

Revenue (1898) Department.

MISCELLANEOUS SERIES.

G.O., No. 4911

DATED 12th December 98

[Despatch Abstract.]

Recording B. P. Communicating to cert
officers, with remarks, G. O. Rev. Dept. review
ing the Survey administration report
for the year 1897-98.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
	727	all					

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When examined by the BOARD OF REVENUE (R. J. L. RDS. AND AGRI.), No. 431, 28TH Nov. 1898. 3

Wh

The following

PROCEEDINGS OF THE BOARD OF REVENUE
(REVENUE SETTLEMENT, LAND RECORDS AND AGRICULTURE).

READ—the following G.O., Nos. 566, 566A, Revenue, dated 4th October 1898:—

Read—the following letter from G. P. GREENE, Esq., Acting Superintendent, Madras Survey, to the Secretary to Government, Revenue Department, dated 27th July 1898, No. 99-G. :—

I have the honour to submit two printed copies of the administration report of the Survey Department for the year 1897-98, signed by Mr. Cardozo, the Superintendent of Survey, who is now on privilege leave at Ootacamund.

2. I also forward, as directed in G.O., No. 464, dated 30th May 1893, two copies of the report ~~ready~~ packed for transmission to the Secretary of State. An inner cover is addressed to the Secretary at the India Office in the Department of Revenue and Statistics, in accordance with paragraph 4 of the Secretary of State's despatch printed with G.O., No. 57, Public, dated 22nd January 1891.

REPORT ON THE OPERATIONS OF THE MADRAS SURVEY
DEPARTMENT DURING 1897-98.

DURING the year, the department remained under the direction of Mr. Cardozo, Superintendent of Survey.

In G.O., No. 842, Revenue, dated 5th October 1897, reviewing the Survey report for 1896-97, the Government observed that the department was passing through a difficult transitional stage on completion of the original surveys for which it was created and in view of its future permanent condition. During the past two years, the work has been of a very different character and carried on under very different conditions from those of former years. •

The country for original cadastral survey is generally either cultivation scattered in patches over large tracts of hill and jungle, or minute holdings within municipal limits. It was excluded from former surveys as too unhealthy or too costly for survey. For this kind of work, specially selected surveyors have to be employed, and it is most difficult to obtain them in sufficient numbers to secure a large outturn.

For outturn of re-surveys, we are dependant on karnams. Although a little more than 50 per cent. of the karnams are now well qualified surveyors, the rest are either not yet fully qualified, or cannot be expected to become so. About 25 per cent. are (generally from age) hopelessly unfit for the duties of a Field Surveyor. In the most favourable cases, karnams can only be employed on survey work for about eight months in the year, and whenever there is agricultural distress, as has been the case recently in districts under re-survey, the work stops altogether. Again, for many reasons, the karnams cannot be placed entirely at the disposal or under the control of the Survey officers, and experience has shown that to obtain a reasonable outturn of good work from karnams requires in the supervising officer such exceptional tact, zeal and energy that only one officer has hitherto succeeded in obtaining it : and his health could not possibly stand the strain much longer without breaking down.

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For nearly half the year, Survey Officers have been fully occupied with the annual schools for karnams held in each taluk. During the rest of the year, after deducting general holidays, privilege leave, &c., only about four months have remained for other duty. Much of this time has been necessarily devoted to supervision of the recently introduced arrangements for maintenance of survey records and boundary marks, leaving hardly any time for supervision of ordinary survey work.

In these circumstances, it is impossible to expect a satisfactory outturn. These conditions cannot, of course, continue. Proposals have already been made—Board's Proceedings, No. 354, dated 18th September 1896—to separate maintenance from ordinary survey work, and to place the former under the Revenue department. As soon as these proposals are sanctioned, the Survey department can be re-organised and perfectly trustworthy estimates of outturn and cost of work can be made as shown under the head of general remarks at the end of this report.

The work on which the department was employed during the year was:—

1. Cadastral survey for settlement, of Government lands excluded from former surveys and of lands not the property of Government, the survey of which is required for special purposes, *e.g.*, to fix the amount of water-rate and village-cess.
2. Cadastral re-survey of Government lands prior to re-settlement.
3. Maintenance of survey records and boundary marks.

The report is divided into three sections, viz., Surveys, Maintenance and General remarks.

I.—SURVEYS.

Survey work in twelve districts and re-survey work in two districts was in progress during the year as shown below:—

Statement No. 1.

Survey Division.	District.	Outturn during 1897-98.		
		Cadastral Surveys.	Cadastral Re-surveys.	Total.
1	2	3	4	5
I	Ganjām	SQ. MLS. 1	SQ. MLS. ..	SQ. MLS. 1
	Vizagapatam	79	..	79
	Górávari	..	252	252
II	Kistna	..	165	165
	Kurnool	..	..	..
III	Bellary	..	..	..
	Anantapur	..	..	..
IV	Cuddapah	..	..	..
	Nellore	..	..	..
V	North Arcot	8	..	8
	Madras	..	..	..
VI	Chingleput	1	..	1
	South Arcot	..	..	..
VII	Salem	46	..	46
	Trichinopoly	9	..	9
VIII	Tanjore	30	..	30
	Madura	17	..	17
IX	Tinnevely	3	..	3
	Coimbatore	158	..	158
X	Nilgiris	4	..	4
	Malabar	..	..	..
XI	South Canara	4	..	4
	Total outturn, 1897-98 ..	360	417	777
XII	Outturn of previous year ..	2,419	1,074	3,493

The budget grant was at first Rs. 4,80,700—G.O., No. 965, Financial, dated 20th November 1897.

Rupees 8,000 were afterwards added for preparation of field measurement books in Malabar,—G.O., No. 25, Financial, dated 10th January 1898. The expenditure was Rs. 4,86,713 or Rs. 1,987 less than the revised budget grant.

The expenditure chargeable to the Survey budget is divided under three main heads as below:—

Main head.	1896-97. RS.	1897-98. RS.
1. Chargeable to outturn	3,89,542	2,96,226
2. Not chargeable to outturn	66,654	67,820
	4,56,196	3,64,046
3. Chargeable to maintenance of survey records and boundary marks	1,14,001	1,22,667
Total	* 5,70,197	4,86,713

* These figures differ slightly from those given in the last annual report. They are taken from the Civil Budget estimate as directed by Government in the review of the last annual report.

The total outturn and total expenditure do not admit of useful comparison with the figures for the past or former years, as the rates for the different items of work which make up the total area vary enormously, ranging from Rs. 23 per square mile up to Rs. 2,621. The reason for this variation is explained in paragraph 7, Cost of work to Government.

The sum spent in each district and chargeable to outturn is shown in the following statement:—

Statement No. 2.

Survey Division.	District.	Cadastral Surveys.	Cadastral Re-surveys.	Publication and share of Central Office.	Total.
1	2	3	4	5	6
I	Ganjām	RS. ..	RS. ..	RS. ..	RS. ..
	Vizagapatam	..	..	..	..
	Górávari	9,384	..	..	9,384
II	Kistna	..	27,546	..	27,546
	Kurnool	..	14,680	..	14,680
III	Bellary	..	..	..	..
	Anantapur	..	..	..	..
IV	Cuddapah	..	..	..	..
	Nellore	..	..	..	..
V	North Arcot	8,198	..	..	8,198
	Madras	6,018	..	..	6,018
VI	Chingleput	3,002	..	..	3,002
	South Arcot	1,439	..	..	1,439
VII	Salem	21,318	..	..	21,318
	Trichinopoly	23,163	..	..	23,163
VIII	Tanjore	10,680	..	..	10,680
	Madura	22,129	..	..	22,129
IX	Tinnevely	..	..	..	..
	Coimbatore	18,384	..	..	18,384
X	Nilgiris	16,547	..	..	16,547
	Malabar	6,299	..	..	6,299
XI	South Canara	27,067	..	..	27,067
	Central Office. Publication	..	..	80,372	80,372
Total		1,73,628	42,226	80,372	2,96,226

Details for the expenditure not chargeable to outturn are shown below :—
 Statement No. 3.

Survey Division.	District.	Miscellaneous Surveys.	
		Nature of work.	Expenditure.
1	2	3	4
I.	Ganjām		Rs.
	Vizagapatam		3,580
	Górávari	Settlement of disputes after completion of survey, cost of stone boundary marks used for non-Government villages surveyed in 1896-97 but paid for in 1897-98, and charges recoverable from the Yadavol estate.	
II.	Kistna	Demarcation of Kistna-Hyderabad boundary line.	2,823
	Kurnool		
	Bellary		
III.	Anantapur		
	Cuddapah		
	Nellore		
IV.	North Arcot		
	Madras		
	Chingleput		
V.	South Arcot		
	Salem		
	Trichinopoly		
VI.	Tanjore		
	Madura		
	Tinnevely		958
VII.	Coimbatore	Remeasurement due to change of occupation after survey.	1,847
	Nilgiris	Remeasurement due to change of occupation after survey and topographical survey of Ootacamund.	35,545
	Malabar	Supplemental sub-division of survey fields for settlement and definition of janmam boundaries, revision of survey and settlement in Wynaad, preparation of settlement registers of Wynaad and demarcation of Ponnani-Cochin boundary.	
VIII.	South Canara	Supplemental sub-division of survey fields for settlement and definition of forest boundaries.	6,837
	Central Office		12,229
	Exchange compensation allowance		4,000
Total ..			67,820

2. OUTTURN OF EACH DIVISION.—Appendix No. I to this report gives particulars regarding outturn and expenditure for each item of survey work. The following is a summary for each district under survey.

No. I SURVEY DIVISION.

Officer in charge—Mr. Hasted, Assistant Superintendent.

OUTTURN.

Ganjām.—One square mile of cadastral survey of one salt factory.

Górávari.—38 square miles of cadastral survey in the agency tracts—Polavaram and Yellavaram divisions. Work was most seriously delayed by fever. Mr. Hasted reported that “no surveyor was able to work in any of the villages for more than a week without having an attack of malarial fever.”

22 square miles of mapping of hill villages surveyed during the past year.

41 square miles of cadastral survey of the Yadavol estate for the District Board.

Kistna.—252 square miles of cadastral re-survey in the Nandigama and Sattenapalle taluks and 545 square miles of mapping in the Guntūr and Nandigama taluks. It was found impossible to work up to the estimate which assumed that 120 karnams would be at work during eight months and that their average monthly outturn would be about 60 square miles. The average monthly attendance of karnams was only 62 and the monthly outturn was only 15 square miles.

Demarcation of the Kistna-Hyderabad boundary, 230 linear miles, ordered in G.O., No. 1682, dated 29th April 1895. This was completed as far as was possible. Only 7 stones remain to be fixed after settlement of a dispute regarding which the Collector is in correspondence with the Hyderabad authorities.

The arrears of settlement of field boundary disputes were further reduced. 126 disputes were in arrears at the beginning of the year. 733 more disputes were reported and 780 were settled during the year, leaving 79 disputes in arrears at the end of the year.

EXPENDITURE.

Rs. 43,333.

No. II SURVEY DIVISION.

Officer in charge—Mr. Martin, Deputy Superintendent.

OUTTURN.

Kurnool.—165 square miles of cadastral re-survey in Ramallakot, Nandikotkūr and Sirvel taluks. Only 57 square miles was done by karnams. It was estimated that 383 karnams would be at work during eight months and that their average monthly outturn would be about 100 square miles. But mainly owing to agricultural distress, the average monthly attendance of karnams was only 37 and the monthly outturn was only 7 square miles.

EXPENDITURE.

Rs. 14,680.

No. III SURVEY DIVISION.

Officers in charge—Mr. Hatchell, Acting Deputy Superintendent, for six months and Mr. Raghava Chariar, Special Deputy Collector, for three months.

OUTTURN.

North Arcot.—8 square miles of special cadastral survey of lands within municipal limits in four municipalities. For details, see Appendix No. I.

EXPENDITURE.

Rs. 8,720.

No. IV SURVEY DIVISION.

Officers in charge—Mr. Narayana Aiyar, Assistant Superintendent, for about seven months and Mr. Bentley Taylor, Acting Deputy Superintendent, for about five months.

OUTTURN.

Chingleput.—One square mile of cadastral survey of one shrotriem.

Salem.—43 square miles of cadastral survey of cultivation scattered over hill villages in four taluks and 3 square miles of special cadastral survey of lands within municipal limits in two municipalities. The work in the hill villages was much delayed by fever.

Trichinopoly.—9 square miles of special cadastral survey of lands within municipal limits in two municipalities.

EXPENDITURE.

Rs. 54,940.

No. V SURVEY DIVISION.

Officers in charge—Mr. MacHutchin, Acting Deputy Superintendent, for nine months, Mr. Srinivasa Aiyangar, Acting Assistant Superintendent, for two months and Mr. Narayana Aiyar, Assistant Superintendent, for one month.

OUTTURN.

Tanjore.—10 square miles of cadastral survey of inam villages and 17 square miles of cadastral survey of chattram villages.

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One square mile of cadastral survey of four salt factories.
2 square miles of special cadastral survey of lands within municipal limits in one municipality.

Madura.—One square mile of cadastral survey of non-government villages irrigated by the new Periyár canals and 8 square miles of cadastral survey of the Saptur zemindari.

8 square miles of special cadastral survey of lands within municipal limits in two municipalities.

Tinnevely.—2 square miles of cadastral survey of one inam village and one square mile of cadastral survey of four salt factories.

EXPENDITURE.

Rs. 32,809.

No. VI SURVEY DIVISION.

Officer in charge—Mr. Greene, Deputy Superintendent.

OUTTURN.

Coimbatore.—158 square miles of cadastral survey of cultivation scattered over hill villages in four taluks. The country was most unhealthy, and the work very seriously delayed by jungle fever.

Nilgiris.—4 square miles of special cadastral survey of lands in the Coonoor municipality.

Malabar.—1,06,701 sub-divisions of survey fields were measured to define janmam boundaries.

South Canara.—4 square miles of special cadastral survey of lands in the Mangalore municipality.

In this district, supplemental sub-division of survey fields due to change in occupation after survey was in progress in two taluks under settlement during the year. This work, to be of any use, has to be done as the settlement progresses. If done in advance, it is out of date when the settlement begins and must be done over again.

EXPENDITURE.

Rs. 1,14,973.

CENTRAL OFFICE.

Mr. Ramaswamy Naidu, Assistant Superintendent, held charge under the Superintendent.

The establishment has been further reduced by nearly Rs. 10,000, chiefly in the Photo-zincographic section.

The area of village maps printed during the year was 4,692 square miles, very nearly as much as last year and considerably more than in any previous year.

The area of village maps in hand for printing at the end of the year was only 119 square miles. This is less than a fortnight's work.

The following statement shows the outturn and cost of the Photo-zincographic office compared with that of the previous year:—

Statement No. 4.

Year.	Zincographs.				Photo-prints.	Total number of impressions columns 5 + 6.	Cost.
	Village maps.	Miscellaneous maps and diagrams.	Total.	Number of pulls.			
1	2	3	4	5	6	7	8
	COPIES.	COPIES.	COPIES.		COPIES.		RS.
1896-97	55,594	286,947	342,541	231,636	83,497	315,133	31,029
1897-98	51,523	152,501	204,024	145,913	69,272	216,185	21,774

Two district maps, Kurnool and Tanjore, and eight taluk maps were published (see Appendix No. II). The total cost of the Central office including pay of Superintendent was Rs. 94,591, being Rs. 9,282 less than last year and less than in any previous year since 1881-82.

3. FIELD INSPECTION BY OFFICERS.—The number of days on which Gazetted officers employed in the field were absent from their head-quarters is shown below, halts at hill stations being excluded:—

Statement No. 5.

No.	Name.	Number of months on duty.	Number of days absent from head-quarters.	
			Total.	Average monthly.
1	2	3	4	5
1	Mr. Martin	10½	113	11
2	" Greene	12	223	19
3	" Taylor	4½	36	8
4	" Hatchell	12	184	15
5	" MacHutchin	8½	123	14
6	" Hasted	12	188	16
7	" Thompson	11	81	7
8	" Narayana Aiyar	9½	214	23
9	" Gompertz	1	18	18
10	" Bateman	12	193	16
11	" Spurling	10½	187	18
12	" Srinivasa Aiyangar	12	146	12
13	" Alley	9	126	14
14	" Raghava Chariyar	8	167	21
15	" Seshachariu	12	220	18
16	" Subba Row	12	192	16

Messrs. Martin and Taylor should have been more in the field.

Messrs. Hatchell, Thompson, Srinivasa Aiyangar and Alley were constantly employed on field inspection at their head-quarters and Messrs. Martin, MacHutchin and Hasted were each detained at their head-quarters for one month while supervising survey schools for junior civilians.

Every district under survey, except Canara, was visited at least once by the Superintendent during the year. Survey work in Canara requiring inspection by the Superintendent is practically finished.

4. TESTS OF ACCURACY.—As reported last year, theodolite work being complete, no further comparison between revenue survey and trigonometrical survey distances was made. The test for cadastral surveys and re-surveys is re-measurement. The amount of check secured during the year was seven linear miles of re-measurement per square mile of field survey.

The following statement shows the result of inspection by Gazetted officers :—

Number of inspecting officers	...	...	...	...	...	15
Number of villages inspected	...	...	...	...	...	473
Number of surveyors inspected	...	...	...	...	...	669
Total number of inspections	...	...	...	...	...	750
Quality of work inspected.	Good	...	...	...	...	218
	Fair ..	...	...	...	...	363
	Indifferent	...	...	...	...	125
	Bad ...	...	...	...	...	44

The percentage of good and fair work is 77 as against 70 last year and of indifferent and bad work 23 as against 30 in the previous year.

Work found to be indifferent or bad is revised.

5. AREA REMAINING FOR SURVEY.--The following statement shows in detail the area remaining for survey in each district.

In this statement, the districts have been grouped according to the re-arrangement of survey divisions ordered in G.O., Mis. No. 1897, dated 29th April 1898.

Statement No. 6.

10 BOARD OF REVENUE (REV. SETT., L. RDS. AND AGRI.),

Department.

Date.

Survey Division.	District.	Locality for survey.	Ordinary cadastral survey.		Special cadastral survey of lands within municipal limits.			Cadastral re-survey by karnams.			Government Order sanctioning the survey.		
			Total area for survey.	Area surveyed up to 1st April 1898.	Area remaining for survey.	Total area for survey.	Area surveyed up to 1st April 1898.	Area remaining for survey.	Total area for survey.	Area surveyed up to 1st April 1898.	Area remaining for survey.	Number.	Date.
I	2	3	4	5	6	7	8	9	10	11	12	13	14
I	Ganjām	Saragada Estate	30	..	30	..	..	..	..	..	..	867, Revenue	11th October 1897.
		Berampur	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.
		Parlakimedi	..	..	..	6	..	6	..	..	..	4395, Miscellaneous	23rd August 1897.
		Chioacole	65	..	65	..	..	..	..	..	..	909, Financial	29th October 1894.
		Kasinkola Estate	..	..	..	16	..	16	..	..	..	909, Financial	29th October 1894.
	Vizagapatam	Vizagapatam	..	..	..	..	..	..	..	..	..	1011, Miscellaneous	18th March 1895.
		Anakapalle	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.
		Binlipatam	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.
		Vizianagram	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.
		Bhadrachalam	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.
Gōdāvari	Ceacada	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Rejahnundry	..	..	..	5	..	5	..	..	..	909, Financial	29th October 1894.	
	Ellore	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Sattenapalle	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Vinukonda	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
Kistna	Narasaraopet	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Palnad	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Teleprole Estate	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Guntūr	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Bezawada	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
Bellary	Masulipatam	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Bellary	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Adoni	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Anantapur	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Kurnool	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
Kurnool	Ranallakot	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Nandikotkur	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Sirvel	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Nandyal	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Patikonda	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
Cuddapah	Kolkuntla	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Gumbum	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Markapur	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Cuddapah	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
	Nellore	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.	
II	Nellore	Mamul wet lands in a village of the Venkata-giri zemindari.	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.
		..	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.
		..	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.
		..	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.
		..	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.

Statement No. 6—cont.

Survey Division.	District.	Locality for survey.	Ordinary cadastral survey.			Special cadastral survey of lands within municipal limits.			Cadastral re-survey by karnams.			Government Order sanctioning the survey.	
			Total area for survey.	Area surveyed up to 1st April 1898.	Area remaining for survey.	Total area for survey.	Area surveyed up to 1st April 1898.	Area remaining for survey.	Total area for survey.	Area surveyed up to 1st April 1898.	Area remaining for survey.	Number.	Date.
I	2	3	4	5	6	7	8	9	10	11	12	13	14
II—cont.	Nellore—cont. ..	Ongole ..	..	..	..	6	..	5	..	..	..	909, Financial ..	29th October 1894.
	Madras ..	Nellore ..	..	..	..	27	..	..	..	..	..	241, Miscellaneous. 1892, Miscellaneous. 2398, Miscellaneous. 909, Financial ..	15th January 1898. 29th April 1898. 4th June 1898. 29th October 1894.
	Chingleput ..	Madras ..	..	..	..	..	..	..	..	..	..	4390, Miscellaneous. 615, Revenue ..	23rd August 1897. 12th June 1893.
	..	Chinnarpet zemindari ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Endanther mitla ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
North Arcot ..	..	Conjeevaram ..	..	..	..	4	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Tinnevi Ammal's estate ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Polar ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Vellore ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Walajpet ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
South Arcot ..	..	Tirupati ..	..	..	..	10	8	2	..	..	..	909, Financial ..	29th October 1894.
	..	Gudiyattam ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Tiruvannamalai ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Chidambaram ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Cuddalore ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
Salem ..	..	Salem ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Dharmapuri ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Attur ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Uttangarai ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Kakangarai estate ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
Coimbatore ..	..	Salem ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Vaniyambadi ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Tirupattur ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Satyamangalam ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Bhavani ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
Tanjore ..	..	Coimbatore ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Kollegal ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Coimbatore ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Karur ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Erode ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
Trichinopoly ..	..	Chattram villages ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Tanjore ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Kumbakonam ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Mayavaram ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.
	..	Negapatam ..	..	..	..	..	..	..	..	..	..	909, Financial ..	29th October 1894.

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BOARD OF REVENUE (REV. SETT., L. RDS. AND AGRI.), No. 431, 28TH Nov. 1898. 13

The following

6. ESTIMATE.—In submitting an estimate of outturn in last year's report, it was explained that the estimate could not be realised if agricultural distress should prevent the attendance of karnams for survey work. Experience has shown that, as long as we have to look to karnams for outturn, and the time of officers is taken up with karnams' schools and maintenance, no trustworthy estimates can be framed. As reported above in paragraph 1, when the proposals made in Board's Proceedings, No. 354, dated 18th September 1896, are sanctioned, this unsatisfactory state of affairs will cease.

7. COST OF SURVEY WORK TO GOVERNMENT.—The survey of the Presidency began 40 years ago in 1858. Up to 1st April 1898, the total expenditure of the department was Rs. 2,36,83,566.

This sum has been spent as shown below :—

Statement No. 7.

Item of charge.	Outturn.	Cost.	Average rate per square mile.
1	2	3	4
Cadastral survey { Demarcation	SQ. MLS.	RS.	RS.
.. .. . { Measurement and mapping	41,390	35,10,486	85
.. .. .	77,484	1,29,62,297	167
Total cost per square mile	..	..	252
Cadastral re-survey	11,269	6,31,204	56
Special cadastral survey of lands within municipal limits	95	2,49,023	2,621
Topographical survey	58,080	21,31,697	37
Outlay which cannot be expressed in area.			
Control and photo-zincographic work	..	34,45,463	..
Miscellaneous survey work	..	3,33,721	..
Maintenance of survey records and boundary marks	..	3,22,912	..
Survey training of karnams	..	71,468	..
Survey instruments for karnams	..	25,295	..
Total	..	2,36,83,566	..

Note.—The cost of demarcation is shown separately above under the head, Cadastral survey, because up to 1866, demarcation was performed by the Settlement department, not the Survey department. The cost of demarcation shown above, rate Rs. 85 per square mile, is for the work performed by the Survey department. This does not include cost of stone boundary marks paid for by landholders or cost of labour supplied by villagers.

The following statement shows the cost up to date and estimated cost of completion of the different surveys now in progress :—

Statement No. 8.

Particulars.	Ordinary.			
	Gódvári hill villages.	Salem hill villages.	Coimbatore hill villages.	Total.
1	2	3	4	5
Area surveyed up to date	Sq. mls. 118	364	235	717
Total expenditure up to date	Rs. 19,546	19,476	26,006	65,028
Rate per square mile on area surveyed up to date	.. 166	54	111	91
Estimated area remaining for survey	Sq. mls. ..	338	230	568
Do. expenditure	Rs. 346	18,750	36,769	55,865
Do. total area	Sq. mls. 118	702	465	1,285
Do. total cost	Rs. 19,892	38,226	62,775	1,20,893
Do. rate per square mile	.. 169	54	135	94

Statement No. 6—cont.

Survey Division.	District.	Locality for survey.	Ordinary cadastral survey.			Special cadastral survey of lands within municipal limits.			Cadastral re-survey by karnams.			Government Order sanctioning the survey.	
			Total area for survey.	Area surveyed up to 1st April 1898.	Area remaining for survey.	Total area for survey.	Area surveyed up to 1st April 1898.	Area remaining for survey.	Total area for survey.	Area surveyed up to 1st April 1898.	Area remaining for survey.	Number.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
IV—cont.	Madura	Tevaram zamindari	20	..	20	..	..	..	..	..	..	2937, Miscellaneous.	11th June 1897.
		Manbarai zamindari	12	..	12	..	..	..	..	..	..	945, Revenue	13th November 1897.
		Melur and Nattam Unions.	1	..	1	..	..	..	..	..	..	2072, Miscellaneous.	13th May 1898.
		Periyakulam	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.
V.	Malabar	Madura	..	..	..	..	..	..	..	..	..	910, Revenue	4th November 1897.
		Diadigul	..	..	..	..	..	..	..	..	..	106, Revenue	19th February 1898.
		Ethiyapuram zamindari	38	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.
		Sivagiri estate	112	..	..	..	..	..	..	..	..	594, Revenue	2nd September 1895.
South Canara	Nilgiris	Tinnevely	..	..	..	..	..	..	..	..	..	909, Financial	29th October 1894.
		Palancottan	..	..	..	..	..	..	..	..	..	..	..
		Tuticorin	..	..	..	..	..	..	..	..	..	..	..
		Palghat	..	..	..	..	..	..	..	..	..	..	..
V.	South Canara	Calicut	..	..	..	..	..	..	..	..	..	..	..
		Tellicherry	..	..	..	..	..	..	..	..	..	..	..
		Cannanore	..	..	..	..	..	..	..	..	..	..	..
		Cochin	..	..	..	..	..	..	..	..	..	..	..
V.	South Canara	Mangalore	..	..	..	..	..	..	..	..	..	..	..
		Ootacamund	..	..	..	..	..	..	..	..	..	..	..
		Coonor	..	..	..	..	..	..	..	..	..	..	..
		Total	1,834	649	1,185	257	95	162	9,920	3,694	6,226	..	..

Supplemental sub-division for the Settlement Department.

Preparation of field measurement books.

Supplemental sub-division for the Settlement Department.

Demarcation of roads.

Statement No. 8—cont.

Particulars.	Special cadastral survey of lands within municipal limits.	Re-survey.			
		Kistna.	Kurnool.	Total.	
		6	7	8	9
Area surveyed up to date	Sq. mls.	95	3,235	159	3,694
Total expenditure up to date	Rs.	2,49,023	2,34,653	24,175	2,58,828
Rate per square mile on area surveyed up to date	"	2,621	73	53	70
Estimated area remaining for survey	Sq. mls.	162	1,975	4,251	6,226
Do. expenditure	Rs.	5,13,753	1,58,600	3,40,080	4,98,080
Do. total area	Sq. mls.	257	5,210	4,710	9,920
Do. total cost	Rs.	7,62,776	3,92,653	3,64,255	7,56,908
Do. rate per square mile	"	2,968	75	77	76

The rates shown at foot of columns 5 and 9 of the above statement No. 8, viz., Rs. 94 per square mile for ordinary cadastral survey and Rs. 76 for re-survey, should be compared with the rates for the total area completed up to 1st April 1898 in column 4, statement No. 7, above.

The ordinary cadastral survey of the Presidency cost up to date Rs. 252 per square mile. The standard rate fixed by the Committee of 1887 was Rs. 300, but this included share of Central office, Rs. 50. The standard for demarcation and survey is Rs. 250 * per square mile.

A cheaper method of survey estimated to cost less than half the ordinary cadastral, i.e., less than Rs. 125 per square mile, was adopted in 1895—see paragraph 1 of the Survey report for 1894-95 reviewed in G.O., No. 594, Revenue, dated 2nd September 1895. The average actual rate is Rs. 94. The rates vary with the nature of the country. Up to date, there has been more fever (which is the chief practical difficulty) in Gódvári and Coimbatore than in Salem, but from reports recently received, it is likely that as work progresses in Salem, more fever may be expected. The country surveyed during the year in these three districts, Gódvári, Coimbatore and Salem, was excluded from former surveys, because it was not considered worthwhile to sacrifice the health (and sometimes even the lives) of the surveyors for the very small increase of revenue that was then to be expected. Present conditions differ as regards probable increase of revenue, but the country is still very unhealthy and it is most difficult to keep a sufficient number of surveyors at work to secure a reasonable outturn. The fear of fever is so great that even double pay is often not a sufficient inducement to overcome it.

The special cadastral survey of lands within municipal limits has up to date cost Rs. 2,621 per square mile. Fair records for nearly half the area surveyed have still to be prepared and the total cost per square mile at the present rate of progress is not likely to be much less than Rs. 3,000, i.e., nearly Rs. 5 per acre. Considering the value of the land, Rs. 2,000 to Rs. 5,000 or more per acre, the minute sub-division and innumerable disputes and the accuracy required, this rate can hardly be considered unreasonable. Arrangements are however being made to reduce the cost as far as possible.

The cost of re-surveys up to 1st April 1898, has been Rs. 56 per square mile. This low average rate is due mainly to the exceptionally favourable circumstances under which the districts of Trichinopoly and Salem were re-surveyed. In Kistna and Kurnool, the circumstances are, as already explained, very different. The estimated rates for these two districts, viz., Rs. 75 and Rs. 77, are based on the assumption that it will be to a large extent necessary to employ surveyors in addition to karnams.

8. COST OF WORK TO RYOTS.—In the Kistna, Salem and Coimbatore districts, the ryots provided stones for boundary marks. No advances were therefore necessary; but in Gódvári and Malabar, the cost of demarcation was paid for in advance by Government and afterwards recovered from the landholders.

* Note.—In paragraph 10 of the Government Order reviewing the report for 1896-97, the standard rate fixed by the Committee of 1887 for surveys in ordinary country is mentioned as Rs. 200 per square mile. This is a mistake. The standard rate was Rs. 250—vide paragraph 8 (3) of G.O., No. 315, Revenue, dated 22nd March 1887, and paragraph 3 of report of Committee on survey and settlement at page 4 of the Proceedings printed with the same Government Order.

The average cost per acre to landholders is shown below :—

Gódvári	3 annas.
Malabar	3 "

These rates are the same as in the previous year.

9. SURVEY ADVANCES.—The following is a summary of the detailed report on the subject of survey advances submitted separately as directed in G.O., No. 823, Revenue, dated 8th October 1889.

Permanent advances.—The permanent advance for contingencies to officers in charge of divisions was reduced during 1897-98 from Rs. 4,750 to Rs. 3,500 in G.O., No. 877, Revenue, dated 15th October 1897.

Temporary advances.—At the beginning of the year, the temporary advance for demarcation stones was Rs. 2,06,000. During the year, a further advance of Rupees 5,000 was made for special cadastral surveys, Madura (G.O., Mis. No. 2209, dated 3rd May 1897), making a total of Rs. 2,11,000. Proposals have been submitted separately for reducing the total amount of the temporary advances to Rs. 77,000.

The sums mentioned above are floating advances for payment of charges eventually recoverable from landholders and limit the amount which may be outstanding at any given time. At the end of the year, the total amount outstanding and recoverable from landholders was Rs. 52,396-14-1. The amount similarly outstanding on 1st April 1897 was Rs. 56,472-6-11.

In addition to the advances shown above, there is a small special advance outstanding, being value of surplus stones in the custody of the Collector of Tanjore—G.O., No. 3238, dated 27th May 1890. The amount outstanding at the beginning of the year was Rs. 2,671-10-8. This was reduced by the sale of stones during the year to Rs. 1,662-0-2, which is the sum now outstanding.

10. WORKING OF THE BOUNDARY ACT.—The Boundary Act XXVIII of 1860 was repealed during the year.

The Madras Survey and Boundaries Act IV of 1897 came into force on the 7th June 1897.

No difficulty in working the new Act has been experienced.

II.—MAINTENANCE OF SURVEY RECORDS AND BOUNDARY MARKS.

PREPARATION OF FIELD MEASUREMENT BOOKS.—At the beginning of the year, the field measurement books for 9,127 villages out of a total of 23,304 villages were ready. During the year, the books for 3,693 more villages were prepared, leaving 10,484 villages to complete the Presidency. The field books are now complete in two districts, Trichinopoly and South Canara. Four more districts, viz., Chingleput, South Arcot, Salem and Malabar, are also nearly ready and ought to be finished next year.

RE-MEASUREMENT OF HOLDINGS OWING TO CHANGE IN OCCUPATION.—During the year, records of change in occupation were completed for 2,431 villages, the total number of villages brought up to date being 5,493 out of a total of 23,304.

RESTORATION OF BOUNDARY MARKS.—Columns 15 and 16 of the following statement show that, during the two years 1896-97 and 1897-98, 757,040 marks were restored, and that during 1897-98, restoration was completed in 293 villages, bringing the total number of villages in which restoration is reported to be complete up to 5,763 villages. This work was confined to fourteen districts. In six of these, viz., Ganjam, Anantapur, Cuddapah, Nellore, North Arcot and Coimbatore, very little progress was made, generally owing to agricultural distress, and for the same reason, nothing was done in Bellary. Restoration of boundary marks in the Nilgiri district will begin next year when the new field measurement books are expected to be ready. In the remaining five districts, restoration was not required as survey or re-survey has only recently been completed or is now in progress.

KARNAMS' SCHOOLS.—Schools were held in every district in the Presidency except Cuddapah, Trichinopoly and Madras. Cuddapah was exempted by the Board on account of agricultural distress, and Trichinopoly, because the services of the karnams

were required by the Settlement department, and the district having been recently re-surveyed by karnams, they were presumed not to require further instruction at present. In the Madras district, there are only 15 karnams and they have no survey duties to perform.

In the remaining 19 districts containing altogether 140 taluks, schools were held in 116 taluks. Schools were not held in 24 taluks by order of the Board either on account of agricultural distress or because they were under re-survey or had recently been re-surveyed by karnams, who were therefore not considered to require further instruction. The number of men instructed was 12,430, being 483 less than in the previous year. Fifty-four per cent. were classed as "good" or "fair," being 2 per cent. better than in the previous year. The best results obtained were in Nilgiris, South Canara, Bellary, Malabar and Anantapur. In these five districts, 75 per cent. and upwards of the total number instructed were either "good" or "fair." In four districts, Salem, South Arcot, Vizagapatam and Kistna, less than 50 per cent. were classed as "good" or "fair." In the remaining ten districts, the percentage of "good" and "fair" ranged between 50 and 75.

MAINTENANCE—OUTGOES.
Statement No. 9.

Division.	District.	Total number of taluks.	Total number of Government villages.	Number of taluks in which schools were held.	Number of men instructed at the Survey schools in 1897.				Progress of Karnams' work up to 31st March 1898.				Remarks.					
					Total.	Qualification.			Preparation of field measurement books.	Sub-divisions measured.	Missing stones replaced.							
						Good.	Fair.	Indifferent.			Completed.	Balance.		Number of villages.	Number of stones.			
I		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
I	Ganjam ..	3	974	391	3	376	110	85	77	104	..	974	..	52	1358	Recently re-surveyed. Seven taluks recently surveyed and one under re-survey. Three taluks under re-survey.		
	Vizagapatam ..	3	278	183	3	172	24	42	41	65	116	162	7	127	2,693			
	Godavari ..	9	839	958	2	189	21	75	78	15	389	620	389	..	..			
	Kistna ..	11 { 3	833 { 233	1,391	9	1,220	92	252	449	427 {	535	358	540	3	88		37,132	
II	Karnool ..	8	699	715	2	133	12	78	27	16	5	694	..	..	..	Do.		
	Bellary ..	8	873	552	4	213	72	138	27	6	34	839	..	..	..			
	Anantapur ..	8	609	517	4	243	57	105	33	18	1	603	..	..	148			
	Cuddapah ..	11	1,092	722	9	568	178	184	123	83	88	1,004	..	..	57		1,047	
III	Nellore ..	9	97	598	9	1,059	174	404	287	194	119	1,404	..	..	24	6,836		
	North Arcot ..	9	1,523	968	9	1,059	174	404	287	194	119	1,404	..	..	24	1,136		
	Chingleput ..	6	1,475	687	5	647	70	229	199	49	1,385	90	..	..	1,304	1,12,385		
	South Arcot ..	8	2,586	1,458	8	1,580	110	518	633	319	2,571	15	1,982	..	2,392	73,247		
IV	Salem ..	5 { 4	1,077 { 1,545	927	9	935	128	291	274	242 {	1,077	172	317	703	94,335	Recently re-surveyed.		
	Trichinopoly ..	5	576	811	9	1,783	346	587	525	325	576	576	576	..	..		Do.	
	Tanjore ..	9	1,433	1,465	9	1,783	346	587	525	325	911	522	..	..	365			1,24,828
	Madura ..	6	728	521	6	728	215	175	190	146	148	580	..	..	92			89,338
V	Tinnevely ..	9	886	732	9	938	267	361	173	137	290	596	..	..	564	3,89,243		
	Coimbatore ..	10	1,356	870	10	992	366	295	184	147	702	654	..	..	..	7,597		
	Nilgiris ..	1	36	29	1	27	16	16	1	..	..	86	..	..	..	..		
	Malabar ..	9	2,163	439	9	493	127	250	107	14	1,799	364	..	..	..	Recently surveyed.		
South Canara ..	5	833	205	5	231	94	127	7	3	833	..	537	..	..	Do.			
	Total ..	156	23,304	15,139	116	12,430	2,479	4,206	3,435	2,310	12,820	10,484	5,493	5,768	9,40,873			

MAINTENANCE—COST.

Statement No. 10.

Division.	Gazetted officers' pay and allowances.	Establishment pay and travelling allowances.	Contingencies.	Total.
1	2	3	4	5
I	Rs. 7,954	Rs. 5,997	Rs. 372	Rs. 14,323
II	14,892	4,008	174	19,072
III	8,071	4,174	188	12,433
IV	7,837	9,239	302	17,378
V	10,456	6,297	396	17,149
VI	7,208	32,507	2,597	42,312
Total for 1897-98 ..	56,418	62,220	4,029	1,22,667
Add expenditure during 1896-97 ..	52,551	58,056	3,394	1,14,001
Add previous expenditure ..	57,806	27,332	1,106	86,244
Grand total, upto 1st April 1898 ..	1,66,775	1,47,608	8,529	3,22,912

The total cost of maintenance during the year was, as shown above, Rs. 1,22,667. This includes Rs. 8,000, the additional grant for field measurement books in Malabar, mentioned in paragraph 1 of this report. The balance Rs. 1,14,667, exceeds the budget estimate by Rs. 41,567. Of this sum, Rs. 27,137 was spent, in addition to the Rs. 8,000 just mentioned, on field measurement books by special agency and Rs. 14,430 is pay and allowances of Gazetted officers in excess of the estimated requirements.

III.—GENERAL REMARKS.

To secure a sufficiently large outturn in future, it will be necessary to provide Survey Parties, each costing Rs. 50,000 a year including the pay of a Gazetted officer, whose time will be entirely devoted to supervision of the work of his own Party. Each such Party can be safely expected to survey 500 square miles of country per annum, the average rate per square mile being for ordinary cadastral surveys or re-surveys Rs. 100 per square mile, *i.e.*, As. 2-6 per acre, and for special cadastral surveys within municipal limits, Rs. 3,000 per square mile, *i.e.*, nearly Rs. 5 per acre. The details for such Parties have been carefully worked out and will be found in Appendix No. VI to this report.

TRAINING OF REVENUE OFFICERS.—The following six Assistant Collectors and six Deputy Collectors were instructed in surveying during the year:—

Assistant Collectors.

Mr. A. Y. G. Campbell.
" J. M. Turing.
" R. E. Holland.

Mr. H. G. Stokes.
" D. G. Waller.
" E. H. Wallace.

Deputy Collectors.

Mr. K. V. Srinivasa Aiyangar.
" T. Raghavayya.
" S. M. Vapuchi Maricayar Usman
Sahib, Bahadur.

Mr. M. Ravi Varma Rajah.
" J. G. Wood.
" Vijaya Raghunatha Durairajah.

SERVICE BOOKS.—All service books have been kept up to date.

INVENTORY OF VALUABLE STOCK.—The inventory of valuable stock ordered in G.O., No. 843, dated 22nd July 1887, has been maintained and was checked at the end of the official year.

SERVICES OF OFFICERS.—Messrs. Greene, Hatchell, Ramaswamy Naidu and Narayana Aiyar deserve special commendation for good service.

The following appendices are attached:—

- I. Outturn and expenditure of survey divisions during 1897-98.
- II. Outturn and Expenditure of Central office during 1897-98.
- III. Cost of work including share of Central office.
- IV. General abstract for 1897-98.
- V. Area surveyed and remaining for survey in each district up to 31st March 1898.
- VI. Estimate for a Cadastral Survey Party.
- VII. Outline sketch-maps of the Presidency and of each district showing progress of survey up to 31st March 1898.

APPENDIX No. I.
Outturn and Expenditure of Field Sections during 1897-98.

District.	Taluk.	Nature of survey.	Number of item.	Government Order sanctioning the survey.				Approximate area for survey.	Scale of maps, inches to one mile.	Field survey.						Finishing maps and records—Recess work.				Total cost up to date.	Rate per square mile on total area up to date.	Remarks.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
				Number.	Date.	Completed.				SQ. M.	SQ. M.	SQ. M.	SQ. M.	Up to 1st April 1897.	During 1897-98.	Total on 1st April 1898.	Balance on 1st April 1898.	Cost during 1897-98.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
						Up to 1st April 1897.	During 1897-98.												Total on 1st April 1898.				Balance on 1st April 1898.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Gan- jan.	No. I. SURVEY DIVISION. <i>Expenditure chargeable to outturn.</i>	Cadastral sur- vey.	1	1858, Miscel- laneous.	6th April 1897.	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..</

APPENDIX No. I—continued.
Outturn and Expenditure of Field Sections during 1897-98—continued.

District.	Taluk.	Number of item.	Nature of survey.	Government Order sanctioning the survey.		Approximate area for survey.		Field survey.				Finishing maps and records—Recess work.				Remarks.	
				Number.	Date.	sq. m.	Scale of maps, inches to one mile.	Completed.				Completed.				Total cost up to date.	Rate per square mile on total area up to date.
								Up to 1st April 1897.	During 1897-98.	Total on 1st April 1898.	sq. m.	Up to 1st April 1897.	During 1897-98.	Total on 1st April 1898.	sq. m.		
North Arcot.	No. II. SURVEY DIVISION. Expenditure chargeable to outturn.	1	Cadastral survey.	839, Revenue ..	30th Dec. 1895.	775	16	171	59	230	545	..	32	743	7,599	12,382	16
		2		..	..	677	16	123	99	222	455	..	17	660	6,363	11,075	16
		3		..	..	613	16	..	7	7	606	..	..	613	718	1	1
		4		..	..	2,065	..	294	165	459	1,606	..	49	2,016	14,680	24,175	12
		Total ..		..	..	..	..	..	..	..	..	..	..	..	..	..	..
North Arcot.	No. III. SURVEY DIVISION. Expenditure chargeable to outturn.	1	Special cadastral survey of lands within municipal limits.	909, Financial ..	29th Oct. 1894.	1	40	..	1	4	..	..	..	..	1	3,017	5,045
		2		..	..	4	40	..	4	1	..	..	..	..	4	3,915	8,915
		3		..	..	1	40	..	1	1	..	..	..	..	1	3,252	8,915
		4		..	..	4	40	..	2	2	..	..	..	..	4	1,474	1,728
		Total ..		..	..	10	..	..	8	8	2	..	..	..	10	8,198	11,143
North Arcot.	Expenditure not chargeable to outturn. Exchange compensation allowance.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		..		..	..	..	..	..	..	..	..	..	..	..	..	..	..
		..		..	..	..	..	..	..	..	..	..	..	..	..	..	..
		..		..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Total ..		..	..	..	..	..	..	..	..	..	..	..	..	522	..

APPENDIX No. I—continued.
Outturn and Expenditure of Field Sections during 1897-98—continued.

District.	Taluk.	Number of item.	Nature of survey.	Government Order sanctioning the survey.		Approximate area for survey.	Scale of maps, inches to one mile.	Field survey.				Finishing maps and records—Recess work.				Total cost up to date.	Rate per square mile on total area up to date.	Remarks.	
				Number.	Date.			Completed.				Completed.							
								Up to 1st April 1897.	During 1897-98.	Total on 1st April 1898.	sq. m.	Up to 1st April 1897.	During 1897-98.	Total on 1st April 1898.	sq. m.				
Chingleput.	No IV Survey Division. <i>Expenditure chargeable to outturn.</i>	1	{ Special cadastral survey of lands within municipal limits.	909, Financial.	29th Oct. 1894.	{ 27 4 }	40 40	27 4	..	27 4	..	18 1	9 8	27 4	..	6,018 3,002	2,979 3,645	Rs. 118 expended during 1897-98 was paid from funds provided by the shrotriendrar.	
								31 ..	..	31 ..	..	19 ..	12 ..	31 ..	..	95,000	3,065		
		3	Cadastral survey.	1851, Miscellaneous.	6th April 1897.	1	16	..	1	1	..	..	1	..	..	..	..		Preliminary work, i.e., Theodolite survey.
								..	..	..	..	..	..	..	..	1,324 115	..		
		Total ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..
Do.	Cuddalore	4	{ Special cadastral survey of lands within municipal limits.	909, Financial.	29th Oct. 1894.	{ }	40 40	..	..	..	..	..	..	..	..	1,324 115	..	Preliminary work, i.e., Theodolite survey.	
								..	..	..	..	..	..	..	..	..	..		..
		5	Cadastral survey.	840, Revenue.	28th Nov. 1894.	{ 300 90 89 37 48 }	8 8 8 8 8	300 23 7 11 2	..	300 23 7 11 2	..	2	298	300	..	5,037 2,142 1,238 3,059 229	41 24 12 83 6		Survey of hill and jungle containing scattered patches of cultivation.
								..	..	..	..	..	..	..	..	..	..		
		Total ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..
South Arcot.	Hosur	6	{ Cadastral survey.	840, Revenue.	28th Nov. 1894.	{ 300 90 89 37 48 }	8 8 8 8 8	300 23 7 11 2	..	300 23 7 11 2	..	2	298	300	..	5,037 2,142 1,238 3,059 229	41 24 12 83 6	Survey of hill and jungle containing scattered patches of cultivation.	
								..	..	..	..	..	..	..	..	..	..		..
		7	Cadastral survey.	840, Revenue.	28th Nov. 1894.	{ 300 90 89 37 48 }	8 8 8 8 8	300 23 7 11 2	..	300 23 7 11 2	..	2	298	300	..	5,037 2,142 1,238 3,059 229	41 24 12 83 6		Survey of hill and jungle containing scattered patches of cultivation.
								..	..	..	..	..	..	..	..	..	..		
		Total ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..
Balakrishnan.	Hosur	8	{ Cadastral survey.	840, Revenue.	28th Nov. 1894.	{ 300 90 89 37 48 }	8 8 8 8 8	300 23 7 11 2	..	300 23 7 11 2	..	2	298	300	..	5,037 2,142 1,238 3,059 229	41 24 12 83 6	Survey of hill and jungle containing scattered patches of cultivation.	
								..	..	..	..	..	..	..	..	..	..		..
		9	Cadastral survey.	840, Revenue.	28th Nov. 1894.	{ 300 90 89 37 48 }	8 8 8 8 8	300 23 7 11 2	..	300 23 7 11 2	..	2	298	300	..	5,037 2,142 1,238 3,059 229	41 24 12 83 6		Survey of hill and jungle containing scattered patches of cultivation.
								..	..	..	..	..	..	..	..	..	..		
		Total ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..

Outturn and Expenditure of Field Sections during 1897-98---continued.

[illegible]

Outturn and Expenditure of Field Sections during 1897-98—continued.

APPENDIX No. I—continued.

[illegible]

APPENDIX No. I—continued.

[illegible]

APPENDIX No I—cont.

Outturn and Expenditure of Field Sections during 1897-98—cont.

Department.

Data.

District.	Taluk.	Number of item.	Nature of survey.	Government Order sanctioning the survey.		Approximate area for survey.	Scale of maps, inches to one mile.	Field survey.				Finishing maps and records—Recess work.				Total cost up to date.	Rate per square mile on total area up to date.	Remarks.
				Number.	Date.			Up to 1st April 1897.	During 1897-98.	Total on 1st April 1898.	sq. m.	Up to 1st April 1897.	During 1897-98.	Total on 1st April 1898.	sq. m.			
Madura—cont.	No. V SURVEY Division—cont.	10	Cadastral survey.	401, Revenue ..	26th June 1895.	43	16	35	8	43	sq. m.	sq. m.	sq. m.	sq. m.	sq. m.	Rs.	Rs.	Survey for the Court of Wards: Rs. 9,291 expended during 1897-98 was paid from funds provided by the Court of Wards.
	Saptár zemindari ..	11	{ Special cadastral survey of lands within municipal limits.	909, Financial.	28th Oct. 1894.	{ 2 1 1 6 3 8 }	{ 40 40 40 40 }	2	..	2	sq. m.	..	..	..	sq. m.	..	..	Cost of survey paid by the Salt Department.
	Palni ..	12						1	..	1	sq. m.	..	..	..	sq. m.	..	..	
	Periyakulam ..	13						1	..	1	sq. m.	..	..	..	sq. m.	..	..	
	Madura ..	14						..	..	..	sq. m.	..	..	..	sq. m.	..	..	
Tinnevely.	Diudigal ..	15	Cadastral survey.	515, Revenue ..	17th July 1894.	12	..	4	8	12	sq. m.	..	..	..	sq. m.	..	..	Survey for Tank Board—Rs. 290 expended during 1897-98 was paid from funds provided by the Taluk Board.
	Four Salt factories ..	16	Do.			1	..	..	1	1	sq. m.	..	..	..	sq. m.	..	..	
	Komaneri Inam ..	17	Do.			2	..	..	2	2	sq. m.	..	..	..	sq. m.	..	..	

APPENDIX No. I—cont.
Outturn and Expenditure of Field Sections during 1897-98—cont.

District.	Taluk.	Number of item.	Nature of survey.	Government Order sanctioning the survey.		Approximate area for survey.	Scale of maps, inches to one mile.	Field survey.				Finishing maps and records—Recess work.				Total cost up to date.	Rate per square mile on total area up to date.	Remarks.
				Number.	Date.			Up to 1st April 1897.	During 1897-98.	Total on 1st April 1898.	sq. m.	Up to 1st April 1897.	During 1897-98.	Total on 1st April 1898.	sq. m.			
Coimbatore.	No. VI SURVEY Division.	1	Cadastral survey.	124, Revenue ..	15th Feb. 1894	204	8	92	36	128	sq. m.	sq. m.	sq. m.	sq. m.	sq. m.	Rs.	Rs.	Survey of hill and jungle containing scattered patches of cultivation
	Satyamangalam ..	2		874, Revenue ..	12th Oct. 1897.	88	8	15	70	85	sq. m.	sq. m.	sq. m.	sq. m.	sq. m.	Rs.	Rs.	
	Bhavani ..	3				70	8	..	5	65	sq. m.	sq. m.	sq. m.	sq. m.	sq. m.	Rs.	Rs.	
	Coimbatore ..	4				103	8	..	17	86	sq. m.	sq. m.	sq. m.	sq. m.	sq. m.	Rs.	Rs.	
	Kollegal ..	5	Do.	909, Financial.	29th Oct. 1894.	465	..	107	128	235	sq. m.	sq. m.	sq. m.	sq. m.	sq. m.	Rs.	Rs.	Survey for the Court of Wards: Rs. 3,204 expended during 1897-98 was paid from the funds provided by the Court of Wards.
Nilgiri.	Sivasamudram ..	6	Do.	Do.	Do.	30	16	..	30	30	sq. m.	sq. m.	sq. m.	sq. m.	sq. m.	Rs.	Rs.	Preliminary work, i.e., Theodolite survey.
	Erode ..	7	Special cadastral survey of lands within municipal limits.	Do.	Do.	{ 11 7 }	{ 40 40 }	11	..	11	sq. m.	sq. m.	sq. m.	sq. m.	sq. m.	Rs.	Rs.	
	Coimbatore ..	8						8	4	7	sq. m.	sq. m.	sq. m.	sq. m.	sq. m.	Rs.	Rs.	
Nilgiri.	Coimbatore ..	9	Do.	Do.	Do.	18	..	14	4	18	sq. m.	sq. m.	sq. m.	sq. m.	sq. m.	Rs.	Rs.	Preliminary work, i.e., Theodolite survey.
	Total ..	10	Do.	Do.	Do.	18	..	14	4	18	sq. m.	sq. m.	sq. m.	sq. m.	sq. m.	Rs.	Rs.	

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APPENDIX No. I—*cont.*
 Outturn and Expenditure of Field Sections during 1897-98—*cont.*

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APPENDIX No. I--cont.
 Outturn and Expenditure of Field Sections during 1897-'98--cont.

[illegible]

• Markapur, Koilkuntla, Sirvel, Cumbum, } Re-publication.
 Banallakot, Nandikotkur, Nandyal, Pattikonda, }

Year.	Zincographed.		Supplied for Government purposes.	Sold to private individuals.		
	Copies.	Palls.	Copies.	Copies.	Price.	
1	2	3	4	5	6	
	NO.	NO.	NO.	NO.	RS.	A. P.
1895-96	263,630	203,211	220,243	504	982	0 0
1896-97	342,541	231,636	285,960	885	959	10 0
1897-98	204,024	145,913	196,158	368	532	9 0

District.	Taluk.	Number of items.	Nature of survey.	Government Order sanctioning the survey.		Approximate area for survey.	Scale of maps, inches to one mile.	Field survey.				Finishing maps and records— Recess work.				Cost during 1897-98.	Total cost up to date.	Rate per square mile on total area up to date.	Remarks.
				Number.	Date.			Completed.	Completed.	Completed.	Completed.	Up to 1st April 1897.	During 1897-98.	Total on 1st April 1898.	Balance on 1st April 1898.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Malabar— South Canara.	No. VI SURVEY Division—cont. Expenditure not charge- able to outturn—cont.																		
	Ponbani	29	Demarcation and survey of Ponbani Cochin boundary.	150, Revenue, 545, Mis.	22nd Feb. 1894. 6th Feb. 1895.											431			
	Kasaragod	30	Supplemental sub-division of survey fields for settlement.	694, Revenue.	2nd Sept. 1895.											842 5,660			
	Mangalore	31																	
		32	Definition of forest boundary.														835		
	Exchange compensa- tion allowance.															1,488			

APPENDIX No. III.

Cost of work including share of Central Office.

Nature of work.	Scale inches to a mile.	Up to 31st March 1897.			Up to 31st March 1898.		
		Outturn.	Outlay.	Rate per square mile.	Outturn.	Outlay.	Rate per square mile.
		3	4	5	6	7	8
Completed area.		SQ. MLS.	RS.	RS. A. P.	SQ. MLS.	RS.	RS. A. P.
Cadastral survey—							
Demarcation	16	41,170	39,15,833	95 0 0	41,390	39,29,985	95 0 0
Field survey	16	77,264	1,44,04,817	186 0 0	77,484	1,44,78,134	187 0 0
Cadastral re-survey—							
Demarcation	16	10,852	1,61,585	15 0 0	11,269	1,74,641	15 0 0
Field survey	16	10,852	5,67,939	52 0 0	11,269	6,09,407	54 0 0
Special Cadastral survey of lands within municipal limits ..	40	57	1,76,966	3,105 0 0	95	3,02,667	3,186 0 0
Topographical survey	Various.	58,080	23,63,469	41 0 0	58,080	23,63,469	41 0 0
Publication—							
Government villages and coffee or tea plantations	16, 8 & 4	87,869	8,96,373	4 8 2	92,276	4,06,398	4 6 6
Non-Government villages	4	12,641	17,505	1 6 2	12,926	17,966	1 6 3
Taluk maps	1	113,396	1,24,010	1 1 6	1,20,974	1,24,707	1 0 6
District maps	1	101,349	74,753	0 11 10	1,12,892	75,894	0 10 9
Quarter atlas sheets	1	53,940	9,244	0 2 9	53,940	9,244	0 2 9
Incomplete area.							
Special Cadastral survey of lands within municipal limits ..	..	..	..	..	..	8,539	..
Publication	..	..	906	..	..	5,013	..
Miscellaneous work which cannot be expressed in area.							
Cadastral survey	..	..	2,14,477	..	..	2,65,433	..
Topographical survey	..	..	34,955	..	..	35,590	..
Publication	..	..	3,97,215	..	..	4,13,006	..
Survey training of karnams	..	..	71,468	..	..	71,468	..
Survey instruments for karnams	..	..	25,295	..	..	25,295	..
Exchange compensation allowance	..	..	39,798	..	..	43,798	..
Total ..			2,29,96,608	..	..	2,33,60,654	..
Add cost of maintenance of boundary marks and survey records ..	..	..	2,00,245	..	..	3,22,912	..
Grand Total ..			2,31,96,853	..	..	2,36,83,566	..

* Excludes 102 square miles, area surveyed in the Yadavol estate, Gódvári district, Koyambedu shrotriem, Chingleput district, Sivasamudram jaghir, Coimbatore district, Tanjore Chattram villages, Tanjore district, Saptur zemindari, Madura district, Komaneri inam, Tinnevely district, and nine salt factories in Ganjam, Tanjore and Tinnevely districts.

APPENDIX No. IV.

GENERAL Abstract for 1897-98.

Area surveyed and remaining for survey.

Particulars.	Revenue.	Topo- graphical.	Total.
1	2	3	4
	SQ. MLS.	SQ. MLS.	SQ. MLS.
Total estimated area of the Presidency by latest calculation	73,069	70,006	143,075
Surveyed up to end of 1896-97	73,069	56,334	129,403
Surveyed in 1897-98	..	..	..
Surveyed up to end of 1897-98	73,069	56,334	129,403
Handed over to Survey of India	..	13,672	13,672
Balance for survey by Madras Survey	..	..	..

NOTE.—Of the area 13,672 square miles shown above as handed over to Survey of India, 2,189 square miles (in Malabar and South Canara) of hill and jungle containing scattered patches of cultivation have been surveyed by the Madras Survey Department in the manner described in paragraph 1 of the report for 1894-95.

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APPENDIX No. IV—continued.

General Abstract for 1897-98—cont.

Outturn and Outlay.

Year.	Area mapped by Parties.				
	Cadastral survey.			Cadastral re-survey.	Special Cadastral survey.
	Scale.			Scale.	Scale.
	16".	8" and 4".	2" and 1".	16".	40".
1	2	3	4	5	6
During 1896-97	SQ. MLS. 2,387	SQ. MLS. ..	SQ. MLS. ..	SQ. MLS. 1,074	SQ. MLS. 32
During 1897-98	322	..	..	417	38
Up to 31st March 1897	77,512	14,412	43,668	10,852	57
Up to 31st March 1898	77,834	14,412	43,668	11,269	95

Year.	Area published in Central Office.				Quarter sheets atlas of India.	Cost.
	Scale.					
	16" and 8".	4".	1" and 1/2".	1/4" and 1/8".		
	7	8	9	10	11	12
During 1896-97	SQ. MLS. 4,723	SQ. MLS. 14	SQ. MLS. 3,512	SQ. MLS. 5,312	SQ. MLS. ..	RS. 4,56,028
During 1897-98	4,407	285	7,578	11,543	..	3,64,046
Up to 31st March 1897	87,869	12,641	1,13,396	101,349	53,940	2,29,96,608
Up to 31st March 1898	92,276	12,926	1,20,974	112,892	53,940	2,33,60,654

NOTE.—(1) The area published includes area of maps reprinted.
(2) The cost entered in column 12 is exclusive of cost of maintenance of survey records and boundary marks as per particulars shown below :—

	RS.
1893-94	6,783
1894-95	11,580
1895-96	67,881
1896-97	1,14,001
1897-98	1,22,667
Total	3,22,912

(3) The difference between the area mapped by parties and the area surveyed during 1897-98 is explained below :—

	SQ. MLS.	
Area surveyed	322	
Area mapped by parties	322	
Difference	322	

	SQ. MLS.	
1. Ganjam—Surla Salt factory	1	
2. Gódvári—Polavaram and Yella- varam Divisions	38	
3. Gódvári—Yadavol estate	41	
4. Chingleput—Koyambedu shro- triem	1	
5. Salem—(Hill and jungl ³ contain- ing scattered patches of cultivation).	43	
6. Coimbatore—Do. do.	128	
7. Do. —Sivasamudram Jaghir	30	
8. Inam field in the Tanjore Dis- trict	10	
9. Chattram villages .. do. .. .	17	
10. Salt factories .. do. .. .	1	
11. Madura—Periyar wet lands	1	
12. Madura—Saptur zemindari	8	
13. Tinnevely—Salt factories	1	
14. Do. —Komaneri inam	2	
Total	322	

Surveyed topographically
in previous years, but now
surveyed cadastrally.

APPENDIX No. V—*cont.*

Area surveyed and remaining for survey in each district up to 31st March 1898—*cont.*

Cadastral Re-survey.

District.	Total area for survey.	Surveyed up to 31st March 1898.	Balance.
1	2	3	4
Górávari	SQ. MLS. 2,517	SQ. MLS. 2,517	SQ. MLS. ..
Kistna	5,210	3,235	1,975
Kurnool	4,710	459	4,251
Salem	2,325	2,325	..
Trichinopoly	2,733	2,733	..
Total ..	17,495	11,269	6,226

ESTIMATE FOR AN ORDINARY CADASTRAL SURVEY PARTY.

Establishment.

[illegible]

Grade.	Number.	Rate of pay.	Monthly cost.	Remarks.
Field Surveyor	100	Rs. 12	Rs. 1,200	
Deputy do.	10	25	250	
Head do.	2	70	140	
Sub-Assistant	1	200	200	
Gazetted Officer	1	800	800	Includes pay and allowances. For details see below.
Clerk for Sub-Assistant	1	20	20	
Clerks for Gazetted officer (1 at 50, 1 at 30, 1 at 20).	3	..	100	
Computer Draftsman (1 at 50, 10 at 20)	11	..	250	
Muchi	1	8	8	
Peons—				
For 10 Deputy Surveyors	10		60	
For 2 Head do.	4	6	24	
For 1 Sub-Assistant	6	6	36	
For 1 Gazetted officer (1 at 7, 6 at 6)	7	..	44	
Travelling allowance of establishment	..	..	100	
Contingencies including office rent	..	..	100	
Total	..	..	3,41	
Cost per annum	..	..	39,972	
Margin for unforeseen contingencies	..	..	10,028	
Grand Total	..	..	50,000	
Rate per square mile	..	..	100	
Rate per acre	..	..	Annas 2½	

Gazetted Officer.

Present strength.				Monthly rate of pay.
				Rs.
1	Deputy Superintendent, First class	...	...	1,100
2	Deputy Superintendents Second class, at Rs. 750 each	...	...	1,500
2	Assistant Superintendents, First class, at Rs. 550 each	...	...	1,100
2	Do. Second class, at Rs. 425 each	...	...	850
<hr/>				
7	Officers	...	...	4,550
<hr/>				
			Average	650
Exchange compensation allowance at 8 per cent. of pay				52
Travelling allowance, 20 days at Rs. 4 per diem				80
<hr/>				
			Total	782
Average monthly cost of one Gazetted officer			Say	800

APPENDIX No. VI--*cont.*

ESTIMATE FOR A SPECIAL CADASTRAL SURVEY PARTY.

							SQ. MLS.
Outturn expected per annum	...	...	...	...	...	...	20
Monthly outturn required, taking the working season as 10 months							
$\frac{20}{10} =$	...	...	...	...	...	...	2

Grade.	Number.	Rate of pay.	Monthly cost.	Remarks.
Station marker	2	Rs. 12	Rs. 24	
Theodolite Surveyor	2	30	60	
Deputy Surveyor	60	25	1,500	
Head Surveyor	4	70	280	
Sub-Assistant	1	200	500	
Gazetted officer	2	150	500	
	1	800	800	See estimate for a Cadastral Survey Party.
Clerks for Sub-Assistants	3	20	60	
Clerks for Gazetted officer (1 at 50, 1 at 30, 1 at 20)	3	..	100	
Computer Draftsman (1 at 50, 1 at 30, 10 at 20, 30 at 15).	42	..	730	
Muchies (1 at 10, 2 at 7)	3	..	24	
Peons—				
For 1 Gazetted officer (1 at 7, 6 at 6)	7	..	43	
„ 3 Sub-Assistants	10	6	60	
„ 4 Head Surveyors (4 at 6, 8 at 5)	12	..	64	
„ 2 Theodolite Surveyors (2 at 7, 10 at 5)	12	..	64	
„ 2 Station markers	4	5	20	
Measurement allowance for 60 Deputy Surveyors	60	5	300	
Travelling allowance of establishment	..	..	100	
Contingencies	..	..	100	
Total	..	..	4,829	
Cost per annum	..	..	57,948	
Say Rs.	..	..	60,000	
Rate per Square mile	..	..	3,000	
Rate per acre	..	..	5	

Date.

Order—No. 566, Revenue, dated 4th October 1898.

Miscellaneous.

With the letter read above, the Superintendent of Revenue Survey submits his report on the operations of the department during the year 1897-98.

2. The subjoined table exhibits the work done in the previous year, the estimate for the year under review, the actual outturn for the year and the work remaining to be done at the end of the year :—

Class of survey.	Districts, &c.	Outturn in 1896-97.	Area re- maining. for survey at the end of 1896-97.	Outturn estimated by the Super- intendent during 1897-98.	Actuals during 1897-98.	Balance at the end of 1897-98.	New area since ordered to be taken up for survey.	Total area remaining to be sur- veyed under or- ders al- ready issued.
1	2	3	4	5	6	7	8	9
Ordinary cadastral survey.	Town survey ..	SQ. MLS. 32	SQ. MLS. 200	SQ. MLS. 60	SQ. MLS. 38	SQ. MLS. 162	SQ. MLS. ..	SQ. MLS. 162
	Ganjām ..	..	..	..	..	..	.. 30	30
	Vizagapatam ..	..	..	..	..	..	.. 55	55
	Gódvári ..	10 {	62 } 79 }	62	79	..	..	..
	Kistna ..	..	..	..	..	..	.. 41	41
	Chingleput ..	..	..	..	..	..	.. 17	17
	North Arcot ..	..	119	..	..	119	9	128
	South Arcot ..	..	76	..	..	76	..	76
	Tanjore ..	392	107	107	27	80	..	80
	Madura ..	122	28	28	8	20	13	33
	Salem ..	..	..	..	..	..	5	5
	Tinnevely ..	..	..	..	..	..	150	150
Hill and jun- gle survey.	Miscellaneous ..	7 {	6 } 9 }	6	7	2	..	2
	Total ..	568 {	403 } 618 }	263	159	459	320	779
	Malabar ..	514	..	..	..	..	..	..
	South Canara ..	838	..	..	..	..	..	..
	Coimbatore ..	107 {	493 } 388 }	358	158	230	..	230
	Salem ..	279	381	381	43	338	..	338
	Gódvári ..	418	..	..	..	..	..	..
	Total ..	1,856 {	874 } 769 }	739	201	568	..	568
Cadastral re- survey.	Kistna ..	780	593	593	252	341	1,634	1,975
	Kurnool ..	294	4,416	1,000	165	4,251	..	4,251
	Total ..	1,074	5,009	1,593	417	4,592	1,634	6,226

Notes—(1) The ordinary-type figures in column 4 are those reported in the Superintendent's report for 1896-97 while the bold-type figures are those given by the Superintendent in the present report.
(2) The areas in North Arcot and South Arcot remaining for survey are reported by the Superintendent to be hill villages.

3. The progress made during the year in survey work proper was not great. This was, to some extent, due to difficulties arising from the nature of the surveys undertaken. The survey of hill villages and tracts entails work in feverish localities for tempt competent surveyors. The survey of towns requires highly trained surveyors who are not available in any number and cannot as a class be easily created. Re-survey work depends on the attendance of karnams who at a time of agricultural distress have numerous other more important duties.

4. The chief cause, however, impeding survey work appears clearly to be the continued employment of the survey staff for a considerable portion of the year on maintenance work, that is, the preparation of field measurement books, re-measurement of holdings owing to change in occupation, restoration of boundary marks, and the training of karnams.

Date.

5. It appears from part II of the Superintendent's report that the work of maintenance has suffered equally with the work of survey under this system. Maintenance in all its branches is shown to be greatly in arrears.

6. As the Superintendent observes, these conditions cannot continue. The Government has decided that the work of maintenance should be entrusted to a Land Record Department organized and working in each district under the direction of the Collector. Ordinary survey will, it is proposed, be carried out by a limited staff of trained survey officers working under a Survey Superintendent.

The preparation of a detailed scheme on these principles has been entrusted to the Board in consultation with the Superintendent of Survey. The report now before the Government proves the pressing necessity of the proposed reforms.

7. The Superintendent furnishes in his report no estimate of the survey work likely to be done during the current year. The Government agrees that the difficulties attending the administration of the department, as at present employed, make it almost useless to frame any such estimate. Pending the reorganization of the Department and the creation of the Land Record Department the Government has full confidence that the Superintendent and his officers will make every effort to obtain the best results possible.

8. *The Photo-zincographic Office.*—The outturn of this office was, as usual, very satisfactory. The Government is glad to note that the high standard of neatness and finish which has distinguished the maps issued under Mr. Cardozo's supervision was fully maintained.

9. All officers of the Department appear to have worked satisfactorily during the year. His Excellency the Governor in Council is pleased to note the special testimony borne by the Superintendent to the good services of Messrs. Greene, Hatchell, Ramaswami Naidu and Narayana Aiyar.

(True Extract.)

(Signed) G. S. FORBES,
Secretary to Government.

To the Superintendent, Madras Survey,
„ the Board of Revenue (Revenue Settlement,
Land Records and Agriculture).
„ the Board of Revenue (Land Revenue).
„ the Financial Department.
„ the Accountant General.
„ the Resident in Travancore and Cochin.

Endorsement No. 566A.

Copy to the Government of India, Revenue and Agricultural Department.

(Signed) N. E. MARJORIBANKS,
Ag. Under Secretary to Government.

RESOLUTION—No. 431, dated 28th November 1898.

Communicated to all Collectors, to the Deputy Director of Land Records and Agriculture, and to the officers in charge of Revenue Settlement Parties.

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2. In view of the fact that the period of settlement of the four taluks comprising Kurnool proper expires on the 30th of June 1899, Superintendent of Revenue Survey is requested to make the necessary arrangements to complete the resurvey of those taluks as early as possible.

(True Copy and Extract.)

P. C. Srinivasan
Secretary.

To all Collectors.

„ the Deputy Director of Land Records and Agriculture.
„ Officers in charge of Revenue Settlement Parties.
„ the Superintendent of Revenue Survey.

Copy to the Secretary to Government, Revenue Department.

End Md. Pahlwan.

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Date.

READ AGAIN G.O., No.
189

DATED

CURRENT No.

ENCLOSURES TO G. No.

ORDER OF GOVERNMENT A A A A A A A

LETTER OF GOVERNMENT.


STATEMENT WITH DITTO.

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