

Name of District.	Name of Táluka.	Number of Villages	Nature of Settlement.	Old Collections.	Revised Assessment.	INCREASE.	
						Rs.	Per cent.
					Rs.		
Khandesh ...	Chálisgaon ...	2	Revision ...	2,856	3,745	889	31.1
Thána ...	Bassein ...	3	Original ...	639	1,116	477	74.6
Bhor State ...	Pawan Mával ...	49	Do. ...	30,630	47,292	16,622	54.4

Judi Settlement and Scale Remuneration.

78. During the year under report the "Judi Tharáv" has been settled in 690 villages as compared with 610 of the previous year, and proposals for the revised scale remuneration have been prepared for 839 as against 802 in the previous year. The record of Judidar Patraks shows an improvement over that of the previous year. This work, it is hoped, will show better results next year if there are less difficulties in the way of revenue officers in answering references made by this office on the subject. The record for scale remuneration statements seems satisfactory.

79. The usual table is given below:—

Name of Táluka.	Total Number of Villages	Revision Settlement year.	ARREARS OF		Name of Táluka.	Total Number of Villages	Revision Settlement year.	ARREARS OF	
			Judi Settlement.	Revised Scale Remuneration.				Judi Settlement.	Revised Scale Remuneration.
1	2	3	4	5	1	2	3	4	5
<i>Dhárwdr.</i>					<i>Nasik.</i>				
Navalgund ...	1	1886-87	...	1	Chandor ...	6	1894-95	...	6
					Niphad ...	3	1894-95	3	3
Total ...	1	.....	...	1	Yeola ...	8	1895-96	...	8
<i>Bijápur.</i>					Peint ...	167	{ 1895-96 ... 76 } 1896-97 ... 90 1897-98 ... 1	2	167
Muddebihal ...	4	1896-97	1	4	Nandgaon ...	54	{ 1896-97 ... 45 } 1897-98 ... 9	52	54
Total ...	4	.....	1	4	Total ...	238	.....	57	238
<i>Belgaum.</i>					<i>Khandesh.</i>				
Belgaum ...	4	{ 1888-89 ... 1 } 1896-97 ... 3	3	4	Amalner ...	86	1889-90	...	86
Athni ...	1	1891-92 ...	...	1	Erandol ...	28	1889-90	7	28
Gokák ...	2	{ 1895-96 ... 1 } 1896-97 ... 1	...	2	Jamner ...	1	1890-91	1	1
Total ...	7	.....	3	7	Bhusaval ...	21	{ 1890-91 ... 15 } 1896-97 ... 6	1	21
<i>Sátara.</i>					Jalgaon ...	74	1891-92	16	74
Khánápur ...	8	1891-92	...	8	Pachora ...	42	1892-93	3	42
Koregaon ...	4	{ 1893-94 ... 3 } 1895-96 ... 1	...	4	Sindkhed ...	17	{ 1892-93 ... 12 } 1894-95 ... 2 1897-98 ... 3	7	17
Wái ...	4	1896-97	...	4	Chálisgaon ...	131	{ 1896-97 ... 129 } 1897-98 ... 2	25	131
Jávli ...	190	1894-95	41	190	Nandurbar ...	110	1896-97	85	110
Sátara ...	6	1896-97	6	6	Total ...	510	.....	145	510
Patan ...	126	1895-96	5	126	<i>Thána.</i>				
Karad ...	77	1895-96	33	77	Murbad ...	170	1895-96	2	170
Valva ...	107	1896-97	107	107	Kályan ...	225	{ 1895-96 ... 224 } 1897-98 ... 1	43	225
Total ...	522	.....	192	522	Bhiwandi ...	200	1896-97	25	200
<i>Ahmednagar.</i>					Salsette ...	100	1897-98	...	100
Sangamner ...	1	1896-97	...	1	Bassein ...	91	1897-98	91	91
Total ...	1	.....	...	1	Total ...	786	.....	161	786
<i>Poána.</i>					<i>Koldba.</i>				
Maval ...	2	1894-95	2	2	Panvel ...	18	{ 1893-94 ... 16 } 1894-95 ... 2	...	18
Khed ...	17	{ 1888-89 ... 4 } 1889-90 ... 8 1891-92 ... 4 1895-96 ... 1	17	1	Pen ...	8	1894-95	...	8
Parandhar ...	21	1894-95	...	21	Roha ...	146	1897-98	...	146
Haveli ...	9	{ 1893-94 ... 4 } 1894-95 ... 2 1895-96 ... 3	3	9	Total ...	172	.....	...	172
Total ...	49	.....	22	33					

80. During the year Mr. D. M. Patvardhan, Deputy Collector, was instructed in measurement and obtained the requisite certificate. The revised scheme for training Junior Civilians has already been submitted to Government.

I have the honour to be,

Sir,

Your most obedient Servant,

W. P. SYMONDS,

Acting Survey Commissioner and Director,
Land Records and Agriculture.

PROGRESS REPORT

OF THE

GUJARAT REVENUE SURVEY

For the Year ending 31st October 1898.

PROGRESS REPORT OF THE GUJARAT REVENUE SURVEY
FOR THE YEAR ENDING 31st OCTOBER 1898.

No. 1011 of 1898.

*Camp Pardi, District Surat,
14th December 1898.*

During the year under report Mr. J. McNeill, I. C. S., held charge of this survey from 5th November 1897 to 30th May 1898, the charge of the office from 1st to 4th November 1897 having been held by Mr. C. N. Seddon, I. C. S., before he proceeded on leave on medical certificate. From the 31st May this survey has been under my charge.

2. Azam Jethalal Gulabchand, Head Surveyor of the B Establishment, was allowed privilege leave of absence for 2 months under the sanction of the Survey Commissioner and Director of Land Records and Agriculture, his place being temporarily filled by Classer Chhotalal Shivram, who acted as Nimtandar till the end of the field season. Azam Jethalal Gulabchand, on return from privilege leave, was transferred to the charge of the E Establishment to replace Azam Bapalal Purshotam, who died on 15th May 1898. Shortly after the commencement of the recess season, Azam Jethalal Gulabchand was ordered to again take charge of the B Establishment, leaving the charge of the E Office to classer Ranchhod Tuljaram, who was appointed Nimtandar till the close of the year.

3. The strength of the Survey during the year under report has consisted of three classing parties under Mr. Mehta, and the Huzur and Head-quarters offices under the Deputy Superintendent. In the previous year the number of field establishments was six, but from 1st November 1897 three field measuring establishments were disbanded. The average number of chains was $20\frac{3}{4}$ and of classers 43 as compared with $52\frac{1}{4}$ and $55\frac{1}{2}$, respectively, in the previous year.

MEASUREMENT AND CLASSIFICATION OPERATIONS.

4. The A Establishment remained in charge of Azam Mohanlal Ishwar, Head Surveyor, throughout the year. From the 10th November to the 31st December 1897, it was employed on measurement and classification work simultaneously in 27 villages of the Anklesvar Taluka, left unfinished in the season of 1896-97. From the 1st January to the 15th April 1898, the establishment was employed on work of a similar nature in the Jambusar and Godhra Talukas. Subsequently a rough survey, separating cultivated from culturable land in the Talukdari villages of Godhra and Dohad, was carried on till the close of the year. The work of this rough survey has not been included in Appendix No. I, but is shown under the head of Miscellaneous in paragraph 22.

5. The B Establishment was in charge of Azam Jethalal Gulabchand and Chhotalal Shivram throughout the year. It undertook from the 12th November 1897 the measurement concurrently with the classification of 21 villages of Hansot of the Anklesvar Taluka, which had been left unfinished in the season of 1896-97. After completing the taluka, the party was transferred to the Jambusar and Godhra Talukas, where it finished the work allotted to it by the close of the field season.

6. The E Establishment under Azam Bapalal Purshotam commenced from the 8th November both measurement and classing work in the talukas of Broach, Amod and Vagra, where it continued to work up to the 17th February 1898. From 18th February till the 10th May 1898 it was employed in the revision classification of Kalol Taluka, after which it was engaged in the classification and bandh pahani of the Broach Taluka till the close of the season.

MEASUREMENT.

7. An abstract of Appendix I, showing the amount of measurement work performed during the year under report, as compared with that of the preceding year, is given below:—

B 1301—1 c

Letter of Establish- ment.	1896-97.				1897-98.			
	Average Number of hands.	Survey Numbers, including Pot Numbers.	Waslas.	Acres.	Average Number of hands.	Survey Numbers, including Pot Numbers.	Waslas.	Acres.
A ...	3	458	2,630	1,194	4½	1,367	8,384	2,878
B ...	3	722	4,192	1,360	6½	1,244	7,150	2,915
E ...	3	559	2,880	1,263	10	776	4,370	1,790
C ...	17	3,339	29,293	8,413	...	.....	...	...
D ...	14½	5,596	28,836	6,881	...	.....	...	...
F ...	18½	5,236	30,704	8,417	...	.....	...	...
Total ...	52½	15,910	98,535	27,528	20½	3,387	19,904	7,583

From the above it will be seen that it is not possible to compare the present year's outturn with that of the previous year, in view of the fact that there were no measuring establishments in existence, and measurement work was undertaken by the classers at the same time as, and in addition to, the classing.

8. In the following statement is shown the cost per acre of measurement operations. The average cost of all parties in the preceding year was Re. 0-0-5; excluding the area confirmed the cost per acre was Re. 0-13-10:—

Estab- lish- ment.	Average number of hands.	Name of Head Surveyor.	Táluka.	Confirmed Acres.	Re- measured Acres.	Total acres.	Average Cost of measure- ment per Acre.
1	2	3	4	5	6	7	8
							Rs. a. p.
A	4½	Azam Mohanlal ...	Anklesvar ...	4,735	951	5,686	} 0 0 1
			Jambusar ...	103,334	1,927	105,261	
B	6½	Azam Jethalal and Chhotalal	Anklesvar ...	35,355	767	36,122	} 0 0 1
			Jambusar ...	126,113	2,143	128,261	
E	10	Azam Bapalal and Jethalal.	Broach ...	3,728	412	4,140	} 0 0 1
			Vagra ...	61,880	1,291	63,171	
			Amod ...	8,474	87	8,561	
			Total ...	343,619	7,583	351,202	0 0 1

CLASSIFICATION.

9. The subjoined statement shows the work of the year under report as compared with that of the preceding year:—

1896-97.						1897-98.					
Average number of hands.	Total Survey Num- bers.	Total Acres.	Average area per Survey Number.	Average daily outturn per Classer in		Average number of hands.	Total Survey Num- bers.	Total Acres.	Average area per Survey Num- ber.	Average daily outturn per Classer in	
				Num- bers.	Acres.					Num- bers.	Acres.
55½	95,893	145,836	1.52	16½	25	43	66,171	233,193	3.61	19	68

The average daily outturn, both in numbers and acres, compares favourably with that of the preceding year, although the numbers dealt with were of

larger area. As regards classification, it will be seen that although the percentage distribution of days is less than the number shown in the previous year, the outturn of classification work, shown in the year under report, compares favourably with the result of the classification of the past year. No loss of time as shown in paragraph 19 of the last year's report occurred in giving instruction to measurers in classification. During a portion of the season, however, operations were carried on in the Talukdári villages of Godhra and Dohad Talukas, where the rough nature of the country placed considerable difficulties in the way of rapid work.

10. The cost per acre of classification is shown in the following statement :—

Letter of Establishment.	Average number of hands.	Name of Head Surveyor.	Taluka.	Fields reclassified.	Confirmed Acres.	Reclassified Acres.	Total Acres.	Average area per Survey Number.	Average Cost per Acre.
									Rs. a. p.
A	15	Azam Mohanlal ...	Anklesvar ...	3,098	32,621	6,226	38,847	2'01	0 0 7
			Jambusar ...	7,415	74,848	30,413	105,261	4'10	
			Godhra (Khálsa) ...	5,419	119,338	21,402	140,740	3'95	
			Godhra (Talukdári) ...	197	9,873	16,502	26,375	83'77	
			Dohad (Talukdári) ...	611	38,466	17,530	56,996	28'70	
B	13½	Azam Jethalal and Azam Chhotalal.	Anklesvar ...	3,405	31,968	4,154	36,122	1'22	0 0 9
			Jambusar ...	5,749	108,245	20,015	128,260	3'50	
			Godhra (Khálsa) ...	8,926	63,608	23,032	86,640	2'58	
			Godhra (Talukdári) ...	2,770	...	17,664	17,664	6'37	
E	14½	Azam Bapalal ...	Broach ...	3,203	39,429	14,127	53,556	4'41	0 0 9
			Vagra ...	4,822	116,362	26,407	142,769	5'47	
			Amod ...	106	6,007	1,481	7,488	14'00	
			Kálol ...	20,450	61,143	40,240	101,383	1'56	
			Total ...	66,171	701,908	239,193	941,101	3'63	0 0 8

TEST OF MEASUREMENT.

11. Azam Mohanlal tested the measuring work of the A Establishment in 31 villages of Anklesvar and Jambusar talukas. The number of fields examined amounted to 143, containing 762 waslas of an aggregate area of 333 acres. The percentage test on fields was 10·5, on waslas 9·1 and on acres 11·6; the average difference between original and test measurement being 26 gunthas.

12. Azam Jethalal Gulabchand and Chhotalal Shivram tested the measuring work of the B Establishment in 33 villages of Anklesvar and Jambusar talukas. The number of fields dealt with amounted to 170, or 726 waslas aggregating an area of 326 acres. The percentage test on fields was 13·7, on waslas 10·1, and on area 11·2; the average difference between the original and test measurement being 34 gunthas.

13. The measurement work of the E Establishment was confined to 8 villages of Broach, 18 of Vagra, and 2 of Amod, which had been left unfinished last year. The number of fields tested amounted to 187 numbers divided into 897 waslas and measuring altogether 320 acres, the percentage on original work, being 24 on numbers, 20·6 on waslas, and 17·9 on area. The excess percentage of test is accounted for by the fact that the Head Surveyor, to make up the deficiency pointed out in paragraph 25 of the last year's report, tested 91 numbers and 158 acres of the work done in Amod taluka in the season of 1896-97. The accuracy of the work is established by the average difference between the original and test measurement having been found to be only 14 gunthas per 100 acres.

14. The statement given below shows the tests taken by the officer in charge Linked Party No. 1:—

Name of Officer.	Letter of Establishment.	Nature of Test.	Fields.	Waslas.	Acres.	Difference between test and tested area.	PERCENTAGE.	
							Numbers.	Acres.
Mr. P. R. Mehta.	A.	On Head Surveyors ...	22	19	31	0 9	15'4	9'3
		On Measurers ...	25	148	92	0 26	1'8	3'2
	B.	On Head Surveyors ...	25	121	49	0 7	14'7	15'0
		On Measurers ...	20	107	17	0 10	1'6	0'6
	E.	On Head Surveyors ...	20	73	46	0 5	10'7	14'4
		On Measurers ...	9	29	9	1 7	1'1	0'5

Mr. Mehta's test of the work of his three establishments is fully satisfactory. It will be seen that the percentage of test taken is in excess of the standard prescribed by the rules, *viz.*, 10 per cent. on Head Surveyor and $\frac{1}{2}$ per cent. on measurers. The average difference in area discovered was 14 gunthas on Head Surveyor's test and 26 gunthas on the work of measurers.

TEST OF CLASSIFICATION OPERATIONS.

15. The work of the A Establishment was tested by Azam Mohanlal in 192 villages out of 207 classed during the year. The fields examined numbered 4,239, of which 1,370 were tested for water only; their total area amounted to 19,728 acres. On survey numbers the percentage of test taken by the Head Surveyor was 25·3, and on the area classed by the establishment 21·4. In the talukdāri villages of Godhra and Dohād the work done took the form of a valuation survey, *i.e.*, the separation of cultivable from uncultivable land. This work was taken in hand under the sanction of the Survey Commissioner after Government villages had been completed.

16. The work of the B Establishment was tested by Azam Jethalal and Chhotalal in 123 villages out of 125 classed during the year. They examined 3,631 survey numbers, of which 1,456 were tested for water, or an area in all of 7,195 acres. This gives a percentage of test on numbers and on area of 18·9 and 12·4 respectively. The average difference between the original and test classification was only Re. 0-0-0·3 for soil and Re. 0-0-0·5 for water. One thousand six hundred and sixty-six survey numbers, having an area of 6,840 acres, were classed by the establishment for sub-soil water.

17. Azam Bapalal Purshotam, Head Surveyor, tested the work of his own establishment, the E, in 137 villages out of 145 classed during the year. The number of survey numbers tested amounted to 5,708 and the area to 10,012 acres. This gives a percentage of test of 24·2 on numbers and 15·3 on area. In addition he also examined work in 18 villages of Amod classed by the E Establishment in the season of 1896-97. The number of survey numbers tested amounted to 949, and the area to 1,969 acres. Survey numbers and area tested for sub-soil water were 666 and 2,197 out of 5,059 and 17,024 classed during the year. In all, excluding sub-soil, the Head Surveyor tested of the E Establishment 6,657 numbers and 11,981 acres, which gives a percentage of 28·3 and 18·3 on the numbers and area classed by the establishment in the years of 1896-97 and 1897-98. The average difference between test and original classification was found to be 0·80 pies and 0·39 pies on soil and water respectively.

Where, it will be noticed, in certain villages no test has been taken by the Head Surveyors, the measurement and classification operations were of such limited extent that no examination was considered necessary.

18. The statement given below shows the test taken of the classing work by the officers of linked parties:—

Name of Officer.	Establishment.	Nature of Test.	FIELDS.		Acres.	AVERAGE DIFFERENCE OF RATE PER FIELD BETWEEN ORIGINAL AND TEST CLASSIFICATION.		PERCENTAGE.	
			Soil.	Water.		Soil.	Water.	Numbers.	Acres.
						A. p.	A. p.		
Mr. Mehta	A	On Head Surveyor ...	698	326	4,600	0 0·56	0 0·65	16·4	23·3
		On Classers ...	540	314	2,389	0 2·59	0 3·05	3·2	2·6
	B	On Head Surveyor ...	557	267	1,031	0 1·02	0 0·89	15·3	14·3
		On Classers ...	896	375	2,218	0 2·05	0 1·20	4·7	3·8
	E	On Head Surveyor ...	797	513	1,374	0 0·10	0 0·16	11·9	11·5
		On Classers ...	611	383	1,182	1 1·31	0 0·28	2·6	1·8
				Test on last year's work.					
Azam Bapalal	D	On Head Surveyor ...	31	...	39	0 6·58	...	12·5	11·4
		On Classers ...	287	...	588	0 1·38	...	9·2	10·8
	F	On Head Surveyor ...	71	28	71	0 11·46	2 1·07	19·7	4·9
		On Classers ...	102	38	163	0 5·86	2 8·16	6·0	6·3

19. Azam Bapalal, under instructions given, examined work done by the F and D Establishments in the previous year. The supervising test taken by him on Head Surveyor's test was 71 survey numbers and 71 acres in 25 villages of Vagra and 31 numbers and 39 acres in 64 villages of Broach. This test works out to a percentage of 19·7 on numbers and of 4·9 on area for the F, and of 12·5 on numbers and 11·4 on area for the D Establishment. He also took independent test on the Classers' work to the extent of 102 numbers and 173 acres and 287 and 588 acres of the F and D Establishments respectively; or a percentage of 6 and 6·3 on the former establishment and 9·2 and 10·8 on the latter.

The returns furnished of the tests on measurement, taken by Head Surveyors in charge of establishments, paragraph 11, and of classification as given in paragraph 15, show that the test of the year under report, also of the arrears of the previous year, both on survey numbers and area, is more than the required percentage, and the error disclosed by the test small.

20. By the death of Azam Bapalal during the year Government have lost a zealous and hard-working servant, whose qualifications were too well-known to make a reference to the work done by him necessary.

21. Mr. Mehta, in his report on the linked party under his charge, commends the work of Azam Mohanlal Ishwardas, stating he deserves credit for the manner in which he kept his men up to the mark, although he had to deal with the worst villages of Godhra and Dohad.

22. The amount of obligatory office work entailed during the field season, by the loss of records by fire and by miscellaneous work, was as follows :—

MEASUREMENT ESTABLISHMENT.

(1) The copying into the new books of details saved from the fire of 4,239 survey numbers as compared with 2,945 survey numbers in the preceding year.

(2) Comparing the entries of 3,040 numbers as compared with 915 numbers in the preceding year.

(3) Copying into the new books details from Village Form No. I of 34,776 numbers.

Moreover, the A Establishment did the work of separating cultivated lands from culturable in 53 talukdári villages of Dohad and Godhra, to the extent of 37,605 acres, of which 7,722 acres were tested by the Head Surveyor.

The B Establishment was employed from 28th May to the 7th of June in breaking up large survey numbers in the 27 villages of the Mehlool Estate, regarding which proposals were submitted to the Survey Commissioner, under this office No. 405, dated 22nd May 1898. A total area of 255 survey numbers divided into 1,831 waslas measuring 553 acres being dealt with.

This work was tested by Azam Chhotalal Shivram, to the extent of 24 numbers, 172 waslas and 45 acres. The cost incurred in the above work will be recovered from the Mehlool Estate. Neither the numbers or area dealt with in Mehlool have been included in the details of measurement and classification done by the establishment previously furnished.

CLASSING ESTABLISHMENT.

(1) The measurement of new rice areas discovered at the time of classification to the extent of 1,613 survey numbers and 1,688 acres. This was of course field work, but not being classing is included for convenience sake under this head.

(2) Copying into the new books from the charred classing books details of 5,336 survey numbers, the figure for the year preceding being 6,749 numbers.

(3) The entry in the classing books of the details of 79,427 survey numbers not dealt with at revision, from the Village Form No. I.

(4) Comparing the entries of 493 survey numbers.

23. The subjoined abstract from Appendix I shows the percentage distribution of days of the establishments for the past year as compared with the same details of the year preceding:—

				1896-97.	1897-98.
<i>Working Days.</i>					
Field measurement	...	...		37.62	22.39
Boundary-mark inspection	...	..		0.64	21.10
Accompanying testing officer	...	...		5.70	4.35
Office work	...	...		29.56	24.63
Total	...			73.52	72.47
<i>Non-working Days.</i>					
Sickness	...	...	...	3.26	0.35
Villagers not co-operating	...	...	...	4.70	4.66
Rain	...	...	...	0.60	1.50
Travelling	...	...	...	6.14	12.39
Leave and holidays	...	...	...	11.78	8.63
Total	...			26.48	27.53
				100.	100.

24. As regards the distribution of working and non-working days, a small improvement, compared with the previous year, is shown on the three establishments.

25. The number of days spent in office work by the A and B Establishments is, however, in excess of last year, while the E alone shows a decrease. This is due to the percentage of measurement of the first two establishments being greater, and to the larger amount of copying work which was thereby rendered necessary.

26. The most noticeable feature in the statement is the increase under the heads of boundary mark inspection and travelling. The first is due to the substitution of khunts for bandhs in villages of the Broach District, subject to annual flooding during the rains, which will be dealt with hereafter. The increase under travelling may be entirely ascribed to the very scattered nature of the measurement and to the transfer during the working season of establishments from Broach to the Panch Mahals. No establishment worked in a single taluka throughout the year; all were employed in four or five. Some slight increase is due to the number of transit days formerly recorded, as leave and holidays, which now—as is the custom in the Deccan Survey—have been brought under the head of days lost in travelling. The percentage distribution of days under leave and holidays is less than that of the previous year.

27. During the year under report, 12 measures (4 from each establishment) were employed from the commencement of the field season in substituting khunts for bandhs in villages of the Broach District, which suffer from annual flooding during the rains. This work was taken in hand at the request of the occupants after the sanction of the Survey Commissioner and Director of Land Records and Agriculture had been obtained. The substitution of khunts for bandhs had to be undertaken in 92 villages distributed over four talukas. Of these, 77 were completed and tested before the close of the working season. In three villages, the substitution was carried out, but the work done by the villagers could not be examined as the bursting of the monsoon necessitated the return of measurers to head-quarters. The occupants of 12 villages, after promising to replace bandhs by khunts, failed, owing to alleged poverty, to carry out their agreements.

28. Much unnecessary loss of time in this work throughout was occasioned by the delay on the part of occupants in building khunts. In some cases measurers were obliged to return to a village 4 or 5 times to complete the inspection.

tion. Arrangements for the villages remaining to be tested will be made during the current season, but in view of the great press of work now in hand before the final close of the survey, no further substitution can well be undertaken. Details of the work completed are furnished in the subjoined statement :—

Num- ber.	Táluka.	Total number of villages.	Fixing the places for khunts in disputed cases and others.		Khunt inspection by Classers.		Test taken by Azam Jethalal.	
			Days.	Survey numbers.	Days.	Survey Numbers.	Survey Numbers.	Percent- age.
1	Broach	43	152	4,926	332	9,948	454	4.6
2	Amod	23	85	2,937	191	7,001	758	10.8
3	Vágra	7	17	615	66	2,055	93	4.5
4	Anklesvar	5	10	385	12	626	...	...
5	Jambusar	2	...	...	13	824	...	...
	Total	80	264	8,863	614	19,954	1,305	6.5

29. Similar information as regards the classing establishments is given in the following statement :—

				1896-97.	1897-98.
<i>Working Days.</i>					
Field classification ... ..	...	...	...	61.86	41.82
Boundary-mark inspection ... ..	...	...	...	0.28	1.07
Accompanying testing officer ... ..	...	...	...	6.67	7.03
Office work ... ..	...	...	...	12.43	23.02
				81.24	72.94
<i>Non-working Days.</i>					
Sickness ... ..	...	...	...	0.23	0.58
Villagers not co-operating ... ..	...	...	...	1.98	3.78
Rain ... ..	...	...	...	0.07	0.66
Travelling ... ..	...	...	...	7.38	13.58
Leave and holidays ... ..	...	...	...	9.10	8.46
				18.76	27.06
				100.	100.

30. Here the increase in the percentage of working days under the head of office work is again noticeable. This is due to the book work described in paragraph 22 of this report having increased owing to the miscellaneous character of the season's operations. Days lost in travelling have been fully explained in paragraph 26 above. The percentage decrease under the head of leave and holidays calls for no remark.

31. Appendix Statement No. 3 shows the progress made in the erection of boundary-marks in villages, of which the measurement was completed during the year. From the above, it will be seen that no boundary-mark returns or accounts remained incomplete during the year. The marks erected were to demarcate Government waste land.

32. Appendix Statement No. 4 shows the progress of recess measurement work done during the year. It will be seen that, of the 75 village maps which were shown incomplete in Appendix No. 4 of last year's report, 67 fair maps

have been completed during the year. The remaining fair maps of 7 villages of Kálol and one village of Godhra, as well as the fair maps of the villages measured during the year under report, will be taken in hand according to the programme for the completion of recess work sanctioned by the Survey Commissioner.

33. Appendix Statement No. 6 gives details of the differences between test and present valuations. Of the 18,626 numbers tested, 18,239 numbers were found under 1 anna, 221 under 2 annas, 85 under 3 annas and 81 over 3 annas.

34. Appendix Statement No. 7 shows the progress of recess classification work during the year. From the above it will be seen that, of the 172 villages, the recess classification work of which was left unfinished, 147 were completed during the year. The remaining 25 villages of Vággra, as well as the villages shown in columns 6 and 7 of Appendix VII, will be taken in hand during the current season in accordance with the scheme of recess work submitted to the Survey Commissioner.

35. Appendix No. 8 shows the number of maps sent to the Photozinc office and the number of printed maps received during the year. Maps of 282 villages were sent for printing and copies of maps of 35 villages were printed and returned. The charges in connection with this and other miscellaneous work amounted to Rs. 88-13-10 as compared with Rs. 2,462-4-0 in the year 1896-97, or a decrease of Rs. 2,373-7-0.

The total number of forms printed for this survey amounted to 113,700 as compared with 216,615 in the previous year, a decrease of 102,925, due to the reduction of measuring establishments from 1st November 1897. The total cost of the establishment entertained for the above purpose amounted to Rs. 2,791-9-0 against Rs. 4,438-8 in the year previous, showing a decrease of Rs. 1,646-15-0. One thousand four hundred and forty-seven maps were mounted on cloth and supplied to the taluka and village officers. The number of revision tracings supplied to talukas was 491.

36. Appendix Statement No. 9 shows the total expenditure of this survey for the year under report, as compared with that of the preceding year. It amounted to Rs. 71,782, as compared with Rs. 97,877 in the year 1896-97, showing a decrease of Rs. 26,095. All heads except the pay of the Superintendent, contributed to the decrease, which is chiefly due to the reduction in the strength of this survey from 1st November 1897. The increase observable in column 4 is due to the higher rate of pay drawn by Mr. J. McNeill, I. C. S., than that drawn by his predecessors, Messrs. E. Maconochie and C. N. Seddon, I. C. S.

37. In Appendix Statement No. 10 is shown the total cost of the survey since 1851-52 and the average cost of measurement and classification per acre. Taking the area actually measured and classed during the year, the rates work out to Re. 0-4-1 and Re. 0-2-10 per acre, as compared with Re. 0-13-10 and Re. 0-4-7 per acre in the previous year, showing a decrease of Re. 0-9-9 and Re. 0-1-9, respectively, in measuring and in classing. This decrease is ascribed to the larger area dealt with at the revision survey. Including confirmed acres the average cost of measurement was Re. 0-0-1 and of classification Re. 0-0-8 as compared with Re. 0-0-5 and Re. 0-0-11 in 1896-97.

18. Details of advances for the erection of boundary-marks are given below, as required under Government Resolution No. 694., dated 27th January 1891.

Total advance.			Of which recoverable.		Debitable to Government.		
Rs.	a.	p.			Rs.	a.	p.
323	8	6	...		323	8	6

39. During the year under report revision settlement proposals of no taluka were submitted to Government, Mr. J. McNeill having been employed on plague duty in Surat City in addition to the charge of this Survey. The revision proposals for the Chikhli Taluka, submitted by Mr. E. Maconochie in the year 1896-67, have not yet received the sanction of Government. The preparation of akárbands has therefore not been taken in hand, although the period of guarantee expired in 1895-96.

40. The following statement shows the expenditure of this survey for the year under report under each of the heads of (1) Measurement, (2) Classification, (3) Settlement, and (4) Miscellaneous :—

Heads.	Actual Cost.			Rateable proportion of Nos. 5 and 6.			Total Cost.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
1. Measurement	1,383	12	7	567	7	1	1,951	3	8
2. Classification	27,966	8	1	11,466	1	4	39,432	9	5
3. Settlement	11,524	2	9	18,071	8	6	20,595	11	3
4. Miscellaneous	803	0	0	...			803	0	0
Total	41,677	7	5	30,105	0	11	71,782	8	4
5. Deputy Superintendent's salary and expenses of his office	21,067	0	11	...			...
6. Proportion of Survey Commissioner's office and his salary	6,038	0	0	...			...
Total	30,105	0	11	...			...

The expenditure of Rs. 803 under the head of Miscellaneous was incurred in connection with the deputation of 7 subordinates of this survey on plague duty. These men did no work for this survey although they were paid by it. The plague duty lasted continuously from the 8th November 1897 to the 5th May 1898, except in the case of three subordinates who were employed for the periods shown below :—

1 from 1st February to 5th May.

1 from 8th November to 10th March.

1 from 8th November to 30th April.

41. The financial results of the Gujarát Revenue Survey in Khálsa villages since the introduction of the revised rates are tabulated below :—

Collectorate.	Táluka.	Revenue of Government and Alienated Land in		Difference.	Total increase since Settlement.
		The year prior to Settlement.	1897-98.		
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Ahmedabad	Dholka	1,87,766 13 5	2,02,817 5 5	15,050 8 0	2,55,431 2 9
	Dhandhuka	55,225 14 1	71,242 5 0	16,016 11	1,35,392 0 0
	Daskroi	3,34,656 12 6	3,83,421 10 1	48,764 13 7	4,83,926 3 7
	Viramgám	1,63,643 1 0	1,94,502 2 8	30,859 1 8	3,81,583 7 1
	Parántij	1,23,459 14 4	1,25,216 8 10	1,756 10 6	72,151 1 3
	Sánand	1,46,420 5 2	1,48,729 5 0	2,308 15 10	41,959 15 7
	Total	10,11,172 12 6	11,25,929 5 0	1,14,756 8 6	13,20,443 14 3
Kaira	Mátar	2,65,370 7 9	2,70,722 2 8	5,351 10 11	44,147 15 0
	Mehmádad	2,31,417 5 0	2,50,882 14 0	19,465 9 0	89,112 10 0
	Borsad	3,29,080 4 0	3,57,046 15 0	27,966 11 0	64,988 1 0
	Nadiád	3,44,640 14 0	3,77,939 4 2	33,298 6 2	81,406 2 2
	Tházra	2,01,366 2 2	2,12,481 1 0	11,114 14 10	31,333 10 6
	Kapadvánj	1,54,767 12 0	1,54,911 3 0	143 7 0	* 942 13 0
	Anand	3,63,682 2 0	4,03,102 14 0	39,420 12 0	99,066 7 0
	Total	18,90,324 14 11	20,27,086 5 10	1,36,761 6 11	4,10,114 4 8
Surat	Bárdoli	4,22,751 0 0	4,61,497 0 0	38,746 0 0	38,746 0 0
	Chorási	1,98,883 8 9	2,16,553 7 9	17,669 15 0	17,669 15 0
	Total	6,21,634 8 9	6,78,050 7 9	56,415 15 0	56,415 15 0

* Decrease.

42. No Junior Civilian during the year under report was attached to either measuring or classing parties.

43. Arrears of measurement and classification have been made up during the year under report. There, therefore, only remains for completion (under the head of field work) the miscellaneous work noted in this office No. 533, dated 4th July 1898, to the address of the Survey Commissioner. As regards recess work, all arrears of classification, which had accumulated owing to the disarrangement of establishment at head-quarters due to plague, have been made up. Under this head therefore there remain 68 villages of Vágra, 85 of Jambusar, 135 of Godhra, and 56 of Kálol, the field work of which was completed in the fair season of 1897-98, as set forth in this office No. 910, dated 28th October 1898. The work of this survey is within the programme and can be finished during the period estimated.

W. S. COLE,
Deputy Superintendent, Revenue Survey, Gujarát:

PROGRESS REPORT

OF THE

DECCAN REVENUE SURVEY

For the Year ending 31st October 1898.

PROGRESS REPORT OF THE DECCAN REVENUE SURVEY
FOR THE YEAR ENDING 31st OCTOBER 1898.

No. 1356 of 1898.

Camp Devla, District Násik,
17th December 1898.

Changes and Promotions.

Mr. A. Brownlow Fforde, Superintendent, Deccan and Gujarát Revenue Surveys, was the controlling officer of this survey up to 30th June 1898 when the appointment of the Superintendent ceased* to exist and Mr. Fforde reverted to his original appointment of Deputy Superintendent, Deccan Revenue Survey. About a fortnight before his reversion, however, he took charge of the office of the Survey Commissioner and Director, Land Records and Agriculture, under Government Resolution No. 3826, dated 8th June 1898. During this time, he retained charge of the Superintendent's office and, on 30th June in the afternoon, he delivered over charge of the Deputy Superintendent's office to Mr. F. B. Young, Superintendent, Land Records and Agriculture, Central Division, who was appointed to act for him by Government Resolution No. 4145, dated 22nd June 1898. Thus the control of this survey was in the hands of Mr. Fforde during the fair season and in the hands of Mr. Young during the major part of the monsoon.

2. Mr. H. L. Holland having been deputed on plague duty by Government Notification No. 6514—4310-P., dated 23rd November 1897, delivered over charge of his office on 8th November 1897 in the forenoon to Mr. McIver, Assistant Superintendent, Konkan Revenue Survey, who was transferred to this survey, *vice* Mr. Holland, by Government Resolution No. 8523, dated 22nd November 1897.

3. By Government Resolution No. 4246, dated 28th June 1898, Mr. McIver was appointed to act as Assistant Settlement Officer with effect from 8th November 1897.

4. Mr. McIver having been transferred to the Konkan Survey under instructions from the Survey Commissioner and Director, Land Records and Agriculture, communicated by him below Government Resolution No. 4402, dated 29th July 1898, in his No. ^s/₁₂₁₀, dated 4th August 1898, delivered over charge of his office under the same authority to Mr. J. W. Whitcombe, Assistant Superintendent, Marátha States Survey, on 6th August 1898 in the forenoon, retaining charge of his settlement duties in the Deccan Survey.

5. Mr. J. W. Whitcombe was appointed to be sub. *pro tem*. Fourth Grade Assistant Superintendent, Deccan Revenue Survey, by Government Resolution No. 5790, dated 8th September 1898.

6. Mr. Laxuman Vasudeo Bhide, Head Surveyor in charge B Establishment, was promoted from Rs. 100 to Rs. 125 with effect from 1st April 1898 by Survey Commissioner's No. ^s/₅₆₈, dated 19th April 1898. He was allowed 30 days' privilege leave from 22nd May to 20th June 1898 under sanction from the Survey Commissioner and Director, Land Records and Agriculture, contained in his No. ^s/₅₉₀, dated 20th April 1898. During his absence the B Establishment was supervised by Mr. Purshotam Rámchandra Nímándár.

Strength of the Survey and Duration of the Working Season.

7. As last year, there were only two parties at work in this survey, one wholly composed of measurers and the other a mixed party of measurers and classers. They formed a linked party and were supervised by Mr. McIver. During the monsoon of 1896-97, 2 measurers and 2 classers died of cholera and 2 measurers and 1 classer were retired on pension. A few vacancies, which occurred during the previous years, were also not filled up until the year under report. To make up the complement of this survey it was, therefore, necessary to obtain hands from the Gujarát and Konkan Surveys. Accordingly early in the season, 8 men, who had previously worked in this survey, were obtained from the Gujarát Survey, and 3 men from the Konkan Survey. Later on it was found necessary to reinforce the parties in order to keep the work up to the programme of 1896. Eight Circle Inspectors were therefore obtained from the

Letter of Establishment.	Measurers.	Classers.
A ... {	23	...
B ... {	27	...
	12	6
	13	7
Total ... {	35	6
	40	7

N.B.—The upper line of figures refers to the preceding year.

Collector of Khándesh in March and 2 from the Collector of Násik in April. Of the men from the Gujarát Survey 7 were put on measurement work and 1 was employed as a classer. The 8 Circle Inspectors received from the Collector of Khándesh did measurement work and the 2 obtained from the Collector of Násik assisted in classification. Two Circle Inspectors out of those employed on measurement work absented themselves from duty on plea of ill health almost from the beginning, and consequently were not of much use. The total strength of the survey, after the additions and subtractions noted above, stands as detailed in the margin.

8. The recess work was closed in Poona on 23rd October 1897, and the field work was commenced on 2nd November 1897. The field work was closed on the 5th June by the A Establishment and on the 3rd June 1898 by the B Establishment.

Measuring Operations.

9. During the year under report, there was, in addition to the proper work of measurement, the sub-division work in the unsettled villages of the Nandurbár and Taloda Tálukas of the Khándesh Collectorate. These villages had already been measured and classed; but while their settlement proposals were under discussion, a question arose whether survey numbers, which were considered unmanageably large, should not be sub-divided. Ultimately it was decided that such numbers should be sub-divided. A set of rules was accordingly drawn up under instructions from the Survey Commissioner and Director, Land Records and Agriculture, and work was commenced according to them in anticipation of his approval, which was conveyed in his No. $\frac{8}{331}$, dated 9th March 1898.

One establishment was employed on this work for 3 months from March to May. The principal features of the work were briefly these:—Measurement was necessary where several occupancies were found clubbed together to form one survey number. Where a large survey number in the occupation of one individual had to be sub-divided, much of the work could be accomplished, without recourse to measurement, by means of scale and compass. In no case was Bándhpaháni necessary as demarcation was dispensed with. Each field had, however, to be visited to see if it required sub-division.

As the incorporation of the figures concerning this work with the figures relating to proper measurement would only cause confusion, they have been separately shown in the appendices and have been separately reviewed in paragraphs 20 to 24 below.

Proper Measurement Work.

10. The Kalvan Táluka of the Násik Collectorate still awaited completion, but the villages which remained over lay in the western portion of the táluka. As the loss of time through sickness was inevitable if the establishments had been employed there from the beginning of the season, work was commenced in the eastern portion of the Pimpalner Táluka of the Khándesh Collectorate

where the climate is comparatively healthy. About the middle of January work was commenced in Kalvan. In Pimpalner a total of 71 villages was measured according to revision and in Kalvan 6 villages were measured according to original and 19 according to revision survey.

11. The subjoined table is a précis of Appendix I and contains details as regards average strength, outturn and cost contrasted with the figures of the preceding year:—

Establishment.	Average number of men.	Name of Supervising Officer.	Name of Officer in immediate charge.	MEASURED.			Average Cost per Acre.
				Fields.	Vaslas.	Acres.	
1	2	3	4	5	6	7	8
A	22.40	Mr. J. A. McIver, Acting Assistant Settlement Officer.	Mr. P. B. Phadke, Survey Mámlatdar.	13,301	80,735	114,976	Rs. a. p.
	23.98			11,986	54,817	1,46,594	0 2 3
B	12.28		Mr. Laxuman Vasudeo, Head Surveyor and Mr. Parshotam, Rámchandra, Niutámlar.	6,035	27,800	64,047	0 2 1
	12.55			8,300	51,258	99,955	0 1 9
	34.68		Total for 1896-97 ...	19,336	168,535	179,023	0 2 2
	36.53		Do. 1897-98 ...	20,286	1,06,075	2,46,549	0 1 5
	1.85		Increase ...	950	...	67,526	...
	...		Decrease ...	...	2,460	..	0 0 9

N.B.—The upper line of figures refers to the preceding year.

Last season this branch of the work lost 5 months owing to the deputation of the two Deccan parties to the Konkan districts for 2½ months; during the season under report it lost 3 months of one establishment, i.e., 2 months less than in the previous season, owing to the deputation of the A Establishment on the sub-division work referred to in paragraph 9 above. The average strength is larger by 1.85. Thus the season under report has a two-fold advantage over the previous season. It has increased time and enlarged strength. The outturn is therefore naturally larger; the cost per acre however is less, which is satisfactory. Further evidence of its satisfactoriness is found in the analysis

	1896-97.	1897-98.
	Acres.	Acres
Revision ...	1,79,023	2,38,033
Original ...	...	8,516
Total ...	1,79,023	2,46,549

of the outturn which is given in the margin in contrast with the figures of the previous season. In 1896-97 there was no original survey work at all. In 1897-98 there are 8,516 acres of original survey work. Notwithstanding this, the cost per acre has come down from Re. 0-2-2 to Re 0-1-5. The increased outturn is not, however, the sole cause of the decrease in cost, part of which is also attributable to the reduced rateable proportion of the cost of monsoon examination and of the Superintendent's office expenses. Last year the examination, &c., of 5 months' field work absorbed 5 months of the monsoon. For the year under report 5½ months' field work absorbed 4 months of the monsoon.

12. The A Establishment was in charge of Mr. P. B. Phadke, Survey Mámlatdar, throughout the season. It commenced its work in the Pimpalner Táluka of the Khándesh Col-lectorate. The work was all revision and was done according to Partial system. The villages dealt with were in the eastern portion of the táluka. Forty-six vil-lages were measured in all. The work proceeded westwards. The party remained in Pimpalner till the middle of February; it was then moved to the Nandurbár Táluka for carrying out the special work referred to in paragraph 9 above, which has been separately reviewed in paragraphs 20 @ 24 below. The follow-ing remarks are therefore confined to the time for which the party was in Pimpalner. The average strength has increased by 1.58, three men of those obtained from the Gujarát Survey having been enlisted in this party, though only 2 vacancies were caused by contingencies detailed in paragraph 7 above. The days under measurement show a decrease of 8.30 per cent. due to the small area of Patastlál lands as compared with that in Kalvan dealt with last year.

There is a small increase of 4.80 per cent. under "Bandh Pahani," due to non-co-operation of the villagers which necessitated revisiting the fields awaiting Bandh Pahani. Under "Villagers not co-operating" an increase of 3.55 per cent. is noticeable, due to negligence on the part of the Mámlatdár of the táluka, who in the early part of the season failed to take any steps to remove the hindrance repeatedly brought to his notice. The loss of time under "Travelling" shows a considerable reduction, being 4.53 against 7.55 of the last year, obviously for the reason that the journey to the scene of operations was much shorter. The head "Leave and holidays" shows a small increase, which is accounted for by the necessity to grant more leave on urgent private affairs. Other heads show minor differences and call for no comment. The working days show a reduction of 3.58 per cent., but, as explained above, the loss of time was unavoidable. The cost per acre has decreased by 1 anna.

13. The B Establishment was under the immediate supervision of Mr. Laxuman Vasudev Bhide, Head Surveyor, except that towards the end of May he was granted privilege leave, when the establishment was under the supervision of Mr. Purshotam Ramchandra, Nimtandár. It commenced work in Pimpalner simultaneously with the A Establishment. The work it did in this táluka was all revision and according to Partial system. The average strength of the establishment is practically the same as that of last year. In all, 25 villages were measured by the establishment while in Pimpalner. As it was necessary to complete the Kalvan Táluka before the end of the season under report, the establishment was moved to that táluka about the middle of January. Here it completed all the villages which stood over from the previous season. Six villages were measured according to original and 19 villages according to revision survey. As in Pimpalner, the revision work in this táluka was carried out according to Partial system. The increase of 4.50 in the days under measurement is due to the survey work done during a part of the season being original. The decrease of 3.38 under "Bandh Pahani" is attributable to the discontinuance of the practice of putting up intermediate mounds for reasons communicated to the Survey Commissioner and Director, Land Records and Agriculture, in this office No. 183, dated 23rd February 1898. The figures under "Sickness," "Villagers not co-operating," "Travelling" and "Leave and holidays" all alike show less time lost to work. "In-door work" exhibits an increase, but this was due to the original survey work. The working days of the season show an increase of 3.62 per cent., which is satisfactory. The cost per acre has decreased by 4 pies, which is a smaller decrease than that observable under the A Establishment. The difference is attributable to the original survey work done by the B Establishment.

14. The percentage distribution of working and non-working days for the seasons of 1896-97 and 1897-98 has been tabulated below for the sake of comparison.

				1896-97.	1897-98.
<i>Working Days.</i>					
Measuring	...	...	...	19.52	17.62
Boundary-mark inspection	...	...	...	50.44	51.15
Measurement of boundary disputes, &c.	...	...	...	5.18	4.90
In-door work	...	...	...	1.89	3.37
Total				77.03	77.04
<i>Non-working Days.</i>					
Sickness	...	...	...	5.68	5.09
Villagers not co-operating	...	...	...	2.11	3.77
Rain	...	...	...	...	0.87
Travelling	...	...	...	8.67	6.38
Leave and holidays	...	...	...	6.51	6.85
Total				22.97	22.96

From this it will be seen that the proportion of working and non-working days for the season under report is almost identical with that of the preceding season. For an explanation of the important decreases and increases under the two heads named above, a perusal of the detailed review of the A and B Establishments is requested.

Test of Measurement.

15. The test of measurement of every kind was duly completed, except in Pimpalner, where, owing to the sudden departure of the Survey Mámlatdár to the Nandurbár Táluka, 10 villages remained untested by him and consequently by Mr. McIver, Supervising Officer. These arrears of test will be disposed of during the current season. The details of test taken are given in the subjoined statement. They concern only the Kalvan and Pimpalner tálukas :—

Establishment.	Name of Officer.	Fields.	Vaslas.	Acres.	Average Vaslas per field.	Average acres per field.	Average difference between original measurement and test per cent.	Percentages of Test:		
								Fields.	Vaslas.	Acres.
1	2	3	4	5	6	7	8	9	10	11
A	<i>Ordinary Test.</i>							A. g.		
	Mr. J. A. McIver, Acting Assistant Settlement Officer ...	3	19	10	6	3	0 30	0.4	0.4	0.4
	Mr. P. B. Phadke, Survey Mám- latdár ...	105	646	398	6	4	0 25	12.4	13.4	16.0
	Total ...	108	665	408	6	4	0 25	12.8	13.8	16.4
B	Mr. J. A. McIver, Acting Assistant Settlement Officer ...	9	58	43	6	5	1 0	0.6	0.4	0.5
	Mr. Laxuman Vasudeo, Head Surveyor ...	20	147	142	7	7	0 22	1.4	1.1	1.6
	Mr. Purshotam Ramchandra, Nim- tandár ...	136	874	749	6	6	0 28	9.6	6.3	8.3
	Total ...	165	1,079	934	7	6	0 27	11.6	7.8	10.4
Grand Total ...		273	1,744	1,342	6	5	0 28	12.1	9.3	11.7
A	<i>Superior Test.</i>							On work done by the Survey Mámlatdár.		
	Mr. J. A. McIver, Acting Assistant Settlement Officer ...	14	72	50	5	4	0 34	13.3	11.1	12.6
								On work done by the Head Surveyor and Nimtandár.		
	Do. do. ...	20	101	72	5	4	0 21	12.8	9.9	8.1
Total ...		34	173	122	5	4	0 29	13.0	10.4	9.5

It will be seen from the above that the test taken by the Supervising Officer both superior and ordinary, is sufficient. The Survey Mámlatdár's test is over and above the prescribed limit. The Head Surveyor having had to take all classification test, was given the assistance of a Nimtandár. The combined tests of these officers also give the required percentage.

16. The differences found at test will be found recorded in the Appendix noted in the margin. The number of fields tested is 307. Of these, the difference in area of 298 fields, or 97 per cent. falls within the limit of 3 per cent. Only nine fields exceed that limit. One of these was due to carelessness for which the offending measurer was punished. The smallness of the fields accounts for the remaining 8 differences. All errors discovered were corrected.

17. In the following table is shown the amount of test taken of the boundary-mark inspection contrasted with the figures of the previous season :—

Estab- lishment	Name of Supervising Officer.	Name of Officer in immediate charge.	Fields.	A cres.
1	2	3	4	5
A }	Mr. J. A. McIver, Acting Assistant Settlement Officer.	Mr. P. B. Phadke, Survey Mámlatdár {	1,358 1,210	8,305 11,442
		Mr. Laxuman Vasudev, Head Surveyor. {	685	4,701
B }		Mr. Purshotam Ramchandra, Nimtandar {	976	6,794
		Total ... {	2,043 2,186	13,066 18,236

N. B.—The upper line of figures refers to the preceding year.

This test is independent of the test of the boundary-marks inspection which forms the concomitant part of the test of measurement, and was carried out as required by rules by the testing officers concerned.

18. Boundary-marks were erected and inspected in all the 96 villages measured during the season. In 94 villages marks were put up by the villagers themselves and in 2 only had they to be erected by the employment of hired labour. All boundary-marks accounts were completed and sent to the Superintendent before the close of the year.

Appendix III.

19. The monsoon examination of all the villages was punctually completed.

Sub-division work.

20. As observed in paragraph 12 above the A Establishment was employed on this work in Nandurbár and Taloda from March to May 1898. 182* villages were to be dealt with and all work was to be finished before the close of the season. As it was feared that the establishment if unaided would find it difficult to finish the allotted work within the prescribed time, eight Circle Inspectors were obtained from the Collector of Khándesh. The average strength, total outturn and cost per acre are given below :—

* 66 Nawapur (Petha).
82 Nandurbár.
34 Taloda.

182

Average strength.	Outturn acres.	Cost per acre. Rs. a. p.
30.73	326,995	0 0 5

The cost is as might be expected from the nature of the work.

21. From the following statement will be seen the proportion of working and non-working days :—

<i>Working Days.</i>		Percentages.
Measuring ... ..	...	46.77
Field to field inspection referred to in para- graph 9 above ... ..	...	26.54
Measurement of boundary disputes, &c. ... ..	...	...
In-door work ... ..	...	0.31
Total ...	73.62	
<i>Non-working Days.</i>		
Sickness ... ..	...	5.21
Villagers not co-operating ... ..	...	0.67
Rain ... ..	...	...
Travelling ... ..	...	12.82
Leave and holidays ... ..	...	7.68
Total ...	26.38	

The proportion of 73·62 working days to 26·38 non-working days is satisfactory, considering the tract worked in. "Travelling" shows a high percentage, but that is partly due to the journey from Pimpalner to Nandurbār and thence on to Taloda and partly to the loss of time in travelling from village to village, which was considerable, the villages dealt with being numerous.

22. The test taken is detailed below :—

Establishment.	Name of Officer.	Fields.	Vaslas.	Acres.	Average vaslas per field.	Average acres per field.	Average difference between original measurement and test per cent.	Percentages of Test.		
								Fields.	Vaslas.	Acres.
1	2	3	4	5	6	7	8	9	10	11
A.	Mr. P. B. Phadke, Survey Māmlatdār.	151	367	740	2	5	A. g. 0 35	19·2	18·2	17·1

It will be seen that the test is very much in excess of the prescribed limit, but this was unavoidable as some test had to be taken in every village whatever the amount of work done in it by the measurer. As the work was simple and the supervising officer could not be spared, his presence being indispensable in Kalvan, the testing work was solely entrusted to the Survey Māmlatdār. Consequently there is no supervising test on this work. Mr. Phadke worked energetically while employed on the sub-division work.

23. The differences found at test have been detailed in Appendix II. Out of the 151 fields tested the difference in only 6 exceeds 3 per cent.; that of other fields falls within the 3 per cent. limit.

Appendix II.

Appendix IV.

24. The monsoon examination of all the villages was completed in time.

Classification.

25. Classification work was done in the Dhulia and Pimpalner Tālukas of the Khándesh Collectorate and in the Kalvan Tāluka of the Násik District.

26. The following statement is an abstract of Appendix V and contrasts the work of the season under report with that of the previous season :—

Establishment.	Average strength.	Name of Supervising Officer.	Name of Officer in immediate charge.	Fields.	Acres.	Average Acres per field.	Average cost per Acre.
1	2	3	4	5	6	7	8
B	5·35	Mr. J. A. McIver, Acting Assistant Settlement Officer.	Mr. Laxuman Vasudev, Head Surveyor.	11,999	139,390	12	Rs. a. p. 0 0 9
	6·99			19,845	212,203	11	0 0 7
	1·64			Increase ...	7,846	72,813	...
	...			Decrease ...	...	...	1 0 0 2

N. B.—The upper line of figures refers to the preceding year.

	1896-97.	1897-98.
Revision ...	121,259	17 13
Original ...	18,131	33,990
Total ...	139,390	212,203

The seasons under contrast are of equal durations. In both there is original and revision survey work, as will be seen from the details noted in the margin; the cost per acre, however, is less by 2 pies due to the area actually classed being less than that of last year.

27. Only a section of the B party consisting of classers was employed on the work of classification. It was supervised by Head Surveyor Laxuman Vasudev. The classers were first moved to the Pimpalner Táluka with the measurers of the establishment. As there were no villages ready for classification at the commencement of the season, the classers had to be employed on measurement work for some time. One man was, however, sent to the Dhulia Táluka to complete the classification of one Inám village which was partly finished in 1891. The classers finished 12 villages while in Pimpalner and then started for Kalvan about the middle of December. The classer employed in Dhulia after finishing his village went to Pimpalner and after working there for some time moved with the rest to Kalvan. The classers were withdrawn from Pimpalner, as the Kalvan Táluka was to be completed before the close of the season. In Kalvan 122 villages were classed, 14 according to original and 108 according to revision survey. The revision work was conducted according to Partial system. The average strength shows an increase of 1.64 due in part to the employment for some days on classification work of some of the measurers who knew classification and in part to the two Circle Inspectors obtained in April from the Collector of Násik to assist in classification. The days under "Classification" show a reduction of 13.50 per cent., as in the western portion of the táluka where the classers were employed, there was less Pátasthal area and consequently less actual classification work. "Measurement of boundary disputes, testing, &c.," exhibits an increase of 5.49, attributable in part to the necessity of giving Mr. McIver the assistance of a classer for some days for testing purposes as he was new to the Deccan system of classification, and in part to the increased amount of work in connection with the enquiries as to the condition of Bandháras which were numerous in the tract dealt with. The increase of 1.92 under "In-door work" is explained by the very fact which accounts for the decrease under "Field Classification." The increased loss under "Travelling" (7.20 per cent.) is due chiefly to the time spent *en route* as is apparent from the moves of the classers detailed above and partly to the increased loss of time entailed in travelling from one village to another proportionately to the increase in the number of villages of which work was done. The decrease of 2 pies in the cost per acre has been explained in paragraph 26 above. It must be recorded here that the Head Surveyor showed great energy in completing the Kalvan Táluka.

28. The percentage distribution of working and non-working days is given below in contrast with the figures of the previous season :—

	1896-97.	1897-98.
<i>Working Days.</i>		
Field classification	69.90	56.40
Inspection of boundary-marks, &c. ...	2.23	1.68
Measurement of boundary disputes, testing, &c. ...	2.45	7.94
In-door work	4.99	6.91
Total ...	79.57	72.93
<i>Non-working Days.</i>		
Sickness	5.53	5.41
Villagers not co-operating	1.59	0.84
Rain	0.42	0.0
Travelling	6.62	13.82
Leave and holidays	6.27	7.0
Total ...	20.43	27.07

The working days show a reduction of 6.64 due to the increased amount of travelling explained in the preceding paragraph.

Test of classification.

29. In the following table are detailed the tests taken by the Head Surveyor and Mr. McIver:—

Establishment.	Name of Officer.	Fields.	Acres.	Average acres per field.	AVERAGE DIFFERENCE IN RATE BETWEEN TEST AND ORIGINAL CLASSIFICATION.		PERCENTAGES OF TEST ON WORK DONE BY THE ESTABLISHMENT.	
					Soil.	Water.	Fields.	Acres.
1	2	3	4	5	6	7	8	9
	<i>Ordinary Test.</i>				A. p.	A p.		
B	Mr. J. A. McIver, Acting Assistant Settlement Officer	18	34	2	0 5	0 0	1.0	0.4
	Mr. Laxuman Vasudeo, Head Surveyor	308	1,159	4	0 6	0 2	16.4	12.4
	Total	326	1,193	4	0 6	0 2	17.4	12.8
	<i>Superior Test.</i>							
B	Mr. J. A. McIver, Acting Assistant Settlement Officer	30	68	2	0 6	0 0	9.7	5.9

The Head Surveyor's test concerns Pimpalner as well as Kalvan, while Mr. McIver's test refers to the Kalvan Taluka alone. The supervising test remained in arrears in Pimpalner as Mr. McIver, who was unacquainted with the Deccan system of classification, did not commence testing till he had received instructions from Mr. Fforde, the then Superintendent. The isolated village in Dhulia could not be tested at all as it was very much out of the way.

The test taken by the Head Surveyor is ample. Mr. McIver's supervising test is sufficient as regards numbers, but deficient as regards acres. This is because he confined his test to small numbers. But the selection of small numbers was necessary to make a judicious distribution of test. The large numbers classed consisted chiefly of lands recorded as unculturable at the time of the first survey and their valuation was very low. The small numbers tested were Patasthal numbers and consequently of greater importance. To select in one and the same village small and large numbers was not possible, especially for the reason that in very many villages not more than a single survey number had to be tested by the supervising officer. Small numbers were therefore retested in preference to large numbers.

The arrears of test referred to in paragraph 22 of last year's Progress Report were disposed of in the year under report.

30. The differences between test and original classification have been detailed in the appendix noted in the margin. 376 fields were tested for soil and in 20 only did the difference exceed one class or 2 annas in soil classification. These cases are as usual due to insufficient care in ascertaining the average depth or order of the soil and to the misapplication of the rules. 255 cases were tested for water and the differences found in them were all within one anna. All errors have been corrected after full enquiry.

31. The monsoon examination has been completed of all villages classed during the fair season. The arrears referred to in paragraph 24 of the last year's Progress Report have also been disposed of.

Appendix VI.—Differences found at test.

Appendix VII.—Monsoon examination.

32. Appendix VIII exhibits the progress in the preparation and distribution of maps. During the year under report copies of maps of 339 villages—250 Government, 7 Inám and 82 Jahágir—have been reproduced by photography and distributed as usual. All these maps refer to the villages of which fair maps were sent for printing last year. Maps of 149 villages and Gat books of 383 villages were sent for printing during the year under report, but none have been printed. No maps remained to be sent to the Photozineo Office.

33. Details of outturn of the mapping section are given below :—

(1) Táluka maps prepared by hand	...	...	...	2
(2) Village maps on which boundary-marks have been shown or on which canals, &c., have been plotted	...	...	...	11
(3) Tracings made of village maps	...	...	...	8
(4) Maps mounted on cloth, including those received from Photozineo Office, to be sent to the District and Village Officers	...	...	...	333
(5) Village maps corrected before being sent to be printed	...	...	...	149
(6) Gat books corrected before being sent to be printed	...	...	...	383
(7) Táluka maps coloured for settlement report purposes	...	...	...	9

The total cost of this office was Rs. 1,383-8-10 against Rs. 1,392-7-5 last year.

34. The total cost of this survey for the year under report is shown in Appendix IX under the several heads of expenditure and is compared with that of the previous year. The reasons for decreases and increases under the different heads of expenditure are recorded below :—

1st.—The increase of Rs. 454 under the head of “Pay of Survey Commissioner” is due to the proportional debit to this survey being more this year than in the preceding year.

2nd.—The decrease of Rs. 643 under the head of “Pay of Superintendent” is due to the abolition of the post of Superintendent, Deccan and Gujarát Revenue Surveys, from 1st July, and consequent thereupon to less pay drawn for 4 months by Mr. F. B. Young, who succeeded Mr. Fforde as Deputy Superintendent.

3rd.—The increases of Rs. 318, 3,214 and 492, respectively, under the heads of “Pay of Assistant Superintendents,” “Pay of Establishment” and “Contingencies” are accounted for by the absence of debit made last year to Konkan Survey. A part of the increase under the last head “Contingencies” is also due to the grant of actual expenses to men obtained from the Gujarát Survey for the journey performed by them from Gujarát to the Deccan Districts and to the increased amount of travelling performed by the A. Establishment.

4th.—The increase of Rs. 95 under the head of “Construction of boundary-marks” is due to a larger number of marks erected in waste lands.

There is, on the whole, an increase of Rs. 3,930 in the year's expenditure.

35. In accordance with the orders of Government conveyed in their Resolution No. 694, dated 27th January 1891, the information regarding the expenditure of advances on account of the erection of boundary-marks during the year under report is given below :—

Total advances.	Amount recoverable.	Amount debitable to Government.	Balance for which Wasuli Patraks are not ready.
1	2	3	4
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
220 14 0	112 1 3	168 12 9	.....

36. Details of the expenditure of this survey have been given year by year in the marginally noted appendix from the beginning of the survey down to the year under report. The subjoined statement explains the composition of the figures of expenditure for the year under report shown in the appendix under the heads of Measurement, Classification, Settlement and Miscellaneous :—

No.	Heads.	Actual Cost.	Add—Rateable proportion of Nos. 5 and 6.	Total Cost.	Remarks.
1	2	3	4	5	6
		Rs.	Rs.	Rs.	
1	Measurement ... {	18,012 23,357	6,566 6,908	24,578 30,265	} Rateable proportion of $\frac{1}{2}$ of No. 5.
2	Classification ... {	4,818 5,815	1,756 1,720	6,574 7,535	
3	Settlement ... {	5,453 4,230	15,134 15,174	20,587 19,404	} Half of No. 5 and whole of No. 6.
4	Miscellaneous ... {	6,983 6,169	2,545 1,824	9,528 7,993	
	Total ... {	35,266 39,571	26,001 25,626	61,267 65,197	
5	Superintendent's salary and office expenses. {	21,733 20,904	... ...	... ...
6	Proportion of Survey Commissioner's pay, &c., establishment and contingencies. {	4,268 4,722	... ...	... ...
	Total ... {	26,001 25,626	... ...	... ...
	Grand Total ... {	61,267 65,197	... ...	... ...

N.B.—The upper line of figures refers to the preceding year.

The cost of supervision has been distributed over the several heads mentioned agreeably to the instructions contained in paragraph 6 of Government Resolution No. 7676, dated 4th October 1895. The amount debited to the head of "Miscellaneous," exclusive of the rateable proportion of the cost of supervision, is Rs. 6,169, against Rs. 6,983 last year. The amount is made up as follows :—

	Rs.	a.	p.	Rs.	a.	p.
(1) Head-quarters office, Málegaon ...	...	...	...	1,108	0	10
(2) Head-quarters office, Poona ...	...	6,148	4 9			
Deduct—	Rs.	a.	p.			
Men employed on preparation of—						
(a) Akárbands ...	808	15	7			
(b) Revenue history statements for settlement purposes ...	50	0	0			
(c) Pension papers ...	239	11	0			
			1,098	10	7	
				5,049	10	2
(3) Compensation for dearness of provisions paid to men in the establishments other than the two named above ...				11	5	0
Total ...				6,169	0	0

The grain compensation allowance granted under Government Resolution No. 3976, dated 23rd November 1896, amounts to Rs. 57-14-7 as detailed in the margin. The grant of the allowance was discontinued by Government Resolution No. 1403, dated 28th March 1898 (Financial Department). The amounts noted against items marked			
	Rs.	a.	p.
Head-quarters Office, Málegaon ...	...	...	...
Do. do. Poona ...	46	9	7
Other establishments ...	11	5	0
Total ...	57	14	7

(a), (b), (c) above have been distributed as described in the last year's report.

The increases under "Measurement" and "Classification" are due to the absence of the debit made last year to the Konkan Survey. The expenditure under "Settlement" is less owing to there being less work in connection with the preparation of Akárbands. The decrease under "Miscellaneous" is due to the retirement in January of Mr. Vishnu Balkrishna Ganu, Survey Daftardár, the pay of which post has been reduced from Rs. 90 to Rs. 45.

The average cost per acre for measurement (proper) and classification is, respectively, Re. 0-1-5 and Re. 0-0-7 against Re. 0-2-2 and Re. 0-0-9 of the last year. The combined cost, exclusive of the expenditure on the sub-division work dealt with in the foregoing paragraphs (20 to 24), is thus 2 annas against 2 annas and 11 pies of the last year. Inclusive of it, it comes to 1 anna and 5 pies only.

Settlement.

37. Appendix XI records the progress attained under the three heads—Measurement, Classification and Settlement. During the year under report settlement proposals were submitted as detailed below :—

District.	Táluka.	VILLAGES.				By whom submitted.	Order by which sanctioned.	Whether rates have been introduced.
		Government.		Inám.				
		Revision.	Original.	Revision.	Original.			
1	2	3	4	5	6	7	8	9
Málik ...	Málegaon ...	143	.....	...	...	Mr. Fforde ...	} Not yet sanctioned.	
	Báglan... ..	139	.....	...	...	Do. ...		
	Mándgaon ...	.....	4	...	...	Mr. Melver ...		
	Yeola ...	.....	8	...	...	Do. ...		
	Chándor ...	.....	6	...	...	Do. ...	Government Resolution No. 7161, dated 8th November 1898.	Will be introduced during the current year.
	Peint ... ..	.....	1	...	...	Do. ...	Government Resolution No. 3604, dated 28th May 1898.	Rates introduced.
Poona...	Khed ... ..	.....	1	...	...	Do. ...	Not yet sanctioned.	
Sátára ...	Karád ...	.....	Government lands in 8 Inám villages.	...	...	Mr. Young ...	Survey Commissioner's No. S-1400, dated 14th September 1898.	To be introduced during the current year.
		.....	.....	...	...	Do. ...	Not yet sanctioned.	
		.....	.....	...	Kád in Inám lands in 7 Inám villages.	Do. ...	Survey Commissioner's No. S-1230, dated 8th August 1898.	Do. do.
	Válva ... ..	.....	.....	...	1	Mr. Melver ...	Survey Commissioner's No. S-352, dated 13th March 1898.	Not yet introduced.
Belgaum ...	Khánápur ...	.....	.....	...	6	Do. ...	Survey Commissioner's No. S-362, dated 16th March 1898.	Do. do.
Dhárwár ...	Dhárwár ...	3	.....	...	...	Mr. Young ...	} Not yet sanctioned.	
		Government lands in 1 Inám village.	.....	...	...	Do. ...		
Sholápur ...	Málsiras ...	.....	Government lands in 1 Inám village.	...	...	Do. ...	Government Resolution No. 6903, dated 1st November 1898.	To be introduced during the current year.
Khándesh ...	Cháliggaon ...	.....	.....	2	...	Mr. Melver ...	Survey Commissioner's No. S-805, dated 11th June 1898.	Rates introduced.
	Shirpur ... ..	.....	17	...	...	Mr. Young ...	} Not yet sanctioned.	
Ahmednagar ..	Kopargao ...	.....	3	...	...	Mr. Melver ...		
Miraj State (Junior).	Gudgeri ... ..	.....	.....	15	...	Mr. Young ...	Accepted by the State authorities.	Not yet introduced.

It will be seen from the above that of the settlement reports noted in the

District.	Taluka.	Number of villages.	Government or Inám.
Khándesh ...	Dhulia ...	149	Government.
Nasik ...	Peint ...	1	Do.
Belgaum ...	Khánápur ...	6	Inám.
Khándesh ...	Chálisgaon ...	2	Do.
Sátara ...	Válva ...	1	Do.
	Total ...	159	

statement, 10 refer to entire Government villages and 3 to Government portions of alienated villages. Of the remaining 6, 4 refer to entire alienated villages, one to Kadim Inám lands and one to Jahágir villages. Two reports were submitted by Mr. Fforde, 8 by Mr. Young and 9 by Mr. McIver. As Assistant Settlement Officer,

Mr. McIver examined Akárbands of 159 villages as per details noted in the margin and disposed of 149 Prakarns regarding Kamjasti Patraks, in addition to the settlement reports submitted by him.

38. Of the settlement reports submitted during the previous years, those

Year in which report was submitted.	Name of taluka.	Number of villages.	Whether according to first or Revision Survey.
1895-96 .	Nandurbar ...	146 villages.	First Survey.
Do. ...	Taloda ...	88 do.	Revision.
1896-97 .	Sháháda ...	150 do.	do.
Do. ...	Taloda ...	33 do.	First Survey.

detailed in the margin still await the sanction of Government. Dhulia and Shirpur proposals have been sanctioned, but the rates of the former were not to be given out till the current year under the Government Resolution No. 6068, dated 14th August 1897, and those of Shirpur were sanctioned only by Government Resolution No. 4840, dated 26th July 1898, and were also

not to be introduced till the current year by Government Resolution No. 2273, dated 30th March 1898. Rates were therefore introduced only into the following few villages :—

District.	Taluka.	Number of villages.	Government or Inám.	Revision or First Survey.	Total area.	Government occupied land.	Previous year's collections.	Assessment according to Survey Rates.	Increase.
1	2	3	4	5	6	7	8	9	10
Nasik ...	Peint ...	1	Government.	First Survey.	276	171	24	43	24
Khándesh ...	Sindkhed ...	3	Do. ...	Revision ...	6,878	2,323	534	784	250
	Chálisgaon ...	2	Inám ...	Do. ...	4,351	3,806	2,856	3,745	889

The Peint and Chálisgaon villages are some of those for which proposals were submitted during the year under report. The three villages of Sindkhed are out of the 166 villages, the proposals for which were sanctioned by Government Resolution No. 4452, dated 21st June 1893. As the original guarantee of these three villages had not expired when the rates for the rest of the villages were given out, they necessarily remained over. The increase in Government revenue is Rs. 274 only, which is equivalent to 0·42 per cent. on the total expenditure of the Deccan Revenue Survey.

39. Of the eleven survey subordinates reported last year to have been working in other departments, one has died and two have been appointed Circle Inspectors in the Department of Land Records and Agriculture, one in the Central and one in the Southern Division. There thus remain 8, and they are employed on the establishments noted below :—

	Number of men.
Forest Settlement Office, Khándesh ...	1
Do. Kánara ...	3
Divisional Forest Office, Poona ...	1
Do. Working Plans, N. C. ...	2
Revenue Department ...	1
Total ...	8

All, except the last, who is deputed to the Revenue Department in connection with Amalner-Dharangaon Railway works and who will return to this survey when the deputation ends, are no longer required in this survey. They are only allowed to retain a lien on their respective substantive appointments in this department so long as they are on deputation, on the termination of which they will have to retire on whatever pension they may be entitled to.

40. About the middle of November 1897, Mr. Fforde, Superintendent, Deccan and Gujarát Revenue Surveys, left head-quarters and proceeded to Dharan and Juvál in the Sánand Táluka of the Ahmedabál Collectorate to make local enquiries ordered by the Survey Commissioner and Director, Land Records and Agriculture, in his No. $\frac{8}{1377}$, dated 24th August 1897, in connection with Mr. Setna's lands. When these enquiries were concluded he marched to Broach in the beginning of December 1897 to visit the Bara villages in the Wághra Táluka with Mr. Hearn, Acting Survey Commissioner and Director, Land Records and Agriculture, for the purpose of inspecting certain lands, the re-classification of which was under consideration. About the middle of December he visited the Chikhli Táluka in the Surat District, on settlement proposals for which he had to give his opinion. Towards the end of January, he paid a short visit of inspection to the head-quarters. He then went direct to the Dhulia Táluka and made enquiries as regards waste lands in that táluka. About the middle of February he moved to the Pimpalner Táluka, where survey operations were in progress. After spending about a fortnight there, he passed on with Mr. McIver to Kalvan, where also field work was being carried on. About the middle of April he returned to Poona, his presence being required there to dispose of a reference about certain tálukdári villages in Gujarát. Up to the time he was appointed to act as Survey Commissioner and Director, Land Records and Agriculture, he had no occasion to leave head-quarters. During his stay at the head-quarters some of his time was occupied in conducting the experimental work in connection with the record of rights ordered by the Survey Commissioner and Director, Land Records and Agriculture, to be carried out by him, in his No. $\frac{A}{164}$, dated 5th April 1898. Mr. Young, who succeeded him in July, also had no occasion to go out of Poona up to the close of the monsoon.

41. Before concluding this report, the undersigned should like to draw the

The high percentage of working days, 87 among classers and 89½ among measurers, is most creditable to the management of this Survey, which in this respect is a model to the other three.

Contained in paragraph 59 of Survey Commissioner's Progress Report for the year ending 31st October 1897.

Mr. Whitcombe appears to have been conspicuously successful above all other heads of Surveys in getting work out of his men.

Contained in paragraph 16 of Government Resolution, No. 5788, dated 8th September 1898, on the above report.

attention of the Survey Commissioner and Director, Land Records and Agriculture, to the remarks quoted in the margin contained in the papers noted against them and to point out, so far as this department is concerned, that, in making those remarks, allowance does not seem to

have been made for the tract in which the work of this survey had to be carried on. The Kolhápúr territory in which survey is in progress under the superintendence of Mr. J. C. Whitcombe, Superintendent, Maratha States Survey, has a far healthier climate than the country in which the Deccan survey operations were in progress. This may or may not be the sole cause of his success. The detailed statements of the Marátha States Survey would have enabled the undersigned to ascertain the causes which have contributed to such a satisfactory result, but they have not been furnished. Nothing can therefore be said positively.

Surgána State Survey.

42. Work could not be commenced in this State during the year under report owing to the difficulty of procuring a sufficient number of men for field work on account of the unhealthiness of the climate of the State. About the opening of the field season, only 2 of the 3 measurers who continued last year on the establishment to the close of the fair season, appeared and expressed their

willingness to accept employment in the State, but it was not thought proper to commence work with this poor staff, as such a step was sure to entail expenditure without a corresponding advance in work. It was therefore suggested to the Survey Commissioner and Director, Land Records and Agriculture, that the work in the State should be postponed till the completion of the work in the Deccan or Konkan Survey, when men under notice of discharge might be available to any number.

FRED. YOUNG,
Acting Deputy Superintendent, Deccan Revenue Survey.

PROGRESS REPORT

OF THE

KONKAN REVENUE SURVEY

For the Year ending 31st October 1898.

PROGRESS REPORT OF THE KONKAN REVENUE SURVEY FOR
THE YEAR ENDING 31st OCTOBER 1898.

No. 1456 of 1898.

*Konkan Survey Deputy Superintendent's Office,
Kolába Districts,*

Camp Bhoráv, 16th December 1898.

Changes and Promotions.

Mr. E. H. Hearn, who was Acting Survey Commissioner and Director, Land Records and Agriculture, on the 1st November 1897, continued in that capacity until Mr. J. W. P. Muir-Mackenzie's return on the forenoon of the 15th January 1898, when he reverted to his substantive appointment as Superintendent. Mr. Hearn retired from the service from the 9th April 1898, when the Superintendentship of the survey was abolished, and the department made a Deputy Superintendent's charge.

2. Mr. A. G. Hudson acted as Superintendent, while Mr. Hearn was Acting Survey Commissioner as mentioned in para. 1 above. From the 9th April 1898, when the Superintendentship was abolished, the account branch of that office was taken over by the Survey Commissioner, and the other ordinary duties of the Superintendent were carried on by the Deputy Superintendent.

3. Mr. W. S. Cole, Assistant Superintendent, acted as Deputy Superintendent from 1st November 1897 till 15th January 1898, when he reverted to Assistant Superintendent. Mr. Cole gave over charge of his duties in this survey on the forenoon of the 30th May 1898 and proceeded to Surat to take up his appointment as Deputy Superintendent of the Gujarát Revenue Survey.

4. Mr. W. D. Wilkins, Assistant Superintendent, carried on, in addition to his own duties, the work of Mr. Cole on his transfer to Gujarát. Mr. Wilkins proceeded on three months' privilege leave on the 6th August 1898 and handed over charge of his duties to Mr. J. A. McIver on the 5th August 1898, in the afternoon.

5. Mr. J. A. McIver was appointed to act as Assistant Settlement Officer, Deccan Revenue Survey, and handed over charge of his duties in this survey on the 8th November 1897. He was, however, retransferred to the Konkan Survey as Assistant Settlement Officer on Mr. W. D. Wilkins taking leave as noted in paragraph 4 above.

6. Mr. H. V. Sathe, Assistant Superintendent, was transferred from the Gujarát Revenue Survey on the 6th November 1897.

7. Five Head-Surveyors, viz. Ráo Sáhebs Parsharam Purshotam Gangal, Narayan Govind Agarkar, Waman Chintaman Gangal, Trimbak Pandurang Gangal, and Narayan Bhikaji Belekar, were made to retire on the 5th November 1897. These men were replaced by Nimitandárs Dhondo Narayan Gore, Vishnu Gangádhari Jog, Sakharám Ládoji Mhapankar, Swámirao Jairao Betigiri, and Hari Gopal Mavande. In consequence of the death of Ráo Saheb Anant Narayan Kalamkar, Nimitandár Antaji Laxuman Joshi was appointed in his place on the 3rd November 1897. Rao Sáheb Mahadeo Hari Paranjpe was retransferred to the Revenue Department from the 5th November 1897 and an establishment was then abolished.

8. The continuance of the Phalni Establishment was sanctioned under Government Resolution No. 7434 of the 11th October 1897.

9. Mr. A. G. Hudson was appointed to act as Superintendent, and Mr. W. D. Wilkins as Deputy Superintendent, from the 13th to the 30th June 1898, the promotion being consequent to the appointment of Mr. A. Brownlow Fforde as Acting Survey Commissioner.

Strength of the Survey and Duration of the Working Season.

10. There were 10 establishments, including the Phalni Establishment, employed during the year. As the measurement remaining to be done was all in Dáhánu Táluka and Umbargaon Petha, which are too unhealthy to work in until the middle of the cold weather, it was decided to employ all the establishments on Phalni of Varkas until the 15th of January 1898. But after a short time in Dáhánu it was found that the work to be done there was more than had been anticipated, so the Phalni Establishment was put on ordinary measurement work from the beginning of March 1898 and continued to be thus employed until the end of the season. The average strength of measurers employed on measuring and Phalni work is shown in the table in the margin. The year previous to the one under report, there were 137 measurers and 77

Letter of Establishment.	Number of men employed in measuring.	Number of men employed on Phalni.
1	2	3
A	18	5
B	16	4
C	18	5
D	16	5
E	15	5
F	14	5
G	16	5
H	15	5
I	16	3
Phalni Establishment	8	10
Total ...	147	52

classers employed in this survey in the 11 establishments which then existed. As the K Establishment was reduced from the 1st November 1897, there were only 10 employed in the year under report.

11. The field season commenced, as usual, early in November, and the establishments commenced work on dates varying from the 10th to the 12th November, those which had further to travel being allowed a longer time than the rest. The closing date was nominally the 31st May 1898; but as the Dáhánu Táluka and Umbargaon Petha had to be finished, some men were kept out a few days later to accomplish it.

Measuring Operations.

12. There were no establishments employed in classification because none remained to be done. As stated in paragraph 10 above, 9 establishments were employed on measurement and the Phalni Establishment also from the beginning of March.

13. The amount of Phalni work done will be shown separately. The amount of measurement done by each establishment is shown in the following table, which is an abstract of Statement No. I of the appendices:—

Establishment.	Average number of men.	Name of Supervising Officer.	Name of Head Surveyor, Survey Mámálatdár or Nímtandár in charge of Establishment.	MEASURED.			Average cost of Measurement per acre.
				Fields.	Vasías.	Acres.	
1	2	3	4	5	6	7	8
							Rs. a. p.
A ...	22-26	Mr. W. D. Wilkins ...	Ráo Sáheb Mahadeo Hari Paranjpe, Survey Mámálatdár.	7,423	18,062	27,717	0 9 10
	13-43	Messrs. W. D. Wilkins, and J. A. McIver.	Ráo Sáheb Baburao Yeshvant Nerurkar, Survey Mámálatdár and Nímtandár Ganpat Balaji Jaide.	8,470	35,312	27,392	0 6 11
B ...	...	Was a Classing Establishment.	.....	...	...	...	...
	16-13	Mr. Hari Vinayak Sathe,	Ráo Sáheb Sadashiv Amrut Brahme, Head Surveyor and Nímtandár Ramchandra Anant Nímkar,	11,876	31,090	36,353	0 5 6
C ...	...	Was a Classing Establishment.	.....	...	...	...	...
	17-90	Mr. Hari Vinayak Sathe,	Nímtandár Dhondo Narayan Gore,	9,361	49,733	32,304	0 6 3
D ...	23-35	Mr. W. D. Wilkins ...	Ráo Sáheb Trimbak Pandurang Gangal, Head Surveyor.	9,076	7,859	45,426	0 5 6
	15-72	Messrs. W. D. Wilkins and J. A. McIver ...	Nímtandárs Vishnu Gangadhar Jog and Vishwanath Narayan Dhamankar.	11,510	34,225	27,675	0 6 3

Establishment.	Average number of men.	Name of Supervising Officer.	Name of Head Surveyor, Survey Mámíatdár or Nímtandár in charge of Establishment.	MEASURED.			Average cost of Measurement per acre.
				Fields.	Vaslás.	Acres.	
1	2	3	4	5	6	7	8
							Rs. a. p.
E ...	24-83	Mr. J. A. McIver ...	Ráo Sáheb Baburav Yeshwant Nerurkar, Survey Mámíatdár.	10,601	47,180	36,691	0 7 7
	15-07	Messrs. A. G. Hudson and Hari Vinayak Sathe.	Ráo Sáheb Gangadhar Vasudeo Joshi, Head Surveyor.	4,236	22,535	16,687	0 10 4
F ...	21-95	Mr. J. A. McIver ...	Ráo Sáheb Anant Narayan Kalamkar, Head Surveyor.	10,579	18,275	35,467	0 6 6
	14-36	Messrs. W. S. Cole, W. D. Wilkins and J. A. McIver.	Nímtandár Antaji Laxuman Joshi.	16,136	11,429	30,904	0 5 10
G ...	22-68	Mr. W. D. Wilkins ...	Ráo Sáheb Narayan Bhikaji Belekár, Head Surveyor.	6,647	30,813	70,252	0 3 3
	16-29	Messrs. W. D. Wilkins and J. A. McIver.	Nímtandár Sakháram Ladoji Mhapankar.	12,698	45,673	32,683	0 5 4
H ...	24-03	Mr. J. A. McIver ...	Ráo Sáheb Waman Chintaman Gangul, Head Surveyor.	9,233	11,493	37,497	0 6 4
	14-71	Messrs. W. S. Cole, W. D. Wilkins and J. A. McIver.	Nímtandár Swamirao Jairao Betgiri.	6,172	36,779	22,712	0 6 9
I ...	...	Was Classing Establishment.	.....	...	...	...	...
	15-84	Messrs. W. S. Cole, W. D. Wilkins and J. A. McIver.	Nímtandár, Hari Gopal Mavande.	5,430	30,970	26,334	0 6 1
Phálni	...	Was employed on Phálni.	.....	...	...	...	...
	8-18	The Superintendent and Deputy Superintendent.	Ráo Sáheb Mankeshwar Gopal Mhaskar, Survey Mámíatdár.	7,228	20,705	19,175	0 4 2
	137-59		Total, for 1896-97 ...	59,559	133,682	253,050	0 5 11
	147-63		Total, for 1897-98 ...	93,147	318,451	272,724	0 6 2
<i>Deccan Survey Establishments.</i>							
A ...	6-09	Mr. H. L. Holland ...	Ráo Sáheb Purshotam Bapuji Phadke, Survey Mámíatdár.	1,714	9,168	4,520	0 10 4
	...	Was not employed in season under report.	.....	...	...	...	...
B ...	6-45	Mr. H. L. Holland ...	Ráo Sáheb Laxuman Vasudeo Bhidé, Head Surveyor.	1,669	1,775	6,744	0 6 5
	...	Was not employed in season under report.	.....	...	...	...	...
	12-54		Total, for 1896-97 ...	3,383	10,943	11,264	0 7 11
	150-14		Grand Total, for 1896-97 ...	56,942	144,625	264,314	0 6 0
	147-63		Grand Total, for 1897-98 ...	93,147	318,451	272,724	0 6 2
	...		Increase ...	36,205	173,826	8,410	0 0 2
	2-51		Decrease ...	...	...	...	...

N. B.—The upper line of figures refers to the preceding year.

14. The result shown in the above statement cannot be compared item for item with the work of the previous season, because in the season under report it was decided that intermediate Burujs on the boundaries of Varkas numbers should not be erected. The old corners of Varkas numbers were merely fixed in accurately, and time which would have been spent in lining out Burujs, was thus saved. It is, however, a matter for congratulation that the number of fields and Vaslás show such large increases, and, taking all the circumstances into consideration, the men employed on the actual work must have worked hard, and those who had the supervision of them must have looked after them closely and got through a large additional amount of test. In 1896-97 two Deccan

parties were employed in the Konkan for two months, and against this we had in the year under report the assistance of the Phalni Establishment for three months.

15. The following table shows the total old survey numbers and Acres which were either measured or confirmed. The figures for the previous season are also given for the sake of comparison :—

Description of Land.	1896-97.				1897-98.			
	CONFIRMED.		REMEASURED.		CONFIRMED.		REMEASURED.	
	Num- bers.	Acres.	Num- bers.	Acres.	Num- bers.	Acres.	Num- bers.	Acres.
1	2	3	4	5	6	7	8	9
Rice, rabi and garden	41,653	23,235	8,487	2,952	71,581	54,099	14,058	35,398
Varkas	1,202	2,340	5,106	141,668	1,381	34,378	5,878	91,635
Forest, &c.	494	94,119	...	...	249	57,214	...	...
Total ...	43,349	1,19,694	13,593	144,620	73,211	145,691	19,936	127,033

The outturn in acres, per chain, during this and the previous season is contrasted below :—

Description.	Years.	MEASURED.		CONFIRMED.	
		Rice, Rabi, Garden.	Varkas.	Rice, Rabi, Garden.	Varkas.
1	2	3	4	5	6
Outturn per chain in acres	1896-97 ...	20	944	155	16
	1897-98 ...	241	623	368	234

Details of actual measurement performed by each establishment will now be given :—

Establishment.	ACTUAL MEASUREMENT.					
	Fields.		Vaslás.		Acres.	
	Rice, Rabi, Garden.	Varkas.	Rice, Rabi, Garden.	Varkas.	Rice, Rabi, Garden.	Varkas.
1	2	3	4	5	6	7
A	2,271	275	35,312	...	7,441	6,614
B	1,485	934	31,090	...	6,225	16,577
C	1,061	51	49,733	...	498	2,058
D	2,513	962	34,225	...	5,802	12,185
E	757	409	22,535	...	2,446	8,263
F	1,696	222	11,429	...	6,445	4,340
G	2,534	1,824	45,673	...	3,923	15,571
H	515	363	36,779	...	1,162	10,997
I	837	441	30,970	...	1,273	10,613
Phalni	389	397	20,705	...	183	4,417
Total ...	14,058	5,878	318,451	...	35,398	91,635

16. The A, D, G Establishments were under the control of Mr. W. D. Wilkins, Assistant Superintendent, and the following is an outline of the manner in which they were employed. Mr. J. A. McIver, Acting Assistant Settlement Officer, supervised these establishments when Mr. Wilkins went on privilege leave.

17. The "A" Establishment commenced Phálni work in Sháhápúr Táluka in the middle of November 1897 and was employed in that way till the middle of January 1898, when it was moved into the North-East corner of Umbargaon Petha until the end of the field season. Ráo Sáheb Baburao Yeshwant Nerurkar, Survey Mámlatdár, was in charge of the establishment. Remarks on the amount of Phálni done will be found under the head of "Phalni." The outturn of measuring operations was 2,271 numbers, 35,312 Vaslās and 7,441 Acres of Rice; and 275 numbers and 6,614 Acres of Varkas. Turning to the number of days employed under the head of in-door work, the year under report shows 8 per cent. against 1 per cent. of the previous year. The reason of this is that in the month of November some men were employed on finishing up classification rain work which the Superintendent ordered should positively be finished. The boundary-mark inspection days have increased from 7 to 10 per cent. Days under other heads do not seem to require explanation.

The work of the establishment is very satisfactory. The cost per acre has decreased 2 annas 11 pies because fewer men than were employed in 1896-97 did almost the same area in Acres. No report as to how Ráo Sáheb Baburao Yeshwant Nerurkar looked after his men has been received from any of the officers who controlled the A Establishment; but the outturn shows that the men must have been carefully looked after, and Mr. Nerurkar is entitled to credit.

18. The "D" Establishment, which was in charge of Nimtandár Vishnu Gangadhar Jog, commenced work in the middle of November in Sháhápúr Táluka, being employed on Phálni until the middle of January. It was then moved into the North of Umbargaon Petha, where it finished the field season in doing ordinary measurement. The outturn is almost the same as that of the "A" Establishment just reported on, and is very satisfactory.

The percentage of measuring days has decreased 11 and that of in-door work increased 7 per cent. because some men were employed in November in finishing rain work which, as in the case of the "A" Establishment, could not be put off till the following recess as the figures were required for Settlement Reports.

The cost per acre has increased 9 pies because though the outturn in numbers has increased, there is a falling off in acres. Although no report as to how Nimtandár Vishnu Gangadhar Jog handled his men has been received, the outturn shows that he must have exercised close supervision and his men worked hard.

19. The "G" Establishment under Nimtandár Sakharam Ládóji Mhapankar worked side by side with the two other establishments under Mr. W. D. Wilkins' control, i.e., from the middle of November till the middle of January it was at work in Sháhápúr Táluka, where it did Phálni work, and on being moved up to the Umbargaon Petha took up some of the villages near the coast in the vicinity of the village Maroli.

The days devoted to measurement have decreased 2 per cent. and those to in-door increased 7 per cent. for reasons similar to those given for the A and D Establishments above. Towards the end of the season it was found necessary to employ a measurer to help the Nimtandár in completing his test. This accounts for the increase in the number of days under this head. The number of travelling days having decreased from 10 to 6 per cent., and Hárvat from 2 to 1 per cent. is satisfactory. More testing had to be done than in the previous year, and it was deemed advisable to complete the test by giving additional assistance in this direction rather than leave it to be done the following season.

The outturn of work by this establishment is larger than that done by any other, and great credit is due to Nimtandár Sakharam Ladoji Mhapankar for the manner in which he kept his men up to the mark. One Circle Inspector was attached to this establishment.

The cost per Acre has increased 2 annas 1 pie per Acre. The previous season the cost was worked out on 41,719 Acres, of which the greater part was Forest, which should not have been entered in the calculation.

20. The measuring operations proper of the B, C, and E Establishments were under the control of Mr. Hari Vinayak Sathe, Assistant Superintendent. Mr. Sathe also controlled the Phálni work of the B and C Establishments; but that of the E was under Mr. A. G. Hudson when Acting Superintendent.

21. The "B" Establishment commenced the season by doing Phálni work in the Sálsette Táluka from the middle of November until the middle of January. It was then moved into a block of villages surrounding Umbargaon. Ráo Sáheb Sadashiv Amrut Brahme was in charge of the establishment. Mr. Sathe remarks that this man did his work to his entire satisfaction. In addition to his ordinary test, he did the classification test of one village in Dáhánu Táluka and of the village Vávra in Mokháda Petha.

As the "B" was a classing establishment in 1896-97, a comparison cannot be made with the measurement work done by it this year. The twenty-one days *Harkat* are higher than in some other establishments; but the other days do not compare unfavourably. As in other establishments, the days for in-door work represent time spent in November in finishing rain work required for Settlement Reports. Five Circle Inspectors, who were recalled from the Agricultural Department, were attached to this establishment in order to ensure the táluka being finished.

The cost per acre was 5 annas 6 pies.

22. The "C" Establishment, in charge of Nimtandár Dhondo Narayan Gore, worked side by side with the "B" Establishment the whole season. The average number of men (17.9) employed is higher than in any other establishments. In order to finish the measurement of Dáhánu Táluka with certainty, 9 Circle Inspectors, recently transferred to the Agricultural Department, were recalled and attached to this establishment. These additional hands necessarily show a larger number of travelling and other days than establishments in which fewer men were employed. There were only seven days *Harkat* in all, which speaks well for supervision exercised. Rain work was done in November by this as by other establishments.

The cost was 6 annas 3 pies per Acre. This was a classing establishment the year previous to that under report.

Mr. Sathe says that Nimtandár Dhondo Narayan Gore worked to his entire satisfaction. The large number of additional men involved additional work, and he was given some assistance in testing at the end of the season.

23. The "E" Establishment was in charge of Ráo Sáheb Gangadhar Vasudev Joshi, Head Surveyor. It commenced Phálni in the South-West corner of Bhiwndi Táluka early in November, and was employed there until the middle of January, when it was put on to measurement work in the South-West corner of Dáhánu Táluka.

This establishment really did more work than would appear by glancing at the figures. Having finished the portion of Dáhánu Táluka allotted to it, some of the men were attached to the "C" Establishment and eight were detailed to the special work of sub-dividing blocks in forest plateau to be given out for cultivation by the Forest Department.

The days devoted to in-door work have increased. The completion in November of rain work required for Settlement purposes accounts for this, and for the proportionate decrease in measurement days. Three men were sick for long periods, which raises the percentage of these days from 4 to 7 per cent. The days spent in travelling to and from forest plateau increases the percentage under this head from 7 to 8.

The cost per Acre was 10 annas 4 pies, or an increase of 2 annas 9 pies on that of the previous year. Some of the men of the establishment having assisted the "C" and their pay having been charged to the "E," the cost was not in reality what it seems to have been.

Mr. Sathe says Head Surveyor Gangadhar Vasudev Joshi worked to his entire satisfaction.

24. The F, H, and I Establishments were under the control of Mr. W. Scott Cole, Assistant Superintendent, until the date of his transfer (towards the end of May) to the Gujarát Survey as Deputy Superintendent. Mr. W. D. Wilkins, Assistant Superintendent, relieved Mr. Cole on his transfer, and thus had the supervising charge of the A, D, G, F, H and I Establishments until he went on privilege leave. Mr. J. A. McIver, Acting Assistant Settlement Officer, in turn relieved Mr. Wilkins.

25. The "F" Establishment was in charge of Nimtandár Antaji Laxuman Joshi. It was employed the first two months of the season in doing Phálni work in Bhiwndi Táluka, and was moved up to Dáhánu Táluka for measurement about the middle of January. As in other establishments reported on above, the increase in the number of days devoted to in-door work is brought about by the completion during November of rain work required for Settlement purposes. The measurement days show a decrease for the same reason.

The distribution of days under other heads does not call for any special remarks.

There is nothing on record to show how the Nimtandár in charge worked, but an examination of the figures leads me to think that Nimtandár Antaji Laxuman Joshi looked after his men carefully.

The cost per Acre has decreased 8 pies.

26. The "H" Establishment, in charge of Nimtandar Swamiráo Jairao Betgiri, worked in the Bhiwndi Táluka on Phálni operations till the middle of January. It was then employed on measurement in Dáhánu Táluka till the end of the field season.

The days devoted to in-door work have increased for the same reason as has already been given for other establishments. Seven men were ill for long periods, so the days under the head of sickness have increased from 1 to 14 per cent.

Comparing the work with that of the F Establishment just reviewed, the 36,779 Vaslas and the additional area of Rice and Varkas measured by the H, indicates that the outturn was about the same.

The cost per Acre was 5 pies more than in the year previous.

There is nothing on record to show how Nimtandár Swamirao Jairao Betgiri looked after his men. Looking at the figures as a whole, they seem to be satisfactory.

27. The "I" Establishment worked side by side with the F and H the whole season. Nimtandár Hari Gopal Mavande was in charge. This establishment was in 1896-97 a classing establishment. The employment of some men on rain work in November will account for the figures entered under the head of in-door work. Three men having been ill for long periods, runs the "Sick" days up to 6 per cent. Nimtandár Hari Gopal Mavande seems to have looked after his men, as far as can be judged from the figures before me; but no opinion has been placed on record to guide me in this direction.

The cost was 6 annas 1 pie per Acre.

28. The Phálni Establishment (which as all the establishments are doing Phálni work is now called the J) was in charge of Ráo Sáheb Mankeshwar Gopal Mhasker, Survey Mámlatdár, the whole season. It began the season by doing Phálni in Kalyán Táluka, and on the completion of that Taluka moved into Bhiwndi Táluka.

As finishing the measurement of Dáhánu Táluka during the season under report was imperative, this establishment was put on to help from the beginning

of March. Four men were sick for long periods, or the percentage (7) under this head would have been less. The outturn of the establishment is less than that of other establishments because it was only employed for three months in measuring; but the distribution of days shows that Ráo Sáheb Mankeshwar Gopal Mhaskar exercised close supervision over his men. The outturn of Phálni done by this establishment will be found elsewhere. Looking at the figures, and knowing the nature of the difficulties met with, I may say that Ráo Sáheb Mankeshwar Gopal Mhaskar got through a deal of hard work. I have found that he readily co-operates in any matter that may be in hand, and I consider him a zealous and useful officer.

29. The following table shows the percentage of working and non-working days for the whole survey. The figures for the previous season are also given:—

						1896-97.	1897-98.
<i>Working Days</i>							
Measuring	...	...	...	...	...	68·10	60·37
Boundary-mark inspection	...	...	...	...	...	8·35	8·09
Measurement of boundary disputes, tests, &c.	...	...	...	...	...	2·55	3·08
In-door work	...	...	...	...	...	1·63	10·14
Total						80·63	81·68
<i>Non-working Days.</i>							
Sickness	...	...	...	...	...	3·60	5·27
Villagers non-co-operating	...	...	...	...	...	0·96	0·44
Rain	...	...	...	...	...	0·14	0·32
Travelling days	...	...	...	...	...	7·27	5·86
Leave and holidays, &c.	...	...	...	...	...	7·40	6·43
Total						19·37	18·32
Grand Total						100.	100.

In the paragraphs reviewing the work of each establishment, it has been pointed out that the days for in-door work have increased because it was absolutely necessary that certain figures required for Settlement work should be finished. This explains the reason of the falling off in measuring days. There is an improvement in the days under the head of non-co-operation on the part of the villagers, travelling, leave and holidays.

30. A table exhibiting the amount of test done by the officers in charge of establishments and Assistants in supervising charge is given below:—

Letter of Establishment.	Name of Supervising Officer.	Name of Head Surveyor, Survey Mámálatdár and Nímálandár.	TEST BY EUROPEAN OFFICERS, HEAD SURVEYORS, SURVEY MAMLATDARS OR NIMTANDARS.					Average difference between Original Measurement and Test. Percentage.
			Fields.	Vasías.	Acres.	Average Vasías per Field.	Average Acres per Field.	
1	2	3	4	5	6	7	8	9
<i>Rice, Rabi and Garden.</i>								
A	Mr. W. D. Wilkins.	Ráo Sáheb Mahadeo Hari Paránjpe, Survey Mámálatdár.	769	560	450.	1	0·6	A. g.
	Messrs. W. D. Wilkins and J. A. Melver.	Ráo Sáheb Baburao Yeshwant Nerurkar, Survey Mámálatdár, and Nímálandár Ganpat Balaji Jaide.	605	264	639	...	1·1	0 1
B	Mr. Hari Vinayak Sáthe.	Ráo Sáheb Sadashiv Amrut Bráhme, Head Surveyor, and Nímálandár Ramchandra Anant Nimkar.	1,126	319	1,418	...	1·3	...

Letter of Establishment.	Name of Supervising Officer.	Name of Head Surveyor, Survey Mámálatdár and Nímtándár.	TEST BY EUROPEAN OFFICERS, HEAD SURVEYORS, SURVEY MÁMLATDÁRS OR NÍMTANDÁRS.					Average difference between Original Measurement and Test, Percentage.
			Fields.	Vasías.	Acres.	Average Vasías per Field.	Average Acres per Field.	
1	2	3	4	5	6	7	8	9
	<i>Rice, Rabi and Garden—continued.</i>							A. g
C	Mr. Hari Vinayak Sathe.	Nímtándár Dhonodi Narayan Gore.	911	1,044	816	1	0.9	...
D	Mr. W. D. Wilkins.	Ráo Sáheb Trimbak Pandurang Gangal, Head Surveyor.	1,057	1,065	724	1	0.7	0 1
	Messrs. W. D. Wilkins and J. A. McIver.	Nímtándárs Vishnu Gangadhar Jog and Vishwanath Narayan Dhamankar.	818	259	563	...	0.7	0 1
E	Mr. J. A. McIver...	Ráo Sáheb Baburao Yeshwant Nerurkar, Survey Mámálatdár.	1,161	1,480	751	1	0.6	...
	Messrs. A. G. Hudson and Hari Vinayak Sathe.	Ráo Sáheb Gangadar Vasudeo Joshi, Head Surveyor.	411	967	679	2	1.7	...
F	Mr. J. A. McIver...	Ráo Sáheb Anant Narayan Kalamkar, Head Surveyor.	1,174	2,355	802	2	0.7	...
	Messrs. W. S. Cole, W. D. Wilkins and J. A. McIver.	Nímtándár Antaji Laxuman Joshi.	1,772	680	1,844	...	1.0	0 11
G	Mr. W. D. Wilkins	Ráo Sáheb Narayan Bhikaji Belekar, Head Surveyor.	670	1,840	408	3	0.6	0 1
	Messrs. W. D. Wilkins and J. A. McIver.	Nímtándár Sakharām Ladoji Mhaponkar.	1,133	1,636	601	1	0.5	...
H	Mr. J. A. McIver.	Ráo Sáheb Vaman Chintaman Gangal, Head Surveyor.	1,056	1,477	526	1	0.5	...
	Messrs. W. S. Cole, W. D. Wilkins and J. A. McIver.	Nímtándár Swamirao Jairao Betgiri.	660	3,064	534	5	0.8	...
I	Messrs. W. S. Cole, W. D. Wilkins and J. A. McIver.	Nímtándár Hari Gopal Mandave.	537	956	639	2	1.2	0 1
Phátni.	The Superintendent and Deputy Superintendent.	Ráo Sáheb Mankeshvar Gopal Mhaskar, Survey Mámálatdár.	456	494	697	1	1.5	...
		Total for 1896-97 ...	5,887	8,777	3,661	1	0.6	0 1
		Total for 1897-98 ...	8,429	9,713	8,430	1	1.0	0 3
<i>Deccan Survey Establishments.</i>								
A	Mr. H. L. Holland.	Ráo Sáheb Purshotam Bapuji Phadke, Survey Mámálatdár.	310	141	246	...	0.8	...
B	Mr. H. L. Holland.	Ráo Sáheb Laxuman Vasudeo Bhide, Head Surveyor.	254	217	185	1	0.7	...
		Total for 1896-97 ...	564	368	431	...	0.8	...
		Total for 1897-98 ...	...	...	...	...	...	...
		Grand Total for 1896-97 ...	6,451	9,135	4,092	1	0.6	0 1
		Grand Total for 1897-98 ...	8,429	9,713	8,430	1	1.0	0 3
<i>Varkas Lands.</i>								
A	Mr. W. D. Wilkins.	Ráo Sáheb Mahadev Hari Paranjpe, Survey Mámálatdár.	89	...	2,141	...	24.0	...
	Messrs. W. D. Wilkins and J. A. McIver.	Ráo Sáheb Baburao Yeshwant Nerurkar, Survey Mámálatdár.	110	...	1,623	...	14.8	...
B	Mr. Hari Vinayak Sathe.	Ráo Sáheb Sadashiv Amrut Brahme, Head Surveyor, and Nímtándár Ramchandra Anant Nimkar.	117	...	1,043	...	8.9	...

Letter of Establishment.	Name Supervising Officer.	Name of Head Surveyor, Survey Mamlatdar or Nimitandars.	TEST BY EUROPEAN OFFICERS, HEAD SURVEYORS, SURVEY MAMLATDARS OR NIMITANDARS.					Average difference between Original Measurement and Test. Percentage.
			Fields.	Varkas.	Acres.	Average Varkas per Field.	Average Acres per Field.	
1	2	3	4	5	6	7	8	9
C	Mr. Hari Vinayak Sathé.	Nimitandars Dhondo Narayan Gore.	79	...	2,625	...	33.2	...
	Mr. W. D. Wilkins.	Rao Sahab Trimbak Pandurang Gangal, Head Surveyor.	107	...	2,709	...	25.32	...
D	Messrs. W. D. Wilkins and J. A. McIver.	Nimitandars Vishnu Gangadhar Jog and Wishwanath Narayan Dhamankar.	117	...	1,633	...	14.0	...
	Mr. J. A. McIver.	Rao Sahab Baburao Yeshwant Nerurkar, Survey Mamlatdar.	147	...	3,067	...	20.80	...
E	Messrs. A. G. Hudson and H. V. Sathé.	Rao Sahab Gangadhar Vasudeo Joshi, Head Surveyor.	104	...	1,219	...	11.7	...
	Mr. J. A. McIver...	Rao Sahab Anant Narayan Kalamkar, Head Surveyor.	148	...	3,704	...	25.03	...
F	Messrs. W. S. Cole, W. D. Wilkins and J. A. McIver.	Nimitandars Antaji Laxuman Joshi.	29	...	580	...	20.0	...
	Mr. W. D. Wilkins.	Rao Sahab Narayan Bhikaji Belekar, Head Surveyor.	129	...	2,947	...	22.84	...
G	Messrs. W. D. Wilkins and J. A. McIver.	Nimitandars Sakharan Ladoji Mahapankar.	185	...	1,614	...	8.7	...
	Mr. J. A. McIver...	Rao Sahab Waman Chintaman Gangal, Head Surveyor.	113	...	2,997	...	26.52	...
H	Messrs. W. S. Cole, W. D. Wilkins and J. A. McIver.	Nimitandars Swamirao Jairao Betgiri.	50	...	1,107	...	22.1	...
	Messrs. W. S. Cole, W. D. Wilkins and J. A. McIver.	Nimitandars Hari Gopal Mavande.	56	...	1,613	...	28.8	...
I	Messrs. W. S. Cole, W. D. Wilkins and J. A. McIver.	Nimitandars Hari Gopal Mavande.	56	...	1,613	...	28.8	...
	The Superintendent and Deputy Superintendent.	Rao Sahab Mankeshwar Gopal Mhaskar, Survey Mamlatdar.	53	...	719	...	13.6	...
Phalgi.		Total for 1896-97	733	...	17,555	...	23.95	...
		Total for 1897-98	900	...	13,776	...	15.3	...
Deccan Survey Establishments.								
A	Mr. H. L. Holland.	Rao Sahab Purshotam Bapuji Phadke, Survey Mamlatdar.	26	...	638	...	24.54	...

B	Mr. H. L. Holland.	Rao Sahab Laxuman Vasudeo Bhide, Head Surveyor.	22	...	734	...	33.36	...

		Total for 1896-97	48	...	1,372	...	28.58	...
		Total for 1897-98	...	...	...	...	...	...
		Grand Total for 1896-97	781	...	18,927	...	24.23	...
		Grand Total for 1897-98	900	...	13,776	...	15.3	...
		Great Grand Total for 1896-97	7,332	9,135	23,019	1	3.13	...
		Great Grand Total for 1897-98	9,329	9,713	22,206	1	2.4	0 1

N.B.—The upper line of figures refers to the preceding year.

31. The table just given shows the amount of test performed. The following table shows the percentage this represents on the work of the establishments:—

Letter of Establishment.	Name of Supervising Officer.	Name of Survey Mamlatdār, Head Surveyor or Nimitandār in charge of Establishment.	PERCENTAGE OF TEST.			
			Rice, Rabi and Garden.		Varkas.	
			Fields.	Acres.	Fields.	Acres.
1	2	3	4	5	6	7
A	Messrs. W. D. Wilkins and J. A. McIver.	Ráo Sáheb Baburao Yeshwant Nerurkar, Survey Mamlatdār, and Nimitandār Ganpat Balaji Jaide.	8	A. g. 4 9	26	A. g. 23 0
B	Mr. Hari Vinayak Sathe ...	Ráo Sáheb Sadashiv Amrut Brahme, Head Surveyor, and Nimitandār Ramchandra Anant Nimkar.	10	9 9	12	6 2
C	Do. ...	Nimitandār Dhondo Narayan Gore.	11	12 4	10	10 9
D	Messrs. W. D. Wilkins and J. A. McIver.	Nimitandars Vishnu Gangadhar Jog, and Vishwanath Narayan Dhamankar.	8	5 4	12	13 4
E	Messrs. A. G. Hudson and H. V. Sathe.	Ráo Sáheb Gangadhar Vasudeo Joshi.	11	12 7	20	13 6
	Messrs. W. S. Cole, W. D. Wilkins and J. A. McIver.	Nimitandār Antaji Laxuman Joshi.	11	12 8	10	10 1
G	Messrs. W. D. Wilkins and J. A. McIver.	Nimitandār Sakharam Ladoji Mhapankar.	10	7 0	10	8 4
H	Messrs. W. S. Cole, W. D. Wilkins and J. A. McIver.	Nimitandār Swamirao Jairao Betgiri.	12	11 8	12	9 8
I	Messrs. W. S. Cole, W. D. Wilkins and J. A. McIver.	Nimitandār Hari Gopal Mavande ...	11	15 7	10	14 4
Phájni.	Superintendent and Deputy Superintendent.	Ráo Sáheb Mankeshwar Gopal Mhaskar, Survey Mamlatdār	7	8 3	11	7 7

The above figures speak for themselves. The tests taken are ample, and when it is remembered that there are a very large number of heads under which tests are required, the difficulty of keeping the figures even is a complicated task.

32. The amount of boundary-mark inspection tests got through is given below :—

Letter of Establishment.	Name of Supervising Officer.	Name of Survey Mamlatdār, Head Surveyor or Nimitandār in charge.	BOUNDARY-MARK INSPECTION.	
			Fields.	Acres.
1	2	3	4	5
A	Messrs. W. D. Wilkins and J. A. McIver.	Ráo Sáheb Baburao Yeshwant Nerurkar, Survey Mamlatdār, and Nimitandār Ganpat Balaji Jaide.	318	1,929
B	Mr. Hari Vinayak Sathe.	Ráo Sáheb Sadashiv Amrut Brahme, Head Surveyor, and Nimitandār Ramchandra Anant Nimkar.	304	1,598
C	Do. ...	Nimitandār Dhondo Narayan Gore ...	401	2,584
D	Messrs. W. D. Wilkins and J. A. McIver.	Nimitandars Vishnu Gangadhar Jog and Vishwanath Narayan Dhamankar.	349	1,836
E	Messrs. A. G. Hudson and H. V. Sathe.	Ráo Sáheb Gangadhar Vasudeo Joshi, Head Surveyor.	195	1,032
F	Messrs. W. S. Cole, W. D. Wilkins and J. A. McIver.	Nimitandār Antaji Laxuman Joshi ...	257	1,560
G	Messrs. W. D. Wilkins and J. A. McIver.	Nimitandār Sakharam Ladoji Mhapankar.	294	1,783
H	Messrs. W. S. Cole, W. D. Wilkins and J. A. McIver.	Nimitandār Swamirao Jairao Betgiri ...	266	1,278
I	Do. do. ...	Nimitandār Hari Gopal Mavande ...	236	1,471
Phájni.	Superintendent and Deputy Superintendent.	Ráo Sáheb Mankeshwar Gopal Mhaskar, Survey Mamlatdār.	173	837

The above seems, on the whole, satisfactory.

33. Statement No. II of the appendices gives the percentage difference between original and test areas for each establishment. Two numbers went into 7 per cent. Only 25 numbers (including the 2 just referred to) went into over 2 per cent. The work of the measurers may thus be said to be very accurate.

34. The state of the boundary-mark accounts is given in Statement III of the appendices. Of the 147 villages measured, boundary-marks were erected by Government Agency in 79, and by the villagers themselves in 68. The boundary-mark accounts of the 79 were completed and sent to you before the close of the year. As usual, boundary-mark accounts of villages in which no money was paid (as in the case of the 68 referred to here) were not made out.

35. The number of villages measured by each establishment, and the proportion of boundary-marks erected by Government Agency and by the villagers themselves is as follows :—

Letter of Establishment.	Total Number of Villages measured.	BOUNDARY-MARK ERECTED BY	
		Villagers.	Hired labour.
1	2	3	4
A	15	13	2
B	19	9	10
C	15	10	5
D	15	9	6
E	17	2	15
F	16	1	15
G	14	5	9
H	13	8	5
I	15	5	8
Phálai	10	6	4
Total ...	147	68	79

The erection of boundary-marks is a part of Survey operations which depends as much on the influence of large landholders and the Revenue authorities as on the measurers themselves. It frequently happens that in villages in which the villagers refuse at first to put up their own boundary-marks, they can be induced to do so with a little persuasion. In the year under report hired labour had to be employed in 79 villages out of 147.

36. The whole of the measurement rain work was finished. Details will be found on Statement IV of the appendices.

Classification.

37. In consequence of plague in the village Chinchni of Dáhanu Táluka in 1896-97, it was decided to leave the village over until the season under report. The total fields in this village were 2,313 and the total area 1,944, while the average cost per Acre was anna 1 and pies 8. The following table will explain details :—

Description of Land.		Fields.	Acres.
1		2	3
Rice		1,582	723
Rabi		277	380
Garden		402	200
Varkas		52	641
Total ...		2,313	1,944

Phálni.

38. The different tálukas in which the establishments carried on Phálni work from the beginning of the season till the middle of January 1898 have already been noted in my remarks against each. The amount of Phálni done by each establishment, the average number of men employed, and the cost per Acre, are given in the following table :—

Letter of Establishment.	Average Strength.	Name of Supervising Officer.	Name of Survey Mamlatdár, Head Surveyor or Nímtandár.	PHÁLNIED.		Average Area per Survey Numbers in Acre.	Average Cost per Acre.
				Fields.	Acres.		
1	2	3	4	5	6	7	8
							Rs. a. p.
A ...	5·01	Mr. W. D. Wilkins.	Ráo Saheb Baburao Yeshwant Nerurkar, Survey Mamlatdár.	9,933	13,325	1·34	0 2 9
D ...	5·09	Do. ...	Nímtandár Vishnu Gangadhar Jog.	11,993	10,604	0·88	0 2 5
G ...	4·68	Do. ...	Nímtandár Sakharám Ladoji Mhapankar.	8,279	14,406	1·74	0 1 10
B ...	3·55	Mr. H. V. Sathe.	Ráo Sáheb Sadashiv Amrut Brahme, Head Surveyor.	13,599	5,404	0·40	0 5 7
C ...	4·80	Do. ...	Nímtandár Dhondo Narayan Gore.	12,688	6,322	0·50	0 4 8
E ...	5·28	Mr. A. G. Hudson.	Ráo Saheb Gangadhar Vasudeo Joshi, Head Surveyor.	12,965	6,517	0·50	0 4 8
F ...	5·21	Mr. W. S. Cole.	Nímtandár Antaji Laxuman Joshi.	13,627	10,634	0·78	0 2 9
H ...	5·0	Do. ...	Nímtandár Swamirao Jairao Betgiri.	6,542	8,175	1·25	0 3 7
I ...	3·43	Do. ...	Nímtandár Hari Gopal Mavande.	5,744	7,337	1·28	0 3 7
Phálni ...	9·94	The Superintendent.	Ráo Sáheb Mankeshwar Gopal Mhaskar, Survey Mamlatdár.	27,311	25,062	0·92	0 2 9
	51·99		Total ...	1,22,681	1,07,786	0·88	0 3 1
	19·69	Outturn by Phálni Establishment in 1896-97. (No others were employed).		65,348	68,834	1·05	0 2 0

In the case of the Phálni Establishment, its outturn up to the end of February is shown. The cost per Acre of the whole Phálni done in the season under report compared with that for the previous year is 3 annas 1 pie against 2 annas. The Phálni Establishment was in 1896-97 under the Superintendent's supervision, and the 2 annas shown as the average cost per Acre does not include a share of that officer's pay; while in the year under report the average cost, for each establishment, includes the share of the pay of the supervising officer.

39. The areas of the different kinds of lands phálnied and the number of pôť numbers or Phálni tukdas dealt with are as follows :—

Letter of Establishment.	Rabi.		Varkas.	
	Pôt Numbers.	Acres.	Phálni Tukdas.	Acres.
1	2	3	4	5
A ...	172	213	9,761	13,112
D ...	69	37	11,924	10,567
G ...	63	185	8,216	14,221
B ...	357	287	13,242	5,117
C ...	1,286	453	11,402	5,869
E ...	590	382	12,375	6,135
F ...	1,216	1,355	12,411	9,279
H ...	653	974	5,889	7,201
I ...	639	914	5,105	6,423
Phálni ...	3,105	3,549	24,206	21,513
Total ...	8,150	8,349	1,14,531	99,437

40. The distribution of days, while the establishments were employed on Phálui, shows the following percentage:—

Letter of Establishment.	Phálui.	Test.	Sickness.	Non-co-operation.	Travelling days.	In-door work.	Leave and other days.	Total.
1	2	3	4	5	6	7	8	9
A ...	69	2	10	1	12	1	5	100
D ...	68	4	4	2	8	3	11	100
G ...	70	4	3	5	7	1	10	100
B ...	66	8	14	...	6	...	6	100
C ...	65	8	6	3	9	...	9	100
E ...	60	8	14	...	7	...	11	100
F ...	73	7	4	2	6	1	7	100
H ...	54	6	22	5	7	...	6	100
I ...	66	9	5	...	10	2	8	100
Phálui	68	6	9	1	4	6	6	100

In the above table the sick days are high in the A, B, E, and H Establishments. Working as the men did early in November, when the heavy dews on long grass wet them, up to the middle every day, it is not surprising that some of them got sick. In the G and H Establishments the days of non-co-operation each show 5 per cent.

41. The distribution of working and non-working days for the whole of the Phálui operations is as follows:—

Working days—			
Phálui ...	...	...	66.42
Tests ...	...	...	5.86
In-door work	...	...	1.90
			74.18
Non-working days—			
Sick ...	...	...	9.09
Villagers not co-operating	...	...	1.86
Rain ...	...	...	...
Travelling	...	...	7.20
Leave and holidays ...	...	...	7.67
			25.82
Total ...			100.00

A comparison with the previous year's work is impossible, because the year under report is the first in which the whole department was put on Phálui work and that only for a portion of the season.

42. The amount of test taken on the work of the men is given in the following tables. The upper table refers to Rábi, the lower to Varkas:—

TEST BY EUROPEAN OFFICERS, SURVEY MÁMLATDÁRS, HEAD SURVEYORS AND NIMTANDÁRS.				Average difference per field between test and original work.
Letter of Establishment.	Fields.	Acres.	Average area of fields tested.	
1	2	3	4	5
	<i>For Rábi.</i>		<i>A. g.</i>	<i>As. p.</i>
A ...	13	3	0.2	0.0
D ...	16	7	0.4	0.
G ...	28	48	1.7	0.
B ...	44	42	1.0	0.2
C ...	149	59	0.4	0.2
E ...	22	15	0.7	0.3
F ...	62	53	0.9	0.0
H ...	57	75	1.3	0.1
I ...	85	131	1.5	0.
Phálui	252	261	1.0	0.
Total ...	728	694	1.0	0.1

Letter of Establishment.				TEST BY EUROPEAN OFFICERS, SURVEY MÁMLATDÁRS, HEAD SURVEYORS AND NIMTANDÁRS.			Average difference per field between test and original work.
				Fields.	Acres.	Average area of fields tested.	
1				2	3	4	5
				<i>For Varkas.</i>		A.G.	a.p.
A	...	...	...	1,041	1,407	1.4	0.0
D	...	...	...	1,438	1,291	0.9	0.2
G	...	...	...	1,299	1,567	1.2	0.0
B	...	...	...	1,891	772	0.4	0.2
C	...	...	...	1,173	650	0.6	0.3
E	...	...	...	1,288	819	0.6	0.4
F	...	...	...	1,582	1,361	0.9	0.2
H	...	...	...	578	882	1.5	0.0
I	...	...	...	646	867	1.3	0.2
Phálai	...	...	...	2,165	2,273	1.0	0.0
Total				13,101	11,889	0.9	0.1
Grand Total				13,829	12,583	0.9	0.1

The total average test on Rabi was 9.0 per cent. of Pôt numbers and 8.3 per cent. of the area; and of Varkas 11.0 per cent. of Phálai Tukdas and 12 per cent. of the area. Of the two combined, 11 per cent. of Pôt numbers and Phálai Tukdas, and 11.7 per cent of their area was tested.

43. The percentage of test taken on the work of each establishment is as follows :—

Letter of Establishment.				RABI.				VARKAS.			
				Work done.		Tested per cent.		Work done.		Tested per cent.	
				Pôt Numbers.	Acres.	Pôt Numbers	Acres.	Phálai Tukdas.	Acres.	Phálai Tukdas.	Acres.
1				2	3	4	5	6	7	8	9
A	...	...	...	172	213	8	1.5	9,721	13,112	11	10.7
D	...	...	...	69	37	23	18.9	11,924	10,567	12	12.2
G	...	...	...	63	185	44	25.9	8,216	14,221	16	11.0
B	...	...	...	357	287	12	14.6	13,242	5,117	14	15.1
C	...	...	...	1,286	453	12	13.0	11,402	5,869	10	11.1
E	...	...	...	590	382	4	3.9	12,375	6,135	10	13.3
F	...	...	...	1,216	1,355	5	3.9	12,411	9,279	13	14.7
H	...	...	...	653	974	9	7.3	5,889	7,201	10	12.2
I	...	...	...	639	914	13	13.3	5,105	6,423	13	13.5
Phálai	...	...	...	3,105	3,549	8	7.4	24,206	21,513	9	10.6
Total				8,150	8,349	9	8.3	114,531	99,437	11	12.0

44. Appendix VI gives details of differences between test and valuations arrived at by the men. In 13,829 fields tested, 60 had a difference of over 2 annas, which gives a percentage of 0.43. The errors discovered at test are, of each establishment, as follows :—

Establishment.				Errors up to 1 anna.	Errors up to 2 annas.	Errors over 3 annas.	Total.
1				2	3	4	5
A	...	...	...	100.0	.....	.....	100.0
D	...	...	...	96.91	2.75	0.34	100.0
G	...	...	...	91.86	7.08	1.06	100.0
B	...	...	...	99.17	0.83	0.00	100.0
C	...	...	...	98.19	1.66	0.15	100.0
E	...	...	...	96.72	2.98	0.30	100.0
F	...	...	...	98.36	0.61	1.03	100.0
H	...	...	...	98.74	0.94	0.32	100.0
I	...	...	...	99.45	0.55	0.00	100.0
Phálai	...	...	...	93.17	6.17	0.66	100.0

Monsoon Recess Work.

45. Appendix VII shows that out of 378 villages, of which the Phálni was done during the field season, the recess examination of 356 was completed. Thus 22 were left over. But the Phálni rain work of 84 villages, and the classification rain work of 242 villages left over from the previous year, was finished, and the measurement rain work of the 147 villages measured during the season under report was also completed. We have, therefore, no arrears of measurement rain work, no arrears of classification rain work, and only the 22 villages just mentioned of Phálni rain work. The bringing up of all these arrears speaks well for all those who had to do it.

46. It will not be out of place here if I give a few figures to show how far the estimate regarding varkas phalni which accompanied Mr. Hearn's letter No. 1140 of 11th August 1897 has been worked up to. The information regarding Kalyán, Bhiwndi and Sálsette can be dealt with; but I will omit Sháhápúr because a large amount of work still remains to be done. Kalyán is finished:—

Name of Táluka.	Units estimated to be remaining.	Units actually found to remain.	How many villages remain.
1	2	3	4
Kalyán	23,200	26,844	Nil.
Sálsette	29,660	38,013	13 villages.
Bhiwndi	91,488	97,070	14 do.

The estimate for Kalyán was about 3,600 units too few. In Sálsette 8,353 more units than were estimated for have been done up to date, and 13 villages remain to be done; while in Bhiwndi some 5,500 more units than estimated have been found, and 14 villages still remain.

47. *Maps.*—Appendix VIII gives details regarding village maps supplied to village officers.

460 village maps were sent to the Government Photozinc Department for reproduction. In the Record Office 63 fair maps and 6 Táluka maps were prepared.

Maps were supplied as follows:—

50 to applicants.
179 to the Forest Department.
455 to the Revenue authorities.

48. Appendix IX gives the cost of the operations for the year under report. There is a decrease in the year's expenditure on account of survey operations (not including Phálni) of Rs. 49,674. The cost of Phálni operations was Rs. 21,029, which, if deducted from the Rs. 49,674, will show a net decrease of Rs. 28,645 during the year under report. There is a decrease of Rs. 10,743 under the head of Assistant's pay for measurement alone, and an increase for Phálni alone of Rs. 3,464. The average of the two is a decrease of Rs. 7,279. The decrease of Rs. 10,743 is explained (1) by the fact that Mr. Sathe, a Fourth Grade Assistant Superintendent, was transferred to the Survey in place of Mr. McIver, who is a First Grade Assistant, (2) by Mr. Cole's transfer to Gujarát from June, which enabled the acting officer to do his own and Mr. Cole's work together. The Rs. 8,275 saved in the pay of the Survey Commissioner is accounted for by Mr. A. Brownlow Fforde having acted Survey Commissioner during Mr. Muir Mackenzie's absence. The savings of Rs. 1,312 under the head of Boundary-marks, Rs. 4,735 in Contingencies, Rs. 23,620 in Establish-

ments are due to Phálni operations for which separate charges are shown. The increases for Phálni are as follows :—

Rs.
7,700 for Establishment.
1,065 for Contingencies.
3,464 for Assistants' pay.
10 for Boundary-marks.

The cost of the whole operations (including Phálni) was Rs. 1,69,502. An item of Rs. 461 for the Bhor State is not included in the above.

49. Appendix X gives the area measured and phálnied, as also the total expenditure and cost per Acre of the operations separately. The total expenditure in British Territory, together with the share of the Survey Commissioner's pay, and that of his establishment distributed under the heads of Measuring, Classing, Settlement, and Miscellaneous, is given below :—

No.	Head of Expenditure.	Annual Cost.	Rateable proportion of Nos. 5 and 6.	Total Cost.
1	2	3	4	5
		Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Measurement	81,154 9 6	24,448 4 6	1,05,602 14 0
2	Classification	155 15 1	47 14 6	203 13 7
3	Settlement ... ..	.....	39,006 6 2	39,006 6 2
4	Miscellaneous	2,520 3 0	1,140 1 10	3,660 4 10
	Total ...	83,830 11 7	64,642 11 0	1,48,473 6 7
5	Superintendent's salary and expenses of his office ...	50,906 11 0		
6	Share of pay of Survey Commissioner and his office ...	13,736 0 0		
	Total ...	64,642 11 0		
	Grand Total ...	1,48,473 6 7		

Grain compensation is included in the above "Miscellaneous" item.

The average cost per Acre of the season's work is as follows :—

Description.	Measurement.	Classification	Total of Columns 1 and 2 including Settlement and Miscellaneous.	Phálni.
1	2	3	4	5
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
For survey in British Territory.	0 6 2	0 1 8	0 7 10	0 3 1

50. The average cost of measuring and classification together per Acre was in—

1895-96	...	...	Annas 9	Pies 4
1896-97	...	...	Do. 7	do. 0
1897-98	...	...	Do. 7	do. 10.

Phálni operations cost in

1895-96	...	...	Do. 1	do. 10
1896-97	...	...	Do. 2	do. 0
1897-98	...	...	Do. 3	do. 1

51. Twenty-four men were lent to other Departments. The work on which they were employed, and the periods for which they were lent, are tabulated below:—

Department in which employed.	No. of men.	PERIOD OF EMPLOYMENT.		Total period of each.
		From	To	
1	2	3	4	5
				Y. m. d.
Agricultural Department in the Kolába District.	1	1st November 1897.	29th April 1898 ...	0 5 28
Partition of estates under the Collector of Ratnágiri.	1	Do. ...	5th November 1897.	0 0 4
	1	Do. ...	Do. ...	0 0 4
	1	Do. ...	Do. ...	0 0 4
	1	Do. ...	Do. ...	0 0 4
	1	Do. ...	31st October 1898 .	1 0 0
	1	Do. ...	Do. ...	1 0 0
	1	Do. ...	Do. ...	1 0 0
	1	Do. ...	Do. ...	1 0 0
	1	Do. ...	Do. ...	1 0 0
Agricultural Department in the Ratnágiri District.	1	Do. ...	Do. ...	1 0 0
Forest Department ...	1	Do. ...	Do. ...	1 0 0
	1	Do. ...	Do. ...	1 0 0
	1	Do. ...	Do. ...	1 0 0
Sávantvádi ...	1	Do. ...	Do. ...	1 0 0
Native States Survey ...	1	Do. ...	Do. ...	1 0 0
	1	Do. ...	Do. ...	1 0 0
	1	Do. ...	Do. ...	1 0 0
	1	Do. ...	Do. ...	1 0 0
	1	Do. ...	Do. ...	1 0 0
	1	Do. ...	Do. ...	1 0 0
Hubli Municipality ...	1	Do. ...	Do. ...	1 0 0
Total ...	24			

The previous year showed 25 men.

Settlement.

52. The progress made in this direction is detailed in Appendix XI.

During the year under report Revision Survey rates were introduced in 88 Government villages of Bassein Táluka of Thána Collectorate, and in 146 Government villages of Roha Táluka of Kolába Collectorate. Sanction to the introduction of these rates was given in the Government Resolutions quoted in the margin. Original Survey rates were introduced in 3 Inám villages of Bassein Táluka, as sanctioned in the Survey Commissioner's endorsement No. ^S₁₉₀₈, dated the 1st July 1898. Original Survey rates were also introduced in 43 Government villages and 6 Inám villages of Pava Maval Táluka of Bhor State, as sanctioned by the Survey Commissioner in his No. ^S₁₃₃₆, dated 17th August 1897.

Bassein.
Government Resolution
No. 3532, dated 25th May
1898.

Roha.
Government Resolution
No. 3825, dated 8th June
1898.

53. The result of the settlements just referred to is given below:—

Collectorate.	Táluka.	Government or Inám.	Original or Revision Survey.	Number of villages.	Former Revenue.	Revised Demand.	Increase.	Decrease.
1	2	3	4	5	6	7	8	9
					Rs.	Rs.	Rs.	Rs.
Thána	Bassein	Government	Revision	88	1,17,590	1,61,303	43,713	...
		Inám	Original	3	639	1,116	477	...
			Total	91	1,18,229	1,62,419	44,190	...
Kolába	Roha	Government	Revision	146	1,05,575	1,20,423	14,848	...
		Inám	...	...	...	...	...	...
			Total	146	1,05,575	1,20,423	14,848	...
		Government	Grand Total	234	2,23,155	2,81,726	58,561	...
		Inám	Do.	3	639	1,116	477	...
Bhor State	Pavan Mával	Government	Original	43	26,465	41,751	15,286	...
		Inám	Do.	6	4,165	5,541	1,376	...
			Total	49	30,630	47,292	16,662	...

During the year under report, proposals for Revision Settlements were submitted for sanction in the tálukas marginally noted. The proposals for Inám villages are the Original Settlement. The settlement reports were all sent in by me. The amount of settlement calculations got through in the Head-Quarter Office has never been equalled before. In addition to working out kacha and pakka akár for the reports just mentioned, alterations in rates of the Vada, Kelva-Máhim, and Bassein Tálukas were calculated. I should like here to acknowledge the sustained energy shown by the Survey Dáftardár, Daji Hari Lele, to whom was entrusted the task of getting through this mass of figures.

54. The expenditure of advances on account of the erection of boundary-marks, and pay of flag-holders and chainmen was as follows:—

Total advances, including previous year's balance.	Amount recoverable.	Amount debitable to Government.	Balance for which Vasuli Pattaks are not ready.
1	2	3	4
Rs.	Rs.	Rs.	Rs.
32,904	19,637	4,757	8,510

Unfinished villages of Phálani are chiefly responsible for the balance shown in column 4; but the Phálani Establishment was ordered to Dáhanu to do measurement in such a sudden manner that the arrears are unavoidable.

55. Ráo Bahádur Datatraya Mahadeo Patvardhan, Deputy Collector, was instructed in measurement by Mr. W. S. Cole, Assistant Superintendent.

56. With the exception of Mr. H. V. Sathe, none of the Assistant Superintendents in charge of linked establishments have placed anything on record regarding the manner in which the Survey Mámlatdárs, Head Surveyors, and Nimtandárs directly in charge of establishments handled their men. As, however, I was in charge of the survey the whole year (except for the $2\frac{1}{2}$ months immediately preceding Mr. Hearn's retirement when he took up his substantive appointment as Superintendent), I should like to express the opinion that, although I could not visit each establishment separately (but only 7 out of the 10), the general impression on my mind was that all must have done well. Finishing the measurement of Dáhanu Táluka and Umbargaon Petha was a very exciting race against time. Men who had been transferred to the Agricultural Department were retransfer-

red to help to finish Dáhanu. These extra hands meant a considerable amount of extra test being thrown on the Survey Mamlatdárs, Head Surveyors and Nímtandárs, all of whom struck me as having worked cheerfully. In the final paragraph of this report, I have said that Mr. Hearn finished the classification testing of villages which it was found impossible to do the previous season. I may here say that while Mr. Hearn did the centre and coast villages, I was employed in testing the classification of villages further inland. But for this, I might have examined the work of the C, D, and F Establishments which would have completed the list.

57. The movements of the Superintendent, and afterwards of the Deputy Superintendent, in charge of the survey during the season under report are as follows. In November Mr. Hudson first visited the "E" Establishment which was working in the South-West corner of Bhiwñdi Taluka. Early in December he moved to the North-East of the same taluka and examined the work of the H and I Establishments, returning before Christmas to the "E" Establishment of which he was then in supervising charge. On the Survey Commissioner's return from special duty in Paris, Mr. Hearn proceeded to Dáhanu Taluka and Umbargaon Petha to finish the classification testing of villages which it was found impossible to do the previous season. Mr. Hearn was employed in this way until his retirement in April. Mr. Hudson then examined the measurement work of the A, B, G, and Phálñi Establishments in Dáhanu Taluka, and on the 25th May proceeded to the Bassein Taluka to give out, before the rains set in, the Revision Settlement rates of the outlying villages in the North-East and South-East of that Taluka. He then proceeded to Headquarters until the 26th June, when he returned once more to the Bassein Taluka to give out the rates in the remaining villages. The introduction of the Revision Settlement rates before 31st July in the Roha Taluka was a still closer race against time than was the completion of the measurement of Dáhanu Taluka. It was, however, successfully accomplished four days before the close of the revenue year. It is to be hoped that the giving out of these rates in the Konkan, during the monsoon, will not be quoted as a precedent for a repetition of the performance. The trip to Roha was about as unpleasant an experience as I have ever had. The rivers being in flood and unbridged, I had a cross-country "wade" through 10 miles of Rice fields between Nagothna and Roha, and the same on the return journey. A word of praise is due to the three Kárkúns who accompanied me on this damp expedition.

A. G. HUDSON,
Deputy Superintendent, Konkan Revenue Survey.

From

THE SURVEY COMMISSIONER AND DIRECTOR,
LAND RECORDS AND AGRICULTURE,

Bombay ;

To

THE UNDER SECRETARY TO GOVERNMENT,

REVENUE DEPARTMENT.

Poona, 28th March 1899.

SIR,

With reference to Government Memorandum No. 2108, dated 22nd instant, I have the honour to submit the accompanying statements called for in clause 1 as also the abstract referred to in clause 2 of paragraph 1 thereof for each of the three different surveys and to make the following observations :—

Gujarát Survey.—It will be seen that not only all the field work outlined in Mr. Ozanne's programme was completed by end of May 1898, but in addition also the Talukdári work in the Panch Maháls, which was proposed to be commenced after 1900 (*vide* Appendix C to Mr. Ozanne's report No. $\frac{8}{1187}$, dated 20th May 1896), was also accomplished. With regard to the recess work not being completed for all the villages of which the field work was done during the year, I beg to invite reference to this office No. $\frac{8}{16}$, dated 5th January 1899, quoted in the preamble of Government Resolution No. 937, dated 6th February 1899. As regards settlement, the delay which has occurred in the submission of the proposals for the Jalálpur Taluka of the Surat District was unavoidable as will be seen from paragraph 18 of my Progress Report for the year ending 31st October 1898, now before Government. They have, however, since been submitted. In the paragraph referred to above of the Progress Report, I have explained the arrangements made for completing this work within the date fixed for closing the work of this survey.

Deccan Survey.—In the programme for the year 1897-98, it was intended to complete the field work in the Kálwan Taluka and to finish as much work in Pimpalner as possible. Kálwan Taluka was finished as estimated, but sufficient progress was not made in Pimpalner owing to men being employed on the sub-division of large numbers in the unsettled villages of the Nandurbár and Taloda Talukas of the Khándesh District. The necessity for this work and the arrangements made to complete the field work remaining in this survey by the prescribed date have been explained in paragraph 23 of my Progress Report under reference. As for settlement it will be seen that considerably more work than was estimated was accomplished. The field operations in the talukas of Málegaon and Báglan of the Násik District were completed in the year 1891-92 and 1895-96, respectively. The original lease in both the talukas, however, expired in the year 1896-97 ; the settlement proposals were accordingly submitted in the year 1897-98. They should have been shown under "Settlement" in the programme for the year 1897-98, but appear to have been inadvertently omitted.

Konkan Survey.—A comparison of the details of the work proposed to be accomplished in the year 1897-98 with that actually accomplished will show that the survey is ahead of the programme under all kinds of work. No further remarks appear therefore called for.

I have the honour to be,

Sir,

Your most obedient Servant;

W. P. SYMONDS,

Acting Survey Commissioner and Director,
Land Records and Agriculture.

STATEMENT No. 1.

*Progress of work in the Gujardt Revenue Survey.*WORK PROPOSED TO BE ACCOMPLISHED IN THE YEARS 1896-97 TO 1899-1900 AS PER
MR. OZANNE'S REPORT NO. 8-1187, DATED 20TH MAY 1896.

WORK ACTUALLY ACCOMPLISHED IN THE YEAR.

District.	Táluka.	Government or Inám.	MEASUREMENT.				CLASSIFICATION.				SETTLEMENT.		Date of Expiry of current Settlement.	District.	Táluka.	Government or Inám.	MEASUREMENT.				CLASSIFICATION.				SETTLEMENT.	
			Field work.		Recess work.		Field work.		Recess work.		Number of Villages.						Field work.		Recess work.		Field work.		Recess work.		Number of Villages.	
			Number of Villages for Original Measurement.	Number of Villages for Revision Measurement.	Number of Villages for Original Measurement.	Number of Villages for Revision Measurement.	Number of Villages for Original Classification.	Number of Villages for Revision Classification.	Number of Villages for Original Classification.	Number of Villages for Revision Classification.	For Original Settlement.	For Revision Settlement.					Number of Villages for Original Measurement.	Number of Villages for Revision Measurement.	Number of Villages for Original Measurement.	Number of Villages for Revision Measurement.	Number of Villages for Original Classification.	Number of Villages for Revision Classification.	Number of Villages for Original Classification.	Number of Villages for Revision Classification.	For Original Settlement.	For Revision Settlement.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	1	2	3	4	5	6	7	8	9	10	11	12	13
Panch Maháls.	Godhra ...	Government	13	135	13	135	...	...	...	...	...	...	...	Surat	Bulsár ...	Government.	...	...	...	...	...	88	...	96	...	...
	Kálol ...		...	56	...	56	...	...	...	...	...	...	...		Párdi ...	Do.	...	...	...	...	...	79	...	79	...	...
	Hálol ...		9	...	9	...	...	...	...	...	...	...	...		Mándvi ...	Do.	...	...	...	...	...	131	...	131	...	...
	Bulsár ...		...	...	...	...	...	97	...	97	...	...	...		Chorási ...	Inám	...	...	...	...	...	...	...	2	...	
Párdi ...	...		...	...	...	...	79	...	79	...	...	...	Chikhli ...		Government.	...	...	...	...	...	...	...	...	...	60	
Surat	Mándvi ...		...	...	...	...	...	149	...	149	...	...	...	Broach	Broach ...	Do.	...	99	...	99	...	*64	...	...	...	...
	Chikhli ...		...	...	...	...	...	...	...	...	...	60	1895-96		Vágra ...	Do.	...	56	...	55	...	*25	...	...	...	...
	Broach ...		...	102	...	102	...	...	...	...	...	...	...		A'mod ...	Do.	...	15	...	†14	...	*50	...	22	...	...
Broach	Vágra ...		...	68	...	68	...	...	...	...	...	...	...		Ankleshvar ...	Do.	...	51	...	†51	...	*55	...	...	...	...
	A'mod ...		...	50	...	50	...	...	...	...	...	...	...	Kaira	Nadiád ...	Inám	...	...	...	...	...	...	...	...	...	1
	Jambusar ...		...	85	...	85	...	...	...	...	...	...	...		Panch Maháls.	Godhra ...	Government.	...	135	...	134	...	...	...	...	...
	Ankleshvar ...		...	102	...	102	...	...	...	...	...	...	...			Kálol ...	Do.	...	56	...	56	...	...	...	...	...

		1897-98.										1897-98.									
Broach...	Amod ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Jambusar ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Broach ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Vagra ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Ankleshvar ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Surat	Jalalpur ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		1898-99.																			
Broach ...	Amod ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Jambusar ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Ankleshvar ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Surat	Bolsar ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Faridi ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Mandvi ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		1899-1900																			
Panch Mahals.	Halol ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Godhra ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kalol ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Broach ...	Vagra ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Amod ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Jambusar ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* Entire re-classification.

Note 1.—The fair maps of the villages marked † and the recess classification work of the villages marked * were not completed during the year ending 31st October 1897.

Note 2.—† These villages are not included in Appendix No. 1 to Gujarat Survey Progress Report.

W. P. SYMONDS,
Acting Survey Commissioner and Director,
Land Records and Agriculture.

STATEMENT No. 1.

Progress of work in the Konkan Revenue Survey.

WORK PROPOSED TO BE ACCOMPLISHED IN THE YEARS 1896-97 TO 1898-99 AS PER
MR. OZANNE'S REPORT No. 8-1187, DATED 20TH MAY 1896.

WORK ACTUALLY ACCOMPLISHED IN THE YEAR.

District.	Taluka.	Government or Inám.	MEASUREMENT.				CLASSIFICATION.				SETTLEMENT.		Date of expiry of current Settlement.	District.	Taluka.	Government or Inám.	MEASUREMENT.				CLASSIFICATION.				SETTLEMENT.			
			Field work.		Recess work.		Field work.		Recess work.		Number of Villages.						Field work.		Recess work.		Field work.		Recess work.		Number of Villages.			
			Number of Villages for Original Measurement.	Number of Villages for Revision Measurement.	Number of Villages for Original Measurement.	Number of Villages for Revision Measurement.	Number of Villages for Original Classification.	Number of Villages for Revision Classification.	Number of Villages for Original Classification.	Number of Villages for Revision Classification.	For Original Settlement.	For Revision Settlement.					Number of Villages for Original Measurement.	Number of Villages for Revision Measurement.	Number of Villages for Original Measurement.	Number of Villages for Revision Measurement.	Number of Villages for Original Classification.	Number of Villages for Revision Classification.	Number of Villages for Original Classification.	Number of Villages for Revision Classification.	For Original Settlement.	For Revision Settlement.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	1	2	3	4	5	6	7	8	9	10	11	12	13		
Thána ...	Dáhanu ...	Government.	1896-97.				...	211	...	211	1893-94.	Kolába ...	Roha ...	Government.	146
	Bassein ...	Do.	...	...	...	...	...	...	...	...	...	88	1891-92.	Mahád ...	Do.	...	22		...	22	...	222	...	248	...	...
	Máhim ...	Do.	...	...	...	...	...	...	...	...	...	188	1892-93.	Mángaon ...	Do.	...	114		...	114	...	226	...	226	...	...
Kolába ...	Mahád ...	Do.	...	22	...	22	...	222	...	248	1891-92.	Thána ...	Bassein ...	Do.	88	
	Mángaon ...	Do.	...	114	...	114	...	226	...	226	1891-92.		Máhim ...	Do.	188	
Thána ...	Dáhanu ...	Government.	1897-98.				...	1	...	1	1893-94.	Thána ...	Dáhanu ...	Government.	...	147	...	147	...	1	...	1
	Váda ...	Do.	...	...	...	...	...	...	...	...	...	137	1889-90.	Sháhápúr ...	Do.	...	...		...	...	...	67	...	46	...	256
	Roha ...	Do.	...	...	...	...	...	...	...	...	...	146	1891-92.	Silsette ...	Do.	...	...		...	...	...	86	...	85	...	...
Thána ...	Sháhápúr ...	Government.	1898-99.				256	1889-90.	Kolába ...	Bhiwandi ...	Do.	186	...	186	...	
	Dáhanu ...	Do.	...	...	...	...	...	...	...	...	...	212	1893-94.	Kalyán ...	Do.		...	...	...	...	...	39	...	39	...	...
	Mángaon ...	Do.	...	...	...	...	...	...	...	...	...	226	1891-92.	Bassein ...	Inám		...	...	...	...	...	...	...	3	...	...
Kolába ...	Mahád ...	Do.	...	...	...	...	...	...	...	...	...	248	1891-92.	Kolába ...	Máhad ...	Government.	...	...	...	...	...	...	...	...	...	248
	Máhid ...	Do.	...	...	...	...	...	...	...	...	...	248	1891-92.		Mángaon ...	Do.	...	...	...	...	...	...	...	...	...	226

NOTE.—The estimate as regards field work is for the year ending 31st October; that for settlement for the financial year ending 31st March.

* Phalni work.

W. P. SYMONDS,
Acting Survey Commissioner and Director,
Land Records and Agriculture.

STATEMENT No. 1.

PROGRESS OF WORK IN THE DECCAN
REVENUE SURVEY.
