to do so in a manner which shall positively prevent all hindrance or detention to the Professional Surveyor.

42nd. For the assessment and settlement it has been wisely determined to have separate and distinct officers (para. 39th of Madras Government Resolution of the 14th August 1855) it having been established in other parts of India, that such duties cannot safely be entrusted to the ordinary district authorities. With a settlement officer therefore for each survey or zillah, there will be no difficulty, in his providing for the civil duties both preparatory to, and subsequent to survey, as so forcibly enjoined in the "directions to settlement officers in the N. W. Provinces" published by that Government copy of which has been supplied to the Madras Government as stated in your final para. In Bengal the cost of demarcation including villages, and the minor estates contained within them, is very heavy, equal in fact, according to the present system introduced by the Board of Revenue lower provinces, to the expense of the professional survey.

43rd. This demarcation however of the internal or small estates furnishes all that is required of a khusrah, or rather I should say, has been substituted by the Board of Revenue for the khusrah or field by field measurement, as previously conducted by the surveyors, with what advantages time can only prove. But whether in Madras any preparatory definition or demarcation of the fields or ryotwarry holdings will be necessary or not, I of course am unable to say, but it appears to me obvious, that at all events the village boundary, which Captain Priestley lays down in a professional manner with the Theodolite, should be properly and authoritatively defined and freed from all disputes, and a sufficiently correct sketch of the same exhibiting the precise position and distance apart, of all the boundary marks (or *Thaks*) as existing on the ground, should be furnished under the settlement officer's signature, for the guidance of the surveyor and for due subsequent comparison with the professional plan. The present method of preparing these demarcation (or Thakbust) maps, is fully described in the Manual of Surveying (page 541 second edition.)

44th. The Madras Board of Revenue in endeavouring to estimate what an establishment should be, (paras. 52nd to 54th of their report) refer to the details given in the Manual for the civil branch of the operations. The estimate given in their 54th para. is that for the demarcation establishment in the lower provinces of Bengal, where, under the perpetual settlement, the duties of the settlement officer are confined simply to the demarcation and adjustment of boundaries including the measurement of the minor estates situated within, and subordinate to, the village, and the preparation of the registers of estates, for lodgment in the Zillah Collectory Office. The object of this survey and measurement being merely, the ascertainment of the total area and position of every estate paying revenue to Government, the definition of the fields composing an estate, as well as the details of cultivation, waste, fallow, &c., are deemed unnecessary, and no enquiries are consequently made on those heads. To keep the Professional Survey establishment in full work, all the energies of the settlement officer and his establishment of Deputy Collectors, Peshkars and Aumeens, are called into play; and if this is the case where no settlement and assessment is in progress, it follows that the undivided attention of a civil functionary will be absolutely required in the Madras surveys. By the Surveyor taking up the measurement of the Fields, the settlement officer will be enabled to do ample justice to the demarcation and settlement duties.

45th. I believe that the same distinction which existed in the old North West surveys between settlement and survey duties, will be found the most advantageous in Madras. The Surveyor to conduct, and be responsible for, all survey and measurement work, the settlement officer to guide the demarcations and the assessment duties, which latter include the ascertainment of the quality of the soil and crops, and likewise involve a check over the entries of the names of Proprietors, or Ryots, in the Aumeen's Khusrah or field Register. By such a division of labor and responsibility, the agreements by the people of a district are more likely to be readily obtained, and entered into without objections of a serious character. In the Punjab and N. W. Provinces as well as in Bengal in the present day, the Khusrah or Native Revenue measurements are all made under the superintendence of the Settlement officer; I am therefore unable to furnish any information or specimens regarding this portion of the Revenue operations, but I candidly confess that after nearly 20 years experience in the Department, I am no convert to the change, but on the contrary, every day tends to confirm me in the principles which I have endeavoured to lay down on this subject, in the manual of surveying.

46th The objections taken to the results of the old North Western Provinces Khusrah, are, in my humble opinion, not from defects of system, or the principles, on which the system was based, but from absolute neglect of the first and leading steps of the system, whereby proper check and supervision over the combined work, was rendered impossible, by the haste with which the ground was got over as before adverted to. I therefore do not myself see sufficient cause for separating measurements, which should proceed simultaneously, or as nearly so as possible, under one professional head. A clear and unmistakeable distinction between the duties of the Professional and Revenue officers should I think be laid down from the first, and rigidly adhered to.

47th. The subject of permanent field marks is also one of great importance, and if they can be erected as the Board of Revenue propose at all triple junction boundaries of villages, of course, the advantage will be great, but I apprehend that the expense would be very great, and the number of solid or masonry pillars required for each talook or Pergunnah would be so enormous, as to render it altogether prohibitory. Although I have always endeavoured to provide for as many permanent marks as possible, especially such as are more essential for survey purposes, and for the proper connection of the meridian between contiguous surveyors, yet the fixing of the triple junction points or divergence of three boundaries of villages as land marks has been found to be hopeless. With the exterior limits of Pergunnahs and districts even, there has been a difficulty on account of the constant changes occuring in these territorial sub-divisions.

48th. Should it be determined to carry out this plan it will be very necessary to enforce the proper maintenance of the pillars by the village authorities. For this, and other purposes of the survey generally a special enactment will be most advantageous. It appears to me greatly to be regretted that in Bengal where the expense of defining, adjudicating and surveying the village boundaries falls so heavy on the State, the results of the survey are not made more binding on Zemindars. The more stringent the law in this respect the greater will be the attention to proprietary rights at the time of survey, and consequently a more ready attendance and co-operation on the part of Zemindars or ryots, which is so necessary to due progress will be obtained.

49th. During the past four or five years the operations in Bengal have been going on with great speed and vigor, the annual Reports connected with both the Professional and Civil branches have been published by the Board of Revenue, and as there may be many details discussed therein which might be instructive to the Madras executive officers, I beg to append a bound copy as per margin.*

The nature and extent of our operations in the lower provinces will be fully understood by a perusal of these reports.

APPENDIX. (E.) F

* *Bengal Revenue Survey Professional and Civil operation Reports for the seasons* 1851-52, 1854-55 *in Duplicate.*

50th. A mass of information regarding the old Revenue surveys and settlement of the N. W. Provinces, as well as of the Bombay Presidency has been published in the Parliamentary blue book, 100 copies of which, I have been informed, have already been furnished to the Madras Government, it is not therefore necessary for me to attach copies to this Report, and I would merely suggest a perusal of it to all the survey and settlement officers employed in the Madras Presidency.

51st. It has been stated in the Madras Government Resolution that a detailed Measurement of fields, will not be required of the whole area of the Presidency computed at 138,000 square miles, but only about 60,000 square miles of it, the rest being hilly jungly country of less value and importance, will, I presume, have to be taken up Topographically only; perhaps in some Districts, there will be found both descriptions of area to be dealt with (as is found to be the case in the operations now going on in the Saugor and Nerbudda territories) and which, in order to complete the Zillah map, will have to be provided for. The proper mode of surveying such ground is very elaborately described in the Printed Instructions by Lieutenant Colonel Waugh, Surveyor General of India, as per margin,* two copies of which I have the honor of furnishing for the use of the Madras surveyors, and would earnestly commend a careful study of the invaluable principles therein laid down to the Madras Surveyors. These instructions are likewise to be found in the manual of surveying Appendix page III. London Edition.

APPENDIX. G.

*Instructions for Topographical surveying by Lt. "Colonel Waugh, Surveyor General of India, "for the use of the survey Department."

52nd. In the Madras Government resolution (para. 44) it is questioned whether a Surveyor General, or a "Superintendent of revenue surveys" would be able to control more than four parties of the strength laid down. There would I imagine be no difficulty in his efficiently supervising a much larger number. At the present moment, I have no less than 14, all of the full strength with one exception as detailed in the margin,* under my immediate superintendence in addition to other important duties. But as before remarked the survey parties can only advantageously be increased gradually from year to year as each new party grows in strength and capability, and may thus subsequently be able to afford to spare a few well trained hands to form the nucleus of an additional establishment to take up another District. The present establishment, on this side of India have all risen in this manner. During a period of the past ten years four parties have thus expanded into 14. I would however on no account recommend more than four establishments being raised in the first instance.

* *Bengal*.....	5.
N. W. Provinces...	5.
Punjab and Sindh...	4.
	—
Total...	14.

53rd. I observe in the same para. of the Resolution mentioned above, that it is proposed to give the executive officers employed, the appellation of "Deputy Surveyor General." In this Presidency they are styled "Revenue surveyors" which appears more in consonance with their executive duties, and less likely to cause misunderstanding in contradistinction to the general supervising authority, who has long been termed Deputy Surveyor General in Bengal.

54th. In conclusion, I have only to record my earnest desire to afford at all times the most hearty co-operation and assistance, as far as lies in my humble power, towards the object which the Madras Government have in contemplation, and if the Superintendent of the surveys whenever such an officer may be appointed, will place himself in communication with this office, he will find a ready and cheerful response on all points of professional procedure, and I shall feel a pleasure and a pride, if by any means I can be made instrumental towards raising the character of the Madras surveys to that standard of excellence, which should characterise so great a work in the present age.

(True Copy.)

(Signed) R. B. CHAPMAN,
Offg. Under Secy. to the Govt. of India.

LIST OF ENCLOSURES.

1. Appendix A. Test of examination for candidates in duplicate, referred to in para. 12.
2. Do. B. Copy of pay abstract referred to in para. 14 in duplicate.
3. Do. C. Scale of Instruments for Bengal survey referred to in para. 35.
4. Do. D. 8 specimens of Bengal survey Maps, referred to in para. 36.
5. Do. E. 4 specimens of Bengal (Punjab) Maps in duplicate, referred to in para. 38.
6. Do. F. Bengal survey operation report in duplicate, referred to in para. 49.
7. Do. G. Colonel Waugh's "Topographical Instructions" in duplicate referred to in para. 51.

REV. SURVEYOR GENL.'s OFFICE,
6th May 1857.

(Signed) H. L. THUILLIER,
Deputy Surveyor General.

ENCLOSURE A.

Memorandum of Test for Examination of Candidates for the Great Trigonometrical and Revenue survey Departments.

1. To write a neat legible hand.
2. A thorough knowledge of Arithmetic, but more especially of Involutio , square and cube roots, Arithmetical and Geometrical progression, Proportion or Rule of three, Vulgar and Decimal fractions, and Logarithmic calculations.
3. Geometry, first 4 books of Euclid.
4. Algebra, as far as Quadratics inclusive.
5. Elements of Plane Trigonometry.
6. Spherical Trigonometry.
7. A knowledge of Plan Drawing, or at least a proof of some degree of taste in Drawing and Printing, so as to warrant the expectation that he may turn out a good Draftsman.
8. A healthy and vigorous constitution, and good eye-sight for observing.

Form of Agreement to be taken from a Candidate prior to his admission into the survey Department.

I, A. B. do hereby agree, that I will not demand my discharge for three years from the date of joining the survey to which I am appointed and never during the field season. I further agree to serve in any one of the surveys to which it may be necessary to remove me.

If against the tenor of this agreement my discharge should at any time be insisted on, I do hereby agree to repay to the Government a sum equal to one half of the whole amount which I may have actually received in the shape of salary or allowance of any kind.

E. F.
C. D. } Witnesses.

Place and date.

Signature.

NOTE.—This test is applicable to both Departments, with the exception of Spherical Trigonometry which is not required from the Revenue survey Candidates.

(Signed) H. L. THUILLIER, Captain,
Deputy Surveyor General.

B.

Detailed Statement of Native Establishment attached to the Revenue Survey of Saugor or Western Division for the month of March 1857.

No.	Description.	Monthly pay of each.	Total of each class.	Total professional expense.
1	Native Surveyor Totaram,	42	42	
	,, Bhowaneedeen,	35	35	
	,, Bahareelall,	34	34	
5	,, Reazaul Hoaussein,	33	33	
	,, Sabit Allee,	32	32	
	,, Doorgapersaud,	30	30	
	,, Fussee Ooldeen,	25	25	
	,, Nuthoo Lall,	23	23	
10	,, Koor Sein,	22	22	
	,, Dhowkul Singh,	21	21	
	,, Sewchurn Lall,	20		
	,, Prauglall,	20	40	
	,, Gungaram,	18		
15	,, Hayut Allee,	18		
	,, Khoodabux,	18	54	
	,, Ghoolaum Hossein,	15	15	
	,, Sewchurn Persaud Sookl,	13		
	,, Debee Dutt,	13	26	
20	,, Mindaeelall,	12		
	,, Rampersaud,	12	24	
	,, Ramchurn on leave 16th Feb. 1857,	12		
	,, Futtuhchund,	12		
	,, Bhugwanchurn,	12		
25	,, Koor Bahadoor,	12	36	
	,, Abdool Humeed,	10		
	,, Jhoomunlall,	10		
	,, Jogulkishore,	10		
	,, Hunwunt Singh,	10		
30	,, Ameer Allee,	10		
	,, Gunga Singh,	10	60	
	,, Rambhujunlall,	8	8	
	,, Mooktapersaud,	7		
34	,, Raj Bahadoor,	7		
	,, Huzareelall entertd, 1st March 1857,	7	21	
1	Native Doctor Shaik Abdool Ruheeman,	25	25	606
	Measurers.			
1	Jemadar,	12	12	
2	Tindals,	7	14	
22	Do.	6	132	
28	Mates,	5	140	
33	Classies,	4 8	148 8	
178	Do.	4	712	1,158 8
	"Broken periods."			
1	Mate for 25 days,	5	4 6	
1	Classie 3 ,,	4	6 2	
1	Do. 16 ,,	4	2 1	
1	Do. 20 ,,	4	2 9 3	
1	Do. 26 ,,	4	3 5 8	12 6 7
	"Non-effective since last muster."			
1	Native Surveyor Ramchunder No. 32 of last muster deserted.			
	Total drawn in Abstract for Native Establishment—Company's Rupees...			1,776 14 7

I do declare upon my honor that the above is a correct Statement of the different classes of Native Surveyors, Measurers &c. attached to my Survey and of their respective pay as due for the month of March 1857.

REVENUE SURVEYOR'S OFFICE,
Saugor or Western Division,
Saugor,
The 1st of April 1857.

(Signed) J. W. B. BLAGRAVE, Captain,
74th Regt. N. I., Rev. Surv.

(Signed) H. L. THUILLIER,
Deputy Surveyor General.

B.

Abstract of the Salaries and Establishment attached to the Revenue Survey of Saugor or Western Division for the month of March 1857.

No.	Names.	Total of each.	Total of each class.
1	Captain J. W. B. Blagrave, Revenue Surveyor,	526	726
	Ditto. Ditto. Contingent allowance,	200	
1	Lieut. E. H. Willoughby, Asst. Rev. Surveyor,	250	250
2	Mr. W. A. Wilson, Ditto. Ditto.,	250	250
3	Mr. J. J. Burrowes, Sub-Asst. Rev. Survr. 1st Class,	200	200
4	Mr. W. Vyall, Ditto. Ditto. 2d Class,	150	150
5	Mr. A. F. Bonny, Office Assistant,	85	85
6	Mr. G. Bonny, Ditto.	85	85
	Native Establishment,	.....	.....
	"Guard."		
19	Burkundazes,	5	95
	Non-effective since last muster.		
1	Mr. C. A. Montgomery, Sub-Assistant Revenue Surveyor 4th Class, Struck off.		
	Grand Total of Company's Rupees three thousand six hundred and seventeen fourteen annas and seven pie.....		3,617 14 7

I do hereby certify that the above Establishment was effective during the month of March 1857, and that the charge above made for the Native Establishment, was actually and necessarily incurred on that head during the said month.

REVENUE SURVEYOR'S OFFICE,
Suagor or Western Division,
Saugor,
The 1st of April 1857.

(Signed) J. W. B. BLAGRAVE, Captain,
74th Regt. N. I. Rev. Surv.

Received Payment.

(Signed) J. W. B. BLAGRAVE, Captain,
74th Regt. N. I., Rev. Surv.

Passed for Company's Rupees 3,617-14-7.

(Signed) H. L. THUILLIER,
Deputy Surveyor General.

APPENDIX C.

Estimated scale of Instruments, Camp Equipage, Books, and Office Furniture as in use with the Bengal Revenue Survey Establishments, Full Strength.

Names of Instruments.	No. of each.
Chains Gunter's Iron with Arrows,...	55
Chains Khusrah Iron for Native detail Measurement, ...	100
Compasses Beam Wooden,...	2
Ditto. Proportional brass pairs, ...	4
Ditto. Large with pen and pencil legs brass pairs, ...	18
Ditto. Small brass pairs, ...	30
Ditto. Bow Brass, ...	20
Ditto. Surveying, or Prismatic with Tripod stands, ...	16
Circumferenters,...	6
Cross Staves,...	10
Color Boxes, ...	2
Artificial Horizon, ...	1
Barometer Mountain, ...	1
Bars steel graduated 11 feet engraved and divided into feet, inches and tenths for comparing Gunter's Chains...	4
Drawing Pens, ...	40
Drawing Pins for fastening Maps to Boards, ...	100
Flag staves, ...	50
Gunter's scales 2 feet Brass, ...	2
Hammers for Chainmen, ...	12
Mathematical Instruments including proportional compasses in cases,... ...	6
Magnet Bars in box, ...	1
Magnifying Glass, ...	2
Pentagraphs, ...	2
Protractors brass rectangular, ...	40
Ditto. Ivory Ditto.	6
Perambulators, Everest or Waugh's pattern, ...	2
Referring lamps with sight vane and plummet,...	1
Rings spare for Chains,...	200
Rules Brass Flat 3½ feet heavy, ...	2
Ditto. ..... ditto 2½ feet, ...	1
Ditto. Ebony Flat 3 feet or 4 feet, ...	3
Ditto. Parallel 18 Inches brass on rollers...	4
Ditto. ditto. 12 Inches brass on rollers, ...	6
Ditto. ditto. 2 feet Ebony with Bars,...	4
Ditto. ditto. 1 foot ditto.	12
Ditto. ditto. 6 Inches ditto...	12
Tapes measuring,...	4
Telescopes reconnoitering, ...	2
Theodolites 12 Inches Diameter. By Troughton and Simms, Colonel Everest's pattern Telescope to range to 40° of altitude. The Telescope should be of 20 Inches, focal length 1·6 inches clear aperture with 2 eye pieces, powers 20 and 40, 2 Colored Glasses, verniers 3 to the Azimuth and 2 to the vertical circle. Levels 2 reading to about 3″ graduation on silver to 10′ and verniers to 10 to pack in 2 Boxes exclusive of Tripod stand, ...	1
Theodolites 7 Inches Diameter Everest's pattern by Troughton and Simms, ...	3
Ditto. 6 Ditto. Ditto. Ditto.	4
Ditto. 5 Ditto. Ditto. Ditto.	11
Tracing Glass, ...	2
Thermometers, ...	1
Sextant in box,...	1
Drawing Boards and T Rules, ...	25
Heliotropes for Hilly country and Minor Triangulation, ...	4
Plane Tables for Hilly country and Minor Triangulation,...	10

Estimated scale of Instruments, Camp Equipage, Books, and Office Furniture as in use with the Bengal Revenue Survey Establishments, Full Strength. (Continued.)

Names of Instruments.	No. of each.
Camp Equipage.	
Tents Hill or Staff Serjeants Lined with Chinty, ...	4
Ditto. Office double poled large Ditto.	1
Ditto. Ditto single poled Captain's Ditto.	1
Ditto. Sepoy's of 4 Pauls each,...	4
Pawlins waxed cart, ...	8
Books.	
Logarithm (Chamber's, Young's or La Lande's), ...	1
Instructions on Topographical survey by Colonel Waugh, ...	1
Mathematical Tables Hutton's,...	4
Manual of Surveying, ...	1
Nautical Almanac for the current year,..	1
Traverse Tables by Colonel Boileau,...	9
Table of Trigonometrical survey Computations, ...	1
Tables of Land Measure, ...	1
Pay and Audit Regulation Code of 1845,...	1
Multiplication Tables by Major Smith, ...	6
Office Furniture.	
Toon or Teak wood Tables of sizes, ...	6
Chairs,...	12
Large and small Boxes for Office Stationery and Records, ...	8
Office Stamp (brass), ...	1
Chupprases, Belts &c.,...	16
Office Stools, ...	20

REV. SURVEYOR GENL.'s OFFICE,
Calcutta,
6th May 1857.

(Signed) H. L. THUILLIER,
Deputy Surveyor General.

Ordered to be referred to the Board of Revenue for consideration.

(A true Extract.)

(Signed) H. FORBES,
Acting Secretary to Government.

Enclosure No. 1 of 1857

From G. I. of S. June 1857

No. 7401.

Rec'd. 17 Augt. 1857.

667

Dept

No. 815.

Extract from the Minutes of Consultation

Under date the 11th August 1857.

Read the following papers.

Extract from the Pro: of the Board of Revenue. | Here enter 15 July 1857 No 2449

Extract from Do. Do. | Here enter 1st August ---- 2555

The Right Honorable the Governor in Council resolves to forward for the consideration of Mr. Newill, the Officer recently appointed Superintendent of Settlement for the General Survey, Copies of the Proceedings of

the Board of Revenue above recorded, and of the papers noted in the margin relating to the proposed survey and assessment of the lands of this Presidency. These papers are so complete in themselves, and so full ... the discussions ... taken place regarding the revenue and professional details of the work to be performed, that it does not occur to the Governor ... to add any remarks, or do more on the present occasion, than to express his opinion, that the Survey should decidedly be a perfect one, and should be connected with the grand triangulation, the stations of which as marked by Colonel Lambton are understood to be very generally recognizable. Major Thuillier, it is observed from para 21 of his letter to the Government of India dated 6th May last No. 13, apprehends no difficulty in the matter.

Extract Minutes Consn 14 Aug 1855 No. 951
To Honble Court of Directors 11 Octr ... 44
From Govt of India 16 Octr 1856 No. 1896.
From Honble Court of Directors 17 Decr 1856 ... 17
Ext Minutes Consn 22d Apl 57 ... 872
From Govt of India 5 June ... 810
with enclos and maps

(initialled)

Copies to Mr. ... Cons. 15
1 .. Mr. ... Supr of Settlement
for General Survey

Covering 1855 - 32-19-29
28 Sept 57 - 7-6-11
27 Aug - 29-30
11 March 56 - 36-37
28 July 57 - 25-26
7 6 - 15-16

319-7 17/1/61

7-7-29 2/3/11

11-9-06

31-5-10

25-1-12

9/5/14

26-1-17

17-2-20

No 10 at 12.

Covering 1857 Dept.
Do to Govt 18th Aug

No 815.

Extract Minute of Govt

Dft 14th Aug 57.

Extract from Bd 15 Augt 57
No 933 enclosed 8th Sept

"Forwarding for the consideration of Mr Newill Superintendent of Settlement for the general Survey, Copies of the Proceedings of the Board of Revenue and the papers herein noted, relating to the proposed survey and Assessment of the lands of this Presidency."