M.R.O. 14—10,000—21-4-22

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. 1703 — Press / ~~Mis.~~

130 131

Dated 12. 8. 1862.

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department, 12th August 1862.

No. 130. Read the following Proceedings of the Board of Revenue, dated 29th April 1862, No. 2,692:—

Read the following letter from R. E. MASTEE, Esq., Officiating Director of Revenue Settlement, to R. A. DALYELL, Esq., Sub-Secretary to the Board of Revenue, Madras, dated 8th April 1862, No. 452-37.

SIR,

Opening Remarks. 1. I have the honor to report on the progress of the Settlement operations, and the expenditure incurred on account of the same during the year 1861. The report was mostly prepared by Mr. Newill; but owing to the Survey Report having been received only three or four days before his departure, and to other causes, it could not be finally completed for despatch before he sailed. The report of the Superintendent of Revenue Survey of the operations of his Department during the pastyear is herewith forwarded.

Dated 8th March 1862.

Introduction of the new Settlement in the Surveyed Táluqs of South Arcot, and the Western Delta of the Godavery District. 2. The successful introduction of the new Settlement in the Chidambrún Táluq of South Arcot was reported in Mr. Newill's letters, dated the 11th May 1861, Nos. 770 and 773. The Jamabundy of the current Fasli is being prepared upon it, and it is probable that there will be much less deficiency in the revenuethan was expected. The Vernacular Registers are completed and the English versions also very nearly so. Specimens of each accompany this.

3. The proposal for the Settlement of the four Western Delta Táluqs of the Godavery District, involving an increase of about 3¼ lacs of Rupees above the present joint rents, received the sanction of Government under date the 24th June 1861, with the expression of a hope that the same might be brought into operation in Fasli 1271; but as this was impracticable in consequence of the order having been passed only a week before the Fasli commenced, it will come into force from the commencement of Fasli 1272. The Settlement has been explained to the Ryots individually in the greater portion of this tract, and the option afforded to them of giving up any fields they do not wish to retain on the terms of the new Settlement.

4. The Vernacular Settlement Registers forthe Western Delta are nearly completed, and the English Registers have been commenced. The Vernacular Registers for the Eastern and Central Deltas are under preparation in anticipaton of sanction for the Settlement in those localities, the rates and amount of assessment being left blank for the present.

Proposals for the Settlement of other Districts already submitted and under preparation.
* 11th December 1861, No. 1,606.
† 12th October ,, ,, 1517.
‡ 20th April ,, ,, 649.
29th January 1862, No. 101.

5. During the year under report, proposals for the Settlement of the remaining portion of the Godavery* District, for the Masulipatam† portion of the Kistna District, and for the whole of the Tichinopoly‡ District were submitted to the Board of Revenue on the dates noted in the margin. The area reported upon, including the Western Delta of the Godavery and the South Arcot Táluqs, is about 7,125 square miles.

6. The assessment on the Coffee lands in the Wainád having been fixed by Government in their Proceedings, dated the 16th May 1860, No. 88, a proposal for the settlement of the dry and wet grain lands was submitted in the Director's letter, under date the 23rd September 1861, No. 1,439, and the subject is now under the consideration of the Board.

7. Near the end of the year arrangements were made by Mr. Newill, in consultation with the Deputy Director in Salem, the Collector and his principal Native Officers, for the formation of the assessment in the above District; and a proposal will be submitted as soon as Mr. Thomas, the Deputy Director, has worked up the results, and put in proper form the requisite information connected with the subject.

Effect of the additional European Supervision. 8. When the last annual Report was sent in, the effect of the employment of further European Assistants in the Department could not be seen, as only one Assistant Director had then been appointed. Most of the parties

have since had the complement of two Assistants. The result has been most advantageous, and Mr. Newill considers that the extensive and onerous duties of the several parties could not be satisfactorily supervised without this essential assistance. The Assistants were necessarily inexperienced at first; but some have become very useful officers, and give much promise.

Scene of operations during the year 1861.

9. The field operations were carried on during the year in Nellore, Guntoor, Salem, Wainád, Coimbatore and Kurnool. Full particulars of the work will be found in the Appendix.

Extent of work, and expenditure incurred on account of the same.

10. The out-turn of work and the expenditure for the year in the several Districts are given in detail in Appendix A, of which an Abstract is entered below for facility of reference:—

Parties.	Demarcation.			Classification.			Total average.			Remarks.
	Extent in square miles.	Expenditure.	Average rate per square mile.	Extent in square miles.	Expenditure.	Average rate per square mile.				
		Rs.	Rs. A. P.		Rs.	Rs. A. P.	Rs.	A.	P.	
Gadavery*.	...	7,780	...	...	7,781	...	...			*The establishments in this District were employed in revising the demarcation and classification, and also in preparing the numerous accounts which accompanied the Settlement Reports as well as on the Settlement Registers.
Nellore ...	2289·13	41,056	21 0 11	...	...	...	21	0	11	
Kistna.....	1887 69	41,921	22 3 4	157·44	40,689	25 13 3	48	0	7	
Kurnool ...	471·14	22,677	48 2 1	...	...	...	48	2	1	
Salem	2751·58	41,007	14 14 5	275·77	51,943	18 13 9	33	12	2	
Wainád ..	240·25	38,088	158 8 7	...	...	...	158	8	7	
Coimbatore	294·02	26,546	90 4 7	...	...	...	90	4	7	
Total, omitting Wainád, Coimbatore and Godavery.	7399·54	1,46,661	19 13 1	432·21	92,632	21 6 4	41	3	5	

11. In the Godavery District, no regular field work was carried on during this season as the whole of the demarcation and classification had been completed during the previous year; but some of the marks in the river islands, which had been washed away by the freshes, had to be restored. The classification in some of the Táluqs was also further tested before its final adoption. The establishments were likewise employed in the preparation of numerous accounts connected with the Settlement Reports, and latterly on the Settlements Registers. The charge of Rupees 13,872, entered in Appendix A against this District, occurs on the above account inclusive of a proportion of the cost of the Central Office. The average cost per square mile is Rupees 6-3-4, which is in addition to that already incurred in the previous years.

12. The cost of the preparation of the Settlement Registers, as far as the work has now advanced, is roughly calculated at Rupees 1-13-8 per square mile; but this does not include the pay of the fixed establishment employed on the work which would raise it higher.

13. In Nellore the work of the year has been confined to demarcation, and a party of full strength was employed with the view to having sufficient work ready for survey in a compact form. A gross area of about 2,289 square miles has been operated upon, of which 1,950 square miles are in the detail of fields. The Curnums' areas have, as far as possible, been corrected by such data as could be afforded by the Survey. In a circuit of thirteen villages in the Nellore Táluq, the survey areas exceed those entered in the Demarcation Returns by 18 per cent. and in another circuit of twenty-five villages the excess is 28 per cent. The average on the whole is about 24 per cent., and 20 per cent. has been added to the Demarcation Returns for the approximate area. The cost per square mile including the proportion of the Central office is about Rupees 21-0-11 which is comparatively small, and has been reduced in consequence of the Officiating Deputy Director's services not being exclusively required for the Settlement work

and to the greater portion of his salary being drawn in the ordinary Revenue Department as Sub-Collector.

14. The demarcation in this District was troublesome on account of the numerous Zamíndári and Shrotrium villages which are intermingled with Government lands, and the boundaries also in places run through extensive jungles through which lines had to be cleared. The boundary disputes also were very numerous, and recourse was had largely to arbitration under the provisions of Act XXVIII of 1860. This party was managed by Mr. C. Rundall, first Assistant Director, with very little supervision by the Deputy Director under whose control he was placed, and his efficient conduct of his important duties is considered by Mr. Newill highly creditable, particularly as he had very little previous training and gained experience as he proceeded.

15. In the Guntoor portion of the Kistna District the operations are far advanced, and field work will be brought to completion in the latter part of the year now commenced. The amount of work accomplished during the year 1861 is 1,888 square miles, of which 1,484 square miles are in the detail of fields, and to this is to be added 308 square miles of Khandam demarcation of jungle blocks. This large out-turn is owing to the field work having been carried on during the whole of the twelve months without any recess. The classification amounts to about 1,575 square miles, of which 1,155 square miles are in detail.

16. A minor circuit of 50 villages in one of the Táluqs of this District shows an excess in the Survey area over the Demarcation Returns of about 22 per cent.; but as this rate of excess will not probably be found general in the other Táluqs, for which the Survey areas have not as yet been received, 15 per cent. has been adopted as the general rate of excess. The average cost of the demarcation is Rupees 22-3-4 and of the classification Rupees 25-13-3, or Rupees 48-0-7 for both, leaving a margin of about Rupees 16 for the introduction of the Settlement. The above rate will be raised by the field establishments being withdrawn into office for the purpose of winding up the accounts at the close of the out-door work.

17. A small party was organized for demarcation in the Kurnool District, and placed under the orders of Captain Smith, Assistant Director of the Second Grade, subject to the general superintendence of the Deputy Director in the Kistna District. It entered the field in the month of May, and accomplished a gross area of about 471 square miles, 353 square miles being in the detail of fields, and 25 square miles in Khandams or larger divisions of jungle tracts. The Táluq of Ramallakota was selected for the commencement of operations as the locality that will be first affected by the works of the Madras Irrigation and Canal Company. The out-turn is small, and is owing to the field establishments having been entertained on a limited scale, partly from the scarcity of hands, and also in order to prevent the Demarcation getting too far ahead of the Survey, which it was at first contemplated to undertake by a new party. It has, however, been since determined to draft the Godavery party into this District, as the field work in the former draws to a close in the present year; this arrangement being in the end more expeditious and satisfactory in the increased strength and efficiency it commands. The demarcation staff has accordingly been greatly increased to meet the above arrangement.

18. The cost per square mile, calculated on the revenue accounts of the areas, amounts to Rupees 48-2-1. This high rate results partly from the usual difficulties and drawbacks in the formation of a new party, and partly as above noticed, from only a limited field establishment being at first employed with a proportionately greater cost of superintendence.

19. The field work in the Salem District was progressing towards a close at the end of the year. A gross area of about 2,752 square miles, exclusive of small hills and jungles, was demarcated, of which 1,625 square miles are in the detail of fields. About 26 square miles of Native, and 37 square miles of European Coffee estates on the Shervaroy Hills have been demarcated, and some eligible blocks of land of the agregate extent of about 3 square miles have been marked out for future occupation, in accordance with the instructions contained in paragraph 7 of the Proceedings of Government, dated the 4th April 1860, No. 517. Thirty-three villages in Dharmapury, and 149 in Tripatur have been left undemarcated in consequence of the unhealthy nature of the climate, the scantiness of the population, and the insignificance of the cultivation.

20. The classification accomplished during the year extends to 2,753 square miles. As no detail areas whatever have yet been received from the Survey, the cost per square mile is necesarily calculated upon the Curnums' accounts, and amounts to Rupees 14-14-5 for demarcation, and Rupees 18-13-9 for classification, or Rupees 33-12-2 for both, leaving a wide margin of about 30 Rupees for the introduction of the Settlement. This party worked through the year without any recess, and there will be an additional charge as the field establishments are withdrawn into office for the completion of the accounts, and this must hereafter be added to the above rates to give a correct idea of the operations. The cost of the operations on the Shervaroy Hills, as far as they proceeded, amounted to Rupees 4,180, or Rupees 66 per square mile.

21. The Wainád party accomplished an area of about 534 square miles during the present season, of which 240 square miles were in 29 Deshams of Wainád, and 294 square miles in 92 villages of Coimbatore. The party was employed in the former District for about six months, the unhealthy season and rains having as usual rendered its continued employment there impracticable. The area demarcated extends over eight Deshams in their entirety according to proprietary estates, viz., 70 European Coffee estates, which are a large majority of the whole District, 140 Native plantations, and 97 Government tracts including forests and paddy flats. The Native plantations range from 1 to 70 acres in extent. The demarcation was at first carried on according to proprietary estates with all their minor rights of property, but it was subsequently limited to the following objects in accordance with the instructions contained in the Proceedings of the Madras Government, dated the 16th May 1860, No. 789, viz., delineation and Survey of the natural divisions of large estates, and the general areas of their cultivated portions; and latterly was extended to Coffee plantations and other cultivation about to be brought under taxation.

22. Mr. Stuart reports that the order of Government directing the discontinuance of a general Survey at the public cost at first caused much disappointment, and called forth loud complaints both from the Europeans and Natives, but that though the greater part of the Coffee planters at one time signified their unwillingness to bear the charge of the survey of their estates, several have since come forward and applied for the measurement of them at their own cost. The rates of charge for surveying private estates were fixed by Government, in their Proceedings of the 24th December last, No. 1,644, at 4 Annas an acre for the whole estate, and 5 Annas in cases of extraordinary difficulty, with a deduction of 2 Annas an acre on cultivation, which in any case had to be measured by Government for the purpose of taxation.

23. Six hundred and sixty-eight titles were investigated and 482 registered up to 30th October 1861, when the work was discontinued under the orders of Government bearing date the 21st idem. The inquiry into escheated lands has been proceeded with.

24. In noticing here the progress that has been made in winding up the operations in the Wainád, it may be observed that the primary object of the Survey of the European Coffee estates will be attained before the Survey Establishment is finally removed. As regards the inquiry into disputed titles in cases in which the interest of Government are concerned, it is gathered from the Despatch of the Secretary of State dated the 16th April 1861, No. 27, that the forests in the two Amshams of Gunnapuddyvuttam and Moonunsudaad are escheats, and the limits of the forests lands in those Amshams are accordingly being defined.

Dated 4th April 1861, No. 428.

With reference to the claim set up by three temples to the forests in Elloornad Amsham and Poolpatty Desham, adverted to in paragraph 7 of the Despatch, a report by the Acting Deputy Director has already been submitted as directed in Order of Government 31st January 1860, No. 166.

25. The average cost of demarcation per square mile in the Wainád has been Rupees 158-8-7 during the year under report. It is unnecessary to expatiate upon the difficulties which have led to this high rate of expenditure after what has already been reported on the subject.*

* Letter to Government dated the 21st September 1861, No. 1434.

26. The out-turn of work in Coimbatore was necessarily small owing to the limited Establishment employed. The cost is Rupees 90-4-7 per square mile, and is owing in some measure

to want of experience on the part of the Malayalies working in a District of the customs and language of which they were perfectly ignorant, and partly to the grant of mileage and extra batta to the Establishments while on their march from Wainád.

27. The expenditure of the year compared with the sanctioned amount, is given in the following Statement:—

Parties.	Sanctioned Scale.	Actual Expenditure.	Difference.
	RS.	RS.	RS.
Godavery	78,812	11,157 / 36,652	31,003
Nellore	78,812	64,995	13,817
Kistna	29,555	17,101	12,454
Kurnool	78,812	78,376	436
Salem	78,812	28,418 / 18,601	31,793
Wainád			2,449
Coimbatore	69,676	67,227	714
Central Office	5,489	4,775	
South Arcot			
Total	4,19,968	3,27,302	92,666

The decrease of cost in the several parties below the sanctioned amount, is owing to the field establishments being in some cases only gradually made up, and in others to their being regulated with reference to the work required by the Survey Department.

28. Statement B in the Appendix, shows at one view the number of boundary pillars constructed in the several Districts during the year. The marginal Statement is an Abstract of the same. In Nellore stones have been used for field marks in several Táluqs where they were easily procurable. In Salem also stones have been extensively used for field marks. In the Guntoor portion of the Kistna District, the field marks put down have been mostly stones except in the sandy villages where Palmyra or Mangrove stakes have been used. In Kurnool, the whole of the village Khandam and field boundaries have been demarcated with there was no difficulty in procuring them suited for the purpose. In the Wainád, the employed for boundary marks for Deshams and properties is a granite block of from 2 to length. In Coimbatore also the village boundary marks consist of granite pillars and the have greatly assisted in procuring them, and so reduced the cost to be borne by ent. For field boundaries, stones have been employed in Punjah, and earthen mounds h lands.

Erection of Boundary Pillars.

Items.	Total.
VILLAGE BOUNDARIES.	
	2 565
	7,540
or Sub-divisions	6,642
pillars	23,613
do	24,147
s on village boundaries	67,338
Khandams	
FIELD BOUNDARIES.	
Number of Villages	2,786
vided { Number of Villages	797
dams { Do Khandams	6,192
Number of fields marked	6,94,028
Do. field marks	11,17,337

for which the Survey been received.

29. The following Statement shows the area surveyed in each District up to the end of 1861, according to the Returns of the Survey Department, and the number of villages and total areas for which survey field areas have been supplied. I am unable to separate the area surveyed in poly from that in Salem, the accounts for the two Districts for 1860 having been blended I am also unable to give the extent in square miles of the 727 villages for which the survey areas have been received. It will be seen that in the Godavery District, correct areas have been received for 266 villages aggregating 682 square miles, and in the Kistna District for

337 villages, with an area of 696 square miles. In Salem no field areas have yet been received, and the submission of the proposal for the settlement of that District is delayed until this important information is available. The unsatisfactory nature of the system of basing the settlement proposals and calculations of financial results on estimated areas, is exemplified in the case of Trichinopoly where Mr. Puckle reports that the survey areas show an increase of 20 per cent. over those according to the Curnums' accounts on which the original calculation were framed. This of course upsets all the previous computations. That which was supposed to be reduction of assessment turns out to be an increase, and it is, therefore, most undesirable to adopt Curnums' areas in future estimates. Looking to the great importance of this matter, Mr. Newill is of opinion that steps should at once be taken (even to the hindrance of rapid progress for a while in further field work) to make the correct survey areas available at a date much earlier than at present after the measurements are completed.

Letter to Board of Revenue, dated 7th April 1862, No. 451.

District.	Extent in square miles surveyed according to Survey Department.	Number of villages for which correct survey field areas have been supplied.	Area in square miles.
Trichinopoly and Salem.....	4,251	Trichinopoly 727	.....
Godavery	2,729	266	682
Kistna	2,216	337	696
Wainád	66		
Nellore	463		
Kurnool	.....		
Coimbatore	170		
Total...	9,895		

Sub-divisions of Fields.

30. The measurement of interstitial fields, which it was originally proposed to entrust to the village Curnums, could not be satisfactorily accomplished through their agency for reasons which have been fully detailed in the correspondence which has passed on the subject. Arrangements were therefore made for carrying on the work through the Survey Department in the Godavery, Guntoor, and Salem Districts, and the particulars of its progress will be found in the report of the Superintendent. The expenditure incurred on account of extra establishments maintained for this purpose, amounting to Rupees 2,026-10-11, was sanctioned by Government in their Proceedings of the 4th February 1862, No. 195. The whole questions of the measurement of these fields is now again before Government with reference to Mr. Newill's letters of 18th and 24th January 1862, Nos. 65 and 84, and to Proceedings of Board of Revenue, dated 11th February 1862, No. 937.

31. In the Masulipatam portion of the Kistna District the Curnums are still employed in making the measurements, and out of 12,697 fields containing sub-divisions, 3,225 have been taken up and completed during the year, but it is to be feared that as regards correctness the work will not be more satisfactory than it has proved elsewhere.

32. In Trichinopoly this work was originally entrusted to the Curnums, but having there, as in many other Districts, proved a failure, a portion of the Survey establishments was employed in completing the work, and the necessary details are now available for many if not for all the Táluqs.

Boundary disputes settled.

33. The number of boundary disputes settled during the year is exhibited in the accompanying table:—

Districts.	Number of disputes settled.
Nellore	391
Guntoor	101
Kurnool	1
Salem	23
Wainád	.....

Tinnevelly Survey and Settlement.

34. In their Order bearing date the 5th November 1861, No. 2,118 the Government directed that the District of Tinnevelly should be taken up as soon as the work in Salem was completed. As reported in Mr. Newill's letter, dated the 4th January 1862, No. $\frac{3}{4}$, the operations in the latter District are being closed, and a demarcation party will be organized and detached to Tinnevelly under an Assistant Director at an early date. As the Wainád party will be finally withdrawn at the close of the season, it has been proposed that it should continue operations in the Coimbatore District.

Specimen of Táluq Maps.

35. Specimen Táluq Maps accompany the Superintendent's Survey Report. They have been constructed on the reduced scale of one mile to the inch sanctioned in Proceedings of the Board of Revenue, dated 11th January 1861, No. 197, and are very neatly executed. It occurs to me, however, that the maps might be further reduced in size, and consequently be made more convenient for reference, if the elaborate Tabular Statements inserted in the margin, instead of being lithographed as part of the map were printed on separate sheets of paper. The insertion also of the Tamil names of the villages in the Tabular Statement seems unnecessary since English names alone are used in the body of the map.

Conduct of Subordinates.

36. In conclusion, it remains to notice with satisfaction the energetic and efficient discharge, by the Deputy Directors, of their onerous duties. The Assistant Directors have also, for the most part, given satisfaction, while some of them, and Mr. C. Rundall in particular (as above noticed), have proved themselves able officers, and are acquiring valuable experience in the Department.

ENCLOSURE No. 1.

REPORT ON THE SURVEY OPERATIONS FOR THE YEAR 1861.

Districts under Survey during 1861.

During the past year Surveys have been in progress in the Salem, Godavery, Kistna, Nellore and Coimbatore Districts, also on the Shervaroy Hills in the Wainád, and in the town of Madras.

No. 1.—SURVEY PARTY, SALEM.

Táluqs. Salem.

2. In Salem the Survey of the five Táluqs named in the margin, was undertaken by No. 1 party. The first four and a great part of the last were completed. The total area surveyed is square miles 1302·3 in 685 villages at a cost of Rupees 78,950-6-5, or Rupees 60-10-2 per square mile. Including share of Central Office Rupees 64-7-8 per square mile.

Trichengode,	Sunkerydroog,	Completed.
Womaloor,	Salem,	do.
Darampoory,	partly.	

Area surveyed cost.

Work of Branch Office at Trichinopoly.

3. A branch office was left at Trichinopoly on the removal of the Deputy Superintendent's office to Salem. It was employed under a Second Assistant to plot and compute the field work performed by the extra party, viz., the measurement of waste lands taken up since the date of the original Survey. In the branch office also was worked up the correction and test of villages in the Trichinopoly District surveyed the year before, and in it was performed the plotting and computation of interstitial fields, of which the measurement commenced in 1860 was continued during the year under report. On Mr. Beaumont's return from England this office was placed under his charge, its progress not having been till then satisfactory. It was subsequently removed to Salem as the close of the correction and testing operations approached a close in Trichinopoly.

Branch Office removed to Salem.

4. During the year 1861 the Amins have included in their measurement all fields whether survey or interstitial, this whilst it has diminished the out-turn for the year has prevented in the Táluqs so measured the accumulation of arrears of interstitial

The out-turn of work has been diminished by the Amins having measured both survey and interstitial fields.

The arrears of interstitial field measurment almost cleared off, but so doing has affected the proportionate amount of office work.

field measurement which has acted like a drag on the efforts of this party, and though now cleared off (except in a few villages of the Udiarpolliem and Trichinopoly Táluqs) has seriously affected the proportion which ought to be maintained between field and office work.

Deputy Superintendent in charge of Branch Office at Razeepoor, Shervaroy Hills and Coimbatore.

5. In addition to the supervision of his own party, the Deputy Superintendent of No. 1 had charge of the detached portions of No. 4, employed in the Razeepooram Táluq and on the Shervaroy Hills; also till the 1st October of that part of No. 4 working in Coimbatore. No. 1 till the 17th October was under the superintendence of Captain Hessey, on that date Mr. Beaumont, Acting Deputy Superintendent, assumed charge.

Drafts of men to No. 5 and other parties.

6. No less than 42 valuable men of different ranks trained in this party, have been transferred to other Districts, principally to Nellore when No. 5 party was first set on foot.

Field areas furnished to the Settlement Department.

7. The field areas of a great part of the Trichinopoly District have been furnished to the Settlement Department, and the accounts of the remaining portion will, it is expected, be shortly supplied.

Village and Táluq maps sent to be lithographed.

8. Three hundred and sixty-nine Village and two Táluq maps have been sent during the year to be lithographed; maps of the remaining Táluqs of Trichinopoly are in progress.

Nature of the Season.

9. With the exception of several deaths by cholera in and about Salem, and of several cases of fever in the District, the season calls for no particular remark.

Amount of work remaining in Salem.

10. There now remains about one more year's work for the survey in this District.

SHERVAROY HILLS.

At the close of the working season in Wainád, it was necessary to provide employment for the Surveyors of No. 4, the survey of the Shervaroy Hills was in consequence undertaken and placed under an Assistant Superintendent to whom an additional allowance of Rupees 50 was granted.

A portion of the Wainad party engaged on Shervaroy Hill Survey.

Work at first performed defective.

From neglect of the detailed instructions given him and from the first demarcation being imperfect, much of the work performed at the outset was found defective and re-surveyed. From this cause and from the climate of the Shervaroys being much dreaded by Natives of the low country, the progress of this survey has not been altogether such as I could have wished, and the cost has hitherto been excessive. For the future, however, I anticipate a great reduction in the cost per square mile as the re-survey of defective portions has now been completed. On the removal of No. 4 to Wainád in October, the Shervaroy Survey Establishment was relieved by a small detachment from No. 1. Sixty properties comprising an extent of acres 10,011, or square miles (16) had been surveyed up to the end of the year at a cost of Rupees 5,187-0-8, or Rupees 321-3-0 per square mile, with share of Central Office added Rupees 386-11-0 per square mile.

Cost excessive, but will be less for the future.

The Shervaroy Survey Establishment relieved by a detachment from No. 1 party.

Area surveyed cost.

No. 2.—SURVEY PARTY, GODAVERY.

No. 2 party, Godavery.

1. In the Godavery District, No. 2 party under Major Crew completed the unfinished portions of the Amalapoor and Rali Táluqs; Ramachendrapooram (and its dependent Lunkahs) was re-demarcated and surveyed simultaneously. The survey of the Kyllalur, Peddapur, Rajahmundry, Yernadgudiem and Ellur Taluks commenced in 1861, was completed in all but the two last.

Area surveyed cost.

2. The approximate area surveyed is square miles 1185·4 at a cost of Rupees 73,676-11-1, or per square mile Rupees 62-2-9, including share of Central Office Rupees 66-6-3.

* Delta being intersected by canals and channels.

In the upper Táluqs non-clearance of jungle, detached cultivation, scarcity of labor, and unwillingness of villagers to afford assistance and information.

Floods in the Godavery.

3. The same obstacles* that existed in former years were met with during the year under review; two heavy freshes in the Godavery during July, by which the country was partially flooded, and the Nursapur canal closed during three months for repair, greatly retarded survey operations and prevented the removal of the office from Nursapur to Rajahmundry till near the close of the year.

Interstitial fields.

4. Wherever interstitial fields of a permanent character have been met with during the season under review, they have been measured by the Amíns of this party. The out-turn is on this account somewhat less than would otherwise have been the case.

Village maps sent to be lithographed.

5. Two hundred and two village maps have been received for lithography, and considerable progress has been made in the preparation of maps on a reduced scale of the surveyed Táluqs.

Field areas furnished to Settlement Department.

Field work of District will be completed by April.

† *Correct* field areas have been supplied for three complete Táluqs only, and for portions of two more.—See paragraph 29, Settlement Report.

R. E. MASTER, Offg. Dir. of Rev. Set.

6. † The field areas of eight Táluqs have been furnished to the Settlement. The field survey of the District will be completed in March or April.

Nature of the Season.

7. Towards the close of the working season several of the men came in from the field prostrated by fever.

No. 3.—SURVEY PARTY, KISTNA.

Superintendence of the party by Captains Pratt and Hessey.

1. No. 3 party in the Kistna District was up to the 7th October under the superintendence of Captain Pratt, who on that date was relieved of this charge to enable him to proceed on sick leave to Europe. Captain Hessey assumed charge on the 21st November.

Number of Amíns actually employed.

2. At the commencement of field work only 31 Amíns were actually employed, they were subsequently brought up to the full strength (60).

Táluqs under Survey.

3. During the year 1861, they were engaged in the Táluqs of Bezwada, Nundigama, Krosur and Guntur. The area surveyed amounts to 1063·72 square miles, and the expenditure to Rupees

Area surveyed cost.

65,852-14-9, or Rupees 61-14-3 per square mile, including share of Central Office Rupees 66-9-5.

Amíns have measured both survey and interstitial fields.

4. In the three last named Táluqs survey fields and their sub-divisions (interstitial fields) were simultaneously measured by Amíns. This proceeding has in some degree lessened the extent of country surveyed, or what is tantamount slightly increased the cost per square mile.

‡ Field areas of the Masulipatam District supplied to Settlement Department.

Correct field areas for 337 villages only have been furnished.—See paragraph 29, Settlement Report.

R. E. MASTER, Offg. Dir. of Rev. Set.

5. ‡ The field areas of the old Masulipatam District, consisting in all of 601 villages, have been supplied to the Settlement Department.

Village Maps sent to be lithographed.

6. Two hundred and sixty-one village maps have been forwarded to the Central Office to be lithographed; maps (on a reduced scale) of three Táluqs are in preparation.

Satisfactory conduct of Establishment.

7. Captain Hessey brings to notice the assistance rendered him by his European Assistants, and also the general satisfactory conduct of the men employed in office.

Nature of the Season.

8. The past season has been tolerably healthy, but several cases of fever occurred while working in the jungly parts of Krosur.

Probable completion of the District.

9. The completion of the survey of the Kistna District may be expected in about two years.

No. 4.—Survey Party, Wainad.

Out-turn and expenditure from January to April.

* The Survey Department pegged out the fields in a limited number of villages. The marks were afterwards put up, and the Field Registers prepared by the Settlement party.
R. E. MASTER Offg. Dir. of Rev. Set.

1. *From 1st January to middle of April this party was engaged in Wainád and completed 17·18 square miles at a cost of Rupees 21,901-4-9, or Rupees 1,288-5-0 per square mile, including share of Central Office Rupees 1,337-2-2.

Establishment employed in Coimbatore and on Shervaroy Hills.

2. During the unhealthy season of the year it took up the Coimbatore District, drafting a detachment to Salem for the survey of the Shervaroy Hills. Till the 1st May 1861, No. 4 was under Captain Searle, whose services were on that date placed at the disposal of the Commander-in-Chief.

Captain Barber assumed charge and proceeded to Wainád with the Establishment.

3. On 1st October last, Captain Barber assumed charge of the party which then moved again to the scene of its operations in Wainád, leaving behind it a portion of the Establishment in charge of Lieutenant Wynch.

Demarcation sketches not supplied till 19th October.

4. Work was not commenced till about the 19th October for want of demarcation sketches, some of the field hands were therefore up to the end of that month employed in correcting last season's work.

† 2nd November. Survey of European Coffee estates.

5. On receipt of orders† for the Survey of European Coffee estates, a party was immediately despatched to the north, and their Survey was carried on though no sketches were received till the 14th November.

Area surveyed cost.

6. The whole out-turn of new work during the second season is 42·68 square miles, exclusive of a re-survey of former work to the extent of 6·5 square miles. The expenditure Rupees 9,877-3-9, or per mile Rupees 229-11-3, adding share of Central Office Rupees 249-0-1 per square mile.

Remarks.

7.* Considering the imperfect demarcation, the non-clearance of jungles in several places, the difficult nature of the survey, and the distances at which estates are situated from each other, the out-turn will not be deemed unsatisfactory, and contrasts favorably with that of the first part of 1861; altogether both the Officers and subordinates of the party appear to have exerted themselves.

Survey of the European Coffee estates will be completed by the end of the working season.

8. Captain Barber reports that the survey of the European Coffee estates will be completed before the end of the present working season, if not retarded by want of demarcation sketches.

Assistance rendered by the European planters.

He also acknowledges the assistance rendered by the European planters, (with one exception) in supplying coolies gratuitously.

The difficulty of obtaining hired labour is such that aid of this kind is invaluable.

Nature of the season.

9. Up to the close of the year no sickness of importance had occurred.

No. 4.—Survey Party Branch Office, Coimbatore.

Captain Hessey directed to proceed to Coimbatore for inspection.

1. On Captain Searle's quitting the Department, No. 4 was left without a Deputy Superintendent. Captain Hessey was therefore directed to proceed from Salem to Coimbatore, and report the arrangements he deemed necessary for the efficient prosecution of field work.

Demarcating in addition to surveying.

The result was that in order to permit of the Demarcation and Demarcation successfully performed by the Survey Department under Lieutenant Shortt. Establishment preparing some work in advance, undemarcated villages were, in the first instance, handed over and both Survey

Lieutenant Wynch assumed charge of No. 4 Branch Office.

2. This Officer having had no opportunity of gaining an insight to the conduct of an Office in the plains, Captain Hessey's head quarters being at Salem was taken advantage of, and he was sent to do duty there for a time, the Senior Assistant, Lieutenant Wynch of No. 1, relieving him at Coimbatore, and being granted an extra allowance of Rupees 50 per mensem whilst in charge.

Out-turn.

3. During the seven last months of the year, No. 4 in Coimbatore has surveyed square miles 170 in 85 villages, of which 25 were also demarcated.

Cost.

4. The expenditure amounts to Rupees 16,523-8-8, showing the cost per square mile to be Rupees 97-3-2, or Rupees 106-0-4 with the addition of its share of Central Office.

Interstitial fields measured with Survey fields.
Defective demarcation.

5. Interstitial fields were as in other Districts measured with Survey fields, besides this drawback Lieutenant Wynch points to his men having also demarcated a number of villages, and to the demarcation that was handed over being scattered and defective, as the causes that prevented a larger out-turn being made.

Nature of the season.

6. The season has on the whole been satisfactory.

No. 5—Survey Party Nellore.

Party first organized in March.

1. Little could be done towards organizing this party till the middle of March 1861, when a draft of 80 men of all grades was made from the older survey parties and sent to Nellore with the exception of head Surveyors and Amíns; the establishment has been raised to nearly its full strength.

Field work commenced in April.
Area surveyed cost.

2. Field work was commenced on the 1st April, and by the close of the year an area of square miles 463 in extent had been measured at an expenditure of Rupees 40,541-12-9, or per square mile Rupees 87-9-0, adding share of Central Office the cost per square mile rises to Rupees 93-9-6.

Remarks.

As will be the case in all new parties, time was at first lost by the necessity of re-measuring defective work, but of late a decided improvement has taken place, and there seems no reason to doubt that during 1862, the out-turn and cost will approach the estimate, the more so as during the past season minor fields were measured by the Amíns, and the performance of this duty by the Survey has for the future been forbidden.

Season.

3. During the season of the north-east monsoon has in a measure been advantageous to the survey, its operations not having been retarded as would have been the case had the rains been copious. The health of the party has been good.

Lithographic Press.

Out-turn during the year.

7,427	11	1	Village.
167	0	9	Táluq.
7,594	11	10	Total.
9,012	0	0	Sanction.
1,417	0	0	Unexpended.

1. The Lithographic press has during the year printed in all 19,808 copies of 619 village maps, representing an area of square miles 1,191.

2. The expenditure on this process is Rupees 7,427-11-1, so that the cost per square mile has been Rupees 6-3-9. The presses purchased in 1860 have been paid for in 1861, their cost therefore has not been included in this account.

	1859.	1860.	1861.
	Sq. miles.	Sq. miles.	Sq. miles.
Out-turn	57·3	487·7	1191·4
Cost per square mile	Rupees 56	Rupees 12-9-7	Rupees 6-3-9

3. The lowest rate per mile that has as yet been attained in any one month is Rupees 4-1-0. In the margin is given the out-turn and cost of lithography for the two preceding years. The reduction in the latter for 1861 compared with 1860 is 100 per cent.

Zincography, introduced by Mr. Beaumont.

4. Whilst in England on sick leave, Mr. Beaumont (now Acting Deputy Superintendent in Salem) visited the Ordnance Survey Office at Southampton, and by the kindness of Colonel Sir H. James was permitted to examine all details. Among other things Mr. Beaumont gained a practical knowledge of Zincography which, at my request, he imparted to the head lithographer and printers at the Central Office.

Advantage of Zincography.

5. The chief advantage of Zincography is economy in cost of material, and in time zinc plates being much lighter and more easily handled than stones. They are also much more durable.

Proposed alteration in village Maps.

6. The substitution of symbols for colours in village maps has been proposed to the Director Revenue Settlement, and if the change is approved of three times as much work can be turned out in the press. A great saving can also be thus effected in the District Survey Offices

Lithographed Táluq Maps.

7. Two copies of a lithographed Táluq map accompany this report; it is hoped that they may be considered satisfactory. Improvement both in execution and rapidity will, it is expected, be shown by the end of the year 1862.

MADRAS TOWN SURVEY.

Out-turn.

1. The Black Town Division of the Madras Town Survey under Mr. Plumbe has measured 3,366 holdings and 65 streets, covering an area of 278 acres.

Total extent surveyed in the Division.

2. The total extent surveyed in this Division up to 31st December is 791 acres, containing 11 minor traverses, 8,011 holdings and 201 streets.

Work remaining.

3. The number of holdings remaining to be surveyed cannot be exactly determined, but it is approximately estimated at 3,000 exceeding in area 250 acres.

Perambore Division completed.

4. During the first quarter of the year 1861, the survey of the Perambore Division was finished by Mr. Cooke, Acting Revenue Surveyor, and the records, &c., prepared.

That of Tondiavaid undertaken.

Out-turn.

5. On 1st April the survey of Tondiavaid (one of the largest divisions of Madras) was commenced, and 807 holdings comprising an area of about 1,880 acres has been surveyed. The western boundaries of 419 holdings were measured in addition to the above. One main and 11 minor circuits were taken and their traverses completed.

Expenditure.

6. The field work of this division will probably be completed before the end of the year.

7. The expenditure on the year's operations has been 5,755-13-11, viz., on the Black Town Survey Rupees 3,371-5-8, on Perambore and Tondiavaid Rupees 2,384-8-3.

Divisions tested
Cost.

8. The work of testing the surveys already complete has been carried out in the Persewakum, Nungumbakum, Egmore and Perambore Divisions at a cost of Rupees 1,202-1-1.

Result satisfactory.

9. The result of the examination is satisfactory in establisht ing the general accuracy of the survey, few errors came to light and of them but a small proportion reached 5 per cent. in content.

GENERAL REMARKS.

Test by comparison with G. T. survey.

1. In each District the work of the Revenue Survey has been connected with stations of the Trigonometrical Survey, and the greatest error per mile discovered by this test is 8·3, the average 4·4 feet per mile.

Amín's measurement.
No. 1.....0·92.
" 2.....1·99.
" 3.....1·62.

2. The Amín's measurement in which the error is restricted to a maximum of 3 per cent. has satisfactorily borne the test of comparison with the traverse areas.

Amín's average daily out-turn.

3. The average amount of work performed each day by an Amín is acres 60, the out-turn is greatest in No. 1 party, and least in No. 5.

Error of Revenue Accounts.

4. The difference between the areas given by the present District accounts, and those ascertained by the Survey, is in many cases very great: for example, in Salem the gross area of two villages and the extent under cultivation by the two accounts, are respectively.

		Gross area.	Extent cultivated.		
Examples...	Nainageri Pettai.....By Revenue Accounts.....	1646·19	1317·10		
	Razepur Táluq .....By Survey	3015·22	2264·41		
	Difference...	1369·03	per cent. 45·5	947·31	per cent. 41·8
	Kottampundi.....By Revenue Accounts.....	2104	1804		
	Trichengode Táluq..By Survey.....	3775	3775		
	Difference..	1671	per cent. 44·7	1971	per cent. 52·2

Godavery.

In the Godavery District the error of the Revenue accounts varies from 11 to 111 per cent.

Observations on the out-turn and cost of Nos. 12 and 3 parties.

5. Notwithstanding that during the past year no minimum for fields has been observed, the out-turn and cost per mile in the three parties employed, as originally intended in the Revenue Survey of Ryotwary Districts, have nearly approached the estimate; the aggregate out-turn being 3,551 square miles, and the average cost per mile including all items of the original estimate Rupees 65-7-0. From this it is evident that no great alteration in the estimate is necessary.

Charges transferred from other Department to Survey.

6. As already reported several additional charges have of late been transferred to the Survey funds, and though involving no additional outlay to Government cause an apparent increase in the expenditure of the Department.

Cost per mile in 3 older parties; all charges included is Rupees 75-13-7.

7. The proportionate share of all such extra charges being included, however, the cost per mile for the three older parties only amounts to Rupees 75-13-7.

Obstacles met with by No. 1 in Trichinopoly.

8. The chief obstacles have presented themselves to No. 1 party where the current and arrear measurement of minor fields was undertaken and prosecuted under great disadvantage. The disappearance of former marks in the Trichinopoly District, and the defective demarcation provided for current work rendered the progress of the Survey tedious and difficult.

In Wainad and Shervaroy Hills.

9. In Wainád and on the Shervaroys, I regret to say that the demarcation was the subject of several representations to the Director of Revenue Settlement.

Difference between cost in Ryotwary Districts and in hilly unhealthy localities.

10. Setting aside, however, the consideration of all but local peculiarities, I would draw attention to the very great difference in the cost of surveys, such as were originally contemplated in the Ryotwary Districts, and those prosecuted in localities unsuited to the Natives of the plains who compose the bulk of the Survey Department.

Expenditure on batta, &c, in Wainad.

11. During the year 1861, of Rupees 31,778-8-6 expended on the Wainád Survey, the sum of Rupees 6,343-5-6 was on account of travelling and extra batta. In addition to the period required for the march to the Wainád and back, the number of days lost in moving about that District itself is large from the difficulties that there attend travelling.

Necessity of considering separately work in Ryotwary and other Districts.

12. In any consideration of the working of this Department I trust therefore that operations in Districts for which the establishment and expenditure was originally estimated, may be kept distinct from those undertaken in the Wainád on the Shervaroy Hills, and merely for the convenience of the special Wainád Establishment in the Razeepoorum Táluq of Salem and in Coimbatore during the unhealthy season in Wainád.

Working of Act XXVIII of 1860.

13. The powers granted to Survey Officers under Act XXVIII of 1860 appear to have been sufficient, and the provisions of the Act suitable for the object aimed at.

Only two large fines inflicted.

14. The highest fine inflicted was Rupees 20; this amount has only been imposed in two cases, in one of them by the Superintendent Revenue Survey whilst in Wainád, where an example was necessary, and where the Deputy Superintendent was not vested with full powers. The levy of this fine is reported to have had a salutary effect, and to have ever since secured the attendance of land-holders when summoned.

(Signed) F. J. B. PRIESTLEY, Major,
Superintendent of Revenue Survey.

REVENUE SURVEY OFFICE,
Chepauk,
8th March 1862.

No. 1, IN ENCLOSURE 1.

Statement of expenditure of the Revenue Survey Lithographic Department for the year 1861.

	Extent in square miles of maps lithographed.	Cost including ordinary contingencies.			Cost per square mile.			Cost including contingencies and printing paper.			Cost per square mile.			Cost including contingencies, printing paper and lithographic press and stones.			Cost per square mile.			Remarks.
		Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	
Cost of Village maps..... ...	1,191	7,427	11	1	6	3	9	8,734	2	1	7	5	4	11,694	1	3	9	13	1	
Do. Táluq maps....		167	0	9	.....			...	...	...	.....			167	0	9	.....			
	1,191	7,594	11	10	.....			8,734	2	1	.....			11,861	2	0	.....			

Revenue Survey Office,
Chepauk,
8th March 1862.

(Signed) F. J. B. PRIESTLEY, Major,
Superintendent Revenue Survey.

No. 2, IN ENCLOSURE 1.

Statement of comparative distances between Trigonometrical Stations.

Parties.	Stations.	Distances. By Trigonometrical Survey.	Distances. By Revenue Survey.	Difference.	Difference per mile.	Remarks.
No. 2, Godavery	Pentapad to Nendrakolam,* Mellommetta Hill to Guralakonda Hill	45974·80	45972·10	2·70	0·31	*Bed of a tank.
No. 3, Kistna	Jinjunu to Jonalagadda Hill, Pulichenta Hill to Congramulla Hill	59855·56 5970·3	59908·80 5986·3	53·24 16·0	4·69 1·5	
No. 5, Nellore	Jonalagadda Hill to do. Sangam Hill to Narsimhakonda Hill. Do. to Buchireddipalem Pag	58684·70 52199·50 6882·0 51284·64	58735·09 52271·27 6874·6 51204·0	50·39 71·77 7·40 80·64	4·5 7·26 ·75 8·30	
	Buchireddipalem Pag, to Narsimhakonda Hill	31371·0	31387·0	16·0	2·69	

Revenue Survey Office,
Chepauk,
8th March 1862.

(Signed) F. J. B. PRIESTLEY, Major,
Superintendent Revenue Survey.

No. 3, IN ENCLOSURE 1.

Statement of expenditure of the Revenue Survey Establishment for 1861.

Parties.	Area measured in square miles	Expenditure including the estimated measurement allowances.	Cost per. Squaremile.			Cost per. Acre.			Share of Central Office.			Cost per party including the share of Central Office.			Cost per. Squaremile.			Cost per. Acre.			Chargeable to General Fund. Regimental allowances		
		Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
No. 1, Survey Party, Salem ...	1,302	78,950	6	5	60	10	2	0	1	6	5,000	0	0	83,950	6	5	64	7	8	0	1	7	4,275	10	9
,, 2, do. Godavery ...	1,185	73,676	11	1	62	2	9	0	1	6	5,000	0	0	78,676	11	1	66	6	3	0	1	8	9,449	7	11
,, 3, do. Kistna ...	1,064	65,852	14	9	61	14	3	0	1	6½	5,000	0	0	70,852	14	9	66	9	5	0	1	8	4,565	0	9
,, 5, do. Nellore ...	463	40,541	12	9	87	9	0	0	2	2	2,792	4	2	43,334	0	11	93	9	6	0	2	4	1,330	0	0
Wainád { Working season at beginning of the year..	17	21,901	4	9	1,288	5	0	2	0	2	830	1	1	22,731	5	10	1,337	2	2	2	1	5	1,430	0	0
No. 4, do. { Do. end do. ..	43	9,877	3	9	229	11	3	0	5	9	830	1	2	10,707	4	11	249	0	1	0	6	2	1,429	9	3
Coimbatore ...	170	16,523	8	8	97	3	2	0	2	5	1,500	0	0	18,023	8	8	106	0	4	0	2	7	1,959	10	10
Shervaroy Hills ...	16	5,187	0	8	324	3	0	0	8	1	1,000	0	0	6,187	0	8	386	11	0	0	9	8	1,217	14	10
Rasepur	.....	5,343	15	3	...	...	...	...	...	...	800	0	0	6,143	15	3	...	...	...	...	...	...	215	0	0
Extra Party attached to No. 1 ...	.....	7,699	6	9	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...
No. 6, Kurnool	.....	750	0	0	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...
	4,260	3,26,304	4	10	...	...	...	...	...	...	22,752	6	5	3,40,607	4	6	...	...	...	...	...	...	25,872	6	4
Value of instruments purchased in 1861, but not issued.	.....	.....			...	...	...	.....			.....			.....			.....			.....			.....		

The cost of the Survey, including all the expenses entered in this Statement, will be as follows :—

	Rs.	A.	P.	
No. 1, Salem party, ...	84	2	4	per square mile, including the work on Shervaroy Hills,
				or Rupees 80 4 1 for Salem,
				400 9 0 for Shervaroy,
				84 2 4 for the whole.
No. 2 Godavery ...	82	8	1	
No. 3 Kistna ...	80	9	6	
No. 4 { Wainád ...	650	10	10	
No. 4 { Coimbatore ...	135	1	3	
No. 5 Nellore ...	108	11	1	
No. 6 Kurnool	...	..	...	

Revenue Survey Office,
Chepauk,
8th March 1862.

Statement of expenditure of the Revenue Survey Establishment for 1861.—(*Continued*)

Parties.	Chargeable to General Fund.									Cost per						Remarks.	
	Extra Measurers.			Instruments.			Total chargeable to General Fund.			Grand Total, including all charges.			Square mile.			Acre.				
	RS.	A.	P.	RS.	A.	P.	RS.	A.	P.	RS.	A.	P.	RS.	A.	P.	RS.	A.	P.		Cost per mile in 3 parties.	Cost per mile in 4 parties.
No. 1, Survey Party, Salem	...	...	...	1,501	15	6	5,777	10	3	89,728	0	8	68	14	7	0	1	8	Rs. 6,000 estimated meast. allowances.	75-13-7	78-9-7
„ 2, do. Godavery ...	6,190	10	1	1,500	0	0	17,140	2	0	95,816	13	1	80	13	8	0	2	0	„ 5,000 do.		
„ 3, do. Kistna	6,882	4	9	1,500	0	0	12,947	5	6	83,800	4	3	78	12	1	0	1	11	„ 5,000 do.		
„ 5, do. Nellore	...	...	...	1,500	0	0	2,830	0	0	46,164	0	11	99	11	3	0	2	6	„ 1,500 do.		
No. 4, do. Wainád { Working season at beginning of the year...	...	...	...	250	0	0	1,680	0	0	24,411	5	10	1,435	15	5	2	3	11			
No. 4, do. Wainád { Do. end do...	...	...	...	250	0	0	1,679	9	3	12,386	14	2	288	1	1	0	7	2			
Coimbatore	...	...	...	500	0	0	2,459	10	10	20,483	3	6	120	7	10	0	3	0	„ 1,000 do.		
Shervaroy Hills	...	...	...	250	0	0	1,467	14	10	7,654	15	6	478	6	11	0	11	11			
Rasepur	...	...	...	250	0	0	465	0	0	6,608	15	3	...	...	...	..	...	...			
Extra Party attached to No. 1	...	...	...	...	...	...	...	...	...	7,699	6	9	...	...	...	...	...	...			
No. 6, Kurnool	...	...	...	...	...	...	...	...	..	750	0	0	...	...	...	...	...	...			
	13,072	14	10	7,501	15	6	46,447	4	8	3,95,503	15	11	92	14	2	0	2	4			
Value of Instruments purchased in 1861, but not issued.	....			12,000	0	0	12,000	0	0	12,000	0	0	.....			.....					

(Signed) F. J. B. PRIESTLEY, Major,
Superintendent Revenue Survey.

Enclosure No. 2.

APPENDIX A.

Statement showing the extent of Demarcation and Classification work performed by the several Settlement Parties, and the expenditure incurred thereon for the year 1861.

Taluqs.	Demarcation and Classification.						Preparation of Settlement Registers.				Demarcation.			
	Number of villages completed.	Number of villages in progress.	Ayacut or gross area in square miles.	Actual work in square miles.	Cost of field work.	Cost of superintendence.	Total.	Average cost per square mile on the Ayacut.	Remarks.		Number of villages completed.	Number of villages in progress.	Ayacut or gross area in square miles.	Actual work in square miles.
					RS.	RS.	RS.	RS. A. P.						
GODAVERY PARTY.											NELLORE.			
Mogalturu... ...			272	272							Nellore	109		414·75
Tanuku			152	152							Atmakur	80	6	449·90
Undi...			223	223							Repur	37	14	444·12
Nagaram			135	135							Kavali	14	33	324·7
Amalapur			191	191							Gudur	52	13	352·91
Rali...			74	74							Udayagiri ...		32	287·83
Ramachendrapur ...			101	101							Kandukur ...		3	15·55
Bickavole			106	106										
Kapaveram			244	244										
Rajahmundry ...			38	38	9,468	4,404	13,872	6 3 4						
Kottapalli			78	78										
Lingumparru			35	35										
Tademalla...			103	103										
Pentapad...			129	129										
Chintalapudi			101	101										
Kaikalur...			97	97										
Pedulapur			39	39										
Pittapur			2	2										
Relangi			111	111										
Cocanada...			3	3										
Total... ...			2,234	2,234	.....	...	...	.....			Total... ...	292	101	2289·13
Mogalturu... ...				272										
Tanuku				152										
Undi				223			1,689	...	1,689	1 13 8				
Pentapad				129										
Nagaram				135										
Total... ...				*911	....	...	11,157	4,404	15,561	.....				
				...	.....	...								

* Approximate.

The Establishments in this District were employed in revising the demarcation and classification, and also preparing the numerous accounts which accompanied the Settlement Reports.

Demarcation.			
	RS.	A.	P.
Nellore	...	...	....
Atmakur	...	...	.....
Repur	...	...	.....
Kavali	...	...	....
Gudur	...	...	.....
Udayagiri ...	...	...	.....
Kandukur ...	...	...	.....
Total...	36,652	4,404	41,056

Average cost per square mile on the true areas.			
	RS.	A.	P.
	...	...	....
	...	...	.....
	...	...	.....
	...	...	....
	...	...	.....
	...	...	.....
	...	...	.....
	21	0	11

Statement showing the extent of Demarcation and Classification work, &c.—(*Continued.*)

	Táluqs.	Number of villages completed.	Number of villages in progress.	Ayacut or gross area in square miles.	Actual work in square miles.	Cost of field work.	Cost of superintendence.	Total.	Average cost per square mile on the Ayacut.	Remarks.
						Rs.	Rs.	Rs.	Rs. A. P.	
				KISTNA PARTY.						
Demarcation.	Guntoor	2	...	1·48	1·40	2,773	737	3,510		
	Repalli... ...	141	...	480·4	506·14	8,739	2,325	11,064		
	Krosur	...	...	.....	0·78	2,519	671	3,190		
	Bapatla... ...	101	...	528·9	508·83	8,572	2,278	10,850		
	Palnad	68	35	863·4	463·14	8,506	2,264	10,770		
	Pajapet... ...	...	2	15·4	3·37	417	111	528		
	Vinoconda... ...	...	...	.....	.....	81	23	104		
	Nandigama ...	...	...	.....	.....	799	211	1,010		
	Jaggayapett ...	...	...	.....	.....	405	108	513		
	Bandar... ...	...	...	.....	.....	99	26	125		
	Peduva	...	...	.....	.....	14	3	17		
	Divi	...	...	.....	.....	62	16	78		
	Ellore	...	...	.....	.....	127	35	162		
	Total...	312	37	1887·69	1483·66	33,113	8,808	41,921		
	Add Khandams demarcated ...	...	...	.....	308·57	...	...	...		
	Total...	312	37	1887·69	1,792·23	33,113	8,808	41,921	22 3 4	
Classification.	Guntoor	5	...	18·09	16 87	2,240	619	2,859		
	Repalli... ...	141	...	495·15	422·37	9,068	2,504	11,572		
	Krosur	...	...	20·57	2·22	2,729	754	3,483		
	Bapatla ...	98	..	490·67	424·23	9,049	2,500	11,549		
	Palnad	58	23	550·96	289·78	8,796	2,430	11,226		
	Total...	302	23	1575·44	1155·47	31,882	8,807	40,689	25 13 3	
				KURNOOL.						
Demarcation	Ramalacota ...	50	27	471·14	353·24	...	...	...		
	Add Khandams demarcated ...	...	...	.....	24·61	...	...	...		
	Total...	50	27	471·14	377·85	17,101	5,576	22,677	Average cost per square mile. 48 2 1	

Statement showing the extent of Demarcation and Classification work, &c.,—(*Continued*)

	Táluqs.	Number of villages completed.	Number of villages in progress.	Ayacut or gross area in square miles.	Actual work in square miles.	Cost of field work.	Cost of superintendence.	Total.	Average cost per square mile on the Ayacut.	Remarks.
						Rs.	Rs.	Rs.	R. A. P.	
				SALEM PARTY.						
Demarcation.	Salem.									
	Womalur... ...	15	...	091·09	041·81	1,740	458	2,198		
	Salem... ...	2	...	0·83	0·10	...	...	...		
	Darampuri ...	505	...	494·61	303·76	5,614	1,480	7,094		
	Rasipuram ...	1	...	2·60	2·06	39	10	49		
	Tripattur... ...	141	...	164·56	138·44	2,684	707	3,391		
	Uttangiri ...	420	...	628·89	392·99	7,218	1,903	9,121		
	Kistangiri... ...	321	...	288·70	254·52	4,591	1,210	5,801		
	Oossur... ...	157	...	133·63	124·60	2,147	566	2,713		
	Denkencottah...	391	...	883·86	304 04	7,051	1,858	8,909		
	Shervaroy Hills.	78	...	62·81	62·81	1,371	360	1,731		
	Total...	2,031	...	2751·58	1625·13	32,455	85,552	41,007	14 14 5	
	Trichinopoly, South Arcot. { Volcondapuram	...	...	...	...	601	159	760		
	Trichinopoly, South Arcot. { Chedambaram & Mannargudi	...	...	...	...	362	95	457		
	Total...	...	..	...	...	963	254	1,217		
	Grand Total...	...	...	...	...	33,418	8,806	42,224		
Classification.	Salem.									
	Womalur... ...	16	...	146·53	700·58	3,193	625	3,818		
	Salem	2	...	2·67	·10	1,230	241	1,471		
	Darampuri ...	505	...	494·61	268·0	10,258	2,010	12,268		
	Rasipuram ...	1	...	2·84	1·94	3	8	47		
	Tripattur... ...	141	...	164·56	118·76	4,819	944	5,763		
	Uttangiri ...	420	...	628·89	328·68	7,596	1,488	9,084		
	Kistnagiri... ...	320	...	287·61	223·62	5,060	991	6,051		
	Oossur... ...	157	...	133·63	98·16	2,546	498	3,044		
	Denkencottah...	381	...	829·62	236·15	6,345	1,244	7,589		
	Shervaroy Hills	78	...	62·81	60·3	1,112	218	1,330		
	Senkagiri ...	...	...	...	...	1,059	207	1,266		
	Paramatti... ...	...	...	...	...	177	35	212		
	Total...	2,021	...	2753·77	1406·02	43,434	8,509	51,943	18 13 9	
	Trichinopoly, South Arcot. { Volcondapuram	...	...	...	...	349	68	417		
	Trichinopoly, South Arcot. { Chedambaram & Mannargudi	...	...	...	...	1,175	230	1,405		
	Total...	...	...	...	...	1,524	298	1,822		
	Grand Total...	...	...	...	...	44,958	8,807	53,765		
				WAINÁD PARTY.						
Demarcation.	Wainád	6	23	240·25	240·25	28,418	9,670	38,088	158 8 7	
	Coimbatore ...	92	23	294·02	238·50	18,601	7,945	26,546	90 4 7	
	Total...	98	46	534·27	478·75	47,019	17,615	64,634	120 15 7	

Revenue Settlement Office,
Madras,
8th April 1862.

(Signed) R. E. MASTER,
Officiating Director of Revenue Settlement.

ENCLOSURE No. 3.

APPENDIX B.

STATEMENT showing the number and description of Boundary Marks put up by the several Settlement Parties for the year 1861.

Items.	1st Party.	2nd Party.			3rd Party.	4th Party.			Grand Total.
	Nellore.	Kistna.	Kurnool.	Total.	Salem.	Wainád.	Coimbatore.	Total.	
VILLAGE BOUNDARIES.									
Villages	453	388	56	444	1,570	6	92	98	2,565
Khandams or Sub-divisions	1,992	4,310	766	5,076	392	....	80	80	7,540
Trijunction pillars	930	676	121	797	4,475	256	184	440	6,642
Secondary do.	2,678	3,637	1,118	4,755	9,846	4,649	1,685	6,334	23,613
Other marks on village boundaries	21,943	7,285	1,196	8,481	59,410	.....	4,313	4,313	94,147
Marks on Khandams	32,025	21,779	4,534	26,313	8,384	....	616	616	67,338
FIELD BOUNDARIES.									
Number of villages	292	315	50	365	2,031	6	92	98	2,786
Villages divided into Khandams. — Number of Villages	285	308	50	358	122	....	32	32	797
Villages divided into Khandams. — Do. Khandams	1,992	3,167	698	3,865	255	.....	80	80	6,192
Number of fields marked	1,42,984	1,72,184	20,120	1,92,304	3,28,503	494	29,743	30,237	6,94,028
Do. field marks	5,02,235	5,29,823	76,860	6,06,683	....	.....	8,519	8,519	11,17,437

REVENUE SETTLEMENT OFFICE,
Madras,
8th April 1862.

(Signed) R. E. MASTER,
Officiating Director of Revenue Settlement.

1. Resolved that the above letter with its enclosures be submitted to Government.

2. The Acting Director of Revenue Settlement has properly excluded from his report on the Settlement operations of the year, any discussions of the principles on which the various settlements have been made, and has confined himself to detailing the proceedings of the various parties referred to in the above letter with the expenditure on account of each.

3. During the year 1861 the revision of the assessment of the Manargudi and Chellambaram Táluqs in the South Arcot District has been concluded; it was finally carried out by Terunagada Charry under the orders of Mr. Newill, as reported by him in his letter to Government, dated 11th May 1861, No. 770. The annual Settlement of the present year, based on the revised accounts, promises an increase rather than a decrease of revenue as was anticipated by Mr. Newill. The Village Registers in the Vernacular have been completed, and the English versions are nearly ready. The specimens, which are forwarded by Mr. Master, show what valuable and necessary documents they are; but the Board think that their value would be increased if the maps were placed at the close rather than at the commencement of the volume, and if they were pasted in cloth. It is observed also that the Tamil version does not bear the signature of the Director, nor are any statistics of revenue history given in these documents. Occasional errors also have been detected from Survey fields having been erroneously taken with interstitial fields in making the sum total of the areas of the latter.

4. The revised Settlement of the Western Delta Táluqs of the Godavery District, which was finally sanctioned by Government in June last, has been explained to the Ryots in the greater portion of these Táluqs, and the Settlement of coming Fasli will be made in accordance with the directions of Government as to the gradual introduction of the new rates. The sanction of Government was received so near the commencement of the present Fasli that it was found necessary to postpone its introduction to Fasli 1272, as the parties interested would not have had the opportunity of resigning lands on which a rate of assessment was placed in excess of that which they had hitherto paid. The Vernacular Village Registers for these Táluqs are nearly completed, and the English versions are in progress.

5. In addition to these two Settlements, the Settlements of the Trichinopoly District, the Masulipatam portion of the Kistna District, and the remaining portion of the Godavery Delta, also have been detected from Survey fields having been erroneously taken with interstitial fields

6. The Director's proposal for the Settlement of the dry and wet grain lands of the Wainád now under the consideration of the Board, and will shortly be submitted to Government. Proceedings, dated 5th April 1862, No. 2,234; the reports of the two remaining Districts are

7. There were six Settlement parties at work during the year, the Godavery with the Nellore detached party, the Kistna with the Kurnool detached party, the Salem, and the Wainád and Coimbatore.

8. Of these the Salem party was the most successful, having classified and demarcated under preparation in anticipation of sanction, the rates being left blank for the present. The have been finally arranged by the Department, the Village Registers of the last District being proposed Settlement for the Trichinopoly District was submitted to Government with Board's Táluq was also submitted to Government, with his letter dated 23rd September 1861, No. 1,439, and the Board's opinion thereon was recorded in their Proceedings, dated 16th January 1862, No. 402, and was finally disposed of by the Order of Government, dated 26th March 1862, No. 660.

upwards of 2,753 square miles, at an average cost of Rupees 33-12-9 per square mile for both operations. Mr. Master, however, explains that the party was at field work the whole year without cessation, and that consequently an additional charge must be incurred on account of this office work which is requisite to bring the details into a complete form. The operations of this party on the Shervaroy Hills is also satisfactory, about 60 square miles having been demarcated, which was composed almost entirely of Coffee estates, Native and European, at Rupees 66 per square mile, a rate which contrasts favorably with that in Wainád. Upwards of 150 villages in the Salem District have been left "undemarcated" in consequence of the scantiness of the population, and the insignification of the "cultivation;" but on this point further explanation is needed.

9. The operations of the Kistna party were neither so extended nor so economical, the out-turn of the year amounting to 1,887 square miles, demarcated at an average cost of

Rupees 22-3-4 per square mile, and 1,575 square miles classified at Rupees 25-13-3 per square mile, giving an average rate of Rupees 48-0-7 for both operations, but this party also, as well as the Salem party were at work throughout the year. The Survey areas were compared in a circuit of 50 villages, and the demarcation returns were found to be 22 per cent. under the actual area. The mileage of the party was however calculated at 15 per cent. only, as that has been taken as the average error.

10. Subordinate to the Kistna party was a small party sent to Kurnool under the charge of Captain Smith. They commenced operations in the Táluq of Ramalacottah, which will be the first to be affected by the works of the Irrigation Company. Owing, however, partly to a scarcity of hands, and partly with a view to prevent demarcation getting too far in advance of survey, the extent operated on was but 471 square miles, and its demarcation alone cost Rupees 48-2-1 per square mile. It is intended to transfer the Godavery party to this District during the present year when it is hoped the results will be more encouraging.

11. The Nellore party, which has been under the direction of Mr. Rundall, has also confined itself to demarcation; but in spite of the difficulties which it had to encounter in consequence of the numerous Zamíndáris, Shrotriems, and dense jungles situated in the District, its progress has been very successful, having demarcated 2,289 square miles at an average rate of Rupees 21-11-0 per square mile. This low rate per mile is in part, however, owing to the cost of superintendence being reduced by the Deputy Director drawing the greater portion of his salary from the Revenue Department as Sub-Collector of Godavery.

12. The Godavery party has done no new field work, having been occupied in correcting and completing that already performed, and in preparing the numerous Settlement accounts and village Registers. The average cost of the party was Rupees 6-3-4 per square mile, which will bring the average cost of the Godavery Settlement to Rupees 77-8-9 per square mile up to the conclusion of the past year.

13. The Wainád and Coimbatore party alone remains to be noticed, and the Board regret that the anticipations expressed in their Proceedings on the report of last year have not been fully realized. In 1860 about 114 square miles were demarcated at a cost of Rupees 47,263, and in the year under report but 240 miles were operated on, and the cost has reached Rupees 158-8-7 per mile. During the six months the work in Wainád was impracticable; 294 miles were demarcated in the Coimbatore District, but the cost amounted to Rupees 90-4-7 per mile. Up to 30th October 668 Titles were investigated, and 482 were registered, the limits of the forest lands in the Gunnapuddyvuttam and Moonunsudaad Amshams have been defined, and the claims of certain temples inquired into and reported on to the Board. Mr. Stuart's report on the last named subject has been received, and will shortly be submitted to Government with the Board's remarks.

14. The decision of Government in regard to the Wainád Survey was at first received with considerable dissatisfaction by the Coffee planters, but several have since applied for private surveys at the rates fixed by Government, and it is at least satisfactory that the primary object of the survey of the European Coffee Estates will be accomplished before the final removal of the Survey Establishment. The party when revived will be employed in the Coimbatore District, and the Board trust that once properly organized, there will be a very large reduction in the cost of the operations of demarcation.

15. A comparison of the Demarcation and Classification operations of the years 1860 and 1861, excluding Wainád and Coimbatore in both years, shows that in the former 4,232 square miles were demarcated at a cost of Rupees 1,08,453 and 4,604, classified at a cost of Rupees 1,15,892; while during the year under report, square miles 4,560 were demarcated for Rupees 1,46,661, and square miles 4,329 were classified at Rupees 92,632. The average cost of Demarcation being per square mile in 1860 Rupees 25-10-0, and in 1861 Rupees 32-2-7; while that of Classification was per square mile in 1860 Rupees 25-2-9, and in 1861 Rupees 21-6-4. It will thus be observed that while Demarcation has considerably increased in cost, Classification has become cheaper, and though the Acting Director has offered no explanation, the Board are disposed to the conclusion that the operations have actually been performed at a lower rate during the year under report, if the Kurnool party be excluded from the calculation

16. The actual expenditure of the year is shown by Mr. Master to be considerably below that sanctioned, but it would have been more satisfactory had some distinct table been given of the entire cost (actual up to the present time, and estimated for the future) of completing the Settlement of any particular portion of the country, in order to enable the Board and Government to judge of the necessity or otherwise of further application to the Government of India. As shown above, the cost of the Godavery West Delta Settlement up to the end of last year was Rupees 77-8-9, but the Board have not before them the entire cost of Village Registers, and though this is estimated to have cost up to this time Rupees 1-13-8 per square mile, it is added that the Estimate is not complete.

17. Without some such information as this, it is very difficult to arrive at a conclusive opinion as to whether the sanctioned rate of Rupees 61 per square mile is really sufficient for the completion of Settlement operations, but from the cost of the Salem, Nellore, and Kistna parties, the Board are disposed to consider that, with careful and economical management, the estimated rate may prove sufficient. It must also be remembered that the present rates per mile are calculated in a rough manner, and that in all probability when the survey areas are complete, a considerable increase of area will be discovered as has recently been the case in Trichinopoly, and the rates of cost will then be proportionately reduced.

18. The Board quite concur with Mr. Master's remarks, as to the vital importance of the survey areas being if possible supplied immediately after demarcation has taken place, and they regret to notice that the Acting Director has made certain corrections in the Superintendent of Revenue Survey's Report on this point, which go to show that the correct survey areas have not been supplied as promptly as he seemed to suppose. Further explanation should be submitted on the subject, and it is hoped that being aware of the urgency of the matter, Major Priestley will impress on his Department the necessity of supplying these areas with as little delay as possible. A separate representation should, however, be submitted on this point, as the discussions of improvements or alterations of system are better omitted from an annual report.

19. The marginal Statement gives the number of boundary pillars constructed in the several Districts during the year, and stones have been used as field marks by most of the parties, being easily procurable.

Items.		Total.
Village Boundaries.		
Village		2,565
Khandams or Sub-divisions		7,540
Tri-junction pillars		6,642
Secondary do.		23,613
Other marks on village boundaries		94,147
Marks on Khandams		67,338
Field Boundaries.		
Number of villages		2,786
Villages divided into Khandams	Number of villages	797
	Do of Khandams	6,192
Number of fields marked		6,94,028
Do. field marks		11,17,437

20. From the enclosure to Mr. Master's report, it appears that during the year under report there were five Survey parties at work, and that a sixth was under formation for the Kurnool District. No. 1 party employed in Salem surveyed 1,302 square miles at a cost according to Major Priestley of Rupees 64-7-8 per square mile; the Godavery (No. 2) party 1,185 square miles, at Rupees 66-6-3 per square mile, and the Kistna (No. 3) party 1,064 square miles at Rupees 66-9-5 per mile, in all 3,551 square miles at an average, including all charges, of Rupees 75-13-7 per square mile, which Major Priestley considers to be a satisfactory result.

21. Though the extent surveyed by these three parties is in excess of their out-turn for the former year by about 300 square miles, there is no reduction of cost, and according to the corrections made by Mr. Master in the Statement accompanying Major Priestley's report, the actual cost including all charges is very much beyond that stated above, being for the three parties respectively Rupees 80-4-1, Rupees 82-8-1, and Rupees 80-9-6 per square mile. These corrections appear to result from Mr. Master estimating the cost per mile, including certain charges which Major Priestley has apparently omitted from his calculation, such as for Regimental allowance, extra measurements, instruments, &c., and looking at Mr. Master's figures there are strong grounds for questioning the conclusion arrived at by Major Priestley in paragraph 5 of his general remarks, "that no great alteration of the estimate is necessary."

22. The working of the parties numbered 4 and 5 is much less satisfactory, and in the early part of the season the cost of the Wainád operations was no less than Rupees 1,337 per square mile, though during the latter portion of the working season this was reduced to Rupees 229-11-3

per square mile. The amount of work performed by the party was 59 square miles in the Wainád and 170 square miles in Coimbatore where a branch party was established.

23. The Nellore party (No. 5) was not completely formed at the beginning of the year, but in consequence of the north-east monsoon having been but little felt, the out-door work was carried on without cessation, and the out-turn of the year was 463 square miles, at Rupees 93-9-6 per square mile which Mr. Master raises to Rupees 108-11-0.

24. Major Priestley explains that the cost of the work has been very largely increased by the task of measuring the interstitial fields devolving upon his Department, and he adds that the estimates were framed with a view to a survey in Ryotwary Districts, and not in tracts like the Wainád and the Shervaroy Hills, the climates of which places are very ill-suited to the natives, and which also present great natural obstacles to a survey. He further remarks that frequent representations were made to the Settlement Department regarding defective demarcation.

25. The Board observe the measurement of the interstitial fields is certainly an additional and unforeseen charge to the Survey, but the question is now before Government,* and a recent proposal of Mr. Puckle submitted with Board's Proceedings noted in the margin, seems likely to solve the difficulty. It is to be feared, however, judging from the results of the present year, that even if relieved of this charge, and the exceptional cases of the Wainád and Shervaroy Hill Survey being excluded from the calculation, the Survey Department cannot succeed in performing the work at the estimated rate of Rupees 64 per square mile.

* Vide Board's Proceedings, 11th Feb. 1862, No. 951.

7th April 1862, No. 2,301.

26. The Madras Town Survey has been steadily progressing; that of the Perambore Division has been completed, as well as a considerable portion of the Black Town Division. The Tondaivad Division also, one of the largest in Madras, has been commenced upon, and it is expected to be completed by the end of the present year. The expenditure during the year under report was Rupees 5,755 for the Survey operations, and Rupees 1,202 for testing the Surveys already completed.

27. The working of the Lithographic Press shows a very considerable improvement on the preceding year, nearly 20,000 copies of village maps were prepared, and the cost has been calculated to be Rupees 6-3-9 per square mile mapped; whilst in the former year it was as high as Rupees 12-6-0, and but 15,000 copies were turned out. Mr. Beaumont during his recent visit to England obtained a knowledge of Zincography which he has imparted to this Department, and Major Priestley anticipates considerable advantages in the economy of cost of material and of time, the Zinc plates being both more durable and more easily handled than stones.

28. The Táluq Maps submitted with Major Priestley's report are well excuted, and the proposed substitution of symbols for coloring has the Board's approval. Mr. Master's proposed omissions seem to be desirable, as the statements alluded to by him seem only to encumber the Maps.

29. The Survey measurements have been compared with those of the Trigonometrical Survey, and a difference has been found to amount to a little more than four feet per mile, and the error in the measurements of the Amíns has never exceeded the allowed three per cent. These results are most satisfactory, but the comparison made in the Salem District between the Revenue account areas and the Survey areas show a difference of nearly 50 per cent., which is an additional proof of the absolute necessity of the Demarcation parties being closely attended by the Survey parties, and the Survey areas being supplied to the Settlement Department as early as possible.

30. In conclusion, the Board are glad to notice the favorable testimony borne by the Acting Director of Revenue Settlement and the Superintendent of Revenue Survey to the exertions of their subordinates in general, and the especially favorable mention which has been accorded to Mr. Rundall of the Settlement Department. They are glad to observe also that the employment of additional European superintendence in this Department has realized the expectations of the Director.

(True Copies and Extract.)

(Signed) R. A. DALYELL, *Sub-Secretary.*

No. 131. ORDER THEREON, 12th August 1862, No. 1,703.

1. With these Proceedings the Board of Revenue submit the Reports of the Officiating Director of Revenue Settlement and the Superintendent of Revenue Survey on the progress of work in their respective Departments in 1861.

2. During the year the revision of assessment of the Mannargudi and Chellambram Táluqs in the South Arcot District has been completed, and the Government are glad to learn that the Settlement of the present year promises an increase of revenue. The specimens of the Village Registers submitted are good, but the paper used for the Vernacular Registers is inferior and may in course of a few years be destroyed by insects. This defect should be remedied in the case of the accounts which may be hereafter prepared, and all the books should be well bound. These improvements will no doubt add somewhat to the expenditure, but, unless they are effected, the accounts themselves, prepared at a large outlay, are likely to be soon destroyed. The Government do not attach much importance as to where the maps attached to the Registers are placed, whether in the beginning or at the end, but the Board's suggestion that they should be pasted upon cloth should be adopted. The other defects pointed out by the Board should also be corrected and the Registers should be duly authenticated.

3. The Government in paragraph 2 of their Order, dated 24th June 1861, No. 1,231, desired that the revised Settlement of the Western Delta Táluqs in Godavery should be introduced in Fasli 1271, but the Board explain that the Order of Government alluded to was received so near the commencement of the Fasli that it was found necessary to postpone its introduction to Fasli 1272. The course adopted by the Board is approved.

4. Orders will be passed at an early date on the Board's Proceedings dated 5th April 1862, No. 2,234, regarding the proposed Settlement of the Trichinopoly District. The Board will expedite the submission of the reports on the Settlement of portions of the Kistna and Godavery Districts which they state are now under their consideration.

5. The following table shows in one view the operations of the Settlement parties in the other Districts:—

Parties.	Demarcation.	Classification.	Rate of cost per square mile.
	Square miles.	Square miles.	Rs. A. P.
Nellore	2,289	1,575	21 0 11
Kistna	1,888	.....	48 0 7
Kurnool	471	.....	48 2 1
Salem	2,752	2,754	33 12 2
Wainád	240	.....	158 8 7
Coimbatore	294	.....	90 4 7

As the Board remark the Salem party was the most successful both in the amount of work performed and in the economical execution of that work. The operations of the Kistna and Nellore parties are pretty good. The slow progress in Kurnool has already been animadverted on by the Government in their Order dated 30th May 1862, No. 1,197. The Survey of Wainád needs no special notice, orders having been passed on the subject in G. O. 21st October 1861, No. 2,015. The cost per mile in Coimbatore is very heavy, and the Government hope that the operations of 1862 will show a decided improvement.

Years.	Average cost per mile.					
	Demarcation.			Classification.		
	Rs.	A.	P.	Rs.	A.	P.
1860	25	10	0	25	2	9
1861	3	2	7	21	6	4

6. The Board in paragraph 15 compare the cost of Demarcation and Classification in 1861 with the similar cost in 1860. The result of this comparison is shown in the margin. The cost of Demarcation has considerably increased in 1861. The Acting Director has given no explanation on the subject, but the Board conclude that the operations have been actually performed at a lower rate during the year 1861, if the Kurnool party be excluded from the calculation. They will however call upon the Acting Director for a full explanation.

7. The Government concur in the remarks made by the Board of Revenue in paragraphs 16 and 17 regarding the absence of complete information as to the actual expenditure of the year.

8. The Board have properly pointed out to Major Priestley in paragraph 18 the importance of supplying Survey areas with as little delay as possible. They will place before Government any further papers they may receive on the subject. The accuracy of the Survey operations as tested by a comparison with the Trigonometrical Survey, is highly satisfactory.

9. The following table shows in one view the work done by the several Survey parties and the cost at which it was done:—

Party.	Extent Surveyed.	Cost per square mile as per Major Priestley's report.			Cost per square mile according to Mr. Master's correction.			Average. cost per square mile in 1860.		
	Sq. Miles.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Salem	1,302	64	7	8	80	4	1	58	13	9
Shevaroys	16	386	11	0	400	9	0	...	...	...
Godavery	1,185	66	6	3	82	8	1	71	5	11
Kistna	1,064	66	9	5	80	9	6	70	15	8
Nellore	463	93	9	6	108	11	0	0	0	0
Wainád.. Working season beginning of the year	17	1,337	2	2	650	10	10	250	0	2
Wainád.. Do. end of do	43	249	0	1						
Coimbatore	170	106	0	4	135	1	3	...	...	...

The work done by the Salem, Godavery and Kistna parties is satisfactory. The cost in all the Districts has much increased. Major Priestley explains that it is owing to the task of measuring the interstitial fields devolving upon his Department and to the estimates having been framed without reference to the survey of tracts like Wainád and the Shevaroy Hills. The Board truly remark that judging from past results even if relieved of the charge of measuring the interstitial fields, and if the exceptional cases of Wainád and the Shevaroy Hills Survey are excluded from calculation, the Survey Department cannot succeed in performing the work at the estimated rate of Rupees 64 per square mile. They will call upon Major Priestley to explain more fully the data on which he believes "that no great alteration of the estimate is necessary."

10. The complaints of Major Priestley regarding defective Demarcation should receive the Acting Director's prompt attention.

11. The Madras Town Survey needs no special notice. The progress made appears to be satisfactory.

	Cost per every square mile mapped. Rs. A. P.
1859	56 0 0
1860	12 9 7
1861	6 3 9

Proceedings of Government, 13th March 1862, No. 563.

12. The amount of work performed by the Lithographic Press is satisfactory, and the reduction effected in the cost of preparing the maps particularly so. The Government approve of the substitution of symbols for colors in the Táluq maps. This has already been sanctioned so far as the village maps are concerned and the same arguments apply in both cases. But they are unable to concur in Mr. Master's suggestion that the Tabular Statements now exhibited in the margin should be printed separately, and that the Tamil names of the villages should be omitted, as English names alone are used in the body of the maps. Separate lists might be soon lost, and English figures are now so generally understood that with their aid and with Tamil names given in the list any person totally unacquainted with English will be able at once to find out any required village in the map. The Government have seen the specimen map. The boundaries and sites of villages, especially the latter, are wanting in distinctness, but otherwise it is good as it is and they would not disturb the present arrangement. The maps should be pasted upon cloth and carefully preserved and used.

13. The Government notice with pleasure the good mention made of the exertions of the Officers employed both in the Survey and Settlement Departments, especially of Mr. C. Rundall.

(Signed) T. PYCROFT,
Chief Secretary.

vad Division also, one of the largest in Madras, has been commenced upon, and it is expected to be completed by the end of the present year. The expenditure during the year under report was Rupees 5,755 for the Survey operations, and Rupees 1,202 for testing the Surveys already completed.

27. The working of the Lithographic Press shows a very considerable improvement on the preceding year, nearly 20,000 copies of village maps were prepared, and the cost has been calculated to be Rupees 6-3-9 per square mile mapped; whilst in the former year it was as high as Rupees 12-6-0, and but 15,000 copies were turned out. Mr. Beaumont during his recent visit to England obtained a knowledge of Zincography which he has imparted to this Department, and Major Priestley anticipates considerable advantages in the economy of cost of material and of time, the Zinc plates being both more durable and more easily handled than stones.

28. The Taluk Maps submitted with Major Priestley's report are well executed, and the proposed substitution of symbols for coloring has the Board's approval. Mr. Master's proposed omissions seem to be desirable, as the statements alluded to by him seem only to encumber the Maps.

29. The Survey measurements have been compared with those of the Trigonometrical Survey, and a difference has been found to amount to a little more than four feet per mile, and the error in the measurements of the Amins has never exceeded the allowed three per cent. These results are most satisfactory, but the comparison made in the Salem District between the Revenue account areas and the Survey areas show a difference of nearly 50 per cent., which is an additional proof of the absolute necessity of the Demarcation parties being closely attended by the Survey parties, and the Survey areas being supplied to the Settlement Department as early as possible.

30. In conclusion, the Board are glad to notice the favorable testimony borne by the Acting Director of Revenue Settlement and the Superintendent of Revenue Survey to the exertions of their subordinates in general, and the especially favorably mention which has been accorded to Mr. Rundall of the Settlement Department. They are glad to observe also that the employment of additional European Superintendence in this Department has realized the expectations of the Director.

(True Copies and Extract.)

Sub-Secretary.

To J. D. Sim, Esq., Secretary to Government, R. D.
Copy to R. E. Master, Esq., Officiating Director of Revenue Settlement.
„ Major F. J. B. Priestley, Superintendent of Revenue Survey.

Exd. J. Tulloch.

W. 1703- Revenue Departt.

Proceedings of the Madras Government
Under date the 12th Augt. 1862

Read the following Pro-
ceedings of the Board of Revenue

Submitting with the Board's remarks, letters from the Offi-
ciating Director of Revenue Settlement and Superintendent of Revenue Survey reporting on the progress of the Settlement and Survey operations during the year 1861.

(Here enter 29th April 1862 No 2692)

With these Proceeding
the Board of Revenue sub-
mit the reports of the Offic
ating Director of Revenue Set
tlement and the Superintende
of Revenue Survey on the progre
of work in their respective de-
partments in 1861.

2 During the year the
revision of assessment of the
Mannargudi and Chellamboo
Talugs in the South Arcot Distric
has

4 April 62 — 30-31
29 Board to 12 102-103
14 — — — 29 78.
16 — — 178 80.
22 — — 14 188-182.
24 — — 235-236
27 — — 65-66
Tune — — — 210-211
24 — — — 33-34
2 Author — — 35-36
2 — — — 246-247
21 — — — 74-65
5 Remd 16 — 650 67
4 Feby 62 — 650 67
8 — — — 170 174
20 March 62 — 346-347
26 March 62 — 412-413
11 Board 80 No 182-133
Rec 408-1034 M 1246
12 July 62 — 255-256
Copy sent to Collr to Engage
Dy 11 a Letter No 61 of 1862
16-2-95
No 30.

Board

Proceedings of the Board of Revenue.

No. 1703.

Dated 29th April 1862.

Despatched 13 May 62.

Received 13th Ditto.

Subject Report from Officiating Director of Revenue Settlement and Superintendent of Revenue Survey reporting on the progress of the Settlement and Survey operations during the year 1861.

No. 2,692.

R. No. 1703. 12 Augt

Submitting, with the Board's remarks, letters from the Officiating Director of Revenue Settlement and Superintendent of Revenue Survey reporting on the progress of the Settlement and Survey operations during the year 1861.

has been completed and the Government are glad to learn that the settlement of the present year promises an increase of revenue. The specimens of the Village Registers submitted are good, but the paper used for the vernacular registers is inferior and may in course of a few years be destroyed by insects. This defect should be remedied ~~at least~~ in the case of the accounts which may be hereafter prepared and all the books should be well bound.

These improvements will no doubt ~~largely~~ somewhat add to the expenditure, but, unless they are effected, the accounts themselves prepared at a large outlay are likely to be soon destroyed. The Government do not attach much importance as to where the marks attached to the registers are placed, whether in the beginning or at the end, but the Board's suggestion that they should be pasted over with cloth should be adopted. The other defects pointed out by the Board should also be corrected, and the Registers so be duly authenticated.

3 The Government in para 2 of their order dated 24th June 1861, No. 1231, desired that the revised settlement of the Western Delta Taluqs in Godavery should be introduced in Fasli 1271, but the Board explain that the order of Government alluded to having been received so near the commencement of the Fasli that it was found necessary to postpone its introduction to Fasli 1272. The course adopted by the Board is approved.

4 Orders will be passed at

al an early date on the Board's Proceedings dated 5th April 1862, No. 2234 regarding the proposed settlement of the Trichinopoly District. The Board will expedite the submission of the reports on the settlement of portions of the Kistna and Godavery Districts which they state are now under their consideration.

5 The following table ~~will~~ shews in one view the operations of the settlement parties in the other Districts.

Parties	Demarcation	Classification	Rate of cost per Square mile		
	Sq: Miles	Sq: Miles	Rs.	As.	P.
Nellore	2289	"	21	"	11
Kistna	1888	1575	48	"	7
Kurnool	471	"	48	2	1
Salem	2752	2754	33	12	2
Wynaud	240	"	158	8	7
Coimbatore	294	"	90	4	7

As the Board remark the Salem party was the most successful both in the amount of work performed and in the economical execution of that work. The operations of the Kistna and Nellore parties are pretty good. The slow progress in Kurnool has already been drawn attention to by the Government in their order dated 30th May 1862 No. 1197. The Survey of Wynaud needs no special notice. The cost per mile in Coimbatore is very discouraging. The Government hope that the operations of 1862 will shew a decided improvement.

6 The Board in para 15 compare the cost of demarcation and classification in 1861 with the similar cost in 1860. The result of this comparison is shewn in the margin. The cost of demarcation has considerably increased in 1861. The

Years	Average cost per Mile					
	Demarcation			Classification		
	Rs.	As.	P.	Rs.	As.	P.
1860	25	10	"	25	2	9
1861	32	2	7	21	6	4

* Orders having been passed on the subject in G.O. 21st Oct 61 No 2015.

As

Acting Director has given no explanation on the subject, but the Board conclude that the operations have been actually performed at a lower rate during the year 1861, if the Kurnool party be excluded from the calculation. ~~The government are not satisfied with this conclusion.~~ They ~~Board of Revenue~~ will however call upon the Acting Director for a full explanation, ~~illustrated by figures.~~

7 The Government concur in the remarks made by the Board of Revenue in paras 16 and 17 regarding the absence of complete information as to the actual expenditure of the year.

8 The Board have properly pointed out to Major Priestley in para 18 the importance of supplying Survey areas with as little delay as possible.

~~The accuracy of the survey operations as tested~~

They will place before Govt. any further papers they may receive on the subject. ~~The accuracy of the survey operations, as tested by a comparison with the trigonometrical survey, is highly satisfactory.~~

9 The following table will show in one view the work done by the several survey parties and the cost at which it was done -

Party	Extent surveyed	cost per sq. mile as per Major Priestley's report			cost per sq. mile according to Mr Thomson's correction			Average cost per sq. mile in 1860		
	sq. miles	Rs	a	p	Rs	a	p	Rs	a	p
Salem	1302	64	7	8	80	4	1	58	13	9
Sherevoys	16	386	11	"	400	9	"	"	"	"
Godavery	1185	66	6	3	82	8	1	71	5	11
Kistna	1064	65	9	5	80	9	6	70	15	5
Nellore	403	93	9	6	105	11	"	"	"	"
Nyanad — working season beginning of the year	17	1337	2	2	550	10	10	250	"	2
Nyanad — do end of do	43	249	"	1						
Coimbatore	170	105	"	4	135	1	3	"	"	"

The work done by the Salem, Godavery and Kristna

Kiwatina parties is satis-
factory - The cost in all
the Districts has much
increased - Major Priestley
explains that it is owing
to the task of measuring
the interstitial fields
devolving upon his Dept.
and to the estimates hav-
-ing been framed without
reference to the survey
of tracts like the Wynaad
and the Sheveroy Hills - The
Board truly remark
that judging from past
results even if relieved
of the charge of meas
-uring the interstitial
fields, and the excep-
-tional cases of the
Wynaad and the Sheveroy
Hill survey are excluded
from calculation, the
survey Dept. cannot

succeed in performing
the work at the esti-
-mated rate of Rs. 64
per square mile - They
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Priestley to explain more
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he believes "that no great
alteration of the estimate
is necessary."

10 The complaints
of Major Priestley re-
-garding defective de-
-tection should re-
-ceive the Acting Director
prompt attention -

11 The Madras
Town Survey needs no
special notice - The
progress made appears
to be satisfactory -

12. The amount of
work performed by
the Lithographic
Press

I presume very satisfactory, and the reduction expected in the cost of preparing the maps particularly in remarkably as- The Govt do not approve either Major Priestley's suggestion to substitute symbols for colouring on Mr Masters proposal for printing the statements of the villages separately from the maps. Symbols will not illustrate the several description of land as clearly as colors and lists of villages separately printed are likely to be soon lost and the maps will be thereby deprived of much of their usefulness - Mr Master proposes

Cost per every Sq. mile mapped.
By
1859 —— 5-6
60 —— 12-9-7
61 —— 6-3-9

+ The Govt approve of the substitution of symbols for colors in the Taluk Maps. This has already been sanctioned so far as the village maps are concerned & the same arguments apply in both cases. But they are unable to concur in Mr Masters suggestion that the Tabular statements now exhibited in the margin of the maps be printed separately, & that the Tamil names of the villages be omitted, & that as English names alone are used in the body of the maps. Separate lists might be soon lost, & English figures are now so generally understood that

Proc. Bd of Revenue 13th March 1862, No 563

21

proposes also the omis

Memo

With reference to Para 12 of this Desp
Mr Sim writes from the hills
that "the part about the Taluk
"maps, wh were too bulky to send
"by post, is drafted under correction
"we have already sanctioned symbol
"in the village or working maps, &
"it would seem therefore that they
"would suffice for the Taluk maps,
"being easier, quicker & cheaper to
"Enter than colors. But I really
"cannot see why Taluk maps
"give such details. They are required
"merely to show the relative position
"of the villages, and if they do this,
"give their boundaries, roads, hills
"& the like, what more is necessary?
"They must be large & expensive, &
"I do not see what good object,
"commensurate with the cost,
"is gained by filling them with
"details, which are all given in
"the village maps, & which must

x in G.O. 13 March/62 No 563

me was any person totally unacquainted with English will be able at once to find out the many required village

Presented very salve fore.

Cart. de minutes
By
1859 — 56

change as time progresses. I should think too that a smaller scale than 1 inch to the mile would suffice for all practical purposes"

a copy of this map is put up for the views of Govt.

PMM.

The substitution of symbols for colouring as ordered on 13 March should stand.

I like the present way of the Tribute Rep, & the list of Villages in English & the Vernacular being given in the Margin. But the boundaries & sites of Villages, especially the latter, are wanting in clear distinctness

Ellis

likely to be soon lost and the maps will be thereby deprived of much of their use. fulness. Mr Master proposes

are now so

understood

proposes also the omission of the insertion of the Tamil names of the villages in the statements as the English names alone are used in the body of the map. The Govt do not agree in this & by their orders frequently issued all the Public servants are required to know English figures and no doubt most of them as well as the inhabitants generally ~~probably understand them~~ & with the ~~numerals~~ ~~figures~~ ~~of the numbers~~ and with Tamil names given in the list any person totally unacquainted with English will be able at once to find any ~~the~~ required village on

in the maps. The Govt.

have seen the specimen
The Boundaries & Sites of villages, especially the latter, are wanting in distinctness, but otherwise
maps, it is good as it
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upon
~~and~~ cloth and
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used -

13 The Government
notice with pleasure
the good execution made
of the exertions of the
officers employed both
in the Survey and Settle-
-ment Departments, especially
of Mr C. Rundall -

20/6/02 Chief Sec

14 Copies To the Bd of Revt Despt No 13
with 2 orig. Letters &
1 Plan
13 " Bd of Revt Letter
7 " Supdt of Revt Surveys

Copy ma Letter to England
d/ 11th Sept A. 61 of 1862

1718/12 18-73

18 F 94
16-2-95 F

Revenue 1862 Departt.
Pro: of Govt for August.

N. 1703.

Pro: of the Madras Govt
D/ 12 August 1862.

Pro. Mr Board of Rev: 19 Augt/62 C.N
2382 — in Pro:
Do — Do 8th Septr " — " — 2613

Passing orders on
Board's Proceedings submit-
ting Progress Reports of
the Settlement and Survey
Departments during 1861.

N 130 & 131.

8 25/62

29 July Aug 84