

The percentage of area to unoccupied lands has slightly fallen from 36.8 to 36.4 during the year.

3. The area of finally constituted reserved forests in each district is shown in the subjoined statement :—

ABSTRACT C.

Districts.	Prior to 1896-98.	During 1896-98.	During 1896-97.	Total.
<i>Northern Circles.</i>	<i>SQ. MLS.</i>	<i>SQ. MLS.</i>	<i>SQ. MLS.</i>	<i>SQ. MLS.</i>
Udumalpet	138	(a) — 3	(c) — 21	146
Vizagapatam	58	29	49	136
Godavari	521	112	176	810
Kistna	843	(a) — 12	(a) — 11	854
Kurnool	1,787	11	56	1,854
Bellary	360	(a) — 3	(a) — 1	456
Anantapur	389	60	(a) — 3	437
Total ..	3,856	200	310	4,446
<i>Central Circles.</i>				
Cuddapah	1,250	285	(a) — 45	1,576
Nellore	417	19	(a) — 11	637
Chingleput	197	3	3	203
North Arcot	966	(a) — 3	26	1,371
South Arcot	464	(a) — 45	(a) — 16	573
Salem	1,089	(a) — 39	(a) — 6	1,229
Trichinopoly	192	(a) — 1	(a) — 3	189
Tanjore	19	..	(a) — 1	18
Total ..	4,504	512	240	5,846
<i>Southern Circles.</i>				
South Canara	114	..	..	114
North Malabar	161	(a) — 1	..	167
South Malabar	39	..	..	39
The Nilgiris	855	2	1	858
North Coimbatore	859	..	(a) — 1	1,058
South Coimbatore	566	(a) — 85	(a) — 2	654
Madura	542	17	(a) — 8	562
Tinnevely	411	..	(a) — 3	410
Total ..	3,927	110	200	3,347
Grand Total ..	11,466	922	750	12,138

(a) Rectification of area. (b) Rounding off fractions in previous year's returns. (c) Declared unreserved.

The largest addition was in *North Coimbatore*. *Godavari* and *Nellore* come next the major portion of the area in these two districts relates to three blocks which were notified during the preceding year, the reservation of which took effect only during the year under report. In *South Arcot*, which ranks next, the outturn was actually much larger than that shown above, as the reservation of four blocks of 80 square miles which were notified during the year takes effect only from dates falling within the current year. The only other districts in which there were noticeable additions were *Vizagapatam*, *Kurnool* and *Cuddapah*. The sanction of the Government of India for the abandonment of small reserves ordered to be given up under the new forest policy was received for all districts except *Chingleput* and notified during the year. The sanction for the exclusion of the blocks in the *Chingleput* district has since been received. As a result, 172 blocks of 80 square miles were removed from the list of the finally constituted reserved forests during the year.

(ii) Forest Settlements.

4. The progress of forest settlement is exhibited in the following abstract :—

ABSTRACT D.

Circles.	Area brought under Chapter II of the Madras Forest Act.					Area brought under Chapter II of the Madras Forest Act.				
	On 1st July 1896.	Added during 1896-97.	Total.	Balance at the end of the year.	Area notified under section 4, not constituted reserved forests on 1st July 1896.	Added during 1896-97.	Total.	Constituted reserved forest during 1896-97, or other disposal of.	Balance notified under section 4 but not constituted reserved forest on 1st July 1897.	
	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	
Northern Circles	2,454	236	3,250	428	2,319	{ 1,601 (a) + 1	{ 161 (a) + 18	1,774	{ (a) 542 (b) 2 (c) 66 271	{ 1,373
Central	1,787	138	1,925	984	1,813	1,430	186	1,616	{ (a) 9 (b) 78 (c) 14 232	1,244
Southern	2,435	49	2,514	837	2,142	{ 1,702 (a) + 3	{ 55 (a) + 4	1,762	{ (a) 80 (b) 33 (c) 4	1,413
Total	6,676	423	7,643	1,264	5,769	{ 4,733 (a) + 2	{ 419	5,772	1,124	4,030

(a) Rectification of area.
(b) Rectification of area.

(c) Initial notifications cancelled.
(d) By rounding off fractions.

5. The statement in Appendix A shows, districtwise, the total area brought under settlement up to the end of the year, the area constituted reserved forests and the particulars of the balance under settlement on 30th June 1897. The subjoined table compares the number of blocks notified under sections 4 and 16 during the year under report and that of the previous year :—

	1895-96.		1896-97.	
	Number of blocks.	Area.	Number of blocks.	Area.
(1) Areas notified as proposed reserves under section 4 and remaining to be constituted reserved forests at the beginning of the year	756	5,312	541	4,733
(2) Notified under section 4 during the year	(a) 79	(a) 442	(a) 175	(a) 403
Total ..	822	5,772	717	5,136
(3) Declared as finally constituted reserved forest under section 4	135	858	136	845
(4) Declared as finally constituted reserved forest under section 16	(b) 96	(b) 71	(b) 81	(b) 115
Total ..	231	1,069	217	1,134
(5) Areas notified as proposed reserves under section 4 and remaining to be constituted reserved forests at the end of the year	(c) 64	4,733	500	4,039

(a) Rectification of area.
(b) Rectification of area.

(c) Initial notifications cancelled.
(d) By rounding off fractions.

One hundred and twenty-five blocks covering an area of 403 square miles were notified under section 4 against 79 blocks with an extent of 442 square miles in the previous year. The blocks notified in *Kistna*, *Vizagapatam*, *Nellore*, *Trichinopoly*,

Cuddapah and Tanjavur were principally extensions to existing reserved forests; these being naturally small and numerous, explain the decrease in the area and the increase in the number notified. The cancellation of the initial notifications of the blocks, which were ordered to be abandoned in consequence of the change in the forest policy but which awaited publication in the gazette at the end of the previous year, was effected during the year under report, and as a result, 79 blocks with an area of 88 square miles were struck off the lists of blocks pending settlement with Forest Settlement-officers. In South Canara two blocks covering an area of 27 square miles were also cancelled during the year with a view to their being re-notified. One hundred and thirty-six blocks with an extent of 845 square miles were finally constituted reserved forests during the year against 185 blocks of 858 square miles in the previous year.

The particulars of the balance of the area under settlement shown under item (4) above are as follow:—

	1895-96.		1896-97.	
	Number of blocks.	Area.	Number of blocks.	Area.
(1) Notified under section 16 but not constituted reserved forest during the year	21	sq. mls. 311	23	sq. mls. 322
(2) With Board or Government awaiting publication of notification under section 16	117	856	92	662
(3) Returned by Board for revision and remaining either with Collector, District Forest-officer or Forest Settlement-officer.	70	320	28	662
Total settled and reported on	208	1,986	143	1,463
(4) Settled but not reported on	97	732	72	970
(5) Settlement proceeding	238	2,015	246	1,697
Total of (1), (2), (3), (4) and (5)	543	2,747	357	2,877
Total of (1), (2), (3), (4) and (5)	541	4,733	600	4,080

* Includes four blocks of eleven square miles notified during 1896-97, the reservation of which takes effect only during 1897-98.

6. A statement showing the causes of the pendency of the blocks not yet constituted reserved forests is given in Appendix B. Of the 72 blocks comprising 970 square miles shown as settled but not reported on—

- 21 were awaiting preparation of maps.
- 10 do. disposal of appeals.
- 8 do. expiry of time prescribed for appeals.
- 7 do. payment of compensation or exchange of lands.
- 9 do. replies to references made to Collector or Board.
- 17 were pending owing to other causes.

7. Two hundred and eighty-five blocks with an aggregate area of 1,607 square miles were pending with Forest Settlement-officers in various stages of settlement. The following statement compares the results of the present with those of the previous year:—

Date.	Finally notified during the year ending with		Settled and reported on		Under settlement.		Total yet to be reported.	
	Number.	Area.	Number.	Area.	Number.	Area.	Number.	Area.
30th June 1896	185	sq. mls. 868	208	sq. mls. 1,986	232	sq. mls. 2,747	541	sq. mls. 4,733
30th June 1897	136	845	143	1,463	357	2,877	600	4,080

* Blocks notified during 1895-96 in South Canara but taking effect only during 1897-98.

As will be seen from columns 2—5 of the statement, the year's operations fell short of those of the previous year by 118 blocks of 557 square miles. Progress was somewhat retarded by the introduction of new officers for settlement work and by the transfer of settlement records among the several officers concerned.

No material progress was made in the disposal of the blocks of more than ten years' standing in *Ganjol*. Twenty of them remained at the close of the year and the delay in completing their settlement was due to the causes reported last year. It may be noted that besides the five blocks notified, the settlement reports of eight others were pending with the Board. Four of these have since been returned for further revision. In *Chingapalam*, the Sinnivaram block, which was pending with the Government at the close of the previous year, was gazetted as reserved forest. Excepting the eleven small additions of an aggregate area of 2 square miles notified under section 4 during the year in the name of Mr. R. H. L. Lushington, Special Forest Settlement-officer, the settlement work of the reserves originally entrusted to Divisional officers was almost completed in 1895-96. The final notifications have not been published pending decision as to the advisability of the acquisition of certain enclosures and village-sites and the provision of other areas for hill villagers. It is noted that this question has received the full attention of the Conservator during his recent inspection of the forests of the district. In the *Giddari* district seven blocks have been pending for the last seven years, and the submission of final reports therefor awaited survey and mapping which had to be done under the personal supervision of the District Forest-officer and Forest Settlement-officer. The progress in *Kistur*, *Kurnool*, *Bellary*, *Cuddapah*, *Nellore*, *North Arcot*, *South Arcot* and *Madura* was satisfactory. The settlement records of the Palkonda and Wongimilla proposed reserves in the *Cuddapah* district of fourteen and eleven years' standing, which were returned to the Collector during the previous year, were resubmitted to the Board in March last; the publication of the notifications is delayed as the maps have been returned to the Forest Settlement-officer in connection with settlement of extensions to these reserves. The only two old blocks in *Madura* are the *Srbanikotta*, major and minor. The latter was notified under section 16 in two portions, the reservation of one taking effect during the year under report and of the other during the current year. The records of "major" block, which were under scrutiny in the Board's office at the close of the preceding year, were returned to the Collector for further revision, and have not been resubmitted. Little work was done in *Bellary*, *Anantapur* and *Trichinopoly* by the Special Forest Settlement-officers as they were engaged in other districts. In *South Canara* four blocks were notified, but the reservation of these and of four others notified last year was not given effect to during the year, owing to delay in publishing in time the necessary proclamation notices under section 16. The settlement of other blocks was also completed, but the preparation of the final reports has been postponed to the rainy season and the work of perambulation which was in arrears has been undertaken in the interval. Thirty-four of the sixty-one blocks pending in the district were perambulated during the year. The outturn in *South Canara* must be considered satisfactory considering the nature of the country travelled over. In *Salem* it had been decided that in the greater part of the district further reservation was inadvisable. This was prior to the issue of the orders that lands to meet all agricultural requirements should be reserved. To avoid unnecessary reservation and to meet the still later orders prescribing liberal provision of unreserved grazing areas a joint report was obtained from the Collector and Conservator during the year and pending its consideration all reservation operations were suspended. Final orders have since been passed. Some of the reserves, however, have been abandoned and the cancellation of the initial notification of others awaited publication in the gazette. In *North Malabar*, the complicated case of *Barothi Haji's* claim to portions of *Peria* and *Kanoth*, two of the long standing blocks is, notwithstanding the years of litigation and negotiation, still far from settled. Settlement operations in the *Padri* block were completed during the year, but the final notification is pending consideration of a proposal of the District Forest-officer to abandon the block on the ground that it is very much cut up by enclosures. In *South Malabar* the Forest Settlement-officer has been directed to suspend further proceedings in regard to the settlement of all the leased forests as the High Court had decided that all the provisions of chapter II of the Forest Act could not be applied in respect of these lands.

additional areas was held in abeyance in *Salem*. The advisability of bringing under the Forest Act, 43 blocks of about 330 square miles selected in previous years is under consideration by the Collector and the Conservator. Selection work in *Trichinopoly* had already been completed and all the selected blocks except those in the Musiri taluk were notified under section 4 during the year. The blocks in Musiri are undergoing revision. Fifty-three square miles are proposed to be added to the forest area in the *Nilgiris*, about 36 square miles of which appertain to the proposed Wundak Downs reserve in *Todanad*. This block has since been notified under section 4. The remaining areas lie in *Parangmal* and *Wynaad*. In all other districts except *Malabar* nothing more remains to be done. As stated in last year's report proposals for further reservation in *Malabar* have to be postponed pending settlement of the question of jeum right. In paragraph 9 of the Government order reviewing the report for the last year it was remarked that the question of the adequacy of reservation was not discussed by the Board. In some districts the proportion of forest area to the district and unoccupied areas appears low, but the Board considers that extensions in excess of the area in the abstract (which follows) are impracticable if a liberal margin of unreserved land is to be allowed for free grazing, for local requirements and for extension of cultivation. The estimate in the subjoined abstract is, liable to reduction owing to forest settlement operations or other causes :—

ABSTRACT F.

District.	Originally notified estimate of areas for reservation.	Area brought under the Forest Act.	Additional estimated area selected or to be selected.	Total estimated area proposed to be reserved.	Percentage of total area of the district to be reserved.	Percentage of unoccupied area to the total area of the district.
1	2	3	4	5	6	7
Ganjam	82. Mls.	84. Mls.	85. Mls.	85. Mls.	14.62	16.90
Vizagapatam	656	556	85	641	30.18	37.18
Godavari	415	415	..	415	25.46	42.25
Kistna	997	953	37	990	20.72	47.33
Kurnool	1,641	1,164	..	1,164	26.77	52.42
Bellary	2,677	2,331	169	2,500	19.49	45.89
Anantapur	462	626	275	901	11.24	21.38
Cuddapah	526	514	..	514	31.95	44.62
Nellore	2,840	2,360	58	2,418	20.07	43.89
Chingleput	1,132	682	938	1,621	17.04	20.93
North Arcot	231	213	2	216	17.00	42.94
South Arcot	(a) ..	1,174	..	1,174	11.35	23.17
Salem	856	735	..	735	23.69	35.36
Trichinopoly	1,096	1,429	..	1,429	6.72	34.54
Tanjore	(a) ..	297	62	359	11.10	15.67
South Canara	28	18	..	18	14.72	68.35
Malabar	1,011	1,100	..	1,100	31.23	45.53
Nilgiris	(c) 273	602	16	618	19.16	39.83
Coimbatore	(b) 411	(b) 375	53	428	12.19	34.30
Madura	(a) 1,812	2,280	9	2,289	..	..
Tinnevely	(a) ..	621	..	621	..	..
	440	427	8	435	..	..

(a) No definite schemes were formulated and approved for these districts.
(b) Excludes leased forests.
(c) Final schemes were submitted only for the northern division of the district.

11. *Reserved lands not brought under settlement.*—Appendix C shows the extent of these lands in each district. Compared with the previous year there was a net decrease of 218 square miles. Three hundred and eleven square miles were added during the year, but 402 square miles were notified under section 4 and 127 square miles abandoned. The large area abandoned was the result of the latest forest policy and of the instructions given by the Board to Collectors to throw open all areas not to be constituted "reserved forests." Collectors were instructed to proclaim the abandonment of these tracts by notification in the District Gazettees and by beat of tomtom in the villages concerned so that people who were not within reach of the District Gazette might know that the lands not required for forest purposes had been set free for the exercise of communal privileges. Considerable areas have to be notified under section 4 in *South Canara* and *Kistna*. Besides 52 square miles notified during the year in *Kistna*, notifications for about 10 square miles more were pending with the Board or Government at the close of the year. The progress may be considered satisfactory; better results would have been obtained but for the heavy floods in August 1896 and the necessity for preliminary survey in many cases. For the latter work the services of a Surveyor were only available for about three months in the year. Little progress was made during the year in *South Canara* owing to the non-receipt of taluk maps from the Revenue Survey Department. The reserved lands in *Nilgiris* and *Bellary* consist chiefly of leased forests. The delay in notifying the lands in *Vizagapatam* has been explained in paragraph 10 *supra*.

12. *Survey of proposed reserves.*—During the year the Survey of India Party completed the survey of 61.7 square miles of proposed reserves in the *Salem* district—of 3.3 square miles in the *Kurnool* district and of 14.3 square miles in the *Trichinopoly* district. A staff of temporary surveyors and draughtsmen was also entertained in connection with proposals for further reservation. In the *Northern Circle* 189 miles of boundary lines were surveyed in *Ganjam*, of which 184 miles were mapped. Ten blocks comprising an area of 94 square miles were surveyed in *Vizagapatam*. The work in *Godavari* consisted of the survey of three blocks and four enclosures in a proposed reserve and the preparation of maps therefor, besides the survey of a path and the demarcation of three newly-selected areas. The outturn in *Kistna* was only 20 square miles due to the illness of the surveyor and the delay in procuring a qualified substitute. In *Kurnool* the surveyor surveyed two blocks and the enclosures in the eastern Nallamalai blocks and also portions of the North Dhone block. In the *Central Circle* the work was confined to the *Salem* district as reported last year. It consisted mostly of the survey of disputed patta fields on the Kollimalais. Sixteen fields of about 72 acres were surveyed and plotted, in addition to areas specified in ten applications for lands on the Shevaroyis. The surveyor was only entertained during part of the year. In the *Southern Circle* ten blocks covering an area of 60.3 square miles were surveyed in *Madura*. These will be plotted and marked upon the Survey of India maps. In *North Malabar* 31 miles of boundary lines of the Kaneth Survey of India maps were surveyed, while in *South Malabar* the survey of 12 miles of the proposed reserve was effected. In *South Canara* a departmental surveyor chained 117 miles and plan-tabled 16 square miles. He surveyed and mapped in all five reserves with 11 square miles.

The draughtsmen were as usual engaged in preparing or revising sketch-maps to accompany notifications under sections 4 or 16. The outturn of their work in this direction was satisfactory.

13. *Demarcation of proposed reserves.*—The following statement shows the length of boundary lines preliminarily demarcated and the total and the average cost of the work, as compared with the figures of the preceding year.

ANNUAL REPORT OF THE
PRELIMINARY demarcation work.

	During 1895-96.			During 1896-97.		
	Miles.	Cost.	Average cost per mile.	Miles.	Cost.	Average cost per mile.
Northern Circle.						
Ganjém	35	100	2 13 9	161	536	3 3 2
Vizagapatam	114	141	1 2 3	178	178	1 0 0
Górávari	389	2,132	5 4 8	244	897	3 6 10
Kistna	153	416	2 11 8	217	430	1 9 4
Karnool	46	60	1 3 0	23	33	1 4 2
Belary	25	..	..	419	503	1 2 2
Anantapur	..	..	..	..	..	..
Total, Northern Circle	664	2,649	4 0 0	1,193	2,364	1 5 6
Central Circle.						
Cuddapah	115	246	2 1 3	179	279	1 5 5
Nellore	21	108	5 1 3	37	93	2 5 1
Chinglaput	76	123	1 10 11	39	111	2 8 6
North Arcot	105	348	3 3 0	11	26	2 3 6
South do.	223	277	1 2 10	1	8	8 0 0
Balem	..	..	..	..	..	..
Trichinopoly	..	..	..	..	..	..
Tanjore	..	..	..	..	..	..
Total, Central Circle	543	1,097	2 0 0	267	501	1 8 8
Southern Circle.						
South Canara	198	394	1 9 8	30	33	1 1 0
North Malabar	..	..	..	..	..	..
South do.	..	..	..	..	..	..
The Nilgiris	11	79	7 1 1	120	180	1 5 0
North Coimbatore	8	23	2 5 1	24	244	10 1 6
South do.	..	..	..	..	..	..
Madura	56	81	1 2 1	..	..	..
Tinnevely	..	..	..	..	..	..
Total, Southern Circle	273	567	2 0 7	174	387	2 2 2
Grand Total	1,480	4,313	2 5 6	1,634	3,252	1 9 9

(a) Cost of erecting cairns.
(b) Repairs. Besides these, 1,032 miles were cleared free of cost by the subordinate forest establishment.
(c) Half the pay of the establishment employed on demarcation work, the other half being debited to permanent demarcation.

It will be observed from the above that in some districts no work was done during the year, and that in others, in the Central and Southern Circles, the outturn was very small. In these districts either reservation has practically come to a close or the outturn was commensurate with the selected areas on hand. Satisfactory progress was made in those districts of the Northern Circle where there were large areas to be notified under section 4. The outturn in Kistna would have been larger but for the illness of the surveyor and the unavoidable employment of the establishment, which should have undertaken this work upon the collection of grazing revenue. The most noticeable increase occurred in Belary, where a temporary Deputy Ranger was entertained for the conduct of the work.

The average cost per mile in Vizagapatam is higher than that of last year and the increase is ascribed to the incompetency of the temporary foresters who supervised the work and to the employment of special additional establishment on daily wages. The high rate in Trichinopoly is attributed to the dense growth of prickly-pear which had to be removed. The increase in the average rate in North Coimbatore and Tinnevely was justified by the nature of the forests in which the work had to be done.

(iii) Demarcation.
14. There has been no change in the system of permanent demarcation reported in previous years. P. No. 46 shows the work turned out under this head as well as the expenditure incurred under new works and repairs.
The following table presents the length of boundary lines permanently demarcated during the year as compared with the results of the preceding year.

ABSTRACT G.—Demarcation work done during 1895-97.

Perzavul.															
During 1895-96.				During 1896-97.				During 1895-96.				During 1896-97.			
Miles.		Cost in Rs.		Average cost per mile.		Miles.		Cost in Rs.		Average cost per mile.		Miles.		Cost.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Northern Circle.															
Ganjam	27	756	28 0 0	30	888	29 6 0	83	234	28 1 11	187	550	(a)	234	28 1 11	550
Vizagapatam	23	639	27 7 6	13	330	25 6 2	99	100	25 6 2	..	136	(a)	100	25 6 2	136
Ghatwar	135	712	5 4 4	73	474	6 0 0	174	579	6 0 0	313	1330	(b)	579	6 0 0	1330
Kistna	57	927	16 4 3	125	2,354	17 7 6	23	1,720	17 7 6	49	1,844	(d)	1,720	17 7 6	1,844
Karnool	50	410	8 3 2	75	2,391	31 14 1	8	27	31 14 1	(c)	414	(e)	27	31 14 1	414
Belary	449	2,473	5 8 1	135	851	6 3 4	200	486	6 3 4	414	439	(f)	486	6 3 4	439
Anantapur	93	523	5 6 1	62	309	5 0 0	10	69	5 0 0	37	376	(c)	69	5 0 0	376
Total	855	6,450	7 8 8	309	7,088	7 8 8	607	3,486	7 8 8	1,150	4,922		3,486	7 8 8	4,922
Central Circle.															
Cuddapah	221	1,731	7 12 7	(f)	1,346	8 6 8	8	468	8 6 8	..	12		468	8 6 8	12
Nellore	6	55	9 2 8	46	542	11 12 6	15	163	11 12 6	6	25		163	11 12 6	25
Chinglaput	66	2,186	32 5 9	44	1,015	30 11 7	..	97	30 11 7	2	672	(g)	97	30 11 7	672
North Arcot	214	1,608	8 7 2	27	839	12 8 10	86	598	12 8 10	354	1,760	(h)	598	12 8 10	1,760
South Arcot	218	3,892	17 4 7	187	2,972	15 14 3	28	989	15 14 3	24	61	(i)	989	15 14 3	61
Balem	181	894	4 15 0	90	351	3 14 5	591	565	3 14 5	438	944	(j)	565	3 14 5	944
Tamimoyly	216	1,123	5 5 2	79	875	6 6 0	..	290	6 6 0	32	166	(k)	290	6 6 0	166
Tanjore	..	..	..	..	..	..	12	8	..	(c)	222		8	..	..
Total	1,117	11,391	10 8 8	629	7,581	12 0 10	2,834	4,473	12 0 10	1,327	6,037		4,473	12 0 10	6,037
Southern Circle.															
South Canara	37	23	2 12 7	133	1,202	9 0 7	..	10	9 0 7	76	430		10	9 0 7	430
North Malabar	7	264	40 9 1	..	..	..	1	1384	..	18	488	(l)	..	..	..
South Malabar	26	268	40 9 7	1	49	49 0 0	82	1,384	49 0 0	201	1,083	(m)	..	..	..
The Nilgiris	28	564	20 2 8	37	411	11 1 8	..	184	11 1 8	213	2,854	(n)	..	..	..
North Coimbatore	140	1,384	16 7 4	24	318	12 0 8	31	204	12 0 8	36	989	(o)	204	12 0 8	989
South Coimbatore	..	..	..	..	..	..	44	488	..	20	180	(p)	..	..	..
Madura	..	..	..	..	..	..	33	256	..	5	624	(q)	..	..	..
Tinnevely	..	..	..	..	..	..	223	223	..	..	..	(r)	..	..	..
Total	217	3,933	13 15 8	235	2,102	8 13 4	193	2,738	8 13 4	549	6,247		2,738	8 13 4	6,247
Grand Total	2,139	20,874	9 8 6	1,376	16,721	12 3 5	3,624	10,487	12 3 5	3,026	14,366		10,487	12 3 5	14,366

(a) Includes cost of erecting and repairing cairns, &c. (b) Cost of temporary establishments. (c) Cleared by the Forest establishment. (d) Cost of sign-boards for boundary and coupe lines. (e) Includes half the pay and allowances of temporary establishment, the other half being debited to permanent demarcation. (f) Includes rectifying 85 miles of demarcation.

The statement, except in two cases, does not include lines recleared by subordinates free of cost. In *Tanjore*, *South Canara* and *North Malabar*, demarcation is practically complete. In *Madura* the demarcation of outer boundaries is complete, that of enclosures, as also the verification of boundaries and the replacing of cairns, has to be done. In *North Arcot* the demarcation of the Malayali settlements in the Javadi hills has still to be accomplished. It has been hitherto deferred pending receipt of the maps from the Survey of India. In *South Arcot* in the Tenmalai hills similar work has also to be undertaken. The decrease in *Bellary* was due to pressure of other work, chiefly enumeration of date trees and putting down illicit tapping, and in *Cuddapah* to fewer blocks having been finally notified during the earlier part of the year and to the staff having been employed on preliminary demarcation of selected blocks. In *Salem* work was postponed pending receipt of final orders on the question of taking up some of the reserves notified under section 4 for which settlement was completed. In *South Canara* better progress could have been made had the Range officers not been fully engaged in settlement and survey work. The outturn in the remaining districts was commensurate with the work on hand.

Compared with the cost of the preceding year there was a marked increase in *Vizagapatam*, *Kurnool*, *Chingleput*, *North Arcot*, *South Malabar* and *South Canara*. The increased rate in *Vizagapatam* is explained to be due to the inclusion of the cost of cairns, but this is apparently incorrect, as the previous year's figures included also the cost of cairns. The matter is under inquiry by the Conservator. The work in *Kurnool* included clearing the taluk and district boundaries in the Nallamalai hills and other lines. The clearing of heavy growth in the Nallamalais where it was extremely difficult to procure labour, and the erection of a large number of cairns caused the increase. In *Chingleput*, *Nellore* and *North Arcot* a larger number of cairns and stone slabs respectively had to be erected which raised the average cost per mile of demarcation. The high rate in *South Malabar* is attributed to the extreme inaccessibility of the tract demarcated and the increase in *South Canara* is attributed to the discontinuance of the system of permitting private persons to clear the boundaries and remove the trees out, free of charge.

The large expenditure incurred in *Kistna* upon reclearing old lines, &c., is explained by the Collector as being due to the alteration of boundary lines which had not been out in accordance with the notification under section 10. This is anything but creditable to the officers concerned.

The total expenditure on permanent demarcation, inclusive of reclearing old lines amounted to Rs. 31,087.

(iv) Surveys.

15. The following is a brief resume of the work of the Survey of India parties:—

Party No. 19 was employed in the districts of the year's outturn, viz:

District.	Triangulation.	Topography.	
		Total.	Reserved forests.
North Arcot	250	120.84	65.56
South Arcot	1,200	280	...
Total	1,450	524	120.84 65.56

The total area surveyed was 1,450 square miles, a considerable increase on the previous season and increased efficiency.

The fair drawing of all the maps surveyed will be embodied in next season's maps. The sheets of *Salem* and the other districts boundaries and minor enclosures.

The actual expenditure, inclusive of cost of instruments for the financial year, amounted to Rs. 85,029-2-6 and for the survey year ending 31st August 1897 to Rs. 88,861-9-8, or Rs. 84 per square mile of topography.

The cost per square mile was considerably in excess of the last four years and was due to various causes. The principal one, however, was the difficult nature of the country combined with the density of the forests in the Kurnool district. Incessant line-clearing was necessary which retarded work. Extra travelling allowance was paid to all working in the Kurnool district. Increased allowances to compensate for dearness of provisions had to be given to menials, and the number of the latter had to be increased owing to the difficult nature of the work. It is very improbable that the cost per mile will, as long as the party is employed in such difficult country, fall to the previous year's low rate of Rs. 66.

The year's work of Party No. 9 is represented by the following:—

District.	Triangulation.	Traversing.	Topography.	
			Total.	Reserved forests.
Trichinopoly	SQ. MLS. 260	L. MLS. 244	SQ. MLS. 120.84	SQ. MLS. 65.56
Coimbatore	1,200	280	...	...
Total	1,460	524	120.84	65.56

The outturn of topography, of which 65.56 square miles are reserved forests, was very small. This was unavoidable. The party had to contend with no ordinary difficulties. The detail work could not be commenced until triangulation and traversing had been undertaken; consequently a large proportion of the party was unable for some time to take any active part in the work. In addition, the majority of the surveyors had no previous experience of topographical surveying and though an attempt was made to train them during the enforced interval of idleness, above alluded to, very few attained sufficient proficiency to be of much use. To add to the difficulties the weather was most unfavourable during November and early part of December owing to the prevalence of heavy rain and dense mists, and to make matters worse all the khalsis locally entertained absconded as soon as commencement of work was attempted. Forest guards and watchers are also said to have caused delay, although the District Forest-officer did his utmost to help on the work. In this respect matters improved in the early part of 1897. The staff suffered considerably from fever, for which the Pachamalai hills are notorious.

The cost of the party for the financial year was Rs. 86,336-4-9, of which a large portion is debitable to the Central Provinces. The total for the survey year is Rupees 88,501-4-6, of which Rs. 3,572 are chargeable to the Central Provinces.

The rate per square mile amounts to Rs. 353-15-3. The expenses incurred in transferring the whole party with its impediments from the Central Provinces to Trichinopoly and Bangalore were very heavy and the difficulties and delays already explained account for the exceedingly high rate.

For the ensuing season, under instructions from the Deputy Surveyor-General, the two parties have been combined under charge of one officer. Sub-surveyors, who proved inapt at learning detail surveying, have been discharged. The parties have been re-arranged into three sections. A training camp for sub-surveyors has been organized. This, it is hoped, will provide material for a fourth section in 1898-99.

The foregoing arrangements will effect a reduction in cost. It cannot be expected for some little time that the cost per mile will again fall to Rs. 66. Surveying in Kurnool and North Coimbatore presents more than ordinary difficulty.

The total cost of the two parties after deduction of the Government of India contribution, as adjusted by the Accountant-General amounted to Rs. 82,638.

16. *Departmental Surveys.*—In *Bellary*, a temporary surveyor was entertained to survey portions of the boundaries of old reserves that did not follow survey numbers.

Twenty square miles were surveyed. Of ten reserves the survey of six blocks is reported correct, that of three others awaits inspection by the District Forest Officer, while the survey of the remaining one was only partly completed. In Salem, the survey of two reserves not taken up by the Survey of India party, was commenced by a temporary Surveyor.

17. The services of the temporary draughtsmen referred to in paragraph 12 *supra* were also utilized in posting and maintaining the maps prescribed in the Forest Code. Particulars of information showing the progress of work in this direction are given in Appendix D.

The area of reserved forests for which final maps have been prepared up to 30th June 1897 amounts to 6,712 square miles. The details for each district will be found in Appendix E.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

(1) REGULATION OF MANAGEMENT.

(a) Working Plans and their control.

Northern Circle.

18. In the Northern Circle no working plans have as yet been framed for the forests in the *Ganjam*, *Vizagapatam*, *Kurmasol* and *Anantapur* districts. In *Goddavari* the only plans are for the Coringa and Upputur mangrove forests and for the Narsapur plantations; the two former were closely adhered to but some deviation from the latter was found advisable. In *Kistna* a working plan for Orr's reserve of palmyra (*Borassus*) was approved by the Conservator during the year, and the preparation of plans for twelve other reserves was in progress. The proposals for the bulk of the grazing working circles referred to in the last report were somewhat more elaborated, but their completion and submission for approval await the notification under section 4 of the Forest Act of all the areas comprised in each working circle. The Guntur working plan for babul (*Acacia arabica*) was adhered to. Coppice was much damaged by floods, but there were abundant seedlings. In the Gopuranipalem working circle (casuarina) it was found that the growth is very unequal. Sample plots of fairly equal size were selected and the trees in alternate lines were felled. The fallings took place in different months and it is proposed to treat a fourth plot in the same manner in December. By these experiments the influence of the season of felling upon the coppice will be ascertained.

In *Bellary* no fresh plans were made as the staff was fully occupied with ordinary works and the additional work of enumeration of date trees. Experimental coupes which were opened showed that the demand was too limited to warrant working plans on a large scale and even the Ramandrug working plan had to be modified during the year. That portion of the previous year's coupe [sub-compartment 10 (b)] which remained unfelled was cut over during the year and the felling of 8 (d) was begun, but was stopped as a quantity of last year's wood remained unsold. Another coupe for the year—6 (d)—was sold for Rs. 12 an acre. The failure of the working plan is ascribed to the distance of the forest from Bellary, transport alone costing Rs. 5-10-0 per ton. The famine has also had some effect as the market was stocked with cheap wood brought in by poor villagers for sale. There was much theft from all the reserves near Bellary and even the avenue trees were felled in many places. The necessity for recasting the working plan is receiving the attention of the Conservator.

Central Circle.

In *Nellore* the provisions of the Surtapalli working plan (2,750 acres) which was approved by the Conservator during the year were adhered to, but those of the Rapur Yerikondas were not carried out, the Range Officer having been engaged in

other work. The casuarina plantations, and the annual compartments in the Sribarikota forests were not worked to the full extent owing to illness of the Ranger and his absence on leave. In *Chittoor* the provisions of the Balapalle working plan were adhered to, but the cutting was commenced so late that the wood cut was not measured and delivered to the Railway Department within the year. In *South Arcot* the Annamalai reserved forest in the Tiruvannamalai range, the casuarina plantations in Talankodu and Shonankuppam comprised in the working circle A were worked of accordance with the preliminary working scheme and yielded favourable results. In the casuarina plantations trees die during the hot season in compartments to be exploited some years hence in accordance with the rotation fixed. It remains to be seen how far the estimated revenue of such compartments will be affected. The coupes in several of the fourteen blocks for which tentative working plans based upon area were approved in 1894-95 remained unsold during the year for want of purchasers. A preliminary working scheme for the casuarina plantations of Dhoni Durai (north and south) and Nethikadu on the coast in the Cuddalore range was approved by the Conservator during the year. The preparation of the working scheme for the Periakuppam plantation referred to in last year's report was held in abeyance pending the completion of its final demarcation and that of the adjoining Periapattu plantation so as to conveniently include these two plantations in one working circle. Working plans based upon area were drawn up during the year for fourteen blocks, 25,335 acres in extent, and approved by the Conservator. The provisions of the Mornur working plan in the Salem district were adhered to. In *Tanjore* the Tirumalavasal casuarina plantations, for which a working plan was approved by the Board in 1895-96, were worked according to its provisions. In the *Trichinopoly* district a revised working plan for the Cauvery south bank plantations and a preliminary working plan for the Manparai hill reserved forests were approved by the Board and the Conservator, respectively, during the year.

Southern Circle.

In *Tinnevely* plans were prepared for the systematic treatment as coppice with standards of an area aggregating 19,585 acres. Eight plans were prepared, of which one was withdrawn by the Collector, four were approved by the Board during the year and three have also been sanctioned since. The plans might have been much simpler and based upon area alone had the working circles not included past located fellings carried out without reference to any plan. The results of the several coupes worked over in the various working circles are shown below:—

Serial No.	Name of coupe	Area in acres	Quantity	Value	Cost of felling and skidding per acre	Net profit per acre	Remarks
1	Chittoor, coupe 1	60	Charcoal 1,000 tons, firewood 250 tons	1,000	100	900	This coupe worked on long-term contract and the information in column 7 is obtained from the contractor.
2	Chittoor, coupe 2	50	Firewood 78 tons	50	50	0	
3	Chittoor, coupe 3	50	Charcoal 1,000 tons, firewood 250 tons	1,000	100	900	
4	Chittoor, coupe 4	50	Firewood 78 tons	50	50	0	
5	Chittoor, coupe 5	50	Charcoal 1,000 tons, firewood 250 tons	1,000	100	900	
6	Chittoor, coupe 6	50	Firewood 78 tons	50	50	0	
7	Chittoor, coupe 7	50	Charcoal 1,000 tons, firewood 250 tons	1,000	100	900	
8	Chittoor, coupe 8	50	Firewood 78 tons	50	50	0	

The actual yield of coupe III of the Padarmalai working circle only amounted to 15 tons per acre against 20 tons estimated in the working plan. The revenue per acre per annum has been As. 14-8 instead of Rs. 1-13-10 estimated. This difference was in a large measure due to the want of supervision and interest on the part of the subordinates in charge of the work. As regards the annual coupes of the other working circles the outturn per acre per annum for each coupe is about the same as that estimated. In *Madura* Mr. Latham, Assistant Conservator, has surveyed many of the hills covered with scrub in the Dindigul and Mēlūr taluks and has classified the stock. The Conservator remarks: "It will be justifiable now to continue the coupe felling, hitherto conducted without regard to the supply and sustained yield and on that account it was found expedient to check them. The preparation of simple working plans should offer no difficulty." In *Nilgiris* the uncertain demand for fuel on the Ootacamund plateau has prevented the introduction of Mr. Tireman's working plan. The plantations continued to be worked under Mr. Gamble's original plan which has been more regularly followed in Coonoor than in Ootacamund, the demand being more fixed. The working plan for the experimental treatment of a part of the Vellamundi reserve in *North Coimbatore*, referred to in the last report, was approved during the year. The main feature of the plan consists in the restocking of the blanks by sowings of various species with the castor-oil plant to act as nurse. It is hoped the proceeds from the sale of the castor-oil seeds will more than cover the cost of the sowings. Seeds were sown during the year, but towards its close germination was not general for the babul trees (*Acacia arabica*) in the tank-beds of Adiyur and Kunnattur in the Erode taluk were not carried out during the year, the local officers having been fully engaged in settlement work. In *South Coimbatore* the rotation of the Sholakarai working plan having proved too short, the Acting Conservator (Mr. Hooper) sanctioned a period of rest leaving the proposed alteration to be decided by the permanent Conservator (Mr. Cherry). Similarly, a plan was under consideration for the Chiunnar working circle. The initial coupes were sanctioned by Mr. Hooper, but the question of the revision of the original plan has been left to be decided by Mr. Cherry. The Aiyaranga block was brought under coppice felling with standards, in accordance with a plan, and yielded a revenue in excess of the estimate. In the case of the Singara Toppe working circle the provisions of the plan for securing the introduction of valuable species into the re-growth have not proved a success, and it has been decided to proceed with rotation felling but to limit the experiment of the sowing and planting to small areas. The full area of the year's coupe was not cut owing to difficulties in procuring labour. Although there is no registered working plan for the reserved forests in *North Malabar*, their working is so far organised that selection felling is being conducted in blocks in rotation. The maximum outturn has been fixed. In *South Malabar* the operations in the Nilambur teak plantations and the new Amarampalem forest were conducted in accordance with the working plan prepared by Mr. P. M. Lushington. Thinnings in the former were carried out over 717 acres at a cost of Rs. 440. In the natural forests, coupe II was felled and coupe I cleared for planting at a cost of Rupees 2,635 for 80 acres. No work took place in the Walayar forest, reproduction during the first rotation being less advanced than estimated. The collection of information for preparing a working plan for the Chenai Nair forest was in progress. In *South Canara* a simple plan for working fuel in the Sarpanama reserve was approved during the year.

(b) Annual Plans of Operations.

19. In the *Northern Circle* the plans of operations were fairly well followed and no serious divergencies took place. In Ganjam the construction of a rest-house on the Mohiri Hills was postponed pending selection of a site. Some inspection paths were not made as they were found unnecessary. There were some alterations in Gōdāvari partly owing to the bad season and partly to urgency, as for instance where tamah sheds were built instead of an inspection house. The chief deviations in Kistna were the postponement of improvement felling in Vinukonda owing to change of rangers, and the supply of casuarina poles on an urgent indent from the Public Works Department. One range camp was not built. The work could not be proceeded with until a well has been sunk. In Kurnool the construction of some roads had to be deferred.

The services of the Assistant and Extra Assistant Conservators had to be utilized in selection, demarcation, and in preparing the boundary lines for the Survey of India Party. Permanent demarcation to the extent anticipated could not be completed, as the reserves were either not sanctioned during the year or not until very late. The drought also caused some alterations. In the *Central Circle* the plans of operations were, with only a few exceptions, adhered to in Chingleput, North Arcot, Nellore, Salem, Trichinopoly and Tanjore. In South Arcot the following works were undertaken, which had not been provided for in the plan of operations. About 1,500 cubic feet of small timber were extracted departmentally from the Tenmalais to meet local requirements; an unexpected indent for 2,500 tons of fuel for the South Indian Railway was met. Some 30,000 bamboo seedlings have been planted out in different reserves. In Cuddapah it was found advisable to defer the construction of one proposed road in favour of another more urgently required. The proposed collection of small timber in Badvel had to be abandoned. The departmental collection of gallnuts was not proceeded with as the crop was too poor and the market slack. In the *Southern Circle*, the annual plan was adhered to for the most part in South Malabar and Nilgiris. In Tinnevely the proposed departmental operations in Srivillipattur and Nāngumēri and the felling of certain coupes were abandoned and contract system was adopted instead. The programme for working timber and fuel plantations in *Madura* was not followed owing to slackness of demand. The completion of some buildings was delayed and the construction of certain others not effected owing to difficulty in procuring labour. In *North Coimbatore*, there were several deviations. Proposed roads were not constructed as the establishment was required to clear boundaries for the Survey of India. Permanent demarcation was deferred pending decision of Government as to the retention of certain areas. Departmental collection of minor produce was adopted in lieu of leases to contractors. In North Malabar the main deviations were necessitated by changed conditions, while in South Canara the completion of some of the works was interfered with by the forest settlement operations.

The subject has not been dealt with in the reports from Bellary in the *Northern Circle*, and South Coimbatore in the *Southern Circle*.

(2) WORKING OF THE YEAR.

(a) Communications and buildings.

20. The subjoined statement shows the outlay on communications and buildings during the year under report as compared with the previous year:—

	1895-96.	1896-97.
	RS.	RS.
Roads and bridges	22,313	47,268
Buildings	41,108	48,342
Other works	2,662	4,223

Compared with the figures of the previous year, there was an increase of expenditure under all heads, that under roads and bridges being particularly large. This is satisfactory as it shows that, as far as establishment and time permit, this most important means of developing and facilitating the working of the forests is receiving due consideration.

21. The expenditure on roads in the *Northern Circle* amounted to Rs. 12,738. A large portion of this was incurred in Kistna followed by Gōdāvari and Kurnool. In Kistna and Gōdāvari 33 and 10 miles of new roads were constructed in addition to the execution of repairs to existing roads. In the latter district the work lay in the Agency tracts of the Peddāpuram range and in the Papikonda hills in the Yerrugudem range. The work in Kurnool consisted chiefly of the repair of five miles of a ghāt road besides the laying out and commencement of a new road. The latter when finished will tap the interior plateau of the Nallamalais and open them to wheel traffic.

In the *Central Circle* there was an expenditure of Rupees 7,398 on roads. In Cuddapah the construction of three and a half miles of the Pedarallasagudu road was continued during the year and a sum of Rs. 1,685 was spent upon the work. The

maintenance of two important roads and the continuance of the new Peddur ghât road in North Arcot and the construction of two new roads in Salem formed the principal items of work in these districts.

In the Southern Circle the amount expended on roads was Rs. 27,132. The only district in which there was a noticeable expenditure on new works is Coimbatore (North) where a sum of Rs. 7,000 was spent in opening twenty miles of the Gundila valley road trace in the Kollegal range and Rs. 1,350 in opening a bridle-path of nine and a half miles from Mavanatham to Talamalai for connecting the head-quarters of the Talamalai range with Dimbun. In repairing two main ghât roads heavy expenditure was incurred. In Tinnevely the most important work was the construction of a masonry bridge on the new Papanâsam ghât road. The bridge is estimated to cost Rs. 3,500 and a sum of Rs. 2,482 was spent on it during the year under report. The fuel brought from the ghâts along the road in question, and, as long as the road remained impassable, extraction of produce was impossible. Two traces for roads and two for bridle-paths were also undertaken, besides the execution of repairs to majority of the existing roads at a total cost of Rs. 2,399. A large amount was expended in South Coimbatore on new works and repairs, particularly on the latter. The chief works consisted of the construction of a masonry dam across the Tunacuduvu river, tracing of an inspection path and a bridle-path, extension of tram line into the felling compartment of the Tekadi leased forest and of repairs to the timber slide. In North Malabar ten miles of new roads were constructed in addition to repairs to the existing roads.

22. The expenditure under buildings has also risen in all the circles. In the North-Central Circle attention was paid to the construction of rest-houses in the Agency tract of Gôdvâri, owing to the difficulty of securing quarters for the forest subordinates to live in. In Kistna seven new range camps were built during the year, while in Kurnool the Nandyal range-house and office were completed and the extensions to the sub-divisional bungalow at Nandyal commenced, besides attending to the repair of existing buildings. A rest-house at Bukkapatnam in the Anantapur district was completed during the year.

In the Central Circle no works of importance were constructed during the year. A bungalow on the Buckingham canal at Dugarazpatnam in the Nellore district was purchased from the Public Works Department for Rs. 2,000 to be used as a rest-house. A few rest-houses in Chingleput and Salem and sundry other works in other districts were executed.

In the Southern Circle the principal outlay on buildings was incurred in Tinnevely, North and South Coimbatore and South Malabar. The chief works in Tinnevely were the completion of a rest-house with out-houses at Muthabaruttu on the Srivilliputtur hills and the commencement of a line of huts for subordinates at Pâpanâsam tannah site. In South Coimbatore the construction of the Punschi rest-house and the workshop for the saw-mill were the most important undertakings during the year. In North Coimbatore the erection of some rest-houses and a range office and of out-houses to rest-houses formed the chief important works in this division.

23. Tramways.—Form No. 65 shows the results of the working of tramways. In Nellore the actual outturn at Sriharikôta was in excess of 1895-96 by 1,407 tons, though there was a fall in the number of ton miles by 299. The short fall is ascribed to the shorter distance of 2½ miles worked during the year against 5½ miles for a major quantity in the year preceding. Though the quantity cut during the year was greater than in the previous year, the rates charged were less owing to the shorter distance carried and this accounts for the smaller profit. The net loss up to the end of 30th June 1897 has been reduced from Rs. 748 to Rs. 709. In the casuarina plantation range there was a decrease of 163 tons in the outturn due to the illness of the range officer. The net gain on this line up to the end of last forest year is Rs. 26,283.

The tramway in Cuddapah continued to work at a loss. The length of line worked during the year was 2 miles against 1½ miles in the previous year, while the outturn was less by 208½ tons. The total loss up to the 30th June 1897 was Rupees 3,897.

In South Coimbatore the length of the line was extended from 4 miles to 4½ miles. There was a decrease of 378 tons of timber in the outturn during the year and of 625 ton miles. The decrease was chiefly due to the distance of the felling compartment from the tramway terminus and to the difficulty of working on wet days which is now being gradually overcome. The total loss up to the end of 30th June 1897 was Rs. 22,973. The real advantage gained by the working of the tramway is that wood is extracted which under other circumstances it would be impossible to work out. In the year under review circumstances prevented much advantage being taken of this.

(b) Protection of Forests from injury.

(1) General Protection and Breaches of Forest Law.

24. The following summary shows new cases of the year with particulars of last year for comparison:—

Circle.	Year.	Number of cases pending at commencement of year.	New cases of the year.					Total cases.	Cases pending at close of year.
			Injury by fire.	Unauthorized felling, &c.	Illicit grazing.	Other offences.	Total new cases.		
Northern	1895-96	493	12	1,809	803	339	2,863	3,356	* 567
	1896-97	567	33	2,268	913	398	3,612	4,179	710
	Difference	+ 74	+ 21	+ 459	+ 111	+ 159	+ 750	+ 823	+ 143
Central	1895-96	574	20	2,229	2,190	258	4,697	5,271	631
	1896-97	596	22	2,629	2,746	209	5,596	6,191	682
	Difference	+ 22	+ 2	+ 400	+ 556	- 58	+ 899	+ 920	+ 51
Southern	1895-96	298	62	822	847	280	2,061	2,349	418
	1896-97	418	48	1,050	814	523	2,435	2,853	384
	Difference	+ 120	- 14	+ 228	- 23	+ 243	+ 374	+ 504	- 34
Presidency	1895-96	1,366	94	4,930	3,829	751	9,610	10,975	1,580
	1896-97	1,580	98	5,947	4,472	1,121	11,638	13,218	1,776
	Difference	+ 214	+ 4	+ 1,017	+ 643	+ 370	+ 2,028	+ 2,243	+ 196

* Seven cases omitted in last year's return from Gôdvâri. † Petty officers let off with a warning have not been included.

For the Presidency there is an increase under every head. The cases of injury by fire increased in the Northern circle mainly in the Bellary district. It is reported but little damage was done as most of the grass had been removed. The increase under unauthorized felling occurred principally in the Northern and Central circles. To a very great extent the prevailing scarcity and the dearth of food were the cause. Petty thefts were very rife and in some cases assumed rather serious proportions. In Bellary, for instance, wood was stolen for sale from most of the reserves near Bellary and even avenue trees were cut for the same purpose. The large increase in South Arcot is ascribed to better detection and to offences in unreserved lands. Under grazing without permission, the increase is due to illicit browsing of goats chiefly in the North and South Arcot districts. The enhanced pound fees sanctioned for the Tiruvannamalai taluk were not enforced during the year. In Trichinopoly, there was an increase of 173 cases. These occurred in the "padugais" (lands reclaimed in the Cauvery and Coleroon rivers by the Public Works Department) which have been handed over to the Forest department. The ryots turn their cattle loose and the latter naturally wander to these lands where there is good fodder. Prosecutions generally fail as it cannot be proved the owners "permitted the cattle to trespass." The increase under other offences occurred principally in Gôdvâri, Bellary and South Canara. In Gôdvâri, it was the result of better detection; more attention was paid to cases of unauthorized "kumri" cultivation; in Bellary, there were many cases of illicit tapping of date trees; it is only within the last year or two the Forest department has exercised control over these. In South Canara, it was found necessary to take active measures against unlicensed "kumri" cultivation on Government lands; 491 cases

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Division or Circle.	Cases taken into Court.					Cases compounded.					Cases undetected or withdrawn.					Total cases.				
	Injury to forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Injury to forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Injury to forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Injury to forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Injury to forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.
Northern Circle.	1	54	34	18	1	79	8	4	1	14	2	1	1	147	44	17	208	157	44	17
	2	179	11	11	1	127	14	103	4	49	10	1	1	814	60	11	375	814	60	11
	3	160	147	80	1	204	180	30	1	61	184	10	1	284	27	118	408	284	27	118
	4	327	194	19	6	188	66	30	1	98	10	10	1	260	511	60	940	260	511	60
	5	14	19	6	8	208	49	114	1	14	17	1	1	218	400	80	763	218	400	80
	6	36	40	8	8	69	49	1	1	11	7	2	1	119	102	6	846	119	102	6
	7	720	203	63	1	1,016	406	269	23	269	230	24	84	2,085	1,018	382	3,469	2,085	1,018	382
	8	133	3,264	23	1	75	26	3	1	29	63	2	1	247	394	25	673	247	394	25
	9	35	48	6	1	141	130	16	1	68	38	6	1	62	60	10	132	62	60	10
	10	21	24	6	1	141	130	16	1	68	38	6	1	240	173	27	440	240	173	27
Central Circle.	1	53	44	9	1	262	404	39	1	17	13	4	1	432	466	41	930	432	466	41
	2	416	388	21	1	676	335	48	1	10	109	11	13	906	584	87	1,839	906	584	87
	3	60	109	14	1	328	266	8	13	7	80	7	16	428	586	22	1,001	428	586	22
	4	55	141	6	1	97	179	1	1	12	181	7	1	184	604	15	638	184	604	15
	5	14	14	3	1	15	7	1	1	6	17	1	1	21	38	3	62	21	38	3
	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Southern Circle.	1	231	41	1	1	109	1	1	1	56	1	1	1	416	41	499	910	416	41	499
	2	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	26	1	1	1
	3	20	28	1	1	18	12	1	6	1	1	1	1	38	46	12	163	38	46	12
	4	59	75	1	1	41	28	3	1	5	48	1	1	190	178	27	860	190	178	27
	5	17	9	1	1	45	26	1	1	5	2	1	1	87	96	14	176	87	96	14
	6	11	10	1	1	176	130	4	1	46	38	4	1	233	171	11	519	233	171	11
	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	418	1	1	1
	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Grand Total.		1,697	1,385	911	2	3,746	2,186	494	37	546	818	138	100	6,397	6,393	1,133	11,442	6,397	6,393	1,133

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Division or Circle.	Serial No. of fire.	Details of prosecutions for offences by fire.					Amount of punishment.				
		Acres burnt.	Character of offence (whether careless or intentional).	Whether acquitted or convicted.	Section of Law under which convicted.	Amount of punishment.	Acres burnt.	Character of offence (whether careless or intentional).	Whether acquitted or convicted.	Section of Law under which convicted.	Amount of punishment.
Northern Circle.	1	100	Careless Intentional	Convicted	Section 21 of the Forest Act	One Rupee each.	1	Careless Intentional	Convicted	Section 21 of the Forest Act	One Rupee each.
	2	14 sq. yds.	Do.	Do.	Section 21 of the Forest Act	Nine Rupees.	2	Do.	Do.	Section 21 of the Forest Act	Nine Rupees.
	3	3 acres.	Do.	Do.	Section 21 of the Forest Act	Rupees 10 each.	3	Do.	Do.	Section 21 of the Forest Act	Rupees 10 each.
	4	0-10 acres.	Do.	Do.	Section 21 of the Forest Act	Rigorous imprisonment for 15 days.	4	Do.	Do.	Section 21 of the Forest Act	Rigorous imprisonment for 15 days.
	5	1 square chain.	Do.	Do.	Section 21 of the Forest Act	Rupees 2.	5	Do.	Do.	Section 21 of the Forest Act	Rupees 2.
	6	50 acres.	Do.	Do.	Section 21 of the Forest Act	...	6	Do.	Do.	Section 21 of the Forest Act	...
	7	...	Do.	Do.	Section 21 of the Forest Act	...	7	Do.	Do.	Section 21 of the Forest Act	...
	8	...	Do.	Do.	Section 21 of the Forest Act	...	8	Do.	Do.	Section 21 of the Forest Act	...
	9	...	Do.	Do.	Section 21 of the Forest Act	...	9	Do.	Do.	Section 21 of the Forest Act	...
	10	...	Do.	Do.	Section 21 of the Forest Act	...	10	Do.	Do.	Section 21 of the Forest Act	...
Southern Circle.	1	200 acres.	Careless Intentional	Convicted	Section 21 of the Forest Act	Five years imprisonment.	1	Careless Intentional	Convicted	Section 21 of the Forest Act	Five years imprisonment.
	2	40 "	Do.	Do.	Section 21 of the Forest Act	...	2	Do.	Do.	Section 21 of the Forest Act	...
	3	80 "	Do.	Do.	Section 21 of the Forest Act	...	3	Do.	Do.	Section 21 of the Forest Act	...
	4	...	Do.	Do.	Section 21 of the Forest Act	...	4	Do.	Do.	Section 21 of the Forest Act	...
	5	...	Do.	Do.	Section 21 of the Forest Act	...	5	Do.	Do.	Section 21 of the Forest Act	...
	6	...	Do.	Do.	Section 21 of the Forest Act	...	6	Do.	Do.	Section 21 of the Forest Act	...
	7	...	Do.	Do.	Section 21 of the Forest Act	...	7	Do.	Do.	Section 21 of the Forest Act	...
	8	...	Do.	Do.	Section 21 of the Forest Act	...	8	Do.	Do.	Section 21 of the Forest Act	...
	9	...	Do.	Do.	Section 21 of the Forest Act	...	9	Do.	Do.	Section 21 of the Forest Act	...
	10	...	Do.	Do.	Section 21 of the Forest Act	...	10	Do.	Do.	Section 21 of the Forest Act	...

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Division or Circle's.	A.—Fire caused by accident through carelessness in burning fire lines.			B.—Fire entering the forests by crossing exterior fire lines.			C.—Fire beginning inside the reserve or fire traced area.					
							Owing to carelessness or accident.					
	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	By workmen employed in the forests, by purchasers of forest produce and by fish cutters.	By villagers, travellers, &c., passing through the forests.	By railway engines.	By lightning or by fire balloons.		
1.	2	2	4	5	6	7	8	9	10	11	12	13
Northern Circle.												
Geelju	..	..	..	..	..	..	16	635	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	2	260	..	..	31	1,643	..	..	..	..
Kuapa	..	..	..	..	..	..	1	3	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	489	..	..	1	400	3	2	..	..	..	..
Antony	..	..	..	..	..	..	1	500	..	..	..	..
Total, Northern Circle	2	489	2	250	1	400	31	2,735	..	..	..	..
Central Circle.												
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Central Circle	1	2	22	2,910	..	..	..	..	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Grand Total, Presidency												
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..
Vingapathan	..	..	..	..	..	..	..	..	..	..	..	..
Gidraai	..	..	..	..	..	..	..	..	..	..	..	..
Kuapa	..	..	..	..	..	..	..	..	..	..	..	..
Kanood	..	..	..	..	..	..	..	..	..	..	..	..
Antony	..	..	..	..	..	..	..	..	..	..	..	..
Total, Southern Circle	1	2	32	2,497	..	..	3	700	..	..	..	..
Geelju	..	..	..	..	..	..	..	..	..	..	..	..

* Details not reported.

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C.—Fires beginning inside the reserve or fire traced areas—2001.

Total A, B and C.

Causes unknown.

Division or Circle.

By intentional firing.

In order to turn out game or to reduce cover.

Total.

Maliciously fired.

Division or Circle.	In order to obtain new game.		In order to turn out game or to reduce cover.		Maliciously fired.		Total.		Causes unknown.		Total A, B and C.	
	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.
Northern Circle.												
Ganjam	12	1,365	6	420	..	..	17	1,735	32	1,488	64	3,909
Vinayachandrabati	..	..	..	..	..	..	..	..	..	..	..	3,700
Godavari	..	..	..	..	..	..	..	..	2	92	15	1,983
Kistna	..	..	3	..	1	..	4	3	4	154	9	180
Karnool	..	..	..	..	1	..	1	..	10	2,481	11	2,481
Bellary	..	..	..	..	..	..	..	..	8	263	14	1,184
Anantapur	..	..	..	..	..	..	..	..	..	..	1	600
Total, Northern Circle	12	1,365	8	423	2	..	22	1,758	55	4,478	114	13,958
Central Circle.												
Cuddapah	2	530	..	..	1	..	39	329	64	8,992	110	12,510
Nellore	..	..	..	..	..	..	..	..	..	..	1	400
Chingelput	..	..	..	..	..	..	..	..	33	3,162	65	6,661
North Arcot	9	2,323	4	345	2	191	15	3,119	11	238	12	268
South Arcot	..	..	..	..	1	40	1	40	13	1,878	14	2,378
Salem	..	..	..	..	..	..	..	..	..	..	2	100
Trichinopoly	1	100	..	..	..	..	1	100	..	..	..	..
Tanjore	..	..	..	..	..	..	..	..	..	..	..	..
Total, Central Circle	12	2,953	6	605	4	300	20	3,853	143	14,260	191	22,317
Southern Circle.												
South Canara	..	..	1	96	2	40	3	287	13	740	24	1,133
South Malabar	..	..	..	..	..	..	..	..	1	100	1	100
South Mahrar	..	..	..	..	..	..	..	..	..	..	..	..
The Nilgiris	2	820	1	1,335	2	1	2	2,106	..	..	3	3,823
North Coimbatore	..	..	..	..	..	..	..	..	..	..	..	..
South Coimbatore	..	..	..	..	..	..	..	..	9	2,207	9	2,257
Madras	..	..	..	..	..	..	..	..	31	1,042	25	1,462
Madras	..	..	..	..	..	..	..	..	4	Not reported	51	5,885
Tyngavally	3	Not reported.	1	Not reported.	26	Not reported.	36	Not reported	..	..	..	..
Total, Southern Circle	10	971	3	1,381	33	401	45	2,613	58	4,139	128	14,113
Grand Total, Presidency	34	6,289	17	2,405	39	713	88	3,470	255	22,877	450	50,318

* Details not reported.

+ The Collector has not explained the difference between this figure and that given by him in Form No. 51.

• Details not reported.

+ The Collector has not explained the difference between this figure and that given by him in Form No. 51.

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(2) Protection from fire.

27. The following abstract exhibits the results of fire-protection :—

Fire-protection.						
Circles.	During 1896-96.			During 1896-97.		
	Area attempted in square miles.	Percentage of area attempted which escaped fire.	Average cost per square mile.	Area attempted in square miles.	Percentage of area attempted which escaped fire.	Average cost per square mile.
Northern	1,198	89.6	Rs. A. P.	1,168	98	Rs. A. P.
Central	2,517	96	11 9 4	2,392	98.5	9 14 1
Southern	1,879	98	4 15 5	1,843	98	7 8 11
Total	5,594	94	7 8 10	5,363	98.6	7 4 6

There has been no change in the system of fire-protection which was more or less the same as that reported last year to prevail in the different districts. According to form No. 51, the net result of the year's operations shows a decrease of 231 square miles in the area attempted and of Rs. 2,900 in the expenditure incurred, as compared with the figures of the preceding year. Taking the Circles individually, the area attempted to be protected in each was slightly less; the average cost per square mile was higher in the *Central Circle*, less in the other two Circles and for the Presidency.

The increase in the *Central Circle* was due to the adoption of special measures for protection of part of the Lankamalai hills in Cuddapah. Attempts to keep out fires from the whole range, 165 square miles, by means of patrols and a 12-foot cleared line have annually failed. This year the attempt was abandoned and a block (7,000 acres in extent) was selected, a 60-foot trace cleared round it and the work of the watchers concentrated upon this. The experiment proved a success, 80 acres only were burnt while clearing the traces and the work will be gradually extended. In the *Northern Circle*, the cost of protection was considerably less in *Bellary* and *Anantapur*. The reduction in *Bellary* was consequent upon the abandonment of interior fire lines on the western slope of Ramandrug and of some of the steep interior lines in the Donimalai and North-Eastern ranges. It was found advisable to re-align some of the interior cross-lines and to devote a portion of the savings to widening the exterior lines and opening bridle-paths. The decrease in *Anantapur* is ascribed to the absence of grass owing to the drought and also to the consequent saving in the cost of fire-tracing and establishment. The variations in the *Southern Circle* are spread over most of the districts and being small call for no remarks.

28. The percentage of the area burnt to the area attempted is reported to have been 2 in the *Northern*, 1.5 in the *Central* and 1 in the *Southern* Circles against 10.5, 4 and 7, respectively, in the year preceding. These figures are approximate. Perfectly accurate returns will not be furnished until the personnel of a considerable part of the executive establishment has improved and until accurate maps are at the disposal of District Forest-officers upon which the fire-protected areas can be correctly shown. In districts surveyed by the Survey of India there will be no difficulty as regards the maps and next year's report should show what steps have been taken in this direction. Compared with the previous year the results are very satisfactory. The success in the *Central Circle* is, in the Conservator's opinion, due in a great measure to the action of the ryots themselves. During the hot weather when, as a rule, fires are most prevalent, this year they were the exception. The originator of most fires (although rarely proved) is undoubtedly the herdsman, his object being the destruction of the dry woody grass-stalks and the early production of young green shoots. The drought and consequent fear that even the dry grass would fail acted as a deterrent. In 1891 during the drought a similar absence of fires was observed.

The percentages for the several districts as compared with those for the preceding year are shown below :—

Northern Circle.			Central Circle.			Southern Circle.		
Districts.	Percentage of fires to area attempted in 1895-96.	Percentage of fires to area attempted in 1896-97.	Districts.	Percentage of fires to area attempted in 1895-96.	Percentage of fires to area attempted in 1896-97.	Districts.	Percentage of fires to area attempted in 1895-96.	Percentage of fires to area attempted in 1896-97.
Ganjām	5	3	Cuddapah	7	3	South Canara	1	2
Vizagapatam	13	12	Nellore	2	2	North Malabar	66	0.16
Godāvari	3	1	Chingleput	2	2	South do.	1	2
Kistna	15	8	North Arcot	3	1	The Nilgiris	1	0.5
Kurnool	23	8	South do.	2	0.2	North Coimbatore	1	0.5
Bellary	13	2	Salem	3	5	South do.	4	0.6
Anantapur	8	4	Trichinopoly	..	..	Madura	2	2
			Tanjore	..	..	Tinnevely	..	..
	10.5	2		4	1.5		7	1

Early rains contributed to the success in *Ganjām*, *Madura*, *Coimbatore* (South) and *Malabar* (North and South). Compared with the results of last year, fire-protection in *Vizagapatam* may be regarded as satisfactory. Fire occurred in only one reserve in the Golconda taluk and burnt down 2,700 acres. The good result in *Godāvari* is attributed to the entertainment of the fire-patrol establishment one month earlier than usual, while in *Kistna* protection is said to have been assisted by the drought. The small percentage in *Kurnool* and *Anantapur* was due to the dearth of grass and in the former district also to larger removals of such grass as there was. In *Kurnool* as well as in *Vizagapatam* and *North Arcot* it is also suggested that graziers abstained from intentional fires anticipating scarcity of fodder. The favourable result in *Bellary* is ascribed to the inducements held out to the Reddis (village heads) in the shape of rewards for preventing and extinguishing fires and to the grazing down of the grass outside reserves. There were two cases of fires in *Chingleput*, one of which is reported to have originated in the Kālahasti zemin forests. The area burnt amounted to 400 acres. In *North Arcot* there was a fire in one important reserve (Musilamadugu) in which 135 acres were burnt. The fire was due to incendiarism and the block has been temporarily closed to grazing and cutting. There were twelve fires in three blocks in *South Arcot* which burnt over an aggregate area of 268 acres. They are all ascribed to incendiarism. The ryots of Paramanandal have been refused permits for grazing for one year for having refused to render assistance in extinguishing a fire which occurred in the reserve of that name. The prohibition will be withdrawn if it is found the grazing is necessary; and it is hoped the temporary suspension of the privilege will prevent a recurrence. The decrease in the percentage which escaped fire in *Salem* was due to the exceptionally large area burnt in the Hosūr taluk; of the total of 2,378 acres burnt, the fires in this taluk account for 2,120 acres. They were principally caused by incendiaries. There were two fires in *Trichinopoly*, the damage reported was very trivial. In *Tinnevely* 168 acres of the protected area were burnt. There were numerous fires in the forests not under special protection and they were caused either by the graziers or dismissed subordinates. In *South Canara* 1,133 acres were burnt, the worst fires being in the Munjimale and the Chinkramale reserves. The open forests are reported to be mostly free from fire, being protected by the belts of ever-green. Collectors' reports furnish little information regarding the damage caused to the forests by the various fires.

Throughout the Presidency the extent of reserved forests, not specially protected, which escape fire annually is very considerable. Very few, if any, of the scrub reserves in the plains are burnt. As a rule they are so heavily grazed, that a fire, if started, would not spread.

(3) Regulation of grazing and protection from cattle.

29. The total area of reserved forests and reserved lands is 18,907 square miles; of these 1,767 square miles were closed to all grazing—Northern Circle 311, Central 243, and Southern 1,213 square miles. The comparatively large area closed in the

Southern Circle includes 328 square miles in *South Malabar*. The private forests are very extensive and there is no demand for grazing in the forests under Government. In *South Canbatore* the area closed to grazing is very large and proposals are under consideration to throw open additional lands. In the Northern and Central Circles 661 and 78 square miles, respectively, were open to all animals. Sheep were admitted generally except to the specially-closed forests. In the Northern Circle goats were allowed to browse in 236 square miles in the *Kutna* district and in 151 in *Bellary*; in the Central Circle small areas were opened in *Cuddapah*, *Salem* and *Chingleput*. In *North Arcot* 70 square miles were made available, and in *Nellore* 20 square miles were reserved for goats alone.

Licenses were issued to the following extent:—

Northern Circle	...	...	...	...	...	Buffaloes and oxen.	Sheep and goats.
Central do.	...	...	...	...	...	448,546	418,883
Southern do.	...	...	...	...	...	581,704	602,804
	...	...	...	...	...	287,131	Sheep. 74,908
					Total	1,315,381	1,096,606

The Malayalis in the hills in the North and South Arcot, Salem and Trichinopoly districts are allowed to graze their cattle free. It is believed this privilege is in places abused and that cattle from the plains are brought up. In addition reserved forests in the Kurnool, Bellary, Anantapur, Gajam, Visnagapatam, Giddalur and Cuddapah districts were thrown open to free grazing as soon as the necessity for it became apparent. The privilege was fully availed of; and Collectors have been asked when the exemption is withdrawn to report the approximate numbers of cattle which obtained free ingress, also whether the concession had any marked effect upon these animals. When grass failed, hacking of branches was indulged in. This of course was anticipated. It is impossible to compare the number of cattle, &c., admitted under licenses during the year with the previous one. The figures for 1895-96 were incomplete and for the year under report are not absolutely correct owing to absence of clear information in some district reports. Collectors will be directed to see that future reports quote separately the number of buffaloes, oxen, sheep and goats.

(c) Improvement of forest growth.

(1) Natural reproduction.

(1) Natural reproduction.

30. The year was unfavourable to natural reproduction. It was particularly so in the districts of the Northern Circle owing to the drought and to the damage to the reserves by cattle and grass cutters. Towards the close of the year the drought in many of the Northern districts including Cuddapah in the Central Circle increased in intensity necessitating throwing open the forest reserves to free grazing and free removal of grass. The result has been that trees were lopped and seedlings destroyed, but it was inevitable. The following is a résumé of the district reports under this head:—

Northern Circle

The natural reproduction of sal in Ganjam as usual leaves nothing to be desired. There have been good coppice shoots of *Terminalia tomentosa* and *Chloroxylon tomentosum* (satinwood). In old podus (abandoned cultivation) in the Poddapuri reserves in Odisha coppice from *Terminalia tomentosa* and *Chloroxylon tomentosum* is very promising. In Kuntur the coppicing of *Acacia Arabica* (Babul) in the Guntur Babul working areas was a failure, but has been redeemed by an abundant crop of seedlings. It is reported that *Hardwickia tinctoria* unlike most trees develops more slowly from coppice than from seedlings; plants of five years being 1.35 inches in diameter from coppice, and 2-46 inches in diameter from seedlings. There was a fairly dense crop of seedlings of this species in the Bollaipalli reserve. In Bellary and Anantapur *Hardwickia tinctoria* germinated freely in some reserves but the removal of the projecting grass and the irruption of cattle destroyed all traces of the seedlings.

Central Circle.

In Nellore a certain amount of reproduction of red sanders (*Pterocarpus santalinus*) Yelama (*Anogeisus latifolia*) and Yepi (*Hardwickia binata*) was found in the higher Veligondas and of Yelams in the plains. The area cut over in Survepalli has coppiced well. In the Sriharikota forests the growth from coppice of the species referred to in the last report is good, varying in height from 3 to 8 feet. In the year under report another plot of 8 acres was clean felled. In Oudupah regeneration from seed was very poor owing to the drought. Red sanders (*Pterocarpus santalinus*) suffered from the free grazing, as the leaves are used for fodder. The reproduction of *Anogeisus latifolia* and *Pongamia glabra* appears to have been least affected by the drought. The experimental areas referred to in the last report were cut over in Thanakonda reserve and in Kodur reserved lands; the result will be reported later. In Chingleput there was little or no reproduction from seed except in areas containing dense growth of thorny bushes, which had practically excluded cattle. Regeneration from coppice in coupes protected from cattle continues to be good. In North Arcot the year has been a bad one for reproduction from seed and coppice owing to deficiency of rainfall during the past three seasons. The statement made last year that *Anogeisus* suffered more than satinwood (*Chlorozylon swietenia*) in fire-burnt areas was a clerical error. The fact is exactly the other way. It is reported that in consequence of unlimited grazing reducing the average grazing area per animal to about 2 acres in most localities, development of seedlings is practically impossible. In South Arcot coppice growth in the coupes is as usual good. On the Tenmalai hills a fair sprinkling of sandalwood seedlings is found in places unfrequented by cattle. In the plantations on the coast of the Cuddalore range, self-sown seedlings of casuarina have been collected and transplanted into nursery beds. They are thriving. In the "relief camp tops" of the Tindivanam range, self-sown seedlings of *Acacia ferruginea* and *Ceara rubber* are found in fair abundance. In the Vriddhachalam range reproduction from seed of *Acacia Arabica*, *nundra*, and *leucophloe* and *Cassia fistula* is reported to be abundant. Reproduction from coppice in Salem was fair. The absence of sandalwood seedlings has again been noticed. In Trichinopoly reproduction from seedlings and coppice shoots was, as usual, satisfactory in the Chavry padugai plantation. In Tanjore casuarina has coppiced on the coast in the plantation at Tirumalaivassal but the coppice growth after four years will not compare with plants grown from seed and the final crop is not likely to compare favourably with the yield from artificial planting.

Southern Circle.

Natural reproduction under coppice in *Tinnevely* is generally fair and particularly good in the Kalakad and Aiyankarkoil working circles. Regeneration of teak as well as vengai (*Pterocarpus marsupium*) is fairly satisfactory on the lower slopes of the Sankaranāyānarkōyil and Tenkāsi taluks; that of Kongu (*Hopcia Wightiana* and *Hopcia parviflora*) is promising in the ever-green forests of the Ambāsamudram range. In *Madura* regeneration from seed in fire-protected areas and from coppice in the coupes is good. About 80 per cent. of coppiced trees are believed to throw up shoots. The average annual rate of growth of coppice shoots is between 3 and 4 feet. In *North Coimbatore* seedlings of teak in the upland taluks are reported to be rarely found while those of Vengai (*Pterocarpus marsupium*), Blackwood (*Dalbergia latifolia*), *Terminalia Hardwickia* and *Anogeissus* are very general and likely to develop with the fire-protection. Reproduction of sandalwood is good especially in fire-protected areas. In the plain taluks *Albizia amara* and *Acacia leucophylla* are said to be reproducing themselves freely though hampered by grazing. In *South Coimbatore* it is reported that the seeds of teak (*Tectona grandis*) and rosewood in the Tunacadvu range germinate freely, but the former disappears after a few years, being crowded out of existence by the heavy shading *Terminalia* and other trees. The Conservator, Southern Circle, remarks that "the most promising young teak has sprung up on land completely cleared of forest growth." On the *Punachi* slopes Vengai (*Pterocarpus marsupium*) is promising. The coppice regrowth in *Chinnar* and *Aiyarāngal* is luxuriant and that in *Sholakarai* is described as regular though not as good as was anticipated when the working plan was framed. As regards the teak forests of the *Anamalais*, the Collector of *Coimbatore* has reported that Mr. Popert's suggestions as to the future method of treatment of the forests, with a view to promote the regeneration of teak will be carried out. On the *Nilgiris* the reproduction of the Blue Gum by stool shoots is reported to be as vigorous as ever, the yield in each rotation showing no diminution in volume though there is a certain mortality among the stumps. On the southern slopes, sandalwood seedlings are promising. Teak in the *Moyar* tracts is growing vigorously as also *Anogeissus*, sandalwood and vengai. In the *Mudumalai* and *Benne* forests natural reproduction is what it has been for years past. No improvement can be expected until the forests have undergone a regular course of treatment on the lines indicated by Mr. Popert, which have been accepted by the Board of Revenue but not yet begun. In *North Malabar* there is a fair crop of teak seedlings, but it is doubtful whether they will escape the usual fires which are certain to occur sooner or later. Besides reproduction from seed, there is a very fair growth of young teak from stumps of old trees. The growth of these is being assisted by removing all but one of the shoots in each group. Blackwood (*Dalbergia latifolia*) and Vengai (*Pterocarpus marsupium*) reproduce freely; the former particularly from root suckers. Jack (*Artocarpus integrifolia*) also germinates but young plants are seldom found far

from the parent tree. Other important species reported are *Terminalia tomentosa* and *paniculata* and *Lagerstrœmia microcarpa* and *Rosa-Egino*. A number of seedlings of *Bambusa arundinacea* is coming up. In South Malabar Iru (Xylia dolabriformis) reproduces itself from seed on laterite soils to the exclusion of almost all other trees especially in the Nilambur range. There is a vigorous growth of *Terminalia tomentosa* in the Amarampalam range on low-lying swampy soil. There is also a fair number of teak (*Tectona grandis*) and benteak (*Lagerstrœmia microcarpa*) seedlings in the Karimpoya and Nallikutta blocks. The coppice regrowth in South Canara is satisfactory. The catechu is now reproducing itself by seedlings as well as shoots.

(2) Artificial reproduction, plantations and cultural operations.

31. The area under plantations, topes and cultural operations together with the cost incurred thereon during the year under report is given in form Nos. 53 and 54. The following is a summary of the year's work:—

In the Agusti Nowgam casuarina plantation in Gonyam, 63 acres were planted up with 75,632 plants, bringing the total up to 3,34,325 plants. The expenditure incurred was Rs. 9,484 against Rs. 5,598 in 1895-96. The large increase in the expenditure was due to failure of the rains, which not only rendered it necessary to water the plants of the two previous years to save them from perishing but also necessitated the watering to be commenced much earlier than usual. In Goddveri there are two casuarina plantations and some 20,000 plants were put out during the year. There was a large number of casualties among the older plants owing to the drought, which have been replaced. In Kistna a new departure was made in a casuarina plantation in Bapatla, which had not been very successful, by trying *Dalbergia sisoo*, *Pithecellobium dulce*, *Albizia lebbek*, tamarind and other trees placed further apart than usual, some 20 feet. The plants put down in September—November and in June appear exceedingly healthy. One hundred and fifty acres were planted in Bapatla and 25 acres in Karlapalam at Rs. 6 per acre, whereas 22 acres in Gopuvaniapalem reserve planted close after the old fashion cost Rs. 41 an acre. *Sisoo* is relied on to cover the ground from its habit of throwing up root-suckers after *Tectona grandis* and *Albizia lebbek*. In Bellary 10 acres were planted with *Hardwickia binata*, area including the watering of the area planted in previous years was Rs. 642. One hundred and thirty-four acres were chosen in the alluvial soil adjoining the Toranagalla reserve and 16 acres of this were planted during the year.

In Nellore there was no addition to the plantations during the year. The younger plantations of previous years' planting had still to be watered. There was more than the usual number of deaths from fungus. Alhipuram is not suitable for date. The casuarina on the other hand is doing well. In North Arcot bamboo transplanting in Chittoor and Vallure ranges was a failure. The prolonged drought was fatal. Red sanders seedlings have succeeded. The two are three-year old casuarina plantations are looking fairly healthy, but the death of 4 and 5 year old saplings continues and further planting except for the purpose of filling up blanks has been abandoned. In South Arcot 68 acres were planted with casuarina in different localities at an average cost of Rs. 9 per acre against Rs. 13 in the previous year. The average cost represents the cost of planting and watering, including nursery and transplanting charges. The plants put out in the previous years were also watered wherever necessary. The casuarina seedlings obtained from the Tenasserim seeds and referred to in the last report as having been put out in the Shoran-kuppam plantation are more vigorous and thriving better than those from the local seeds. With the object of meeting domestic and agricultural requirements, planting of bamboo in regular patches was undertaken during the year in most of the ranges. Except in Cuddalore the plants in other ranges are reported to be generally in good condition. Several thousand seedlings were put out at a very trifling cost. The experiment was made at the instance of the Collector and if successful will prove invaluable to the neighbouring villages as well as a source of revenue. In Trichinopoly the system of giving on short lease small areas of padugai land to ryots on condition of their planting them with casuarina was continued in the Trichinopoly range with little success and will be discontinued. In Tanjore an area of 56 acres was planted in Tirumalavasal at varying distances. The plants are doing well except in Neidavasal where the number of failures was about 50 per cent. of the plants put out. The plantations of last year were also maintained.

In Tirunelveli no regular plantations were taken in hand though a nursery for the Melavittam plantation was formed. Some palmyra seeds were sown in the Kudiramalai Terai and most have germinated. The only two plantations in Madurai were (1) a small teak plantation in Vannathiparai and (2) the blue gum plantation in Kodakkam. Nothing was done in the teak plantation; it was considered inexpedient to restock the area owing to the casualties that happen to the seedlings. Some of the trees were attacked with fungus and died. In Gundan-shola, compartment IX was planted and pta were dug in compartments I, at a total cost of Rs. 442. The only planting in the Nilgiris was the putting out of plants, chiefly *Grevillea*, to replace dead ones in the Badaga plantations. The results are not encouraging owing partly to the pooriness of soil and dryness of climate and partly to bad planting and to want of protection of the areas which are outside reserved forest. The replanting of unimproved areas in Wynad was

carried on, but a horer destroyed large number of nursery plants. In North Malabar teakle planting was persevered with; 17 acres were planted with teak, vengai and blackwood at Chedleth at a cost of Rs. 48 including nursery, and 10 acres of the same species in Begur. These as well as the plantations of previous years are doing fairly well. The growth of vengai and blackwood is slow. The older teak plantations of 1876, 1877 and 1878 at Kaneth continue to show very poor growth. The reproduction of jack trees in tuckles has not been a success. The sandalwood plantation at Begur is not thriving. An area of 80 acres in Karimpoya reserve in South Malabar was prepared for teak planting in accordance with the provisions of the working plan. The cost up to end of June 1897 amounted to Rs. 2,635. The planting was actually done after that date. In South Canara the casuarina plantations at Mangalore suffered from erosion by the sea and it is not proposed to increase the planted area on the coast line.

In Vianapatam dates were sown in various places but after germination they died off for want of rains. In Bellary 30 acres were ploughed and sown with date seeds in the Kuppagalla reserve, 13 acres in Metriki and 35 acres in the Bellary taluk. The cost was low as the services of watchers were utilised. An experimental plantation was made by sowing seeds in 2,790 pits in Tungabhadra and 1,500 pits in the Toranagalla reserve. There were also some broadcast sowings of nim and tamarind in reserves, and dibbling date and kanuga (*Pongamia glabra*) along streams and in moist places. In Anantapur 139 acres were sown with date seeds during the year in various ranges, but the operation failed except in Madakasira owing to the drought. In Cuddapah 48 acres were sown with date and 47 with palmyra seeds but the germination was very poor. A nursery was formed in the Horslerkonda reserve to supply plants for restocking blanks. *Pongamia glabra*, *Terminalia chebula* and *Melin Indica* germinated well, *Anogeissus latifolia* fairly well, and *Terminalia tomentosa* not at all in spite of several attempts. Two hundred and eighty-six acres in South Arcot were, as in previous years, leased out to ryots on three years' cowle on condition of their raising cashew plants (*Anacardium occidentale*) 6 feet apart and surrounding them at the end of the period, the ryots being permitted to cultivate cereals on the land in the meantime. The plants thus raised are in good condition varying in height from 1 to 1½ feet. The plants on 808 acres of land similarly dealt with in former years are also thriving with a few exceptions. In Trichinopoly seeds of *Acacia Arabica* and *Juga oleis* were sown 3 feet apart in a portion of the Karaippakkam extension reserved land. The operation proved a thorough success. The cultural operations that had been commenced on portions of the Coleroon South and North banks were washed away by the floods. In North Coimbatore cultural operations were tried at Hassanur with a view to assisting the natural regeneration of sandalwood. A sub-compartment of 50 acres was operated upon; blank and open spaces were ploughed and sown with sandal, tamarind and nim seeds between July and November, and sandalwood seeds were also scattered among bushes and thorns. A number of seedlings sprang up but many of them have since been destroyed by the spotted deer that frequent the coupe. There is however a number of seedlings still surviving hidden among the high grass. In South Coimbatore a sum of Rs. 265 was spent on sowing seeds of valuable species on 14 acres in plots in compartment 7 of the Tekadi leased forest. The result was not known by the close of the year. Prickly-pear and rubbish were collected and burnt over 36 acres of coupe 4, compartment I, Singara working circle, preparatory to sowing with castor-oil and other seeds. It has since been decided to limit the sowing to an area of 2 acres yearly, the matter being purely experimental. There is some doubt whether castor-oil plants will prove successful nurseries. In South Canara, seeds of valuable species were sown in certain reserves on a small scale but the result is not encouraging except in areas closed to grazing.

(3) Early thinnings; (4) Other operations for the improvement of the growing stock.

32. In Bellary, thinnings were carried out in 100 acres of each of the reserved forests of Chiribi and Sankudakallu. In Kurnool, bamboo clumps were thinned. The work of cutting creepers was attended to in Kurnool, Cuddapah, South Arcot, South Canara and South Coimbatore. In the last-named division some cutting and girdling of miscellaneous trees were also carried out and the rubbish in the felled coupes was cleared and burnt. In North Malabar a light thinning of the plantations was made and the dominated and suppressed trees were removed; in South Malabar 717 acres of teak plantations were thinned at a cost of Rs. 410. Woodings extending over 3,898 acres, pruning over 240 acres and parasite-clearing over 590 acres were carried out at a cost of Rs. 5,213. In compartment IV Karimpoya 1,000 acres were cleared of climbers, while other operations including weeding, pruning, clearing parasites and similar works cost Rs. 5,247. In South Canara improvement fellings were carried out in the Pilarkan and Somesawar reserves. The operations consisted of setting free young growth of *Hopea purpuriflora*.

(5) Experiments.

33. Experiments with seed and seedlings continued to be made. The year was very unfavourable. The progress made is shown below.

Acacia drepanolobium.—The growth of these on the Nilgiris is very good. Average height 20 feet and girth 14 inches.

Acacia pyramidalis.—There are only very few plants on the Nilgiris, and these are of poor growth. Their average height is 8 feet and girth 2½ inches.

Acacia Campbellii.—The plants on the Nilgiris are healthy. The growth is slow. Their average height is 16 feet and girth 3 inches.

African acacia.—These seeds introduced into the Nilgiris by the late Mr. Rhodes Morgan were sown in fields at Arambay. There are about 200 plants, 3 to 4 inches in height. Of the seven varieties sent by the Conservator, Southern Circle, to South Malabar referred to in the last report, 75 plants were raised and planted out in the Nilambur hill.

Abies Douglasii seeds were also sown at Ebband nursery (Nilgiris). Very few germinated and there are about 10 plants 1 to 2 inches in height.

Buchanania populacea.—The growth of the plants of 1887 and 1888 is fairly good on the whole; their average height being 15 feet and girth 7 inches.

Bambusa.—Though the planting of Japanese bamboo was abandoned on the Nilgiris, the existing plants are reported thriving. About 65 offsets were distributed among the members of the Nilgiri Agri-Horticultural Society and others, and to the Botanical Gardens at Ootacamund. Twenty-nine offsets were also sent to Mr. Gamble at Dehra Dun. They are easily propagated and are handsome and interesting, but of no commercial value. The *Bambusa culmacea*, *Bambusa nana*, and *B. Hamiltonii* planted in 1889 have attained a height of 20 feet and 16 feet, and girth of 5 inches and 4 inches, respectively. The cuttings of *Bambusa vulgaris* put down two years ago at Manantoddy in North Malabar have grown vigorously. In South Malabar, the *Bambusa* planted along the river banks are doing well. (Out of the 25 nodes of giant bamboo which struck root last year, 9 have since died and the remainder have been planted out, 1 in Ederode and 8 in Travellikavu, 35 nodes planted during the past year have struck root and will be planted out in 1907-08. The *Bambusa vulgaris* planted in 1879 in Travellikavu are doing well. In South Canara, the clumps of *Langupathus* in the Wandur reserve show little improvement. The species including well in the banks of the Cemerday river in the Puttur range. *Dendrocladus Brandenii* sown last year in the Wandur reserve is doing very well.

Cassia rostrata.—The plants put out in Ganjam in 1895-96 are mostly doing well. In South Arcot the plants in the Tiruvannamalai and Tindivanam ranges exist but are apparently useless for rubber production. The trees in North Malabar flourish. Tappings were made in the dry weather and will be continued after the rains. In South Malabar all the plants are doing well. These hundred and nine trees were tapped during the year and yielded 24 lb. of rubber. The largest tree tapped was 2 feet 9 inches in girth and gave 8 lb. of rubber, but the average yield per tree was only 1 lb. It is reported that the trees appear over crowded and present long leafless stems with a very small crown, this perhaps injuriously affects the production of rubber.

Cephaelis Ipecacuanha.—These plants in South Malabar are not thriving.

Date.—In Nilgiris the plants in Sriharikota are reported to have died and these in Alliparai plantation are said to be dying off steadily. The sowings in the Ramapuram reserve in Cuddalore and Periyar plantation were almost a complete failure. The date offsets in Chingleput are in fairly good condition, and there are 60 plants living. Of the 75 offsets reported last year as living in North Arcot, 11 died during the year. Fifty-nine date seedlings were planted in 1886, of which 36 plants survived the year, as regards the plants raised from the seed obtained locally, the mortality was very high. There were 121 trees in South Arcot at the beginning of the year, of which 3 died, leaving a balance of 118 with varying height from 1 to 22 feet. The 14 plants of 1881 in Vettangudi reserved forest, Tanjore, survived but the growth is slow, the greatest height at the commencement and close of the year being 11 feet 3 inches and 13 feet, respectively. In the North Date garden 139 trees survive, 5 having died during the year. Their height varies from 1 to 15 feet in height. They have not fruited. There are 49 unhealthy date trees in South Malabar.

Ficus elastica.—A few cuttings were put down at Manantoddy during the year, and one more was planted at Bogur. These are doing well. There are several trees 12 or 13 years old of this species at Manantoddy and Kuppadi growing vigorously.

Guzata (Chinese).—Of the 43 plants that remained at the commencement of the year on the Nilgiris, 18 were sent to Marumalai and 12 to two gentlemen planters, 13 still remain.

Hebea brasiliensis.—The two trees at Kanoth in North Malabar continued to grow well. One is reported to be 27 feet high and 8 inches in girth.

Mahogany.—The *Swietenia macrophylla* planted at Ransallkonda in Ganjam is reported to be doing well, and in Kistna is reported to have failed. In Kurnool seeds were sown, but did not germinate owing to the drought. In the casuarina plantations of the Nellore district, four *Macrophylla* seedlings of 1895 have survived. They are reported to be 6 to 8 feet high and 6 to 7 inches in girth. In Rapur it is reported that only eight of the plants of the 1888-89 sowings

have survived. Of the sowings of 1895-96 only 11 germinated and these have been transplanted in Veerannaspetta. In Cuddalore the seeds were sown too late in the year to admit of the results being reported. The plants in Chingleput are doing well. The sowings in North Arcot were a failure during the year except in the river plantation. In South Arcot 500 seeds were sown in the Ramapuram reserved forest during the year. Only 16 germinated. There were heavy casualties among the Mahogany plants in this reserve from the attacks of a grub. There were 438 plants in the district at the commencement of the year, to which 122 were added and 170 died during the year, leaving a balance of 384 plants with heights varying from 1 to 30 feet. In Trichinopoly the result of the experiment with the Mahogany has been discouraging. In the Udaiyarpalayam range, only 25 out of the 85 plants that were alive at the end of last year now survive. In Tanjore 24 Mahogany plants were planted in the Vettangudi reserved forest (nursery), of which 16 survive varying in height from 10 to 22 feet and in girth from 9 inches to 1 foot 11 inches. Of the 28 plants planted in 1887 to the south of the South Date garden in the same reserve, 2 survive varying in height from 12 feet 3 inches to 13 feet 6 inches and in girth from 7 inches to 1 foot. Of the 72 plants planted in 1881 in the same reserve, 5 survive. Their height varies from 15 feet 3 inches to 20 feet 4 inches and girth from 11 inches to 2 feet 1 inch. In Madurai, the Mahogany continues to thrive in the Alagar valley, where plants irrigated in their early life (now 9 years' old) have attained a height of 42 feet. Those that were planted in 1894 in the same place are also doing well. In the Cumbam range, the species has not thrived. Three pounds of the seed sent to South Canara by the Conservator were distributed to the Tanakadavu, Bolampatti and Sholokara ranges equally. There were at the end of the year 161 seedlings of 19 inches in the first-named range, 149 in the second and 204 in the third, all reported to be in good condition. The Mahogany on the Nilgiris has suffered from an attack of the borer. The trees in the Kullar nursery are doing fairly well with an average height of 26 feet and girth of 14 inches. In North Malabar, the *Swietenia macrophylla* plants of the previous year at Chellett were planted out during the year, 4 acres were planted with them round the Chellett Serambi; 300 plants were put down at the Muthanga Serambi and a few at the Kuppadi bungalow. A few plants of these species were given by the District Forest-officer to Mr. Macdonald of Karticolum estate with a view to ascertain how they would do under the constant supervision which a planter is able to give to such an experiment. Of the 9 plants so given, 1 has died, but the others are growing vigorously being (now 1 year old) about 5 feet high. Some *Swietenia mahagoni* at Kunoth (now 9 years' old) have died from the effects of the borer, the rest are doing well, the best one being 26 feet high and 11 inches in girth. In South Malabar, the *Swietenia macrophylla* trees in Chathambarai measure 86½ feet in height and 70 inches in girth against 84 feet in height and 69 inches in girth last year. *Swietenia macrophylla* has been planted in Pukoda and Edacode along with teak. Those saplings which are near compartment lines or open spaces are for the most part doing well, but of those wholly surrounded by teak, a large number has died. From the 6 lb. of seed sown in bamboo pots last year, only 632 plants germinated and were planted out, 530 have since died. Six pounds of seed were received during the year and sown equally in the Nilambur and Amampalam ranges in bamboo pots. The *Swietenia macrophylla* in Dhoni is reported to be doing fairly well. Those in Walayar are stunted and 2 out of the 7 reported last year to be in existence have since died. The *Swietenia mahagoni* planted in Tiruvallikavu, Ramapuram and Panangudi, now about 16 years' old, are doing very badly. They have been attacked by borer from time to time and are stunted ill-grown saplings that will never make decent trees. In South Canara there was no noticeable improvement in the growth of *Swietenia macrophylla* planted in Gundlupet and Puttur ranges.

Synceira laurifolia.—These plants are doing well in Madurai. In Nilgiris the growth of the plants planted in 1888 is good, their average height and girth being 17½ feet and 9 inches, respectively.

From Kistna it was reported last year that the rings of *Haradukha limata* proved to be annual. This was further tested during the year and it has been found that the trees planted about 43-44 years ago exhibited 43 rings and a doubtful ring. *Melia Indica* and *Pathocolum dula* were also found to have annual rings, but in the former species spurious rings were also noticed to exist, which did not form a complete circle in the wood and seldom passed more than half-way round.

Examination of the cicatrices found on the outside of palmyra stems proved them to be each formed by the bases of three leaves. Local enquiries corroborated by the Conservator at Waltair, show that 12 leaves grow per annum. Thus four cicatrices correspond to one year's growth.

(d) Exploitation of Major Forest Produce.

(1) Clear or re-generation felling.

34. A few clear fellings were made in Bhatary in different forests for local demand by iron-smelters and others. In South Arcot and Tanjore, the prescribed coupes in the casuarina plantations were clean felled. In South Malabar, 80 acres of forest in coupe No. 1 of the Kurimpoya reserve were cleared for teak planting. The contractor paid Rs. 2,100 for the timber and bamboos standing thereon.

Further details of regeneration fellings are shown under (2) and (1).

(2) Selection fellings.

35. The chief departmental operation in *Tanjore* was the felling of all *Acacia* for the Ordnance department. In *Kistna*, casuarina and some miscellaneous timbers were cut. Bamboos were sold in compartments subject to certain restrictions, such as leaving 20 per cent. of the bamboos of a clump. In *Kurnool*, the collection of valuable timber was continued at Ernipol and commenced at Atmakuru for supply to depôts. The branch wood was utilised for agricultural implements. These were offered for sale, but it is said there was very little demand owing partially to the state of the season and partially to the facility with which head-loads of timbers could be stolen. The Collector has been directed to take special measures for a period to check these thefts at whatever cost. In *Bellary*, a hundred *Suares* pestles and some badly-grown trees of the same species were felled in the North-East range and in the Sandur leased forests, respectively. A portion of these was sold at the Bellary depôt. The operation in *Chingleput* consisted in the felling of dead and dying casuarina trees in the Manyar plantation. The felled material was supplied to the Refractory at a net profit of Rs. 1-10-0 per ton. In *North Arcot*, bamboos were felled and supplied to the Ordnance department for cane-staves and tent-poles. In *South Arcot*, 100 trees of different species were marked and felled in the Tenmalai block, and the timber, about 1,476 cubic feet, was removed to the Tiruvannimalai depôt. Under the same system 108 *veugai* trees (*Pterocarpus marsupium*) yielding 1,125 cubic feet were removed by a purchaser from the Valancholai reserved forest. Bamboos of various sizes were selected and felled from different blocks for supply to the Madras Ordnance department, while the bamboos in the hill forests of the Tiruvannimalai range were leased out to a contractor, who was required to leave uncut not less than 7 to 10 culms in each clump. Selection fellings of *Acacia arabica* were carried out in *Trichinopoly* to supply the Trichinopoly Central Jail with fuel. In *Tanjore*, casuarina trees were felled and supplied to the Tahsildar of Shiyali for closing breaches in the banks of the Coleroon. In *Tinnevely*, selection fellings were carried out to a limited extent in *Ambasamudram* and *Srivilliputhur* for departmental use. The trees felled were converted into scutlings and poles, which yielded 3,455 cubic feet. In addition 17,250 cubic feet were removed by contractors in the blocks of *Ambasamudram*, *Tenkasi* and *Nanguneri* from ever-green forests. The trees were marked by departmental officers, and the contractors paid for the felled timber at a fixed rate per cubic foot. In *Nilgiris*, selection fellings were continued in the Mudumalai forests. In *South Malabar*, selection fellings yielded 100,789 cubic feet cut by the department or contractors, in the latter case the trees having been marked by Range officers. Of this quantity, 63,440 cubic feet came from 3,955 acres of the coupe No. 1 of the *Karimpaya* reserve, 23,900 cubic feet from 15,200 acres of the *Chonai Nair* reserve, and the rest trees were felled in *Punalai* and *Somewar*, which yielded 843 logs. Only half of these had reached the sale depôts at the close of the year owing to difficulty in carting.

(3) Improvement fellings; and (1) Coppice fellings and coppice with standard fellings.

36. These operations are of the greatest importance and upon their skillful execution depends to a great extent the future welfare of the scattered forests in the plains. These, surrounded by villages and cultivation, consist for the most part of growth, stunted, hacked and malformed—the natural consequences of the unregulated fellings and grazings which obtained for years. During the year under review the work has extended over very considerable areas. The Board regrets that in *Salem* and *North Arcot*, where these operations were conducted over large areas, it has not yet been found practicable to frame working plans for them. In *Salem*, although systematically arranged, there is always the danger that the area annually operated upon is in excess of the possibility of the forest. In the *North Arcot*, improvement fellings were carried on in *Kurnool* and to some extent in *Arneri*. In the last-named district, the babul area was operated on in accordance with the working plan, and

standards were selected by the District Forest-officer. Coupes were opened in the Mangrove working circles. In the *Golconda* taluk of the *Trangapalem* district two coupes of about 60 acres each were felled in the *Madanamarikonda* and *Arkon* reserves. The material obtained was disposed of locally as firewood, charcoal and small poles. In *Bellary*, a coupe of 200 acres in the *Neranki* reserve was sold in auction to meet the local demand for fuel and timber, and two coupes of 400 and 200 acres in extent were leased to iron-smelters for manufacturing charcoal. In the *Ranandrug* range, portions of 10 (b) and 8 (d) compartments of the *Sammur* leased forests were worked, as also sub-compartment 6 (d). The system in all these areas is coppice with standards.

In the *Central Arcot*, 200 acres of the *Bally* block were worked in *Aranyah* were treated under the coppice with standards system and the wood was supplied to the Madras Railway. About 1,500 acres of the *Kodur* and *Sesumalai* sections were also treated in a similar manner for the same purpose. In *Arneri*, coupes were felled in the *Mocherla*, *Chinnicherla* and *Survepalle* reserves. In *Chingleput*, sample areas were marked in seven coupes to ascertain their yield per acre before accepting offers from contractors. The coupes 666 acres in extent, were sold, the method of working being coppice with standards. In *North Arcot*, coupes were felled for coppice under standards by departmental agency and contract. The area operated upon exceeded 2,500 acres. The average price per acre under contract was Rs. 5-12-3. In *South Arcot*, coupes in five reserves were felled over departmentally for supply of engine fuel to the South Indian Railway, and in eight others were felled over by purchasers. The area of the coupes amounted to 1,530 acres. In *Salem*, several coupes were opened for working departmentally in connection with railway fuel and local supply and other coupes were worked by contractors. It is estimated more than 3,300 acres were operated upon. In *Trichinopoly*, coppice fellings were carried on in some of the *Canas* (*Momecydon*) coupes. Some of the coupes in the *Kulittalai* Cauvery south bank plantations were felled departmentally as coppice with standards and the wood (in billets) was supplied to the South Indian Railway departmentally. A few coupes in the *Manapalai* hill reserved forests were also worked under the same system, but the right of felling was sold to private contractors. In all 418 acres were felled for coppice.

In the *Southern Circle*, improvement fellings were conducted in *North* and *South Malabar*. The operation in *North Malabar* is reported to have yielded 51,000 cubic feet of timber, but the Conservator remarks that "this is really given by selection fellings, the true improvement operation supplying very little timber and for the most part returning no immediate profit." In *No. 1 Karimpaya Forest, South Malabar*, 238 trees of useless species were cut. In *Tinnevely*, working circles were formed and fellings of useless species were cut. The fellings, amounting to 539 acres, were sold, the expenditure, carried out at a loss of Rs. 1,100. In *Malabar*, the coupe No. 1 of the *Karimpaya* reserve yielded a total outturn of 62,374 cubic feet from 168 acres or an average of 371 cubic feet per acre. The local mills paid Rupees 2,749 for 392 tons against an expenditure of Rs. 2,350. In *South Malabar*, the produce on 100 acres near *Walayar* was sold and realised Rs. 1,514. In *South Canara*, coppice felling was conducted in eight blocks by contractors, and departmentally in *Sabladi*, where twenty acres yielded 1,642 cubic feet, the cost of felling being Rs. 127 and the revenue Rs. 193.

(5) Unregulated fellings.

37. Extraction from reserved forests under cover of permits prevails to a large extent throughout the Presidency. It is gradually being replaced by located fellings. The substitution of the latter is a work of time and even when complete, arrangements must still be made under which ryots can procure timber, not available in the coupes, from other parts of the forests. Any incompletely-considered system of restriction is to be deprecated. It is not an easy task to wean the ryots from customs they have practised for years and to arrange for coupes within reasonable distance to meet all the small local requirements. In *Kistna*, poles of miscellaneous timbers were allowed to be cut on permit and the scheme of making the village heads recovering officers is working well. In *Gadivari*, it is reported that the permit system "has been brought under better control by stopping village officers from issuing permits and by entrusting this work to permit gumastahs on fixed pay." In *Kurnool*, the removal of the lower

Further details of regeneration fellings are shown under (2) and (4).

(2) Selection fellings.

35. The chief departmental operation in *Ganjām* was the felling of *sāl* (*shorea*) for the Ordnance department. In *Kistna*, casuarina and some miscellaneous timbers were cut. Bamboos were sold in compartments subject to certain restrictions, such as leaving 20 per cent. of the bamboos of a clump. In *Kurnool*, the collection of valuable timber was continued at Ernipad and commenced at Atmakūru for supply to depôts. The branch wood was utilised for agricultural implements. These were offered for sale, but it is said there was very little demand owing partially to the state of the season and partially to the facility with which head-loads of timbers could be stolen. The Collector has been directed to take special measures for a period to check these thefts at whatever cost. In *Bellary*, a hundred *Sandra* pestles and some badly-grown trees of the same species were felled in the North-East range and in the Sandūr leased forests, respectively. A portion of these was sold at the Bellary depôts. The operation in *Chingleput* consisted in the felling of dead and dying casuarina trees in the Maiyur plantation. The felled material was supplied to the Reformatory at a net profit of Rs. 4-10-0 per ton. In *North Arcot*, bamboos were felled and supplied to the Ordnance department for lance-staves and tent-poles. In *South Arcot*, 456 trees of different species were marked and felled in the Teumalai block, and the timber, about 1,476 cubic feet, was removed to the Tiruvannamalai depôt. Under the same system 108 vengai trees (*Pterocarpus marsupium*) yielding 1,128 cubic feet were removed by a purchaser from the Valavattalai reserved forest. Bamboos of various sizes were selected and felled from different blocks for supply to the Madras Ordnance department, while the bamboos in the hill forests of the Tiruvannamalai range were leased out to a contractor, who was required to leave uncut not less than 7 to 10 culms in each clump. Selection fellings of *Acacia arabica* were carried out in *Trichinopoly* to supply the Trichinopoly Central Jail with fuel. In *Tanjore*, casuarina trees were felled and supplied to the Tahsildar of Shiyāli for closing breaches in the banks of the Coleroon. In *Tinnevely*, selection fellings were carried on to a limited extent in Ambāsamudram and Srivilliputtūr for departmental use. The trees felled were converted into scantlings and poles, which yielded 3,455 cubic feet. In addition 17,250 cubic feet were removed by contractors in the taluks of Ambāsamudram, Tenkāsi and Nāngunēri from ever-green forests. The trees were marked by departmental officers, and the contractors paid for the felled timber at a fixed rate per cubic foot. In *Malabar*, selection fellings were continued in the Mudumalai forests. In *South Nilgiris*, selection fellings yielded 100,789 cubic feet cut by the department or contractors, in the latter case the trees having been marked by Range officers. Of this quantity, 63,440 cubic feet came from 3,955 acres of the coupe No. 1 of the Karimpoyā reserve, 28,000 cubic feet from 15,200 acres of the Chonat Nair reserve, and the rest from the Punnakadu reserve and the new Amarampalam forest. In *South Canara*, 612 trees were felled in Punnale and Someswar, which yielded 848 logs. Only half of these had reached the sale depôts at the close of the year owing to difficulty in carting.

(3) Improvement fellings; and (4) Coppice fellings and coppice with standard fellings.

36. These operations are of the greatest importance and upon their skillful execution depends to a great extent the future welfare of the scattered forests in the plains. These, surrounded by villages and cultivation, consist for the most part of growth, stunted, hacked and malformed—the natural consequence of the unregulated fellings and grazings which obtained for years. During the year under review the work has extended over very considerable areas. The Board regrets that in Salem and North Arcot, where these operations were conducted over large areas, it has not yet been found practicable to frame working plans for them. Without plans, although systematically arranged, there is always the danger that the area annually operated upon is in excess of the possibility of the forest. In the *Northern Circle*, improvement fellings were carried on in *Kurnool* and to some extent in *Kistna*. In the last-named district, the babul area was operated on in accordance with the working plan, and

standards were selected by the District Forest-officer. Coupes were opened in the Mangrove working circles. In the Golconda taluk of the *Vizagapatam* district two coupes of about 60 acres each were felled in the Madalammakonda and Arleva reserves. The material obtained was disposed of locally as firewood, charcoal and small poles. In *Bellary*, a coupe of 200 acres in the Neraniki reserve was sold in auction to meet the local demand for fuel and timber, and two coupes of 450 and 200 acres in extent were leased to iron-smelters for manufacturing charcoal. In the Ramandrug range, portions of 10 (b) and 8 (d) compartments of the Sandūr leased forests were worked, as also sub-compartment 6 (d). The system in all these areas is coppice with standards.

In the *Central Circle*, 200 acres of the Balapalle working circle in *Cuddapah* were treated under the coppice with standards system and the wood was supplied to the Madras Railway. About 1,500 acres of the Kodur and Seshachalam reserves were also treated in a similar manner for the same purpose. In *Nellore*, coupes were felled in the Mocherla-Chilamcherla and Survepalle reserves. In *Chingleput*, sample areas were marked in seven coupes to ascertain their yield per acre before accepting offers from contractors. The coupes 666, acres in extent, were sold, the method of working being coppice with standards. In *North Arcot*, coupes were felled for coppice under standards by departmental agency and contract. The area operated upon exceeded 2,800 acres. The average price per acre under contract was Rs. 5-12-2. In *South Arcot*, coupes in five reserves were felled over departmentally for supply of engine fuel to the South Indian Railway, and in eight others were felled over by purchasers. The area of the coupes amounted to 1,530 acres. In *Salem*, several coupes were opened for working departmentally in connection with railway fuel and local supply and other coupes were worked by contractors. It is estimated more than 3,900 acres were operated upon. In *Trichinopoly*, coppice fellings were carried on in some of the *Canan* (Memeeylon) coupes. Some of the coupes in the Kulittalai Cauvery south bank plantations were felled departmentally as coppice with standards and the wood (in billets) was supplied to the South Indian Railway departmentally. A few coupes in the Manaparai hill reserved forests were also worked under the same system, but the right of felling was sold to private contractors. In all 418 acres were felled for coppice.

In the *Southern Circle*, improvement fellings were conducted in *North and South Malabar*. The operation in *North Malabar* is reported to have yielded 54,000 cubic feet of timber, but the Conservator remarks that "this is really given by selection fellings, the true improvement operation supplying very little timber and for the most part returning no immediate profit." In No. 1 Karimpoya forest, *South Malabar*, 238 trees of useless species were cut. In *Tinnevely*, working circles were formed and fellings regulated. The fellings, amounting to 539 acres, were, with one exception, carried out through contractors. In *Madura*, the coupe fellings in six localities yielded a total outturn of 62,374 cubic feet from 168 acres or an average of 371 cubic feet per acre. The local mills paid Rupees 2,749 for 392 tons against an expenditure of Rs. 2,356. In *South Malabar*, the produce on 100 acres near Walayar was sold and realised Rs. 1,514. In *South Canara*, coppice felling was conducted in eight blocks by contractors, and departmentally in Sabladi, where twenty acres yielded 1,642 cubic feet, the cost of felling being Rs. 127 and the revenue Rs. 193.

(5) Unregulated fellings.

37. Extraction from reserved forests under cover of permits prevails to a large extent throughout the Presidency. It is gradually being replaced by located fellings. The substitution of the latter is a work of time and even when complete, arrangements must still be made under which ryots can procure timber, not available in the coupes, from other parts of the forests. Any incompletely-considered system of restriction is to be deprecated. It is not an easy task to wean the ryots from customs they have practised for years and to arrange for coupes within reasonable distance to meet all the small local requirements. In *Kistna*, poles of miscellaneous timbers were allowed to be cut on permit and the scheme of making the village heads recovering officers is working well. In *Godāvāri*, it is reported that the permit system "has been brought under better control by stopping village officers from issuing permits and by entrusting this work to permit gumastahs on fixed pay." In *Kurnool*, the removal of the lower

classes of timber, bamboos, fuel and charcoal on permit continued throughout the year. In a few localities, a limited quantity of higher class timber was also removed on permit. In *Bellary*, fellings under permits were permitted in reserves to meet the requirements of the ryots in places where the demand was not quite sufficient to warrant the opening of coupes. In *Nellore*, head-load tickets were issued to meet the wants of the people. In *Cuddapah*, the permit system had to be largely resorted to again as the attempt to introduce located fellings was not attended with success for want of suitable contractors. In *Chingleput*, the local demand for timber and firewood was met by the issue of permits by permit-issuing officers and Range-officers. In *South Arcot*, permits are issued for removals from unreserved lands. In *Tanjore*, permit-issuing officers are authorised to issue permits only for dead-wood and third-class timber trees. Unregulated fellings in *North Malabar* included the free grant of timber and bamboos as well as jack timber cut on special permits from unreserved lands. In *Madura*, no permits were issued for first-class timbers, but Range officers are authorised to issue permits for second and third class timbers to meet the requirements of the villagers.

(e) *Extraction and transport of Major forest produce by land and water.*

38. There is little to be recorded under this head which has not already been said in previous reports. In *South Coimbatore*, an attempt to float timber down the Bhavani timber slide referred to in the last report was reconstructed during the year. The scheme was to do away with the defective bottom or pavement and to replace it with planking and to put up thick planks at the sides also in order to reduce the width of the slide. The difficulty which hitherto existed in using the slide on dry days has now been overcome, but further improvement is under contemplation in the direction of controlling the speed.

(f) *Exploitation of Minor Forest Produce.*

(1) *Extraction of fodder.*

39. Towards the close of the year under report, the reserves in several districts in the Northern Circle and in *Cuddapah* in the Central Circle were thrown open to free grazing on account of the famine. Free cutting of grass in the reserves of the Berhampur taluk, *Ganjām*, was granted from January to July 1897, but the concession was not availed of to any extent. In *Kistna*, grass and leaves were allowed to be taken on free permit from all forest reserves during the greater part of the year, as fodder in unreserved lands was extremely scarce. Leaves were prohibited to be taken from only six species, viz., (1) *Harwickia binata*, (2) *Anogeissus latifolia*, (3) *Chloroxylon swietenia*, (4) *Dalbergia latifolia*, (5) *Pterocarpus marsupium* and (6) *Acacia tandra*. In *Kurnool*, removal of head-loads of grass was permitted free of charge during the latter half of the year. Only in *Bellary* was fodder extracted departmentally and supplied to the Commissariat Department. During the first half of the year, the ryots in general removed fodder on payment. The revenue from this source was Rs. 7,017 against Rs. 1,247 in the preceding year, which represents nearly 22,500 cart-loads at five annas a cart-load. A great portion of this revenue was derived from the Sandur leased forests. In *Cuddapah*, the removal of fodder free of charge was permitted during a great portion of the year and the privilege was extensively availed of. In *South Arcot*, 2,337 head-loads of grass at 5 pies per head-load were cut and removed from the Annamalai forests for cattle brought for sale to the annual fair at Tiruvannamalai. In *South Canara*, the right to cut and remove grass from reserves was sold in auction. The amount realized was Rs. 364 against Rs. 127 collected in the preceding year.

(2) *Grazing.*

40. The attempt to distinguish agricultural and non-agricultural cattle has been finally abandoned and the ordinary rates have been fixed at three-fourths of the old maxima, viz., buffalo, As. 6; ox, As. 5; sheep and goats, As. 1-0. In special tracts reserved for cattle-breeding, &c., increased rates are permissible under the sanction of the Government.

The year under review shows an increase of Rs. 35,858 from grazing and grass removals:—

	1895-96.	1896-97.
	RS.	RS.
Northern Circle	1,24,747	1,27,255
Central Circle	1,62,681	1,78,470
Southern Circle	53,068	70,629
Total	3,40,496	3,76,354

The *Northern Circle* contributes Rs. 2,508. There was a decrease in *Ganjām* due to abandonment of proposed plains reserves and free grazing; in *Kurnool*, throwing open reserves to free grazing caused the deficit. *Kistna* under the parcellaire system again shows a reduction of revenue. In two years the revenue has fallen from Rs. 90,144 to Rs. 70,389. This year the falling off is ascribed to migration of professional herdsmen to the Nizam's dominions and elsewhere and to the removal on free permit of leaves and grass from reserves. In *Bellary* there was an increase of Rupees 14,457, of which Rs. 5,770 came from sales of fodder; the balance was the result of the enhancement of grazing rates and the unfavourable season. The latter compelled the ryots to resort to the reserves. The increase in the *Central Circle* was general except in *Cuddapah* where free grazing was allowed and in *Trichinopoly* and *Tanjore*. In the last two districts proposals to reserve several tracts in the plains have been abandoned. The largest increase occurred in the *Salem* district due to the revision of the rates.

In the *Southern Circle*, in *North Malabar* and the *Nilgiris*, the revenue was less than in 1895-96. The decrease in *North Malabar* was trifling and in the *Nilgiris* was due to mortality from cattle disease. The revenue in *North Coimbatore* increased by Rs. 13,521 (over 50 per cent.); the number of licensed animals rose from 119,490 to 199,687. The increase in the remaining districts was due to more efficient control.

(3) *Miscellaneous produce.*

41. As noticed in the last report, miscellaneous produce is not usually collected by Departmental Agency, but by contractors under lease. In exceptional cases, however, such as want of adequate offers, the collection is made departmentally. In *Vizagapatam*, the contract system is reported to suit the convenience both of the merchants and the hillmen and to be financially successful. Only in *Palkonda*, where no offer was not made, the collection was made departmentally. In *Gódvári*, the produce is worked neither departmentally nor under contract, except *Rela* (*Cassia fistula*) and *Tangedu* (*Cassia auriculata*) in the unreserved lands of the Yernagudem and Ellore ranges. In *Bhadrachalam* seigniorage is levied on exports. The produce is mostly brought down by coolies or pack bullocks to the weekly markets held at the foot of the hills and there bought by merchants. In *Bellary*, the department undertook the collection of gallnuts and gum for which there were no bids at auction. In *Chingleput* and *Tanjore* permits were issued for manure leaves. In the former district they were issued also for palmyra leaves and for fruit of toddy-yielding trees not tapped. The collection of *Divi-divi* (*Cesalpinia coriaria*) pods was the only departmental operation in *Trichinopoly*. In *Madura*, manure leaves and thatch grass were removed on permits. In *North Malabar*, horns, skins and gum-kino are collected departmentally. The last-named produce is extracted from the Vengai tree (*Pterocarpus marsupium*). The price originally obtained was As. 8 a pound, but is now Rs. 2-8-0. The effect of the tapping on the trees is being watched. In *South Canara*, catechu was manufactured to the extent of nearly 17 tons at a cost of Rs. 216 a ton, while a sum of Rs. 715 was realised against Rs. 540 a ton in the previous year. Twenty-two cinnamon stills were worked yielding Rs. 1,021. The collection of horns departmentally was tried but with little profit.

CHAPTER III.—GROSS YIELD AND OUTTURN OF FOREST PRODUCE.

42. The total outturn of the year under timber and other produce compares with that of the previous year as follows:—

ABSTRACT I.—Comparative yield as per Forms Nos. 55, 56, 72A and 72B.

	Timber (in cubic feet) including sandalwood.		Fuel (in cubic feet).		Bamboos (in numbers).		Minor produce (gross value in rupees).	
	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
1	2	3	4	5	6	7	8	9
By Government Agency ..	423,476	449,968	2,827,641	2,450,068	57,067	329,662	1,069	47,748
By purchasers (including confiscations) ..	2,499,066	2,107,835	10,829,708	9,467,371	23,311,308	30,437,267	1,037	852,462
By free grants ..	70,678	82,951	12,074	7,213	57,440	157,961	1,000	1,772
By right-holders ..	3,826	1,702	45	257,641	..	21,514	499	40,767
Total ..	2,907,046	2,642,276	13,739,368	12,182,192	28,725,815	38,846,884	1,679,885	942,789
Increase or decrease in 1896-97 as compared with 1895-96 ..	..	-264,770	..	-1,557,176	..	-2,879,136	..	-137,147
Percentage of increase or decrease over the previous year's total ..	..	-9.1	..	-11.3	..	-8.5	..	-14.7

* Includes grazing fees.

The variations are explained below under the respective heads.

Section I.—Departmental Operations (Form No. 57).

43. The following abstract shows the produce collected and disposed of departmentally during 1896-97 as compared with that of the previous year:—

Produce collected.	During 1895-96.			During 1896-97.		
	Quantity.	Cost.	Average.	Quantity.	Cost.	Average.
1	2	3	4	5	6	7
Timber C. ft.	421,784	Rs. 74,396	Rs. A. P. 0 2 10	447,428	87,437	Rs. A. P. 0 2 3
Fuel C. ft.	2,904,136	1,02,065	0 0 7	2,450,068	1,10,868	0 0 5
Bamboos No.	57,067	1,389	0 0 5	329,662	4,678	0 0 2
Sandalwood C. ft.	2,711	2,685	1 0 10	2,550	2,045	1 0 2
Minor produce Mds. (of 25 lbs.)	64,420	8,217	0 3 0	40,767	15,844	0 5 1
Total ..	..	1,08,782	..	..	2,00,840	..

Produce disposed of.	During 1895-96.			During 1896-97.			Stock on 1st July 1896.	Stock on 30th June 1897.
	Quantity.	Value.	Average.	Quantity.	Value.	Average.		
8	9	10	11	12	13	14	14	15
Timber C. ft.	489,851	Rs. 1,02,397	Rs. A. P. 0 7 8	507,893	1,76,385	0 7 8	343,645	322,301
Fuel C. ft.	2,965,319	1,02,292	0 0 11	2,464,108	1,02,078	0 1 2	869,432	831,000
Bamboos No.	59,282	2,025	0 1 2	329,681	4,000	0 0 6	13,746	12,717
Sandalwood C. ft.	8,997	21,418	5 7 11	7,797	25,720	8 12 0	1,202	1,000
Minor produce Mds.	21,025	18,946	0 18 1	51,681	84,837	0 10 11	31,495	79,499
Total ..	..	2,08,019	..	..	2,06,601	..	..	..

The quantity collected under "timber" and "bamboos" is in excess of the collections of the year preceding, while that under "fuel" "sandalwood" and "minor produce" shows a decrease. The increase under timber was chiefly in Kistna,

Kurnool, South Canara and South Malabar, counterbalanced partly by large decrease in Bellary and Tinnevely. The felling of two coupes in Gopuvinipalem and cutting of piles for the Madras-Bewdara Railway contributed to the increase in Kistna, while that in Kurnool and South Canara was the result of greater demand. In South Malabar the collection of a large number of saplings in connection with improvement fellings accounts for the increase. The decrease in Bellary is ascribed to the stoppage of the coupe felling in the Ramandrug range owing to absence of demand, and that in Tinnevely to the abandonment of departmental operations in Srivilliputtur, Sankaranayinarkoyil and Nanguneri taluks.

The decrease under "fuel" was generally due to the substitution of private for direct working. There was a falling off in Kurnool, Bellary, Cuddapah, North Arcot, Trichinopoly and Tinnevely which was somewhat made up by the increase in Vizagapatam, Nellore, South Arcot, Salem, Nilgiris and South Coimbatore. The decrease in Kurnool was due to the suspension of improvement fellings at Chelama as there was a large stock of the previous year's cuttings. In Bellary fellings were restricted owing to absence of demand. A large quantity of fuel from patta and waste lands was brought in by poor ryots and sold at cheap rates as a means of livelihood during the famine. The supply of engine fuel to the Madras Railway through contractors accounts for the decrease in Cuddapah, and in North Arcot fellings in the Mamandur coupes were suspended owing to the ill-health of the establishment. In Trichinopoly the collection was practically normal. A quantity of stacked as well as branch wood felled by contractors in 1894-95 was brought to account in 1895-96 which tended to swell the year's collection. The decrease in Tinnevely is ascribed to the partial working of coupe No. IV of the Padaramalai working circle. The increase in Vizagapatam was due to increased working of the coupes in the Golconda and Sarvasiddhi ranges and that in Nellore is explained by the larger outturn from the Sriharikota forests and by the greater extraction of dead trees from the casuarina plantation range. In South Arcot and Salem there was an increased demand for engine fuel. The increase in South Coimbatore was due to the greater yield from the Sholakarai and Ayirangal working circles.

Under "bamboos" there was a large increase chiefly in South Arcot, Salem, South Malabar and North and South Coimbatore. In South Arcot and Salem the increase was due to the demand from the Madras Ordnance Department and from the Hosur Remount Depot. In South Malabar the cutting of a larger number of saplings was accompanied by the cutting of more bamboos. The experimental cutting of bamboos in North Coimbatore and the larger collection in Bollampatti and Sholakarai ranges in South Coimbatore account for the increase in these districts.

Under "sandalwood" the decrease was small and calls for no remarks. The decrease under "minor produce" occurred chiefly in Vizagapatam, Bellary and Nellore. It was due to a great extent to the unfavourable character of the season during the year. In Vizagapatam the collection of rela and avura grass was restricted as there was a large stock of the previous year's collection on hand. In Bellary the decrease was attributed to the removal of grass required by the Commissariat Department on permits in preference to departmental collection and sale. The large decrease in Nellore was due to short demand for nux-vomica and smaller collections of soapnuts owing to prevalence of disease in the sea-borne villages. These decreases were partly counterbalanced by increases in North and South Coimbatore where departmental collections were undertaken on a large scale. Although the total quantity collected under minor produce was less compared with that of the previous year, the gross value of the produce collected during the year under report is far higher. This was chiefly due to the collection departmentally of valuable produce such as gallnuts, seekoy, *Acacia Concinna* wax, horns, &c., in North and South Coimbatore.

Under disposals the quantity of timber sold showed an advance on the sales of the preceding year. The increase occurred principally in Kistna, Kurnool, North and South Malabar. It was somewhat counterbalanced by decrease in Ganjam, Bellary and North Arcot, South Coimbatore and Tinnevely. The increase in Kistna was due to causes already explained under collections, and that in Kurnool to the working of two sale depôts throughout the year. In North and South Malabar the demand was brisk

so that a quantity of the previous year's collections which remained on hand was sold during the year. The decrease in *Gandam* was due to logs for sleepers in the Russell-konda depôt not having been sold during the year for want of good prices, to the cessation of demand by the East Coast Railway and to the prevalence of famine. In *Bellary* and *Tinnevely* the decrease was due to causes already explained under collections and that in *North Arcot* to absence of demand for red-wood posts and miscellaneous timber. South Coimbatore has not explained the cause of decrease.

The disposals under "fuel" show a decrease which occurred chiefly in *Kistna*, *Kurnool*, *Bellary*, *North Arcot*, *Trichinopoly*, *Madura* and *Tinnevely* and an increase in *Vizagapatam*, *Nellore*, *South Arcot*, *Salem* and *South Coimbatore*. In *Kistna* and *Bellary* the decrease was due to slack demand and in *Kurnool* to the suspension of improvement fellings at Chelama and to smaller demand from the cotton press at Nandyal. In *North Arcot* previous year's sales included large quantities of old felled in the Naickaneri coupes during the year, accounts for the decrease in the district. In *Trichinopoly* and *Tinnevely* the decrease was due to causes already explained under collections and in *Madura* there was no demand from the mills. The increase in *Vizagapatam* and *South Coimbatore* has not been explained, while in *Nellore* it was due to a better market for casuarina wood than in previous year. The increase in *South Arcot* and *Salem* was due to causes already explained under collections.

The increase in the disposals of "bamboos" occurred chiefly in *Kurnool*, *South Arcot*, *South Malabar* and *North and South Coimbatore*. In *Kurnool* it was due to the sale of most of the material collected at close of 1895-96. The increase in *South Arcot* is only nominal as a large number was used for departmental works and some were written off as decayed and useless. In *South Malabar* it was due to the disposal of the stock collected for floating the saplings as explained under collections. There was a keen demand in *North Coimbatore* which accounted for the increase: no explanation has been given for the increase in *South Coimbatore*.

The decrease under "sandalwood" was due to want of satisfactory offers in *Salem*, *North Coimbatore* and the *Nilgiris*. The disorganization of all business in *Bombay*, the chief market for sandalwood, explains the decrease.

Under "minor produce" the increase chiefly occurred in *Vizagapatam* and *North Coimbatore*. The increase in *Vizagapatam* has not been explained, but that in *North Coimbatore* is ascribed to causes already explained under collections.

As regards cost of collection there was a slight decrease in the rate for timber, bamboos and sandalwood and increase for fuel and minor produce. The decrease in the case of timber was chiefly due to the cost of sawing and carting sleepers and timber supplied to the Ordnance Department from North Malabar having been included in the previous year in the cost of collection and to saving effected in carriage in the Nilgiri district where no departmental transport was undertaken during the year under report. The low rate paid for felling in *South Coimbatore* and the steps taken to reduce the cost of logs by sawing so as to reduce cartage also contributed to the decrease. The decrease in the cost rate of collection of bamboos and sandalwood was small and calls for no remarks. The slight increase under "fuel" is due to collection and supply to Government depôts. The increase in the rate for minor produce was chiefly due to the collection (which costs comparatively little) of a very large quantity of rella and avuru grass in the *Vizagapatam* district in the previous year and to the restricted collection in the year under report.

The average rate of sale under timber shows a slight increase due to the sale of a larger quantity of valuable timber than in the previous year. The increase in the average sale rate of fuel was due to keen competition for coupes generally and to the demand for casuarina wood in the *Nellore* district. The decrease in the rate under "bamboos" was due to the experimental collection and sale undertaken departmentally in *North Coimbatore*, while the increase under "sandalwood" is due to a sum of Rs. 10,370 appertaining to the sales of 1895-96 having been received and credited into account during 1896-97. The decrease under "minor produce" was due chiefly to the sale of a large quantity of rella and avuru grass in the *Vizagapatam* district.

44. The subjoined abstract shows the quantity and value of timber and other produce removed by consumers and purchasers as compared with the results of the previous year:—

(FORM No. 72-A.)

ABSTRACT K.—Produce removed by purchasers.

	During 1895-96.			During 1896-97.		
	Quantity.	Amount of sales.	Average.	Quantity.	Amount of sales.	Average.
Northern Circle.						
Timber	C. ft. 1,427,324	Rs. 1,30,610	0 1 6	1,078,313	1,08,811	0 1 7
Firewood	" 3,260,124	73,273	0 0 4	2,423,928	59,310	0 0 4
Bamboos	No. 19,319,703	92,230	0 0 1	16,906,473	69,664	0 0 1
Grass and grazing	"	1,25,043	"	"	1,25,939	"
Minor produce	"	3,11,776	"	"	1,68,319	"
Total	"	7,36,096	"	"	6,16,243	"
Central Circle.						
Timber	C. ft. 784,368	78,167	0 1 7	811,280	89,556	0 1 9
Firewood	" 4,474,468	1,75,649	0 0 8	3,869,689	1,20,828	0 0 7
Bamboos	No. 11,698,169	87,242	0 0 2	12,442,370	91,468	0 0 1
Grass and grazing	"	1,66,476	"	"	1,78,438	"
Minor produce	"	2,68,668	"	"	2,19,072	"
Total	"	3,00,691	"	"	2,09,762	"
Southern Circle.						
Timber	C. ft. 166,119	82,454	0 3 2	154,039	47,041	0 4 10
Firewood	" 3,076,333	51,654	0 0 6	3,137,739	90,506	0 0 6
Bamboos	No. 2,036,060	22,126	0 0 2	2,065,094	18,149	0 0 2
Grass and grazing	"	63,068	"	"	71,117	"
Minor produce	"	1,47,628	"	"	1,00,548	"
Total	"	3,00,930	"	"	3,27,360	"
Presidency.						
Timber	C. ft. 3,377,881	2,42,284	0 1 7	3,043,632	2,45,808	0 1 11
Firewood	" 10,810,025	3,42,438	0 0 6	9,423,426	2,76,843	0 0 6
Bamboos	No. 33,554,913	2,11,327	0 0 1	30,412,327	1,79,281	0 0 1
Grass and grazing	"	3,41,327	"	"	3,73,494	"
Minor produce	"	7,15,327	"	"	4,77,939	"
Total	"	18,43,611	"	"	15,53,365	"
Grand Total of Sales	"	18,43,611	"	"	15,53,365	"

The total value of removals in the year under report, as compared with that of the previous year, shows a net decrease of Rs. 2,90,252, detailed in the margin.

Timber	Rs. 4,577
Fuel	54,038
Bamboos	32,377
Grass and grazing	31,908
Minor produce	2,40,322
Total	2,90,252

The slight decrease under "timber" is noticeable chiefly in districts of *Goddavari*, *Chittoor*, *North Arcot*, *Salem* and *Tinnevely*. The increase under this item was mainly due to the credit of the value of trees on unreserved lands to Forests instead of to Land Revenue—Miscellaneous, and to the realization during the year of the value of trees on lands in reserved forests leased out to planters for coffee cultivation on the *Sheshy Hills* in the *Salem* district.

Under "Fuel" there was a decrease chiefly in *Vizagapatam*, *Goddavari*, *Kistna*, *Kurnool*, *Cuddapah*, *South Arcot*, *Salem*, *South Coimbatore* and *Madura*. The concessions allowed under Rule 7 of the rules under section 26 of the Forest Act partially explain this, particularly in the last two districts. In *Vizagapatam* it is attributed to the unfavourable character of the season and in *Goddavari* to the removal of a smaller quantity of casuarina wood by Public Works Department authorities from the Bondamoorlanka and Narsapur plantations of the delta range. It is explained that inability of the poor classes to pay for fuel when the price of grain was ruling high was the cause of the decrease in *Kistna* and *Kurnool* districts. The decrease in

Cuddapah is attributed to the unfavourable season and to the stoppage of the issue of licenses for fuel and the introduction of the system of located fellings, in South Arcot to the working of certain coupes by departmental agency for supply of fuel to the South Indian Railway and to want of demand generally in certain ranges. In Salem coupe contracts in the Tirupattūr Range were not given out as the period of previous contracts extended to the year under report.

Under "Bamboos" the decrease is chiefly spread over Ganjam, Gōdāvari, Kurnool and North Arcot. It is generally attributed to famine which prevailed during the year and to slack demand. The increase under "grass and grazing" is explained under "grazing" in paragraph 40 *supra*. The decrease under "minor produce" occurs in Vizagapatam, Kurnool, Bellary, Anantapur, Cuddapah, Nellore, North Arcot, Trichinopoly, North and South Coimbatore, and it was due in a large measure to the drought. The tanning industry, for which Avaram bark (*Cassia auriculata*) is used, has suffered from the restrictions placed on the import of hides into Europe on account of the plague in India; this decreased the sales of Avaram bark. In Vizagapatam ream tangedu bark leases were temporarily suspended owing to adverse season and the revenue from date trees was not fully realized. In Cuddapah the amroy crop failed and only a smaller amount was realized from tangedu leaves owing to the bad season. In Nellore the areas leased contained little tangedu. In Kurnool and Bellary the decrease was due to famine. The decrease in North Arcot was due to postponement of the bark leases of some of the ranges for a year with a view to give rest to the forests, and that in Trichinopoly was almost nominal, as the lease amounts for periods covering two or more years were all brought to account during 1895-96. The decrease in North and South Coimbatore was due to the introduction of departmental collection and disposal.

45. The following statement shows the comparative cost of departmental and private working and the net profit derived from each class of produce under each system:—

Items.	Measure.	Quantity sold.	Amount of sale-proceeds.	Charges.			Net profit or loss.	Rate of net profit as per centum in column 8.
				A. Conservancy and works.	B. Reestablishment and contingencies.	Total.		
1	2	3	4	5	6	7	8	9
Departmental Working—								
Timber	C. ft.	867,592	1,76,885	67,387	28,442	1,04,738	72,149	0 3 2
Fuel	"	2,664,106	1,55,979	1,10,385	46,778	1,58,164	31,915	0 0 2
Bamboos	"	229,881	10,086	4,676	2,249	6,865	3,261	0 0 3
Minor produce ..	"	1,797	15,720	3,646	2,817	6,463	16,258	5 11 4
Private Working—								
Timber	"	9,081	24,837	15,644	7,743	23,387	11,450	0 0 7
Fuel	"	2,043,823	2,44,806	15,644	40,099	55,743	1,90,067	0 1 6
Bamboos	"	4,423,426	2,76,843	17,612	48,162	65,774	2,14,064	0 0 1
Minor produce ..	"	80,412,937	1,79,381	11,409	29,246	40,655	1,38,626	0 0 1
Grazing	"	..	8,73,484	28,728	60,920	89,648	2,68,797	..
Minor produce ..	"	..	4,77,589	20,418	77,947	1,06,365	3,69,607	..

The rate of profit in the case of departmental working of timber exceeds that in the case of private working and is due to the sale of a larger quantity of valuable timber such as teak, rosewood, vengai, redwood, &c. Under "fuel" departmental working shows a loss as compared with private working. This is chiefly due to the inclusion in the quantity sold of 161,867 cubic feet of fuel used departmentally or written off as useless, &c. That under bamboos shows a more profit under departmental working and is due to the superior quality of bamboos extracted by Government.

46. The sales of confiscated produce during the year under report, as compared with those of the previous year, are presented in the subjoined abstract:—

FOREST DEPARTMENT.

ABSTRACT L.—Confiscation (Form No. 73 B).

	During 1895-96.			During 1896-97.		
	Quantity.	Value.	Average.	Quantity.	Value.	Average.
Northern Circle.						
Timber	C. ft.	15,038	Rs. 3,618	Rs. A. P.	43,917	Rs. 5,741
Firewood	"	5,584	191	0 2 10	16,241	350
Bamboos	"	50,738	269	0 0 8	17,960	187
Minor produce ..	Money value.	315	0 0 1	..	648	0 0 2
Total	..	4,393	..	..	6,956	..
Central Circle.						
Timber	C. ft.	4,996	803	0 2 7	7,024	978
Firewood	"	6,431	326	0 0 10	8,239	659
Bamboos	"	3,969	106	0 0 5	4,100	64
Minor produce ..	Money value.	114	..	..	97	..
Total	..	1,349	..	..	1,796	..
Southern Circle.						
Timber	C. ft.	11,151	3,166	0 4 7	7,062	2,272
Firewood	"	7,765	398	0 2 1	19,466	613
Bamboos	"	784	77	0 1 7	2,260	38
Minor produce ..	Money value.	95	..	..	275	..
Total	..	4,836	..	..	3,198	..
Residency Total.						
Timber	C. ft.	31,185	7,587	0 2 11	64,003	8,989
Firewood	"	18,780	1,515	0 1 3	43,948	1,652
Bamboos	"	55,491	462	0 0 2	24,320	269
Minor produce ..	Money value.	524	..	..	1,030	..
Grand Total ..	..	10,078	..	..	11,250	..

The total amount of sales shows an increase of nearly Rs. 2,000. It is noticeable chiefly in Gōdāvari, and was due to stricter supervision exercised by the drift wood inspector and to the credit during the year of the sale-proceeds of some drift timber unsold in previous years.

47. In accordance with the circular from the Inspector-General of Forests, No. 6, dated 5th March 1897, the value of produce removed under rights or free grants is shown in the following statement:—

	Timber.		Fuel.		Bamboos.		Minor produce.	Grazing.	Total value.
	Cubic feet.	Value.	Cubic feet.	Value.	Number.	Value.	Value.	Value.	
By Right-holders.									
Northern Circle ..	1,311	94	257,510	4,928	20,489	128	39,450	700	44,200
Central Circle ..	..	..	..	..	..	..	356	..	356
Southern Circle ..	391	27	31	2	1,125	3	432	829	1,293
Total	1,702	121	257,541	4,930	21,614	131	39,238	1,529	45,849
By Free-grantees.									
Northern Circle ..	38,610	2,910	..	..	73,646	336	605	129	2,980
Central Circle ..	37,476	3,268	409	25	70,276	426	840	74	4,633
Southern Circle ..	7,465	811	6,812	429	14,515	189	125	..	1,554
Total	82,551	6,989	7,212	454	1,57,961	951	1,570	203	16,167

Note.—The value under grazing shown above is exclusive of free grazing and grass removals allowed during drought in the affected districts.

As usual free grants of forest produce were allowed to poor ryots whose houses were burnt by fires or demolished by floods. During the year under report free grants of building materials were made for construction of famine kitchens. No produce was granted on free permit in the districts of Chingleput, Tanjore and Madura.

CHAPTER IV.—FINANCIAL RESULTS.

48. The financial results of the forest year for the Presidency compared with 1895-96 show a decrease in the net revenue of Rs. 97,602.

The details according to circles are shown in the following table:—

Forest year.	Circle.	Revenue.	Expenditure.			Net results.
			A. "Conservancy and works."	B. "Establishments."	Total.	
1895-96	Northern	Rs. 7,23,859	Rs. 1,68,443	Rs. 2,15,434	Rs. 3,83,877	+ 3,39,982
	Central	8,39,733	2,79,778	2,81,232	5,60,995	+ 3,78,738
	Southern	5,04,038	2,64,609	2,59,507	5,24,116	- 20,078
	Total	21,67,630	7,12,829	7,56,163	14,68,998	+ 6,98,642
1896-97	Northern	6,97,422	2,42,025	2,33,255	4,65,280	+ 1,32,142
	Central	9,48,547	3,06,670	2,78,312	5,84,982	+ 3,63,565
	Southern	6,42,948	2,79,665	2,68,310	5,47,975	+ 1,05,133
	Total	21,88,917	8,28,360	7,59,877	15,87,237	+ 6,01,640

The gross receipts exceeded those of the previous year by Rs. 21,287 and the variations are explained as follows:—

Departmental working.

- (1) Timber + Rs. 14,548. Due to the sale of timber from Karimpoya reserve in South Malabar and of the previous year's balance in North Malabar.
- (2) Fuel + Rs. 25,787. The result of fuel supply to the Madras and South Indian Railways in Salem and South Arcot.
- (3) Bamboos + Rs. 7,061. Supplies of bamboos to the Ordnance Department for lance-staves, &c.
- (4) Sandalwood — Rs. 5,698. Sales were withheld in consequence of the fall in the Bombay market.
- (5) Minor produce + Rs. 15,891. Derived from departmental collection of catechu in South Canara and miscellaneous produce in North Coimbatore.

Private removals.

- (6) Timber + Rs. 3,628. Explanation unnecessary.
- (7) Fuel — Rs. 30,597. The departmental supply of railway fuel contributed to the deficit but the famine was the chief cause.
- (8) Bamboos — Rs. 16,525. The drought and consequent agricultural distress in the Northern Circle affected the demand and fewer bamboos were extracted from the Walayar reserve in South Malabar.
- (9) Grazing + Rs. 35,858. The increase was general throughout the Presidency, explanation has been afforded under grazing.
- (10) Other produce — Rs. 1,04,569. Decrease entirely due to the famine and drought; the crops were poor and the *Cassia auriculata* sales were low.
- (11) Confiscated wood and miscellaneous revenue — Rs. 15,893. Principally the purchase money for lands opened out for coffee cultivation in the Anaimalais in South Coimbatore.

The expenditure under "Conservancy and Works" increased by Rs. 1,15,375. The excess of Rs. 11,808 under "I." corresponds to the increased revenue. The cost of temporary establishments and percentage of collections paid to permit-issuing officer explain the increase of Rs. 8,910 under "II." Under live-stock, stores, &c., there was an increase of Rs. 12,769 due to cost of establishments engaged in the capture of elephants in the Southern Circle. The supply of tents to different officers accounts for the balance. The outlay upon communications and buildings exceeded that of the previous year by Rs. 27,750; details have been already given in other parts of the report. The expenditure upon improvement and extension of forests, VIII, increased by Rs. 34,587, the greater part of which was the cost of the Survey of India. Miscellaneous expenditure rose by Rs. 23,274 consequent upon refunds in the Northern Circle. The total difference in the cost of establishments only amounted to Rs. 3,514 being increased official postage and carriage of records.

The following districts contributed chiefly to the net surplus: Salem over 20 per cent., Bellary 13, Nellore 11, North Arcot 10 and South Coimbatore over 9.

CHAPTER V.—IMPORTANT ADMINISTRATIVE CHANGES.

49. Realization of Revenue from the Usufruct of Toddy-yielding Trees in the Reserved Forests and Government Waste and Poramboke Lands.—This question received careful consideration during the year under report. The system of selling by public auction the lease of the usufruct of the toddy-yielding trees was superseded in several districts by that of levying a fixed fee of 4 annas per tree for the usufruct together with the tree-tapping fee levied by the Abkari Department. The relative merits of the two systems and the reasonableness of the rate were discussed at length and Government has finally decided that the ordinary rate should be 4 annas which may be raised to 8 annas with the sanction of the Board.

50. Modification in the System of Grazing Fees.—The only modification in the system of grazing fees was the imposition of special higher rates in special tracts in the case of cattle kept in large numbers for breeding purposes or for profit. Detailed proposals specifying the areas in which the levy of higher rates of fees are recommended were submitted to Government during the year and sanction in the case of the Southern Circle has since been received. With reference to the remark made by the Government of India in reviewing the Forest Administration Report of this Presidency for 1894-95, the question of the feasibility of extending to other districts the parcenaire system of grazing which has been working in Kistna was under the consideration of the Board. Government has since been informed that, excepting in Kurnool, where the introduction of the system is being arranged for, and in Nellore, where the system is being tried, it is not advisable at present to attempt any change in the districts, save such as will follow from the adoption of the rules sanctioned by Government during the year for the regulation of grant of permits for grazing in reserved forests. These provide that the reserved forests of a district shall be divided into grazing blocks which may consist of one reserve or several or even part of a reserve, the size of the blocks being left to the discretion of the district authorities. As regards grazing in special tracts, special forms of permits have since been approved.

51. Working of the Department.—Improvement of Forest Growth and the Wants of the People.—The special attention of all Collectors was drawn to the instructions of Government in the matter of safeguarding the interests of the ryots when making arrangements for the sale of forest produce and particularly against levying prohibitive prices upon leaves required for use as manure or upon small timber for domestic purposes. Reports were, at the same time, called for from all Collectors as to whether any modification was required in the working of minor produce in their districts. From the replies that have since been received, it appears that the instructions of Government above referred to have had the desired effect of removing any hardships that might have accrued by levying out small items of minor produce to uncontrolled contractors. A considerable number of items is reported to have been removed from the sale lists and District officers should continue to devote particular attention to this subject. Free gleaming is generally permitted in coupes after removal of marketable

produce. Depôts have been established in *Salem* and *South Arcot* to meet local fuel requirements, and in the latter district bamboo planting has been undertaken for purely local supply. With the system of located fellings, which is now being gradually introduced in all districts, and which during the year extended over more than 16,700 acres, improvement of forest growth will undoubtedly take place and any hardship resulting from temporary closure to grazing of the coupes will be more than compensated by the improved growth and quality of the grass, &c. The required information on the improvement of standing growth and the efforts made to encourage it is given in paragraphs 30 and 31 of chapter II.

52. *Rules under the Forest Act.*—Timber Transit rules under sections 35 and 36 of the Forest Act for the districts of *Ganjām*, *Kurnool* and *South Coimbatore* and rules for regulating transit of sandalwood in *North Coimbatore* and the management of forest and waste lands in the *Saptur estate*, *Madura* district, were sanctioned during the year. Transit rules for *Vizagapatam* have since been published and those for the districts of *South Canara*, *Cuddapah* and *Kistna* submitted since the close of the year await the sanction of Government. It was found that there is at present no necessity for Timber Transit rules in the *North Arcot* district and the old rules were accordingly cancelled. Revised rules to regulate the collection and disposal of drift wood and drift timber in the *Gôdâvari* river were also issued during the year as also revised lists of classified trees and the seigniorage rates fixed for each. The Forest Manual was finally revised by the Board and awaits the approval of Government.

53. *Working of the rules under section 26 of the Forest Act.*—This subject is noted by the Collectors of *Kistna*, *North Coimbatore* and *North Malabar*. In *South Malabar* the rules scarcely affect the people as nearly all the lands not included in reserve belong to private owners. In *Ganjām* the rules offered considerable relief to the people in obtaining produce for their domestic and agricultural requirements and the people are reported not to have abused the privilege. In *Vizagapatam* and *Gôdâvari* some difficulty was experienced in working rule 7 of the rules; in the former district the ryots complained that the concessions do not go far enough and that only worthless trees are excluded from the classified lists. In the latter district the difficulty lay in distinguishing produce brought for sale from that brought for domestic use. It is reported that in *Gôdâvari* and *Kurnool* there is a tendency to abuse the privilege of timber being deliberately cut for sale and other non-agricultural purposes. It is doubtful whether the new rules really added to the facilities for the irregularities which appear to be of old standing. In *Bellary* the rules worked satisfactorily; minor breaches such as cutting down babul saplings for goat browsing and pollarding of babul trees for fencing were promptly stopped. In *South Arcot* it is reported the ryots have not availed themselves to any extent of the privileges accorded by the rules; the reason given, is their ignorance of them. This will remedy itself. In *Anantapur* and *North Arcot* the privileges were extensively exercised and there were no abuses. In all the other districts the rules worked satisfactorily. It is reported that in *South Canara* the Wardens are inclined to take up on darkhast waste lands which have been excluded from reservation to supply fire produce to the villagers.

54. *Coffee cultivation in reserved forests.*—In *Salem* twenty-three leases have been granted to planters—two during 1895-96 and twenty-one during the year under report—for cultivating plots of land on the *Sheraraya*. The total extent of these leases as per final sketches amounts to 2,930 acres. Out of the total demand of Rs. 26,553 on year under report and Rs. 2,446 in the previous year. The balance is due only after execution of the final lease deeds in respect thereof, remained to be completed. The question of opening the *Yalagiris* and the *Kollemala* to coffee cultivation is under consideration. Proposals for allowing cultivation in *Kudakote* in *North Malabar* on leases similar to those on the *Anamalais* are also under consideration. In *South Coimbatore* the conditions and rules under which lands are to be leased on the *Anamalais* for planting purposes were decided, and the maximum price for each applicant being enforced. Twelve of the original applicants have been notified for each applicant a upset price of Rs. 5 per acre without the land. The total area of 11,268 acres at the Under the auction system there was only one applicant for each of the 1,000 acres each. The form of the lease is awaiting the final approval of Government.

55. *Tours of Forest Member.*—The Honourable Mr. J. Sturrock was the Forest Member of the Board of Revenue throughout the year. He visited the districts of *Madura*, *Tinnevely*, *Trichinopoly*, *Nellore*, *Chingleput*, *North Arcot* and the *Nilgiris*. In August 1896 he proceeded to *Nellore* and visited the Mica mines. A portion of the *Palmanér* range and the departmental coupes near *Ambúr* in *North Arcot* were inspected in March last. In May and June he inspected the forests of the *Nilgiris* and held a conference with the Collector and District Forest-officer, at which various matters of forest interest were discussed.

56. *Conservators' Inspection.*—The usual statement showing the names of Conservators that held charge of the three circles during the year, the time spent by them in camp and the names of districts visited or inspected is presented below:—

Circle.	Names of Conservators.	Number of days in charge.	Number of days spent in camp.	Districts visited.	Districts for which inspection notes were submitted to the Board.	District Forest-offices inspected.
Northern	Mr. A. W. Peet	Whole year.	183	All the districts except Kurnool.	Vizagapatam	Ganjām, Vizagapatam, Kistna and Anantapur.
Central	„ E. P. Popert	Do.	173	All the districts except Tanjore.	„	All District Forest-offices.
Southern	„ E. D. M. Hooper	Do.	269	All the districts of the Circle.	South Canara, North Malabar and the Nilgiris.	Do. do.

Mr. Peet made, under orders from the Board, thorough inspection of the Agency tracts proposed for further reservation in *Vizagapatam*. His visit to *Bellary* was made for the purpose of conferring with the Collector on famine arrangements. The forests in all the districts under his charge except those of *Tanjore* and *Nellore* were inspected by Mr. Popert. In *South Arcot* he visited the plantations and in *Nellore* the Mica mines. His visit to *Salem* was made chiefly with a view to report in consultation with the Collector on the question of over reservation in the district. Mr. Hooper made detailed inspection of the *South Canara*, *North Malabar*, *Nilgiris*, *Coimbatore* and *Tinnevely* districts.

57. *Touring of District Forest-officers.*—More than half the year was spent in camp by District Forest-officers except *Vizagapatam*, *Chingleput*, *Nilgiris* and *Madura*. Mr. Hayne was in charge of *Chingleput* for 246 days but was unable owing to illness to spend more than 85 days in camp. The touring of the District Forest-officer, *Nilgiris* and *Madura*, fell short of the prescribed minimum only by 41 and 8 days, respectively; the District Forest-officer, *Nilgiris*, was unable to complete the minimum, as he was engaged at head-quarters in examination of records and in preparing the case for the *Nilgiri-Mysore* boundary dispute.

58. *Inspection of Range offices by District Forest-officers.*—The ranges of all districts, except *Kurnool*, *Nellore*, *Chingleput*, *South Arcot*, *South Malabar*, *North Coimbatore* and *Madura* were inspected twice during the year. In these districts some of the Range offices were inspected only once.

59. *Audit of the accounts of District Forest-offices.*—The accounts of all District Forest-offices, except *Vizagapatam*, *Kurnool*, *Trichinopoly*, *Tanjore*, *Nilgiris* and *North and South Coimbatore* were audited during the year as usual by the Local Fund inspecting staff of the Accountant-General's office.

60. *Forest school.*—Two Deputy Rangers from the Southern Circle—one from the Northern Circle and one from the Central Circle—were deputed during the year to the Forest school and one Deputy Ranger returned from the school to the Southern Circle with a Ranger's certificate.

61. *Permanent Establishment.*—During the year under report two officers—Messrs. J. S. Scot and C. B. Dawson—arrived from England and were posted to do work under the immediate supervision of the District Forest-officers, *Cuddapah* and *Tinnevely*, respectively. Mr. Brougham, Deputy Conservator, 3rd grade, retired from the service

on the 15th January 1897, and Assistant Conservator Mr. F. C. L. Cowley-Brown was promoted permanently to the grade of Deputy Conservator in the vacancy. The sanction of the Secretary of State for India to the scheme for the reorganisation of the subordinate executive staff was received in February 1897. The scale of establishment fixed under this sanction for the whole Presidency is 108 rangers, 199 deputy rangers and foresters and 980 guards, and the maximum scale is to be worked up to gradually during three years. Thus to a portion of the sanction effect was given during the last six months of the year, and the following statement exhibits circlewise the scale sanctioned for the official year 1897-98:—

Circle.	Rangers on Rupees.							Deputy Rangers on Rupees.				
	150.	125.	100.	80.	60.	50.	Total number.	40.	35.	30.	Total number.	
	2	3	4	5	6	7	8.	9	10	11	12	
Northern Circle	..	..	..	..	..	..	..	..	..	..	..	..
Central "	..	..	..	..	..	..	..	..	..	..	..	..
Southern "	..	..	..	..	..	..	..	..	..	..	..	..
Total	3	5	9	16	22	36	90	19	14	26	59	

Circle.	Foresters on Rupees.				Forest guards on Rupees.							
	25.	20.	15.	Total number.	12.	10.	9.	8	7.	6.	Total number.	
	13	14	15	16	17	18	19	20	21	22	23	
Northern Circle	..	..	..	..	..	..	..	..	..	..	..	..
Central "	..	..	..	..	..	..	..	..	..	..	..	..
Southern "	..	..	..	..	..	..	..	..	..	..	..	..
Total	5	56	68	199	46	70	99	646	40	69	800	

Difficulty

Difficulty was experienced in finding qualified candidates for the posts in the higher and lower grades, even for the partial increase and special exemptions had to be sought for.

62. *Conduct and work of the establishment.*—The conduct and work of the subordinate executive staff still leave much room for improvement.

In the *Northern Circle* the services of a Ranger in Vizagapatam were dispensed with for physical unfitness and two temporary Foresters were removed, one for disobedience of orders and the other for incompetence; in *Godavari* one Forester was suspended.

In *Kurnool* one Range officer (a Forester) was dismissed and the case of two others was under consideration. One Range officer in *Ganjam* was dismissed and another in Anantapur suspended. In the *Central Circle* one Deputy Ranger in *Nellore* was dismissed and two were reduced. In *South Arcot* two were under suspension, one of whom has since been reinstated. Four Rangers were reduced in *Salem*, the reduction in the case of three being only temporary, and one Deputy Ranger was suspended. In the *Southern Circle* one Ranger and three Deputy Rangers were dismissed, and one Forester and a Deputy Ranger suspended. Two Rangers were reduced temporarily to Deputy Ranger's grade for neglect of duty.

As regards the protective staff, several guards and watchers were suspended or removed for misconduct and gross neglect of duty. Two guards were convicted—one of writing false diaries and libelling the Range officer in anonymous petitions and the other of criminal breach of trust.

63. *Health of the Establishment.*—In the *Northern Circle* the districts of *Ganjam*, *Vizagapatam*, *Godavari* and *Kurnool* continued to be unhealthy. There was a great deal of fever in all these districts, with the addition of dysentery and cholera in the first-named district. In the *Central Circle* the health of the establishment was far from good in *South Arcot*, *North Arcot* and *Salem*; and in the *Southern Circle* bad in *Malabar* and *South Coimbatore* and indifferent in *Nilgiris*, *Madura* and *Tinnevely*.

64. *Service books.*—These are reported to have been maintained and verified in all the districts.

65. *Inventory of valuable stock.*—Stock registers are reported to have been kept and verified in all districts except *Nellore*, *South Coimbatore* and *Tinnevely*. Information for these districts has not been furnished by the Collectors concerned.

66. *Elephants.*—Fifteen elephants were captured during the year—one in *South Coimbatore*, one in *South Malabar* and thirteen in *North Malabar*. The elephant captured in *South Malabar* was sold and of the thirteen in *North Malabar* one was shot in the pit and two died. The number of elephants borne on the strength of the department is 62 as per Form No. 63.

67. *Rain-gauges.*—Rain-gauges readings have been properly recorded in *Vizagapatam*, *Godavari*, *Kistna*, *Kurnool*, *South Arcot*, *Tinnevely*, *Madura*, *North* and *South Coimbatore* and *North* and *South Malabar*.

68. *Iron industry in the Salem district.*—Enquiries have been instituted as to whether a sustained supply of charcoal in sufficiently large quantities and at a comparatively low rate can be furnished so as to enable the iron smelters to compete with the imports from Europe. The result is awaited.

69. *Madgole Estate.*—The proposal to have the estate forests managed by Government has, with the permission of Government, been withdrawn and the charge of the management has been handed over to the Dewan of the Estate.

70. *Work and services of superior officers—Northern Circle.*—Mr. Peet reports well of Mr. Lushington particularly with reference to his management of grazing, attention to forest settlement and preparation of instructions for subordinates. The Collector (*Kistna*) considers "that the year's work does great credit to Mr. Lushington." Mr. Lodge worked as usual well. Mr. Thornton showed great activity in making himself acquainted with his district and devoted particular attention to check of timber in river transit. The other District Forest-officers worked satisfactorily. With reference to Extra Assistant Conservators, Mr. Ward did excellent work during the famine. Mr. Nallaswami Nayudu did very good work in *Kistna* and Mr. Hearsay displayed his usual activity in a trying charge.

Central Circle.—Mr. Popert, the Conservator, remarks: "The work of all gazetted officers in the circle has, as usual, been thorough and the Conservator is indebted to District Forest-officers for the able and zealous management of their charges. Mr. Cowley-Brown, although a junior officer, successfully carried on the work in the *Salem* district during the absence of Mr. Brasier and deserves special mention. Mr. Stanbrough is entitled to credit for the bamboo planting operations which were scattered over the district and entailed constant supervision. Mr. Brougham retired during the year after more than thirty years' good service; in him Government has lost an officer with a vast knowledge of forest products and their uses. It is entirely due to his careful and tactful management that the department has been enabled to retain the Yanadis at Sriharikota, without whom it would be almost impossible to carry on work. Mr. Hayne's health completely gave way in the early part of 1897, and he was compelled to take two years' furlough."

Southern Circle.—Mr. Hooper states that "all District Forest-officers have worked energetically and to the satisfaction of their Collectors."

APPENDICES.

ANNUAL FORM No. 44.

Forest Department, Madras Presidency.

Area of reserved forests and reserved lands, 1895-96.

District.	Area of reserved forests.				Area of reserved lands.				Total area of reserved forests and reserved lands on 30th June 1897 in square miles.		
	Area on 1st July 1896.		Added during the year.		Area on 30th June 1897.		Added during the year.			Excluded or transferred to other heads.	
	Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.	Acres.	Acres.		Acres.	Equivalent in square miles.
<i>Northern Circle.</i>											
Ganjam ..	84,816	133	13,654	4,953	93,517	146	272,763	426	14,377	262,532	410
Vinayapatnam ..	56,625	87	31,514	..	87,139	136	909,823	328	31,860	178,484	279
Chidambaram ..	405,578	634	112,881	..	518,459	810	218,500	341	131,499	341,700	143
Kutais ..	410,357	641	17,043	8,092	418,708	664	365,332	571	14,412	336,187	510
Kurnool ..	1,118,883	1,718	37,127	..	1,156,060	1,806	317,113	490	39,462	336,987	525
Bellary ..	389,311	452	10,906	8,759	391,468	456	118,211	186	9,379	109,832	170
Anantapur ..	281,523	440	..	1,997	279,626	437	49,542	77	..	49,542	77
Total ..	2,646,043	4,135	223,125	24,401	2,844,757	4,445	1,651,312	2,424	279,534	1,332,584	2,114
<i>Central Circle.</i>											
Cuddapah ..	992,576	1,535	28,938	2,489	1,009,024	1,776	625,750	922	42,447	501,666	784
Nellore ..	278,944	436	71,770	7,303	348,411	537	144,063	225	75,256	93,566	146
Chingleput ..	128,029	200	1,738	18	129,749	203	24,289	38	14,832	6,137	10
North Arcot ..	536,732	995	16,814	..	553,546	873	87,816	136	10,300	95,181	113
South Arcot ..	323,017	605	54,064	10,231	378,250	678	175,151	274	2,615	88,870	142
Salem ..	783,749	1,224	5,793	2,963	790,486	1,228	153,517	240	1,906	134,618	210
Tiruchinopoly ..	122,818	192	1,121	2,720	131,217	189	26,260	41	45,032	69,366	108
Tanjore ..	12,160	19	117	858	11,419	18	..	..	1,998	100	18
Total ..	3,268,022	5,105	180,064	26,882	3,491,504	5,345	1,186,374	1,776	269,087	968,662	1,513
<i>Southern Circle.</i>											
South Canara ..	72,795	114	..	5	72,790	114	652,482	1,090	39,396	636,630	995
Malabar, North ..	100,723	157	..	..	100,722	157	73,432	115	..	76,107	117
Do. South ..	26,173	30	54	..	26,237	30	184,277	280	..	154,930	299
Nilgiris ..	238,442	357	566	124	238,814	366	80,669	125	430	59,184	92
Coimbatore, North ..	649,760	859	180,156	6,047	673,888	1,063	449,086	688	1,130	365,086	570
Do. South ..	416,547	601	1,382	..	418,282	634	3,866	6	97	2,101	3
Madras ..	367,866	659	14,939	13,017	389,808	562	53,144	80	2,612	37,660	59
Tinnevely ..	262,920	411	1,831	2,192	262,569	410	10,898	17	2,116	10,488	17
Total ..	2,014,645	3,147	148,957	21,432	2,142,170	3,347	1,598,672	2,490	81,085	1,370,967	2,142
Grand Total ..	7,928,710	12,388	552,146	72,415	8,406,441	13,138	4,281,368	6,690	802,411	3,692,213	5,769
18,907											

FOREST DEPARTMENT.

ANNUAL REPORT OF THE

FORM
Forest

STATEMENT showing the Progress made in, and the expenditure

STATEMENT showing the Progress made in, and the expenditure								
Name of forest district.	Area already settled at commencement of year.	Areas finally settled during the year.						
		Number and date of Government Order according final sanction to the settlement.	Name of forest settled.	Area.	Expenditure incurred during the year on areas finally settled.		Entire cost per square mile of areas finally settled during the year.	
					In forest ac- counts.	In other ac- counts.		
1	2	3	4	5	6	7	8	9
Janjám	Sq. MLS. 193	No. 21, dated 11th January 1897. No. 309, dated 2nd July 1896. No. 692, dated 3rd December 1896. No. 452, dated 10th September 1896. No. 443, dated 5th September 1896.	Kalimba Chodiripalli Bodocchondana Sandamalia Agasti Nowgar.	Sq. MLS. 14 1 2 3 1	RS.	RS.	Sq. A. P.	Northam
Total				21	..	..	..	
Ninagapalem.	87	No. 330, Rev., dated 14th July 1895.	Sinnivaram	20	..	..	..	
Total				20	..	..	..	
Goddavari	780	No. 765, Rev., dated 9th December 1896. No. 838, Rev., dated 16th November 1896.	Tirumalayapalem Upputera blocks Nos. 1 and 12.	3 23	..	..	..	
Total				26	..	..	..	

FOREST DEPARTMENT.

iv

No. 45.

Department.

incurred on, Forest Settlements during 1896-97.

Areas undergoing settlement.							Estimate of areas in which settlement operations have not yet commenced.
At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing settlement.			
Name of tract.	Area.	Name of tract.	Area.	In forest accounts.	In other accounts.		
9	10	11	12	13	14	15	
<i>Chole.</i>							
Baiballi ..	SQ. MLS. 34			SQ. MLS. ..	RS. 5,726	85	
Darpanga ..	25	.....	.....	..	..		
Gullery ..	27	.....	.....	..	..		
Ambores ..	50	.....	.....	..	..		
Chandriadi and extensions	34	.....	.....	..	..		
Chogoda ..	24	.....	.....	..	..		
Chodipalli ..	21	.....	.....	..	..		
Chodamanna ..	13	.....	.....	..	..		
Kirrahalli ..	9	.....	.....	..	..		
Kirrahalli ..	36	.....	.....	..	..		
Kuddepalle ..	6	.....	.....	..	..		
Kogoda ..	25	.....	.....	..	..		
Pigalapanka ..	12	.....	.....	..	..		
Sandapetta ..	11	.....	.....	..	..		
Sakuma ..	7	.....	.....	..	..		
Haripada ..	10	.....	.....	..	..		
Chheppaguda ..	2	.....	.....	..	..		
Bainamari ..	6	.....	.....	..	..		
South Mohiri ..	6	.....	.....	..	..		
Chattrapuram ..	1	.....	.....	..	..		
Podra ..	1	.....	.....	..	..		
Napier's park ..	2	.....	.....	..	..		
Rankunnumanthapuram ..	24	.....	.....	..	..		
Teliki ..	4	.....	.....	..	..		
Dowgam ..	10	.....	.....	..	..		
Ramagoda ..	.....	.....	.....	..	..		
Total ..	410			5,726	..	85	
<i>Kadagandi.</i>							
Kadagandi ..	166	1. Extension block to Bharnakonda.		2	1,909	111	
Dharakonda ..		2. Extension blocks Nos. I and II to Antikonda reserve.					
Bharnakonda ..		3. Extension block to Kadagandi reserve block No. I.					
Botadi ..		4. Extension block to Kadagandi reserve block No. II.					
.....		5. Redinkonda reserve extension.					
.....		6. Arlova reserve extension block No. 2.					
.....		7. Arlova reserve extension block No. IV.					
.....		8. Arlova reserve extension block No. 5.					
.....		9. Sinnivaram reserve extension block.					
.....		10. Boddapalem reserve ..					
Total ..	166	Total ..		2	1,909	111	
<i>Arlova.</i>							
1. Kandikoppa ..	14			6,096	..	37	
2. Jilugumthi ..	6	.....	.....				
3. Dharbhagudem ..	8	.....	.....				
4. Marlagudem ..	4	.....	.....				
5. Boddadavole ..	24	.....	.....				
6. Kopalli ..	30	.....	.....				
7. Kovada ..	30			6,096	..	37	
8. Papikonda ..	33	.....	.....				
Total ..	143			6,096	..	37	

ANNUAL REPORT OF THE

Statement showing the Progress made in, and the expenditure

Statement showing the Progress made in, and the expenditure								
Name of forest district.	Area already settled at commencement of year.	Number and date of Government Order according final sanction to the settlement.	Name of forest settled.	Area.	Expenditure incurred during the year on areas finally settled.		Entire cost per square mile of areas finally settled during the year.	
					In forest accounts.	In other accounts.		
1	2	3	4	5	6	7	8	
Areas finally settled during the year								
Northern								
Karnool— cont.	sq. mls.	No. 282, dated 23rd April 1897. No. 436, dated 4th June 1897.	Katarukonda Peddapaya	sq. mls. 4 6	rs.	ps. 4 6	.. .. ..	
			Total ..	63	..	87	1 6 1	
Bellary ..	445	No. 148, dated 10th March 1897. No. 186, dated 19th March 1897.	Kuppigalla Kosigi	11	..	..	..	
			Total ..	11	..	..	..	
Anantapur ..	437	..	..	..	..	..	..	
			Total ..	11	..	..	..	
Central								
Cuddapah ..	1,836	No. 445, dated 5th September 1896. No. 466, dated 13th September 1896. No. 133, dated 1st March 1897. No. 157, dated 11th March 1897. No. 165, dated 11th March 1897. No. 168, dated 19th March 1897. No. 188, dated 10th March 1897. No. 200, dated 26th May 1897.	Ganugapenta extension .. Kalasapad extension .. Nigadi extension .. Tammahur extensions, A and B. Voruvo .. Dasaripalle extensions, B, C and D. Vedarur .. Marolla extension ..	13 8 4 4 5 13 1 2				..
			Total ..	60	..	..	..	

FOREST DEPARTMENT.

incurred on, Forest Settlements during 1896-97—cont.

Areas undergoing settlement.						Estimate of areas in which settlement operations have not yet commenced.
At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing settlement.		
Name of tract.	Area.	Name of tract.	Area.	In forest accounts.	In other accounts.	
9	10	11	12	13	14	
						15
Circle—cont.						
Nandyal addition No. 2	sq. mls. 20		sq. mls.	rs.	ps.	sq. mls.
Pyralakurti	1	Veludurti		319	200	
		Gurvalagunta	2		15	
		Eastern Nallamalai Block	27		30	
		No. 1 of Cumbum taluk.	20		764	312
		Eastern Nallamalai Block				
		No. 2.	33			
		Duddysala	7			
Total	288		89	1,677	4,097	
Nerani	16	Bellahumshi				
Molagavalli	2	Hampasagaram	2			
Kodali	2	Basrukodu	2		163	
Obbalagandi extension	2	Bachigondunahalli	2			
Marutha	5	Chintalapalli, north	3			
Kosigi	1	Do. south	2			
		Koyalargatti extension	2			
		Kulura, west	1			
		Jittinakatti south-east extension.	2			
Total	28		18		153	
Golla	11					
Iyampalli	2					
Yerranahatty	5					
Pillelapalli	6					
Iydakalla	7					
Shettaru	7					
Kondapalli	10					
Khyrevu	3					
Narasampalli	3					
Rotmagiri	14					
Hotihatta, north	9					
Do. south						
Durgam extension						
Kaligera						
Total	77			601		
Circle—						
Chennurpalle		Neridikonda				
Jankamalai extension		Muslikonda				
Horleykonda extension		Gundlakonda				
Palakonda		Madhavaram extension, east and west.	31			
Wongimalla		Sibysala extension, north and south.		2,501		
Sancherla extension						
Yerrapakonda						
Kottakota Dasaripalli extension.						
Idupalpaya extension						
Ganganapalle extension	605					
Yellutla extension						
Sangasamudram						
Gandlur						
Marripad						
Seshachalam extension						
Katagalla extension						
Vonimitha extension						
Koortampalle extension						
Chitvel extension						
Kanchelamoram extension						
Palakonda extension						
Total	605		51	2,501		

ANNUAL REPORT OF THE

Statement showing the Progress made in, and the expenditure

Statement showing the Progress made in, and the expenditure on, the settlement of forest areas during the year.								
Name of forest district.	Area already settled at commencement of year.	Areas finally settled during the year.						
		Number and date of Government Order according to final sanction to the settlement.	Name of forest settled.	Area.	Expenditure incurred during the year on areas finally settled.		Entire cost per square mile of areas finally settled during the year.	
					In forest accounts.	In other accounts.		
1	2	3	4	5	6	7	8	9
Kistna	Sq. Mls. 637	No. 465, dated 18th August 1896. No. 105, dated 16th February 1897. No. 685, dated 3rd December 1896. No. 87, dated 11th February 1897. No. 64, dated 2nd February 1897. No. 261, dated 23rd April 1897. No. 716, dated 12th December 1896. No. 504, dated 1st October 1896. No. 504, dated 1st October 1896. No. 65, dated 2nd February 1897. No. 426, dated 2nd June 1897. No. 347, dated 18th May 1897.	Narasayapalem .. Nagarazupalli .. Puttanutola .. Guttikonda extension No. 1 .. Do. " 6 .. Andugulapad .. Mutukur extension No. 3 .. Pasvumala extension No. 1 .. Pasvumala extension " 3 .. Adavilalivi extension " 1 .. Bollapalli extension " 2 .. Darvumala ..	Sq. Mls. 3.3 0.4 1.2 1.6 1.6 3.2 6.3 0.6 0.4 0.2 8 1	Rs. 8 61 38 62 61 78 38 28 22 52 82 82	Rs.	Rs.	Rs. A. P.
Kurnool	1,748	No. 691, dated 13th December 1896. No. 742, dated 22nd December 1896. No. 24, dated 18th January 1897. No. 28, dated 13th January 1897. No. 19, dated 14th January 1897. No. 22, dated 13th January 1897. No. 20, dated 13th February 1897.	Mundlapad .. Yerrakondapalem .. Kamalapuram .. Pondikallu .. Gundlakonda .. Jonnagiri .. Ganapavaram ..	Total .. 24.7 2 14 2 2 2 2	600	.. 2 14 5 4 7 28	91 7 8	

FOREST DEPARTMENT.

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incurred on, Forest Settlements during 1896-97—cont.

Areas undergoing settlement.						Estimate of areas in which settlement operations have not yet commenced.
At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing settlement.		
Name of tract.	Area.	Name of tract.	Area.	In forest accounts.	In other accounts.	
9	10	11	12	13	14	15
Circle--cont.						
Kothar	1	.....	.....	91	..	368
Tamarukodu No. 2	6	.....	.....	180	..	
Gollapadi	13	.....	.....	91	..	
Vinukonda	1	.....	.....	91	..	
Yellamanda No. 1	10	.....	.....	91	..	
Nizampatam	2	.....	.....	91	..	
Gedimotla	1	.....	.....	182	..	
Tamarucode No. 4	1	.....	.....	91	..	
Do. " 5	1	.....	.....	91	..	
Bandar Forest extension No. 1	3	.....	.....	91	..	
Bollapalli extension No. 1	1	.....	.....	91	..	
Do. " 3	3	.....	.....	91	..	
Do. " 8	2	.....	.....	180	..	
Takkallipad	1	.....	.....	180	..	
Bandar Fort extension No. 2	1	.....	.....	91	..	
Narasayapalem do. " 1	2	.....	.....	91	..	
Do. " 2	8	.....	.....	91	..	
Potamankayarra	4	.....	.....	91	..	
Adavuladiviparra	4	.....	.....	91	..	
Pasvumala extension No. 4	1	.....	.....	91	..	
Kandipad	7	.....	.....	91	..	
Voldurti	6	.....	.....	91	..	
Jannapad	1	.....	.....	91	..	
Bapatla No. 3	3	.....	.....	91	..	
Guttikonda extension No. 7	2	.....	.....	90	..	
Amaddapalli		Gopavaripalem extension No. 2	0.3	53	..	
		Nizampatam extension No. 1	2.4	83	..	
		Pallaripalem	1.3	30	..	
		Puravallipalem	1.8	68	..	
		Muthayapalem extension No. 1	6.7	78	..	
		Nayanipalli do. " 1	1.6	20	..	
		Budavada do. " 1	0.9	76	..	
		c. Do. do. " 2	0.8	78	..	
		Do. do. " 5	0.5	70	..	
		Vankatayapalem extension No. 3	2.7	76	..	
		Vankatayapalem extension No. 6	1.7	75	..	
		Kanipalli	3.2	74	..	
		Matsavaram	1.8	45	..	
		Venavaram	3.0	46	..	
		Guttikonda extension No. 9	1.4	84	..	
		Bollapalli extension " 7	3.5	76	..	
		Mukkallapad	1.0	53	..	
		Muppalla	7.6	37	..	
		Kakarla extension No. 7	0.9	94	..	
		Gangulakunta addition No. 1				
		Do. " 2	0.1	52	..	
		Do. " 3				
		Darvumala extension No. 1	1.3	53	..	
		Pasvumala do. " 5	0.4	56	..	
		Goli	8.4	25	..	
		Total	86	52.2	3,775	
North Dhone	22	.....	.....	..	50	
Sirevi addition No. 2	25	.....	.....	615	56	
Do. " 3	18	.....	.....	108	50	
Jalandaram	28	.....	.....	..	50	
Tamballipalli	3	.....	.....	..	45	
Tokapalli	2	.....	.....	..	30	
Millapalli	5	.....	.....	..	80	
Uyyalavada addition	33	.....	.....	553	678	
Vedigode	69	.....	.....	..	1,145	
Maduva	1	.....	.....	..	15	
Amhavaram	15			16	219	
Somdevipalli	18			..	270	
Botamchurha	13			..	340	
Nandyal addition No. 1	11			60	145	

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ANNUAL REPORT OF THE

Statement showing the Progress made in, and the expenditure

Name of forest district.	Area already settled at commencement of year.	Areas finally settled during the year.					
		Number and date of Government Order according to final sanction to the settlement.	Name of forest settled.	Area.	Expenditure incurred during the year on areas finally settled.		Entire cost per square mile of areas finally settled during the year.
					In forest accounts.	In other accounts.	
1	2	3	4	5	6	7	8

Central

Nellore	425	No. 203, dated 18th May 1896.	Udayagiri Veligondas	94	..	..	..
		No. 262, dated 13th June 1896.	Abbasahibepeta Gudipad Pod-dannalur.	2	..	..	..
		No. 385, dated 3rd August 1896.	Dubbagunta Rajavolu	..	..	..	..
		No. 404, dated 11th August 1896.	Veligonda	5	..	..	..
		No. 439, dated 3rd September 1896.	Bhimavaram	..	..	..	..
		No. 430, dated 26th August 1896.	Boylachoruville	1	..	..	..
		No. 474, dated 17th September 1896.	Venadu	..	..	..	..
		No. 167, dated 15th March 1897.	Abbasahibepeta Gudipad, West	3	..	..	..
		No. 224, dated 30th March 1897.	Manubolupad extension	..	..	..	..
		No. 225, dated 30th March 1897.	Chelamecherla extension	1	..	..	..
		No. 270, dated 27th April 1897.	Asantagaram A	..	..	..	..
		Do.	Do. B	4	..	..	..
		No. 324, dated 15th May 1897.	Chakicherla, North	2	..	..	..
		No. 418, dated 1st June 1897.	Pernad	4	..	..	..
		Total		116	..	2,130	19 0 4
Chingleput	290	No. 287, dated 23rd June 1896.	Kemeli extension No. I	..	..	..	..
		No. 233, dated 23rd June 1896.	Paranur extension No. I	1	..	..	..
		No. 481, dated 23rd June 1896.	Do. do. No. III	..	..	..	..
		No. 449, dated 8th September 1896.	Hunumantapathari extension No. II.	..	..	..	..
		No. 534, dated 7th November 1896.	Salur	2	..	..	..
		..	Gudalur	..	..	..	..
		Total		3	..	..	..
		No. 268, dated 24th June 1896.	Synagunta extensions A and B	7	..	..	..
		No. 382, dated 1st August 1896.	Patramadi or Airala extension.	5	..	..	..
		No. 657, dated 21st November 1896.	Jangalappalle	5	..	..	..
North Arcot	..	No. 2, dated 4th January 1897.	Reddigunta	4	..	..	..
		No. 25, dated 13th January 1897.	Gundlapalle extension	1	..	..	..
		No. 310, dated 3rd July 1897.	Bommanakampolam	1	..	..	..
		No. 227, dated 8th June 1896.	Chasee hill	3	..	..	..
		No. 414, dated 31st May 1897.	Paruppanalai	3	..	..	..
		Total		28	..	..	..

FOREST DEPARTMENT.

X

incurred on, Forest Settlements during 1896-97—cont.

Areas undergoing settlement.						Estimate of areas in which settlement operations have not yet commenced.
At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing settlement.		
Name of tract.	Area.	Name of tract.	Area.	In forest ac- counts.	In other ac- counts.	
9	10	11	12	13	14	15

Circle—cont.

Dattalur	7 1/2	Tammanapetam extension	1	..	..	..
Rapur-Veligondas extension A	1 1/2	Yerukulla-Gundamadakole	6	..	..	351
Do. do. B	9 1/2	Balayapalli	1	..	..	..
Do. do. C	4	Korissakonda	7	..	..	..
Veminabhi extension	1	Gudlakonda	..	..	..	..
Pottukonda extension	1	Udayagiri-Veligonda extension.	10	..	..	..
Sribarikota	40	Vedantaparti	..	..	..	..
Peramanakondur	1 1/2	Rapur-Veligonda extension	3	..	..	..
Mahimadu	16 1/2	Chintalapoleu	..	..	..	..
Gavaravaram	11 1/2	Chippinapi	2	..	..	..
		Kallakonda	..	..	..	..
		Tirumalpad	..	..	..	..
		Mogallur extension	..	..	..	..
		Tegamulalapur extension	4	..	..	..
		Sydapuram extension A	..	..	..	..
		Do. do. B	..	..	..	..
		Chuganam extension	2	..	..	..
		Cherlapalli extension	..	..	..	..
	98		36	2,530	..	..
Ugumudi extension Nos. I, V and VI.	..	Nandambakkam extension No. I	..	..	..	..
Perumbakkam extension No. I.	..	Meyyur extension No. I	1	2,501	..	..
Vallam extension No. II	..	Do. do. II	..	..	..	..
Melamalaiyur	..	Tirumalaivoyal extension No. I	..	..	..	..
Koliyalam	..		..	..	..	..
Tandurai extension No. I.	..		..	..	..	..
Kovilpidagai extension No. I.	..		..	..	..	..
Nannangalam extension Nos. I and II.	..		..	..	..	..
Tirumalaivoyal extension No. II	..		..	..	..	..
Thirumani extension No. II	..		..	..	..	..
Tirukkalkaudrum extension No. II.	..		..	..	..	..
Total	8		1	2,501	..	..
Penamur extensions A and B.	5	Basavaroddipalle extensions A and B.	5	2,501	..	..
Pukela, A and B	4	Allapalle	..	..	..	1
Santhipet extension	4	Nellipalle	3	..	..	..
Patikonda	7	Virakabanda	12	..	..	..
Sanankuppam	2	Thotakanama	4	..	..	..
Palmaner	3		5	..	..	..
Pedder extension	15		..	..	..	..
Masiluvudugai extension	3		..	..	..	..
Pallakuppam extension A	19		..	..	..	..
Kompassamudram	3		..	..	..	..
Kallapadi	10		..	..	..	..
Solavaram extension	1		..	..	..	..
Thandappenthangal extension.	1		..	..	..	..
Neumbeda extensions A, B and C	..		..	..	..	..
Total	75		36	2,501	..	..

ANNUAL REPORT OF THE

Statement showing the progress made in, and the expenditure

Statement showing the progress made in, and the expenditure on, settling forest areas during the year.								
Name of forest district.	Area already settled at commencement of year.	Number and date of Government Order according to final sanction to the settlement.	Name of forest settled.	Area.	Expenditure incurred during the year on areas finally settled.		Entire cost per square mile of areas finally settled during the year.	
					In forest accounts.	In other accounts.		
1	2	3	4	5	6	7	8	
Trichinopoly —1896.	sq. mls. 189	....	....	sq. mls. ..	Rs. ..	Rs. ..	Rs. & p. ..	
Tanjore	19	....	....	..	..	..	..	
South Canara.	114	No. 522, dated 10th October 1896. No. 230, dated 4th June 1896. Do. No. 522, dated 10th October 1896. Do. No. 289, dated 4th June 1896. Do. No. 563, dated 24th July 1896.	1. Darligudde .. 2. Garuvankote .. 3. Abbigudde .. 4. Mudanigudde .. 5. Hosnukodlu .. 6. Kadike .. 7. Karnigudde .. 8. Sarbanamane ..	.. .. .. .. .. .. .. ..	.. .. 6 .. 2 7	184	18 2 1	
Total				14	184	..	18 2 1	

FOREST DEPARTMENT.

incurred on, Forest Settlements during 1896-97—cont.

Areas undergoing settlement.							Estimate of areas in which settlement operations have not yet commenced.
At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing settlement.			
Name of tract.	Area.	Name of tract.	Area.	In forest accounts.	In other accounts.		
9	10	11	12	13	14	15	
Circles—cont.							
	SQ. MLS.		SQ. MLS.	RS.	RS.	SQ. MLS.	
		Shomalai extension, No. 1 ..	2	..	..		
		Nagandur (Viramalai eastern) extension ..	1	..	..		
		Auliyapur (Viramalai western) extension ..	3	..	..		
		Arasadi Arivithi ..	2	..	..		
		Puliyur extension, No. 1 ..	4	..	..		
		Kurumbalur ..	2	..	..		
		Narathanaigalam ..	4	..	..		
		Irur ..	4	..	..		
		Pillankolam ..	3	..	..		
		Iyarpalayam ..	1	..	..		
		Kariyapur ..	1	..	..		
		Vannampundi ..	1	..	..		
		Mattavaram Mavalangai ..	2	..	..		
		Sirkodai ..	2	..	..		
		Kunnam ..	4	1,810	..		
		Mangalam ..	2	..	..		
		Sittali ..	2	..	..	90	
		Vempavur ..	2	..	..		
		Mottupalayam ..	3	..	..		
		Pulumbadi, No. 1 ..	4	..	..		
		Do. No. 2 ..	6	..	..		
		Puliyur extension, No. 2 ..	4	..	..		
		Siruvachur ..	3	..	..		
		Peraiyur ..	2	..	..		
		Periyavalayam Eastern extension, No. 1 ..	2	..	..		
		Periyavalayam Western extension, No. 2 ..	2	..	..		
		Yedayathangudi ..	..	..	..		
		Sondareswarapuram extension ..	2	..	..		
		Uthiyakudi extension ..	1	..	..		
		Thakkurichi ..	2	..	..		
		Thirukoum extension ..	1	..	..		
		Vilangudi extension, No. 1 ..	2	..	..		
		Do. do. No. 2 ..	2	..	..		
		Vengaram ..	3	..	..		
		Alavay extension ..	..	..	..		
		Karupakam extension ..	3	..	..		
		Silavacheri ..	..	..	..		
		Kulamur extension ..	2	..	..		
		Kilakolathur ..	..	..	..		
Total ..	..		79	..	..		
		North Canyuzina extension ..	15	1,812	..		
Circles.							
		Channadi-Kanapadi ..	20	1	..		
		Horar ..	4	..	..		
		Hulimathogare ..	3	9	..		
		Menashinagudi ..	1	..	..		
		Hullamurdi ..	16	1	..		
		Hallakethola ..	..	3	..		
		Balkattihola ..	..	1	..		
		Vadanabrahola ..	..	2	..		
		Jarkalane ..	6	2	..		
		Birtihola ..	..	1	..		
		Hullkoppala And ..	..	..	..		
		Eral And ..	..	..	..		
		Madgalpato ..	12	..	5,028		
		Wajina And ..	1	..	..		
		Naganahabara ..	10	..	..		
		Kamradin ..	101	..	..		
		Naravi ..	9	..	..		
		Mottakalugudde ..	3	..	..		
		Karkamudi ..	..	..	..		
		Neral mabekamu ..	..	..	..		
		Sampakere ..	4	..	..		
		Chittur ..	..	..	..		

ANNUAL REPORT OF THE

Statement showing the Progress made in, and the expenditure

Name of forest district.	Area already settled at commencement of year.	Areas finally settled during the year.					
		Number and date of Government Order according to which sanction to the settlement	Name of forest settled.	Area.	Expenditure incurred during the year on areas finally settled.	Entire cost per square mile of area finally settled during the year.	
1	2	3	4	5	6	7	8

SOUTH ARCOOT.		SOUTH ARCOOT.					
	505	No. 331, dated 14th July 1896.	Kayandapuram ..	7	Information not available.		
		No. 79, dated 8th February 1897.	Enaipaccolai ..	6			
		No. 748, dated 22nd December 1896.	Padipallam ..	8			
		No. 141, dated 6th March 1897.	Pekkanalai ..	23			
		No. 186, dated 15th May 1896.	Swamintholai lat. lat.	5			
		No. 280, dated 29th April 1897.	Kangayam ..	2			
		No. 311, dated 3rd July 1896.	Takurai ..	22			
		No. 95, dated 16th February 1897.	Kadavur ..	6			
		No. 105, dated 10th February 1897.	Rishivandiyam ..	6			
		No. 22, dated 13th January 1897.	Kannur ..	2			
		No. 348, dated 18th May 1897.	Ponmur ..	75			
		No. 391, dated 20th May 1897.	Sattiyand ..	1			
		No. 470, dated 17th June 1897.	Odyanachi ..	1			
		No. 458, dated 14th June 1897.	Pasappadi ..	2			
			Total ..	154	8		
Salem ..	1,224						
Trichinopoly ..	189						

FOREST DEPARTMENT.

incurred on, Forest Settlements during 1896-97—cont.

Areas undergoing settlement.					
At commencement of the year.		Taken in hand during the year.		Estimated areas in which settlements have not yet commenced.	
Name of tract.	Area.	Name of tract.	Area.	In forest and other accounts.	In other accounts.
9	10	11	12	13	14

Circle—cont.

SOUTH ARCOOT.		SOUTH ARCOOT.		SOUTH ARCOOT.	
	505		505		505
Pinjar ..	12	Odaiyanatham ..	3		
Mannuramangalam ..	4	Santharapuram tope (south) ..	1		
Uchimalai ..	8	Do. do. (north) ..	1		
Sorakalathur ..	12	Kattuvannanur tope ..	1		
Danarabadu ..	5	Puttai ..	1		
Annamangalam ..	1	Kattumaiyulur extension ..	1		
Porumpalli ..	1				
Melakondalappadi tope ..	1				
Aviriyur ..	4				
Ravuthanallur ..	2				
Marar ..	1				
Melpalankur ..	4				
Tachar ..	2				
Thottapadi ..	2				
Total ..	58				
Kombur ..	4				
Bothamalai extension ..	3				
Odiathur, west ..	3				
Mavar ..	3				
Pattiwedu extension ..	3				
Onnakur ..	2				
Morappur ..	6				
Obinaiokenpatti ..	9				
Uttangurai ..	3				
Kottipalli ..	6				
Thogayapalli extension ..	1				
Papinayakunhalli ..	5				
Pariyapatti ..	5				
Kalladipatti ..	4				
Vathampatti ..	2				
Shelur ..	28				
Ubburani ..	19				
Pangulim, west ..	3				
Do. south-west ..	1				
Anthiyappanur extension ..	6				
Ponnagarupatti ..	6				
Vellalagandan ..	5				
Poyyapatti ..	5				
Jambuthu extension ..	1				
Total ..	129				
Vaisyar ..	2				
		Tutankurichi ..	4		
		Kandur Kavarayankulam ..	2		
		Pozhalappur ..	1		
		Adavathoor tank tope ..	1		
		Pangayur ..	1		
		Kannakutti hill ..	1		
		Mogayur ..	4		

ANNUAL REPORT OF THE

Statement showing the Progress made in, and the expenditure

Statement showing the Progress made in, and the expenditure on, settling forest areas during the year.								
Name of forest district.	Area already settled at commencement of year.	Number and date of Government Order according to final sanction to the settlement.	Name of forest settled.	Area.	Expenditure incurred during the year on areas finally settled.		Estimate of cost per square mile of areas finally settled during the year.	
					In forest accounts.	In other accounts.		
1	2	3	4	5	6	7	8	
South Canara —cont.	sq. mls. 114	....	....	sq. mls. ..	Rs. ..	Rs. ..	sq. mls. ..	
North Malabar.	157	....	....	sq. mls. ..	Rs. ..	Rs. ..	sq. mls. ..	
South Malabar.	39	No. 124, dated 25th February 1897.	Waypore tops ..	sq. mls. ..	Rs. ..	Rs. ..	sq. mls. ..	

FOREST DEPARTMENT.

incurred on, Forest Settlements during 1896-97—cont.

Areas undergoing settlement.							Estimate of areas in which settlement operations have not yet commenced.
At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing settlement.			
Name of tract.	Area.	Name of tract.	Area.	In forest accounts.	In other accounts.		
9	10	11	12	13	14	15	
<i>Circles—cont.</i>							
Jarvattakadu	1			SQ. MLS.	RS.	RS.	SQ. MLS.
Mothalgudde	2						
Markedihola	3						
Malimangudi	2						
Kattakottai	6						
Doddaimannur	2						
Bakudihla	30						
Madhura	10						
Thodiyal valley	28						
Thodiyal	5						
Kannoth	20					5,028	
Kannoth extension A	8						
Periya	20						
Periya extension	3						
Padri	37						
Wood-stock	4						
	13						
	10						
	2						
	1						
Total	394			23	5,028		
Kannoth	40						
Kannoth extension A	2	Dindimal		2			18
Periya	21						
Periya extension	2				2,806		
Padri	48						
Wood-stock	113			2	2,806		
<i>Nilambur Range.</i>							
1. Nilambur block							
2. Pokote							
3. Panangudi							
4. Valluasseri							
5. Kanakut							
6. Ennadam							
7. Ambalakandi							
8. Arimbracuttamala							
9. Mangalasseri paramba							
10. Puthalatha and chitharikal paramba	169				(b) 4,822		29
<i>Amarampalem Range.</i>							
11. Muvatt							
12. Karien							
13. The new Amarampalem forest							
14. Thampurattipottai							
15. Thampurattipottai							
16. Thampurattipottai							
17. Thampurattipottai							
18. Thampurattipottai							
19. Thampurattipottai							
20. Thampurattipottai							
<i>Attigady Valley.</i>							
21. Block No. I							
22. Do. II							
23. Do. III							
24. Do. IV							
Total	260				4,822		

(b) Charged under A-VIII (b) being the amount of compensation paid to the owner of Karsery and Thalikkoly lands in the new Amarampalam Forest.

ANNUAL REPORT OF THE

Statement showing the Progress made in, and the expenditure

Areas finally settled during the year.							
Name of forest district.	Area already settled at commencement of year.	Number and date of Government Order according to final sanction to the settlement.	Name of forest settled.	Area.	Expenditure incurred during the year on areas finally settled.		Entire cost per square mile of areas finally settled during the year.
					In forest accounts.	In other accounts.	
1	2	3	4	5	6	7	8
Southern							
Nilgiris	SQ. MLS. 367	No. 667, dated 26th November 1896.	Bikkul Kallakomai Nirkul Arviyatti Turaiyalla Vammamadu Attinboil Vuhibattu Beithal Gundada Bulhattihalla Hakku Devanahola addition Umarikandi Ulimokkai Pattakurai Oatthi addition No. 1 Do. " 2 Noyatti Bear Hill Edaiyatti Kattori Palakkurai Bellimara Wellbeck No. 1 Do. " 2 Do. " 3 Kudikadu Upperkattori Pillimalaikurai Gundurai	SQ. MLS. 1	RS. ..	RS. ..	RS. ..
Total				1	100		
North Coimbatore.	859	No. 390, dated 4th Aug. 1896.	Gutialatur	100			
		No. 678, dated 26th Nov. 1896.	Ellapalayam				
		Do.	Vilikkadu				
		No. 670, dated 20th Nov. 1896.	Arachalur Hill	3		1,819	9
		No. 526, dated 7th Nov. 1896.	Sullipalayam				
		No. 345, dated 18th May 1897.	Kongampalayam	1			
Total				204		1,819	9
South Coimbatore.	651	No. 219, dated 28th May 1896.	Elayamuthur				
Madura	581	No. 274, dated 29th July 1896.	Dhalli	2			
		No. 403, dated 2nd July 1896.	Mannadimangalam	1			
		No. 463, dated 16th Sept. 1896.	Tigerahola	3			
		No. 474, dated 1st Sept. 1896.	Manjampatti	6			
		No. 421, dated 22nd August 1896.	Udumalpet				
		No. 428, dated 1st Sept. 1896.	Manamalai				
		No. 101, dated 14th Feb. 1897.	Manamalai	2			
		No. 466, dated 12th Sept. 1896.	Manamalai				

FOREST DEPARTMENT.

incurred on, Forest Settlements during 1896-97—cont.

Areas undergoing settlement.						Estimates of areas in which settlement operations have not yet commenced.
At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing settlement.		
Name of tract.	Area.	Name of tract.	Area.	In forest ac- counts.	In other ac- counts.	
	10	11	12	13	14	
Circles—cont.						
Nisbarra	SQ. MLS.	Belarambu Halla	SQ. MLS.	RS.	RS. A. P.	SQ. MLS.
		Keraipadu				
		Mullimalai				
		Arappilai				
		Sampangi				
		Bikkemara				
		Neggilhada				
		Thogalhatti				
		Mokkai				
		Uchchukadavu				
		Konemara				
		Selamara				
						75

APPENDIX A.

Forest Settlement.

Particulars of balance of lands under settlement.

District.	Total number and area of blocks brought under settlement up to end of 1896-97.		Total number and area of blocks constituted finally as reserved forests up to end of 1896-97.		Balance at end of 1896-97.	
	Number.	Area.	Number.	Area.	Number.	Area.
	2	3	4	5	6	7
<i>Northern Circle.</i>						
Ganjam	45	569	16	154	28	410
Vizagapalaam	39	304	22	136	17	168
Godavari	78	975	69	810	8	143
Kistna	166	813	106	663	58	147
Kurnool	51	2,191	29	1,806	22	382
Bellary	135	509	130	463	5	46
Anantapur	82	517	68	440	14	77
Total, Northern Circle	582	5,118	405	4,416	167	1,575
<i>Central Circle.</i>						
Cuddapah	173	2,226	144	1,680	29	636
Nellore	179	653	150	645	29	123
Chingloput	221	226	152	203	18	9
North Arcot	149	1,137	127	1,021	21	119
South Arcot	211	776	162	689	25	142
Salem	174	1,381	141	1,224	24	129
Trichinopoly	121	273	74	192	47	81
Tanjore	22	19	21	19	1	..
Total, Central Circle	1,120	6,690	826	5,346	194	1,544
<i>Southern Circle.</i>						
South Canara	90	572	27	114	61	431
North Malabar	23	272	16	157	7	116
South Malabar	27	299	7	39	20	209
The Nilgiris	255	359	240	358	13	1
North Coimbatore	85	1,879	84	1,069	16	534
South Coimbatore	19	657	16	653	2	3
Madura	179	637	159	582	16	54
Tinnevely	68	429	48	414	15	15
Total, Southern Circle	662	4,769	503	3,347	149	1,413
Grand Total	2,834	17,188	1,834	13,138	500	4,030

(a) Rectification.

(d) Excluded at settlement.

(b) Initial notifications cancelled.

(c) By rounding off fraction in previous year's figures.

(e) Disafforested.

APPENDIX A—cont.

Forest Settlement—cont.

Particulars of balance of lands under settlement—cont.

District.	Classification of balance in columns 6 and 7.											
	Settled and reported on.						Settled, but not reported on.					
	Notified under section 16 during 1896-97, but reservation effected only after 30th June 1897.	With Board or Government awaiting publication of notification under section 16.	Returned by the Board for revision and remaining either with Collector, District Forest-officer or Forest Settlement-officer.	Total settled and reported on.	Settled, but not reported on.	Settlement proceeding.	Number.	Area.	Number.	Area.	Number.	Area.
	8	9	10	11	12	13	14	15	16	17	18	19
	Number.	Area.	Number.	Area.	Number.	Area.	Number.	Area.	Number.	Area.	Number.	Area.
<i>Northern Circle.</i>												
Ganjam	..	..	8	50	12	263	20	318	5	64	3	33
Vizagapalaam	..	..	1	73	..	..	1	73	3	41	13	64
Godavari	..	..	1	24	1	14	2	38	4	97	2	8
Kistna	2	9	16	47	1	1	18	57	2	8	33	82
Kurnool	1	5	7	90	1	16	9	113	3	63	10	208
Bellary	..	..	1	15	..	..	1	16	1	2	13	28
Anantapur	..	..	1	1	..	..	1	1	2	13	11	63
Total, Northern Circle	3	14	34	301	15	301	32	616	20	278	55	479
<i>Central Circle.</i>												
Cuddapah	1	4	6	194	1	68	10	264	1	33	18	241
Nellore	1	3	4	9	1	40	6	54	2	3	21	78
Chingloput	..	..	7	6	..	..	7	6	1	..	10	3
North Arcot	1	2	5	23	2	12	8	37	7	40	6	24
South Arcot	4	80	13	37	..	..	17	117	2	21	6	4
Salem	..	..	9	37	2	15	12	62	..	..	12	71
Trichinopoly	..	..	1	2	..	..	1	2	..	..	46	79
Tanjore	..	..	..	..	..	..	..	..	1	..	..	..
Total, Central Circle	7	89	47	308	7	135	61	622	14	97	113	615
<i>Southern Circle.</i>												
South Canara	8	14	4	11	..	..	12	26	14	221	85	186
North Malabar	..	..	..	..	..	..	..	..	5	111	2	4
South Malabar	3	1	..	..	..	..	3	1	17	269	..	..
The Nilgiris	..	..	1	..	..	..	1	..	..	..	12	1
North Coimbatore	1	1	1	84	1	212	3	247	1	2	12	285
South Coimbatore	..	..	..	..	..	..	..	..	..	..	2	8
Madura	1	3	2	4	5	21	8	28	..	..	7	26
Tinnevely	..	..	3	4	..	..	3	4	1	2	11	9
Total, Southern Circle	13	19	11	63	6	253	30	305	36	595	91	613
Grand Total, Presidency	23	122	92	662	28	669	143	1,453	72	970	255	1,607

* Of these, four blocks were notified during 1895-96, but reservation takes effect only after 30th June 1897.

Reserved lands not under settlement in square miles.

Districts.	Up to 1895-96	Added during 1896-97.	Added during 1896-97.	Total.	Transferred for settlement.				Balance remaining "reserved lands" not under settlement.
					Up to 1895-96.	During 1895-96.	During 1896-97.	Total.	
1	2	3	4	5	6	7	8	9	10
Northern Circle.									
Ganjām ..	576	(a) - 25	(a) + 6	556	(a) - 9	6	(a) + 6	558	
Vizagapatam ..	432	(a) - 17		415	(a) - 1		2	414	
Gōdāvari ..	1,001	(b) - 25	(a) + 7	983	(a) - 1		(a) - 7	983	
Kistna ..	1,112	160	(b) - 25	1,147	(b) - 25	11	62	1,200	
Kurnool ..	2,333	11	(a) + 8	2,352	(a) - 1	11	89	2,452	
Bellary ..	564	73	(a) - 10	627	(a) - 6	12	18	631	
Anantapur ..	513	4	(a) - 2	515	(a) - 3	9		521	
Total	6,431	123		6,554		49	174	6,777	
Central Circle.									
Cuddapah ..	2,267	90	(a) - 3	2,354	(a) - 3	189	31	2,574	
Nellore ..	652	9	(a) - 1	660	(a) - 1	32	38	730	
Chingleput ..	240	(c) - 5	(a) - 26	213	(a) - 13	2	1	212	
North Arcot ..	1,157	(c) - 6	(b) - 1	1,150	(b) - 1	19	34	1,203	
South Arcot ..	866	- 87	(b) - 12	767	(b) - 12	10	4	759	
Salem ..	1,346	118	(a) - 1	1,563	(a) - 1			1,562	
Trichinopoly ..	387	(c) - 4	(a) + 5	388	(a) - 2			386	
Tanjore ..	33	(a) - 14	(a) - 1	18	(a) - 1		79	87	
Total	6,778	104	- 23	6,859	- 24	218	115	7,188	
Southern Circle.									
South Canara ..	1,140	- 6	(a) + 1	1,135	(a) - 27	118	23	1,236	
North Malabar ..	277	(a) - 5	(a) - 2	270	(a) - 2			268	
South Malabar ..	328		(a) - 1	327	(a) - 1			326	
The Nilgiris ..	489	(a) + 2	(a) - 1	490	(a) - 1		1	490	
North Coimbatore ..	1,718	(a) - 1	(a) - 2	1,715	(a) - 2			1,713	
South Coimbatore ..	587	70	(a) - 1	656	(a) - 1			655	
Madura ..	651	(a) + 1	(a) - 2	650	(a) - 2			648	
Tinnevely ..	430	(a) - 11	(a) - 3	416	(a) - 3			413	
Total	6,681	56	- 14	6,723	- 33	129	24	6,844	
Grand Total	18,790	283	- 171	18,902	- 87	486	419	20,111	

(a) By rectification. (b) At Settlement. (c) Unobserved or discovered. (d) By founding all reservation in previous years' returns.

Forest Department, Madras Presidency.

Record of Demarcation and Maintenance of Boundaries.

District.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired during the year.	Length of previously existing boundaries not repaired during the year.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries still to be demarcated at close of year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
								On new work.	On repairs.
1	2	3	4	5	6	7	8	9	10
Northern Circle.									
	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	RS.	RS.
Ganjām ..	80	187	531	798	158	55	966	(a) 808	(a) 659
Vizagapatam ..	13	229	958	1,200	335	18	1,553	(a) 330	(a) 138
Gōdāvari ..	72	313	169	554	59	374	1,092	(a) 474	(a) 469
Kistna ..	125	49	605	779	99		878	(a) 2,184	(a) 682
Kurnool ..	75	411	489	975	465	68	1,508	(a) 2,391	(a) 429
Bellary ..	126	150	758	1,034	462		1,496	(a) 651	(a) 376
Anantapur ..	62	37	97	196			196	(a) 200	(a) 376
Total	509	1,150	2,977	4,636	1,544	615	6,195	7,038	4,322
Central Circle.									
Cuddapah ..	(c) 165		1,990	2,155			2,155	(a) 1,385	
Nellore ..	46	8	991	1,045	292	86	1,423	(a) 512	(a) 12
Chingleput ..	14	2	795	811			811	(a) 1,616	(a) 997
North Arcot ..	27	581	1,832	2,440	60	12	2,512	(a) 339	(a) 1,760
South Arcot ..	187	24	1,121	1,332	412		2,045	(a) 2,972	(a) 1,007
Salem ..	90	468	1,875	2,433	298	88	2,819	(a) 351	(a) 565
Trichinopoly ..	70	(c) 222	732	1,024			1,024	(a) 378	(a) 156
Tanjore ..			79	79			79		
Total	629	1,327	9,625	11,581	1,063	156	12,800	7,591	4,097
Southern Circle.									
South Canara ..	139		1,172	1,311	34	2	1,347	(a) 1,902	
Malabar, North ..		76	395	471	56		527	(a) 514	(a) 164
Do. South ..		18	307	325	52		377	(a) 39	(a) 1,088
The Nilgiris ..	67	231	605	903			903	(a) 410	(a) 2,544
Coimbatore, North ..	24	213	341	578	30	221	831	(a) 313	(a) 461
Do. South ..		36	412	448	13	77	538	(a) 77	(a) 639
Madura ..			1,115	1,115	32	124	1,271	(a) 1,271	(a) 3
Tinnevely ..	43	5	245	293	157	17	567	(a) 127	(a) 150
Total	283	319	11,111	12,713	424	743	14,890	2,102	6,947
Grand Total	1,421	3,026	14,713	20,111	2,031	1,414	26,495	10,731	11,366

N.B.—Boundaries include, besides the outer perimeter, the limits of end sars of private or other lands within the forests, but not the limits of sub-divisions, such as blocks, compartments, coupes.

(a) Includes cost of repairs repaired or erected.

(b) Cost of boards for boundary and coupe lines.

(c) Cleared by the forest establishment.

(d) Includes cost of establishment.

(e) Includes half the pay of temporary establishment, the other half being debited to preliminary demarcation.

(f) Includes rectifying 53 miles of demarcation.

APPENDIX D.

ABSTRACT of District Reports in regard to the maintenance of maps in accordance with the provisions of section 81 of the Forest Code.

Northern Circle.

Ganjam.—Forty-seven reserve maps were prepared and the district and range maps posted up to 30th June 1897.

Vizagapatam.—The district reference and taluk maps have been posted, and Range officers supplied with range maps. Preparation of separate maps for each reserve has to await survey by the Survey of India Party.

Goddavari.—The district and range maps have been maintained and separate maps for each reserve kept.

Kistna.—Separate maps for reserves are under preparation. Maps for four blocks were prepared and sent to the Survey office and maps for nineteen blocks were printed and distributed.

Kurnool.—The district and range maps have been posted up, and these as well as reserve maps supplied to Range officers.

Bellary.—Orders on the subject of maintenance of the district, range and reserve maps in the District and Range offices have been attended to.

Anantapur.—The district map has been posted up to date, as also taluk maps for four taluks; 34 lithograph maps on a scale of 8 inches to 1 mile have been mounted and distributed to Range officers and 54 copies of maps sent to the Survey office for preparation of additional copies.

Central Circle.

Cuddapah.—The district reference map has been maintained and range maps have been supplied to all Range officers posted up to date. Separate maps for all reserves except eight blocks have also been supplied to Range officers.

Nellore.—One hundred and twenty sketch maps of reserves have been supplied to Range offices.

Chingleput.—The district and range maps have been posted up to date and copies of 180 sketches of final maps supplied to Range officers.

North Arcot.—The district map has been posted up to date as also the range maps; copies of the latter have been supplied to all Range officers. Copies of reserve maps received from the Survey of India have been furnished to Range officers. Of the 103 square miles of the finally reserved area excluded from the Survey of India maps, final maps for 26 square miles remain to be prepared departmentally.

South Arcot.—The district and taluk maps have been posted up to date and copies of the latter supplied to all Range officers. Separate maps for all reserves except those on the Tenmalate which are being surveyed by the Survey of India Party have also been furnished to all Range officers.

Salem.—The district, forest and range reference maps have been posted up to date and separate copies of reserve maps have been supplied in some cases.

Trichinopoly.—The district as well as the range reference maps have been posted. As regards separate maps for each reserve, tracings have been prepared for almost all the reserves in the Udaiyarpalayam range from the village maps prepared according to the resurvey. Steps are being taken to prepare maps of reserves in the Trichinopoly and Kallitalai ranges from resurvey village maps while those for the reserves on the Pashamalai in the Muzri and Perambalur ranges are under preparation by the Survey of India Party.

Tanjore.—The district as well as the range reference maps have been maintained. There are also separate maps for each reserve with topographical features and admitted rights of way indicated therein. Working plan maps are maintained for the Vattangudi reserved forest and the north, the south and the Naidavasal casuarina plantations. The Vattangudi map is not quite complete.

Southern Circle.

Tinnevely.—The district reference map has been posted. The maps of the ghāt forest reserves were reduced and attached to this taluk maps. Three copies of the reduced taluk maps were prepared and each of the Range officers was supplied with a copy relating to his range. Range officers were also supplied with Survey of India maps for the reserves surveyed by that party.

Madura.—The maps prescribed in the Code are in the hands of the District and Range officers except in the case of six reserves which were surveyed only during the year under report and for which the surveyors' maps are under scrutiny.

North Coimbatore.—The office reference map is maintained. The topographical sheets are used as range reference maps and are being posted. There are no reserve maps but the settlement map has been supplied to Range officers for the principal reserves to be used together with the topographical sheets as reserve maps.

South Coimbatore.—The district and range reference maps have been prepared but in the latter a few details have still to be entered. There are Survey of India maps for all the reserves but some details have still to be entered on them. There are also separate maps for the working circles.

Nilgiris.—The district and range reference maps have been posted. There are no reserve maps separately but settlement maps for each village are maintained, all the reserves being shown therein. Working circle maps are also maintained.

North Malabar.—The district reference map has been posted up to end of 30th June 1897 and one set of range maps with the ranges shown therein was supplied to Range officers. Separate maps for reserves except for six blocks have also been supplied.

South Malabar.—The district reference map has been posted up to 30th June 1897. The range reference maps have not yet been prepared for want of the services of a draughtsman. Separate maps for each reserve and working circle maps for areas for which working circles have been prepared.

South Canara.—The district reference map has been maintained and range maps except that of Changanassur are inaccurate and incomplete and nothing can be done before the publication of maps by the Survey Department. Separate maps except for two blocks are maintained.

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Forest Department, Madras Presidency.
Statement of Forest Areas surveyed and under survey during the year 1896-97.

Districts.	Areas surveyed and under survey during the year 1896-97.												Ordinary, included in district surveys.											
	Special Surveys—Maps or 4-inch and over by Survey of India Department or Madras Survey.						Boundary surveys.						With interior details.						Boundary surveys.					
	With details of growing stock.			Without details of growing stock.			With details of growing stock.			Without details of growing stock.			With details of growing stock.			Without details of growing stock.			With details of growing stock.			Without details of growing stock.		
	Previous.		Of year.	Previous.		Of year.	Previous.		Of year.	Previous.		Of year.	Previous.		Of year.	Previous.		Of year.	Previous.		Of year.	Previous.		Of year.
	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Northern Circle.																								
Chingleput ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madras ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Central Circle.																								
Chingleput ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madras ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Southern Circle.																								
Chingleput ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madras ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	10	2	1,078	511	70,230	9	507	280	17	1	276	37	316	173	189	1,923								

(a) Cost during the year.

(b) Information not available.

ANNUAL REPORT OF THE

Statement of Forest Areas surveyed and under survey during the year 1896-97—cont.

Districts.	Areas surveyed and under survey during the year 1896-97—cont.												Cost.											
	Chain and compass or other surveys by local officers.						Boundary surveys.						Total area of reserved forest at the end of year, as per form No. 44.						Entire cost of all surveys to end of the year.					
	With interior details.			Without interior details.			With interior details.			Without interior details.			With interior details.			Without interior details.			With interior details.			Without interior details.		
	Previous.		Of year.	Previous.		Of year.	Previous.		Of year.	Previous.		Of year.	Previous.		Of year.	Previous.		Of year.	Previous.		Of year.	Previous.		Of year.
	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.	Sq. Mls.
Northern Circle.																								
Chingleput ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madras ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Central Circle.																								
Chingleput ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madras ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Southern Circle.																								
Chingleput ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madras ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	479	2	3,610	493	10,780	7,860	1,210	3,847	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000

(c) Cost during 1896-96.

(d) Information not available.

APPENDIX E.

STATEMENT showing area of reserved forests for which final maps have been prepared.

Districts.	Area of reserved forests.	Area of reserved forests for which final maps have been prepared.
	SQ. MILES.	SQ. MILES.
Ganjam	146	139
Vizagapatam	135	14
Godavari	810	30
Kistna	654	340
Kurnool	1,806	232
Bellary	455	392
Anantapur	437	392
Cuddapah	1,876	1,481
Nellore	637	517
Chingleput	203	203
North Arcot	1,021	494
South Arcot	573	573
Salem	1,229	829
Trichinopoly	189	15
Tanjore	18	18
South Canara	114	65
North Malabar	157	†
South Malabar	39	39
The Nilgiris	358	†
North Coimbatore	1,053	12
South Coimbatore	654	652
Madura	662	560
Tinnevely	410	407
Total	15,138	6,712

* Revised figures.

† No final maps in accordance with the instructions contained in Board's Proceedings, Forest No. 21 of 1906 been prepared.

‡ Maps for other areas have been prepared, but cannot on account of their inaccuracy be shown.

District.	Areas for which working plans have been completed.		Areas for which working plans are being completed.		Areas for which working plans have still to be taken in hand.	Total Forest area as in Form No. 44.	Entire cost per square mile of working plans completed.	Remarks.
	At commencement of year.	During year.	At commencement of year.	Taken in hand during year.				
1	2	3	4	5	6	7	8	9
Northern Circle.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	RS.	
Ganjam	..	..	..	..	556	556	..	A sum of Rs. 721 was spent during the year for stock masters and stock men.
Vizagapatam	31	..	..	..	(a) 415	415	..	
Godavari	..	..	..	..	922	922	Nil.	
Kistna	8	(b) ..	(c) 680	..	476	1,164	Nil.	
Kurnool	..	..	..	..	2,231	2,231	..	A sum of Rs. 68 was spent under this head during the year.
Bellary	12	..	38	..	576	626	..	
Anantapur	1	..	..	..	512	514	..	
Total	52	..	718	..	5,789	6,669	..	
Central Circle.								
Cuddapah	3	..	..	..	2,357	2,360	..	A sum of Rs. 63 was spent under this head during the year.
Nellore	..	40	..	11	632	683	Nil.	
Chingleput	..	..	..	..	213	213	..	
North Arcot	..	..	..	..	1,164	1,134	..	
South Arcot	(d) 53	(e) 41	..	..	616	716	(f) 52	A sum of Rs. 116 was spent under this head during the year.
Salem	1	..	..	..	1,435	1,439	Nil.	
Trichinopoly	16	18	..	..	262	297	(g) Nil.	
Tanjore	..	4	..	4	19	18	..	
Total	78	103	..	15	6,663	6,859	..	
Southern Circle.								
South Canara	..	1	..	..	1,108	1,109	..	A sum of Rs. 51 was spent under this head during the year.
North Malabar	..	..	..	..	274	274	..	
South Malabar	34	..	..	24	270	328	90	
The Nilgiris	(h) 6	..	..	..	444	460	83	
North Coimbatore	..	(i) ..	..	..	1,623	1,623	..	
South Coimbatore	8	1	..	..	648	667	..	
Madura	..	..	(k) 12	..	609	621	(l) 50	
Tinnevely	5	29	..	..	395	427	..	
Total	53	31	12	24	5,369	5,489	..	
Grand Total	188	134	730	39	17,821	18,907	..	

(a) No working plans can be prepared till maps are prepared.

(b) The working plan of the Orr reserve was completed during the year; but as its area is only 123 acres, it is not shown in this column.

(c) This consists of 33 grazing working circles; maps have to be prepared and stock-taking has not yet been commenced.

(d) Working scheme for 5 square miles and simple working plans based upon area for 53 square miles.

(e) Working scheme for one square mile and simple working plans based upon area for 40 square miles.

(f) So far as known.

(g) Prepared by the ordinary staff.

(h) Fuel plantations around Ootacamund and Coonoor.

(i) Rough working plans of a very preliminary nature were prepared for certain small areas by the ordinary staff.

(j) The difference between this column and column 5 in the last year's report has not been explained by the Collector.

(k) The decrease in the average cost as compared with the last year is due to the smallness of the expenditure, Rs. 626, incurred during the year in completing the working plan of 29 square miles.

Communications

New work undertaken during the year.						
District.	Buildings.		Roads and paths.			Total expenditure on new work.
	Description of building.	Expenditure incurred.	Road or path and object of the same.	Length of road or path.	Expenditure incurred.	
1	2	3	4	5	6	7
Cuddapah ..						
	(d) Others	278	(a) Cart roads	14	1,899	2,177
			(b) Bridle-paths		3	
	Total, Cuddapah ..	278	Total ..	14	1,902	2,180
Nellore ..						
	(c) Houses for subordinate establishments	2,000				
	(d) Others	24				
	Total, Nellore ..	2,024	Total ..			2,024
Chingleput ..						
	(b) Rest-houses	450				
	Total, Chingleput ..	450	Total ..			450
North Arcot ..						
	(c) Houses for subordinate establishments	535	(a) Cart roads	2	1,531	2,066
	Total, North Arcot ..	535	Total ..	2	1,531	2,066
South Arcot ..						
	(b) Rest-houses	22				
	(c) Houses for subordinate establishments	13				
	Total, South Arcot ..	35	Total ..			35
Salem ..						
	(b) Rest-houses	406	(a) Cart roads	4	1,611	2,017
	(c) Houses for subordinate establishments	606				
	(d) Others	497				
	Total, Salem ..	1,509	Total ..	4	1,611	3,120
Trichinopoly ..						
	Total, Trichinopoly ..		Total ..			
Tanjore ..						
	(c) Houses for subordinate establishments	171				
	Total, Tanjore ..	171	Total ..			171
Total, Central Circle.						
	(b) Rest-houses	878	(a) Cart roads	20	5,041	5,919
	(c) Houses for subordinate establishments	3,325	(b) Bridle-paths		3	
	(d) Others	799	(c) Others			
	Total, Central Circle ..	4,902	Total ..	20	5,044	10,921

and Buildings—cont.

Repairs executed during the year.						
Buildings.	Expenditure incurred.	Roads and paths.			Total expenditure on repairs.	
		Nature of repairs.	Length repaired.	Expenditure incurred.		
8	9	10	11	12	13	14
Circle.						
(d) Rest-houses	669	(a) Cart roads	14	259	1,441	
(c) Houses for subordinate establishments	176					
(d) Others	98					
Add pay of Bangalore watchmen ..	942	Add A-VII (c)			5	
Total ..	1,182	Total ..			1,446	
Total ..						
(b) Rest-houses	545	(a) Cart roads		29		
(c) Houses for subordinate establishments	67					
(d) Others	29					
Total ..	641	Total ..			670	
(a) Head-quarter houses	400	(a) Cart roads	18	1,359		
(b) Rest-houses	583					
(c) Houses for subordinate establishments	160	Add A-VII (c)			35	
Add pay of watchmen ..	1,148	Total ..			3,096	
Total ..	1,762	Total ..			3,096	
(b) Rest-houses	543	(a) Cart roads	7	552	1,436	
Add pay of watchmen ..	341	Add A-VII (c)			81	
Total ..	884	Total ..			1,517	
Total ..						
(b) Rest-houses	300					
(c) Houses for subordinate establishments	322					
Total ..	622	Add A-VII (c)			16	
Total ..						
(b) Rest-houses	19	(a) Cart road	4	215		
(d) Others	30					
Total ..	49	Total ..			215	
Total ..						
(b) Rest-houses	180					
Total ..	180	Total ..			180	
(a) Head-quarter houses	400	(a) Cart roads	304	2,354		
(b) Rest-houses	2,844	(b) Bridle-paths				
(c) Houses for subordinate establishments	794	(c) Others				
(d) Others	157					
Add pay of watchmen ..	4,195					
Total ..	1,195	Add A-VII (c)			387	
Total ..						
	5,390	Total ..			7,881	

District.	New work undertaken during the year.					
	Buildings.		Roads and paths.			Total expenditure on new work.
	Description of building.	Expenditure incurred.	Road or path and object of the same.	Length of road or path.	Expenditure incurred.	
1	2	3	4	5	6	7
<i>Northern</i>						
Direction ..	..	RS.	..	MLS.	RS.	RS.
Ganjām ..	(c) Houses for subordinate establishments ..	17	(a) Cart roads .. (b) Block lines or bridle-paths ..	3 12	428 550	..
Total, Ganjām ..	17	..	Total ..	15	978	995
Visagapatam ..	(b) Rest-houses .. (c) Houses for subordinate establishments ..	512 462	(a) Cart roads ..	8	882	..
Total, Visagapatam ..	974	..	Total ..	8	882	1,856
Godāvari ..	(b) Rest-houses .. (c) Houses for subordinate establishments .. (d) Others ..	1,853 397 78	(a) Cart roads ..	10	2,612	..
Total, Godāvari ..	2,323	..	Total ..	10	2,612	4,939
Kistna ..	(b) Rest-houses .. (d) Others ..	2,569 70	(a) Cart roads .. (b) Bridle-paths ..	28 ..	5,109 78	..
Total, Kistna ..	2,639	..	Total ..	28	5,187	7,826
Kurnool ..	(c) Houses for subordinate establishments ..	2,141	(a) Cart roads ..	..	220	..
Total, Kurnool ..	2,141	..	Total ..	..	220	2,461
Bellary ..	(c) Houses for subordinate establishments ..	104	(a) Cart roads .. (b) Bridle-paths ..	4 4	208 88	..
Total, Bellary ..	104	..	Total ..	8	296	496
Anantapur ..	(b) Rest-houses ..	1,227	..	..	..	..
Total, Anantapur ..	1,227	..	Total ..	..	..	1,227
Total, Northern Circle.	(b) Rest-houses .. (c) Houses for subordinate establishments .. (d) Others ..	6,151 8,121 145	(a) Cart roads .. (b) Bridle-paths .. (c) Others ..	48 16 ..	15,688 716 ..	..
Total ..	9,415	..	Total ..	64	16,404	25,823

Repairs executed during the year.					
Buildings.		Roads and paths.			Total expenditure on repairs.
Nature of repairs.	Expenditure incurred.	Nature of repairs.	Length repaired.	Expenditure incurred.	
8	9	10	11	12	13
<i>Civils.</i>					
(a) Head-quarter houses ..	5	..	..	..	5
(b) Rest-houses ..	463	(b) Block lines or bridle-paths ..	52	259	..
(c) Houses for subordinate establishments ..	927	..	52	259	1,649
Total ..	1,390	* Add A-VII (c) ..	..	..	71
..	..	Total ..	..	..	1,720
(b) Rest-houses ..	333	..	..	..	573
(c) Houses for subordinate establishments ..	220	Add A-VII (c) ..	..	..	70
(d) Others ..	20	Total ..	..	..	643
Total ..	573	..	..	..	..
(b) Rest-houses ..	504	(a) Cart roads ..	..	28	..
(c) Houses for subordinate establishments ..	111	(d) Others ..	..	21	..
(d) Others ..	89	..	..	..	..
Add pay of watchers ..	704	..	..	..	..
Total ..	1,278	..	..	..	..
(b) Rest-houses ..	136	(a) Cart roads ..	7	116	..
(c) Houses for subordinate establishments ..	32	..	7	116	234
Total ..	168	Add A-VII (c) ..	..	..	2,132
..	..	Total ..	..	..	2,416
(a) Head-quarter houses ..	1,030	(a) Cart roads ..	25	1,551	..
(b) Rest-houses ..	1,465	..	..	..	..
(c) Houses for subordinate establishments ..	199	Add A-VII (c) ..	..	..	5,186
(d) Others ..	173	Total ..	..	..	450
Add cost of establishment ..	408	..	..	..	..
Total ..	3,345	..	..	..	5,636
(b) Rest-houses ..	2	(a) Cart roads ..	8	162	..
(c) Houses for subordinate establishments ..	48	(b) Bridle-paths ..	2	27	..
Total ..	50	Total ..	10	189	239
(a) Head-quarter houses ..	85	..	..	..	..
(c) Houses for subordinate establishments ..	175	..	..	..	..
(d) Others ..	16	Add A-VII (c) ..	..	..	590
Add pay of watchmen ..	814	Total ..	..	..	696
Total ..	560	..	..	..	..
(a) Head-quarter houses ..	1,090	(a) Cart roads ..	40	2,157	..
(b) Rest-houses ..	2,203	(b) Bridle-paths ..	54	286	..
(c) Houses for subordinate establishments ..	1,712	(c) Others ..	..	21	..
(d) Others ..	298	Add A-VII (c) ..	..	..	9,845
Add pay of watchers ..	6,003	Total ..	..	..	2,729
Total, N. C. ..	7,384	..	..	..	12,677

(c) Includes pay of watchers.

Communications

New work undertaken during the year.						
District.	Buildings.		Roads and paths.			Total expenditure on new work.
	Description of building.	Expenditure incurred.	Road or path and object of the same.	Length of road or path.	Expenditure incurred.	
1	2	3	4	5	6	7
Southern						
South Canara.	(b) Rest-houses	85		MILES.	RS.	PA.
	(d) Others	90		..	..	..
	Total, South Canara ..	175	Total ..	..	..	175
North Malabar.	(d) Others	376	(a) Cart roads	30	540	
	Total, North Malabar ..	376	Total ..	10	540	918
South Malabar.	(b) Rest-houses	971				
	(c) Houses for subordinate establishments.	3,163				
	(d) Others	17				
	Total, South Malabar ..	4,152	Total ..			4,152
The Nilgiris..	(b) Rest-houses	83	(a) Cart roads	1	500	
	(c) Houses for subordinate establishments.	891				
	(d) Others	313				
	Total, Nilgiris	1,286	Total ..	1	500	1,286
North Coimbatore.	(b) Rest-houses	288	(a) Cart roads	30	7,000	
	(c) Houses for subordinate establishments.	2,309	(b) Bridle-paths	9	1,350	
	(d) Others	43				
	Total, North Coimbatore ..	2,510	Total ..	39	8,350	12,336
South Coimbatore.	(b) Rest-houses	1,044	(a) Cart roads	3	400	
	(c) Houses for subordinate establishments.	123	(b) Bridle-paths	5	387	
	(d) Others	511	(c) Others	1	740	
	Total, South Coimbatore ..	2,578	Total ..	9	1,527	2,578
Madura ..	(b) Rest-houses	617	(a) Cart roads		428	
	Total, Madura	617	Total ..		816	1,321

and Buildings—cont.

Repairs executed during the year.									
Buildings.			Roads and paths.				Total		
Nature of repairs.	Expenditure incurred.		Nature of repairs.	Length repaired.	Expenditure incurred.		expend- ed on repairs.		
8	9		10	11	12		13		
Circles.									
(c) Houses for subordinate establish-ments	126		(a) Cart roads	9	33				
(d) Others	18			9	33		177		
			Add A-VII (a)				12		
Total	144		Total				189		
(c) Head-quarter houses	186		(a) Cart roads	88	1,045				
(b) Rest-houses	156			88	1,045		1,444		
(d) Others	68		Add A-VII (a)				407		
Total	399		Total				1,851		
(c) Head-quarter houses	34		(a) Cart road	1	501				
(b) Rest-houses	118		(b) Bridle-path	6	46				
(c) Houses for subordinate establish-ments	184			7	546		1,287		
(d) Others	408		Add A-VII (c)				86		
Total	741		Total				1,372		
(d) Others	974		(a) Cart roads	57	848				
			Add A-VII (a)	57	848		1,822		
Total	974		Total				88		
(b) Rest-houses	417		(a) Cart roads	60	3,935				
(c) Houses for subordinate establish-ments	210			60	3,935		4,097		
(d) Others	255		Add A-VII (a)				20		
Add pay of watchmen	882								
Total	1,162		Total				5,126		
(c) Head-quarter houses	27		(a) Cart roads	21	2,542				
(b) Rest-houses	201		(b) Bridle-paths	11	49				
(c) Houses for subordinate establish-ments	780		(c) Others	10	665				
(d) Others	59		Add A-VII (c)	323	3,206		4,613		
Total	1,267		Total				663		
(a) Head-quarter houses	275		(a) Cart roads		136				
(b) Rest-houses	447		Add A-VII (a)				186		858
Total	722		Total				74		932

Communication

Districts.	New work undertaken during the year.					
	Buildings.		Roads and paths.			Total expenditure on new works.
	Description of building.	Expenditure incurred.	Road or path and object of the same.	Length of road or path.	Expenditure incurred.	
1	2	3	4	5	6	7
Tinnevely ..	(a) Rest-houses	Rs. 2,452	(a) Cart roads	M.L.S. 4	Rs. 634	
	(b) Houses for subordinate establishments	275	(b) Bridle-paths	1	447	
	(c) Others	346	(c) Others		2,559	
	Total, Tinnevely	3,073	Total	6	3,640	6,713
Total, Southern Circle.	(a) Rest-houses	5,350	(a) Cart roads	33	9,702	
	(b) Houses for subordinate establishments	6,601	(b) Bridle-paths	124	1,024	
	(c) Others	1,696	(c) Others	1	3,308	
	Total, Southern Circle	14,717	Total	158	14,034	28,751
Grand Total, Presidency.	(a) Head-quarter houses		(a) Cart roads	121	24,593	
	(b) Rest-houses	13,389	(b) Bridle-paths	225	2,041	
	(c) Houses for subordinate establishments	13,107	(c) Others	1	3,308	
	(d) Others	2,638				
	Total, Presidency	29,134	Total	150	30,222	59,356

and Buildings—cont.

Repairs executed during the year.						
Buildings.		Roads and paths.			Total expended on repairs.	
Nature of repairs.	Expenditure incurred.	Nature of repairs.	Length repaired.	Expenditure incurred.		
8	9	10	11	12	13	
(b) Rest-houses	Rs. 922	(a) Cart roads	M.L.S. 65	Rs. 1,754		
		(b) Bridle-paths	24	645		
		(c) Others				
		Total	89	2,399	2,434	
(c) Houses for subordinate establishments	521	(a) Cart roads	301	10,724		
	2,451	(b) Bridle-paths	314	739		
		(c) Others	10	665		
		Total	342	12,198	18,632	
(d) Others	1,371	(a) Cart roads				
	1,811	(b) Bridle-paths				
		(c) Others				
		Total			19,989	
Add pay of watchers		Add A-VII (a)			1,357	
Total		Total				
(a) Head-quarter houses	2,011	(a) Cart roads	371	15,365		
	8,198	(b) Bridle-paths	86	1,025		
		(c) Others	10	686		
		Total	467	17,016	38,224	
(b) Rest-houses	3,877	(a) Cart roads				
	2,266	(b) Bridle-paths				
		(c) Others				
		Total			4,223	
Add pay of watchers		Add A-VII (a)				
Total		Total			40,447	
Grand Total, Presidency		Grand Total, Presidency				

ANNUAL REPORT OF THE

ANNUAL FORM NO. 65.

Tramway Statement.

STATEMENT showing the results of transport of wood by tramway compared with transport by country carts.

I.—Nellore District.

(i) Sriharikota Range.

Capital Account.

	1895-96.	1896-97.		1895-96.	1896-97.
<i>Dr.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Cr.</i>	<i>Rs.</i>	<i>Rs.</i>
To balance from the previous year ..	19,463	18,380	By depreciation at 6 per cent. ..	1,173	1,103
Add cost of iron caps and brass journals purchased ..	90	..	" balance of stock ..	18,380	17,277
Total ..	19,553	18,380	Total ..	19,553	18,380

Revenue Account.

	1895-96.	1896-97.		1895-96.	1896-97.
<i>Dr.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Cr.</i>	<i>Rs.</i>	<i>Rs.</i>
To working expenses ..	614	490	By balance written off ..	2,875	2,719
" road-making and repairs ..	306	352			
" interest at 4 per cent. ..	782	736			
" depreciation at 6 per cent. ..	1,173	1,103			
Total ..	2,875	2,719	Total ..	2,875	2,719

	1895 96.			1896 97.		
	Number of tons carried.	Miles carried.	Total ton miles.	Number of tons of fuel carried.	Number of miles carried.	Total miles.
Work done	{ 1,516 497	{ 53 1	{ 8,717 407	{ 3,530	{ 51	8,531
Total ..	1,923	..	9,124			

REMARKS.—Interest and depreciation were allowed for the whole outlay although 2½ miles only were worked.

1895-96.				1896-97.		
	Number of ton miles.	Amount.	Rate per ton mile.	Number of ton miles.	Amount.	Rate per mile.
Actual charge for carrying	9,124	Rs. 2,876	Rs. A. P. 0 5 8	8,525	Rs. 2,719	Rs. A. P. 0 4 11
Estimated cost of carting	9,124	3,089	0 5 5	8,525	2,768	0 5 0

* The decrease in the rate is due to the decrease in the distance carried.

Year.	Profit.	Loss.
1889-90 to 1891-92 ..	..	..
1892-93 to 1895-96 ..	..	..
1896-97 ..	1,846	..
Total ..	1,846	2,598
Net loss up to 30th June 1897 ..	709	..

FOREST DEPARTMENT.

(ii) Casuarina Plantation Range.

Capital Account.

	1895-96.	1896-97.		1895-96.	1896-97.
<i>Dr.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Cr.</i>	<i>Rs.</i>	<i>Rs.</i>
To balance from the previous year ..	14,073	13,313	By depreciation at 6 per cent. ..	850	798
" cost of caps and journals purchased ..	90	..	" balance of stock ..	13,313	12,515
Total ..	14,163	13,313	Total ..	14,163	13,313

* This item which has been wrongly included in the Revenue Account in the last year's return has now been carried to the Capital Account.

Revenue Account.

	1895-96.	1896-97.		1895-96.	1896-97.
<i>Dr.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Cr.</i>	<i>Rs.</i>	<i>Rs.</i>
To working expenses ..	802	468	By balance written off ..	1,718	1,798
" interest at 4 per cent. ..	566	532			
" depreciation at 6 per cent. ..	850	798			
Total ..	1,718	1,798	Total ..	1,718	1,798

	1895-96.			1896-97.		
	Number of tons of wood carried.	Number of miles carried.	Total ton miles.	Number of tons of wood carried.	Number of miles carried.	Total ton miles.
Work done	1,262	4	5,048	1,099	4	4,396

	1895-96.			1896-97.		
	Number of ton miles.	Amount.	Rate per ton per mile.	Number of ton miles.	Amount.	Rate per ton per mile.
Actual charge for carrying	5,048	Rs. 1,718	Rs. A. P. 0 5 5	+ 4,396	Rs. 1,798	Rs. A. P. 0 6 6
Estimated cost of carting	5,048	4,680	0 14 10	4,396	4,396	1 0 0

† The decrease in the quantity trolled is due to change of officers. The variation in the cost rate of carting has not been explained.

Year.	ABSTRACT.	Profit.	Loss.
1885-86 to 1886-87 ..	..	Rs. 3,681	..
1887-88 ..	..	..	670
1888-89 ..	..	2,999	..
1889-90 ..	..	..	165
1890-91 to 1894-95 ..	..	14,778	..
1895-96 ..	..	2,962	..
1896-97 ..	..	2,698	..
Total ..	..	27,018	735
Net ..	..	26,283	..

ANNUAL FORM No. 50.

Forest Department, Madras Presidency.

PROSECUTION for breach of Forest Rules during 1896-97.

ANNUAL REPORT OF THE																												
NEW CASES OF THE YEAR.											DECREASED OR DURING THE YEAR.																	
District.	Cases pending from 1895-96.	Cases received during the year.					Total new cases.					Convictions.					Acquittals.					Withdrawn.					Total.	Cases pending at close of year.
		By private parties.	By Government.	By Special Magistrate.	By Sessions Judge.	By District Judge.	By private parties.	By Government.	By Special Magistrate.	By Sessions Judge.	By District Judge.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
Northern Circle.	Ganjam	20	161	44	17	226	265	51	232	15	107	51	201	17	46	208	579	38										
	Vizagapatam	36	171	50	17	407	457	107	307	107	107	107	107	107	107	259	1,104	100										
	Godavari	38	134	31	14	217	243	57	24	281	37	178	30	162	37	1,104	100											
	Krishna	300	273	388	47	710	1,724	213	780	62	332	101	1,212	241	581	2,375	284											
	Karntool	91	640	240	60	931	935	337	87	32	273	914	173	317	704	2,375	284											
Southern Circle.	Bellary	71	352	87	134	677	634	135	171	16	106	110	446	20	58	510	1,419	82										
	Anantapur	9	137	133	7	260	29	70	328	16	106	110	446	20	58	510	1,419	82										
	Total	567	2,281	973	353	3,412	1,175	948	3,175	240	1,005	1,711	5,163	641	1,385	3,400	10,697	710										
	Godavari	103	347	407	18	671	775	354	1,114	62	280	114	832	102	424	672	2,150	103										
	Nellore	24	52	69	10	131	181	73	196	13	42	28	74	13	47	182	342	49										
Central Circle.	Chingleput	20	265	180	28	433	458	16	180	13	42	277	701	102	177	440	1,080	23										
	North Arcot	33	474	537	15	1,023	1,284	57	510	19	11	755	1,815	34	172	530	1,344	154										
	South Arcot	236	953	477	47	1,503	1,721	262	1,020	44	387	1,115	2,305	138	360	1,789	4,398	175										
	Tamil Nadu	18	681	554	21	1,244	1,213	212	735	42	300	547	1,373	109	366	1,001	3,309	92										
	Tamil Nadu	80	312	312	12	681	704	168	389	38	140	265	706	210	106	683	1,309	21										
Southern Circle.	Total	285	2,259	2,715	200	5,596	6,191	1,281	3,967	242	1,159	3,253	8,519	721	1,712	6,509	15,407	652										
	South Arcot	149	481	88	418	807	1,044	453	703	97	231	104	275	120	164	510	1,393	134										
	North Arcot	9	17	24	3	50	59	4	10	4	6	30	14	7	23	22	85	6										
	South Arcot	16	35	36	9	108	121	61	140	4	21	32	92	4	18	16	105	18										
	North Arcot	24	130	132	31	343	371	389	25	104	46	340	48	128	30	100	912	43										
General.	Madurai	22	67	68	14	178	200	26	65	7	35	122	33	11	44	176	458	24										
	Tamil Nadu	141	173	233	24	483	524	357	1,131	45	385	131	374	11	37	519	1,636	105										
	Tamil Nadu	51	283	130	11	473	468	11	42	11	31	307	874	82	256	410	1,308	50										
	Total	418	1,050	814	828	2,430	2,619	1,131	2,483	157	749	735	2,150	381	717	2,404	6,063	384										
	Grand Total, Frontier	1,880	6,947	4,479	1,121	11,686	13,216	3,322	9,928	672	2,931	5,793	15,852	1,634	3,814	11,442	32,227	1,776										

Area of Forest Tracts protected from Fire during 1896-97—cont.

District.	Ranges or taluks.	During dry season of 1896-97.				Cost during the season.	Remarks.
		Area actually protected up to 30th June 1896.	Area attempted to be protected.	Fires.	Actually protected.		
1	2	3	4	5	6	7	8
North Arcot— cont.	<i>Central Circle—cont.</i>						
	Chittoor	84,225	51,164	224	33,940		
	Chendragiri	10,800	10,800		10,800		
	Palamaner	87,774	52,978		52,978		
	Gudiyatham	71,563	14,687	2	14,685		
	Vellore	32,463	7,623	130	7,523		
	Polur	43,431	43,426		43,426		
	Walajah	3,078	3,078		3,078		
	Wandiwash	10,771	10,801		10,801		
	Arond	10,297	7,329		7,329		
South Arcot	Total, General, North Arcot.	356,312	184,966	356	184,910		
	Total, Special and General, North Arcot.	703,968	725,456	6,661	718,795	4,687	
	<i>South Arcot</i>						
	Tiruvannamalai	50,790	51,600	90	51,510	498	
	Kallakurichi	14,338	14,338		14,338	91	
	Total, Special, South Arcot.	65,128	65,938	90	65,848	589	
	General	29,351	30,488	178	30,290	29	
	Total, Special and General, South Arcot.	94,479	96,426	268	96,138	618	
	<i>Salem</i>						
	Salem, West	19,277	10,537	37	10,500	563	
Trichinopoly	Tirupattur	12,218	15,748	2,120	13,628	227	
	Krishnagiri	10,597	11,988	221	11,762	508	
		5,728	6,800		6,800	314	
	Total, Salem	39,879	45,068	2,378	42,690	1,612 + (b) 118	
	<i>Trichinopoly</i>						
	Mosiri	49,581	50,081	100	49,981	74	
	Perambalur	32,600	32,600		32,600	48	
	Total, General, Trichinopoly.	82,181	82,681	100	82,581	122	
	<i>Tanjore</i>						
	Total, Special, Central Circle.	431,215	430,291	6,795	424,506	5,798	
South Canara	Total, General, Central Circle.	1,198,687	981,284	15,622	865,761	3,213	
	Grand Total, Central Circle.	1,629,892	1,411,575	22,417	1,290,267	13,971	
	<i>Southern Circle</i>						
	Coolapoor range	15,311	16,504	256	16,248	240	
	Udipi range	16,685	11,825	200	11,132	250	
	Mangalore range	7,828	7,825		7,175	168	
	Uppinangudi range	4,620	4,632	27	4,505	404	
	Puttur range	2,130	5,256		5,256	118	
	Total, General, South Canara.	19,904	15,642	1,133	14,409	1,089	
	<i>South Malabar</i>						
	Special	91,499	65,512	100	65,512	1,091	
General		10,323					
	Total, North Malabar	32,422	65,612	100	65,612	1,091	

(a) This area was shown under general just year, but it is now reported to have been under special protection.

(b) Amount spent in beating out fires in other areas.

(c) Fire tankard (d).

Area of Forest Tracts protected from Fire during 1896-97—cont.

District.	Ranges or taluks.	During dry season of 1896-97.				Cost during the season.	Remarks.
		Area actually protected up to 30th June 1896.	Area attempted to be protected.	Fires.	Actually protected.		
1	2	3	4	5	6	7	8
South Malabar— cont.	<i>Southern Circle—cont.</i>						
	Nilambur range	4,671	4,585		4,585	1,007	
	Annamalapuram range	80,875	80,779		80,779	470	
	Palghat range	18,344	18,344		18,344	500	
	Total, Special, South Malabar.	103,890	103,890		103,890	2,216	
	<i>The Nilgiris</i>						
	Special	16,440	11,475	1,300	10,089	1,076	
	General	71,722	71,740		71,740	148	
	Total, Special and General, Nilgiris.	88,162	83,215	1,300	81,829	1,822	
	<i>North Coimbatore</i>						
	Sataramangalam range	5,648	5,648		5,648	118	
South Coimbatore	Kollegal range	4,076	4,691		4,691	482	
	Talavali range		342		342	16	
	Total, Special, North Coimbatore.	10,524	10,671		10,671	516	
	<i>General</i>						
	Tunacudavu range	23,520	24,000		24,000	544	
	Polachi range	9,675	9,776		9,776	479	
	Udumalpet range	485	485		485	45	
	Mettupalayam range	230	230		230	182	
	Bolampatti range	(b) 22,364	23,423	67	23,356	1,525	
	Total, Special, South Coimbatore.	56,274	57,923	67	57,856	2,275	
Madura	Tunacudavu		38,843		38,843		
	Polachi		72,543		72,543		
	Udumalpet	357,557	141,544	750	140,794		
	Mettupalayam		49,370		49,370		
	Bolampatti		58,089	1,440	56,649		
	Total, General, South Coimbatore.	357,557	360,369	9,190	358,479		
	Total, Special and General, South Coimbatore.	413,831	418,292	9,257	416,035	2,275	
	<i>Madura</i>						
	Special	176,616	182,122	1,242	180,880	3,562	
	General	23,600	36,832	220	36,412		
Tinnevely	Total, Special and General, Madura.	210,216	218,954	1,462	217,292	3,562	
	<i>Special</i>						
	Andasamudram taluk	8,880	9,225		9,205	172	
	Nanguneri taluk	3,996	2,918	29	2,889	147	
	Tenkasi taluk	3,060	1,856		1,715	88	
	Senkaranayankóyil taluk	5,000	5,000	141	4,859	137	
	Srivilliputtur taluk	3,992	7,700		7,700	124	
	Total, Special, Tinnevely.	24,928	27,705	168	26,547	544	
	<i>General</i>						
	Andasamudram taluk	79,856	81,014		81,014	172	
General	Nanguneri taluk	46,987	48,120		48,120	145	
	Tenkasi taluk	19,069	20,624		20,624	172	
	Senkaranayankóyil taluk	19,468	21,634	250	21,384	171	
	Srivilliputtur taluk	38,683	36,284	600	35,684	27	
	Total, General, Tinnevely.	204,034	206,656	5,167	201,488	592	
	Total, Special and General, Tinnevely.	228,962	233,360	6,335	228,925	1,526	
	<i>Special, Southern Circle</i>						
	Special	463,650	456,316	2,563	453,753	12,017	
	General	718,649	729,938	8,710	719,228	1,913	
	Grand Total, Southern Circle.	1,182,299	1,179,254	11,273	1,172,981	13,930	
General	Total, Presidency—						
	Special	1,096,830	1,255,217	11,567	1,243,643	22,761	
	General	2,347,293	2,146,846	35,376	2,111,470	16,562	
	Grand Total, Presidency.	3,444,123	3,402,063	46,943	3,355,113	39,323	

N.B.—Where Collectors have not reported the figures separately for special areas, they are shown under general. Where Collectors have not reported the figures separately for ranges or taluks, they are shown for the whole districts.

(c) Added or subtracted as per Accountant-General's audited figures.

ANNUAL FORM No. 53.

Forest Department, Madras Presidency.

AREA of Plantations, 1896-97.

District.	Number of plantations.	Area in acres.				Receipts	Charges	Remarks.
		On 1st July 1896.	Added during the year.	Ex-cluded during the year.	Area on 30th June 1897.	Of the year.		
1	2	3	4	5	6	7	8	9
REGULAR PLANTATIONS.								
Northern Circle.		ACS.	ACS.	ACS.	ACS.	RS.	RS.	
Ganjam	1	241	68	..	304	12	2,484	
Vissagapatam	..	..	..	..	..	..	..	
Gōdāvari	2	476	..	..	476	2,858	1,110	
Kistna	18	1,287	197	..	1,484	1,363	2,343	
Total ..	21	2,004	260	..	2,264	4,223	12,940	
Central Circle.								
Cuddapah	8	2,100	..	(a) 2,100	..	44	470	(a) Included in reserved forest and so omitted.
Nellore	9	3,053	..	..	3,053	31,791	1,860	(b) By rectification.
Chingleput	4	352	..	..	352	321	370	(c) Includes Rs. 380
North Arcot	6	1,048	..	..	1,048	1,532	4,414	Municipal tax on plantation lands.
South Arcot	13	1,920	(b) 6,096	..	8,018	4,740	{ (c) 2,694 (d) -19	(d) Added or deducted as per Accountant-General's audited figures.
Tanjore	4	708	..	{ (c) 60 (d) 104	539	3,571	1,263	(e) Unreserved lands looked after by the Revenue subordinates.
Total ..	44	9,176	6,696	2,264	13,610	41,989	11,052	(f) Failures.
Southern Circle.								(g) Of this, Rs. 2,634 appertain to 80 acres in Karumpoya reserve prepared for teak planting.
South Canara	3	183	{ .. 37 (d) 481	(f) 200	183	1,739	62	(h) Municipal assessment.
North Malabar	11	401	(b) 158	(b) 37	719	..	1,066	
South do.	17	4,439	..	..	4,560	20,325	(g) 8,380 (h) -423	
The Nilgiris	22	1,610	..	..	1,610	5,484	..	
South Coimbatore	4	28	..	..	28	..	..	
Madura	8	226	7	21	212	992	441	
Total ..	65	6,687	683	258	7,312	28,600	10,873	
Grand Total, Regular Plantations	130	18,067	7,641	2,522	23,186	74,812	34,866	

ANNUAL FORM No. 52.

Forest Department, Madras Presidency.

AREA closed and open to grazing during 1896-97.

District.	Total forest area as per Form No. 41.	Area in square miles.				
		Closed to all animals.		Closed to goats and sheep.		Open to all animals.
		Whole year.	Part of year.	Whole year.	Part of year.	Whole year.
1	2	3	4	5	6	7
<i>Northern Circle.</i>						
Ganjām	555	123	..	(a) 536	..	242
Vissagapatam	415	1	..	178	..	..
Gōdāvari	553	12	..	953	..	..
Kistna	1,164	132	..	928	..	236
Kurnool	2,531	..	114	2,329	..	2
Bollary	825	(b) 43	112	446	96	181
Anantapur	514	..	..	514	..	..
Total, Northern Circle	6,557	511	226	5,898	96	661
<i>Central Circle.</i>						
Cuddapah	2,550	1	..	(a) 2,353	..	..
Nellore	653	7	..	668	..	8
Chingleput	213	31	..	205	..	70
North Arcot	1,134	65	..	(a) 1,044	..	..
South Arcot	715	29	..	(a) 716	..	5
Salem	1,439	63	..	(a) 1,434	..	..
Trichinopoly	297	55	..	(a) 242	..	..
Tanjore	18	1	..	18	..	..
Total, Central Circle	6,859	213	..	6,594	..	83
<i>Southern Circle.</i>						
South Canara	1,109	22	..	(a) 1,109	..	..
Malabar, North	274	52	..	274	..	..
Do. South	328	328	..	328	..	..
The Nilgiris	450	5	..	(a) 450	..	..
Coimbatore, North	1,623	215	..	(a) 1,623(a)	..	..
Do. South	657	(c) 266	..	(a) 657	..	..
Madura	621	22	..	621	..	..
Tinnevely	427	304	..	(a) 427	..	..
Total, Southern Circle	5,489	1,213	..	5,499	..	..
Grand Total, Presidency	18,907	1,787	226	18,081	96	744

(a) No demand for grazing.
 (b) Includes forty square miles of leased forests.
 (c) In 17 square miles sheep were also not admitted.

(a) Closed to goats only.
 (b) Sixty-five square miles open to sheep.
 (c) Under consideration.

ANNUAL REPORT OF THE

ANNUAL FORM No. 53.

Forest Department, Madras Presidency.

AREA of Plantations, 1896-97.

District.	Number of plantations.	Area in acres.				Receipts	Charges	Remarks.
		On 1st July 1896.	Added during the year.	Ex-cluded during the year.	Area on 30th June 1897.	Of the year.		
1	2	3	4	5	6	7	8	9
CULTURAL OPERATIONS.						rs.	rs.	
Northern Circle.								
Direction	..	..	..	..	..	..	..	(a) Planting up cer- tain bungalow and range house compounds.
Ganjam	..	404	..	..	404	13	176	..
Vizagapatam	..	..	..	..	..	..	10	..
Godavari	..	..	..	..	..	..	23	(d)
Kistna	..	52	..	..	52	11	1,012	(b) Failure.
Kurnool	..	..	..	..	..	..	41	(c) Expenditure on bamboo plant- ing.
Bellary	..	358	106	381	132	..	1,407	..
Anantapur	..	52	139	40	151	71	208	(e) Expenditure on exotics.
Total	..	876	244	371	749	95	2,898	(f) Rectification. (f) Added or deduct- ed as per Ac- countant-Gen- eral's authen- tic figures.
Central Circle.								
Caddapah	..	601	..	..	601	21	270	(g) Excluded being unreserved lands looked after by the revenue sub- ordinates or abandoned or in- cluded by section.
Nellore	..	1,132	..	..	1,132	..	144	..
Chingleput	..	1,662	..	6	1,656	11	2,704	..
North Arcot	..	1,490	..	..	1,490	..	3,057	..
South Arcot	..	1,490	..	..	1,490	..	83	..
Trichinopoly	..	100 acres.	(e) 10	100 acres.	100 acres.	1,480	87	..
Tanjore	..	94 1,248	..	(g) 492	756	..	1,187	..
Total	..	6,127 100	10	498 10	5,639 90	1,512	7,482	..
Southern Circle.								
The Nilgiris	..	479	..	..	479	..	940	..
South Coimbatore ..	..	175	52	..	227	..	589	..
Tinnevely	..	3,398	8	..	3,404	16	266	(f) -
Total, Southern Circle ..	..	4,050	60	..	4,110	16	1,742	..
Total, Cultural operations.	..	11,053 100	314	886 10	10,499 90	1,523	12,122	..
Total, Regular plantation, and cultural operations, Northern Circle.	..	2,880	504	371	3,012	4,318	15,638	..
Total, Regular plantations and cultural operations, Central Circle.	..	16,808 100	6,708	2,762 10	19,249 90	43,501	18,524	..
Total, Regular plantations and cultural operations, Southern Circle.	..	10,937	748	258	11,423	28,815	12,615	..
Presidency total, Planta- tions and cultural opera- tions	..	29,198 100	7,955	3,391 10	33,584 90	76,435		..

ANNUAL FORM No. 54.

Forest Department, Madras Presidency.

ANNUAL list of topes.

District.	Number of topes.	Chief trees.	Area.	Cost.	
				During year.	To end of year.
Northern Circle.					
Ganjam	7	Miscellaneous	101	..	922
Vizagapatam	2	Teak, sal and rellu grass	78	237	1,020
Godavari	(a) 11	Casuarina, graft mangoes, tamarind, margosa, nim, palmyras, soapnut, &c.	67	786	3,659
Kistna	(b) 30	Tamarind, mango and ippe	266	{ 183	9,914
Kurnool	30	Casuarina, tamarind, mango, margosa, figs, &c.	212	{ (c) — 4	
Bellary	95	Palmyra, babul and tamarind	2,885	291	2,800
Anantapur				86	9,313
Total ..	175	Total ..	3,539	1,529	27,128
Central Circle.					
Cuddapah	71	Palmyrah, mango, tamarind, margosa, dirasanam, casuarina, babul, tella tumma, orange, coffee, tangedu and other ornamental trees.	1,630	263	61,518
Chingleput	10	Mango, margosa, tamarind, jack, illupai, casuarina, korakapili, coconut and wood-apple.	99	125	9,375
North Arcot	71	Mango, fig, palmyrah, coconut, illupai, wood-apple, tamarind, date, banyan, babul, teak, jack, orange, soapnut, casuarina, &c.	1,938	668	45,450
South Arcot	(d) 84	Tamarind, illupai, palmyra, nagai, vamba, mango, kattuvagai, puvarasu, babul, red-sanders, oara rubber, sissu, cashew, casuarina, nelli.	(d) 465	..	9,027
Salem	(e) 126	Vagai, mango, pungan, nagai, casuarina, neemai, avaram, illupai, tamarind, palmyra, thuringi, coconut, margosa.	(e) 1,698	..	93,036
Trichinopoly	(f) 19	Mango, coconut, bamboo, sissu, tamarind, palmyra and elandai.	{ 73	70	1,944
Total ..	361	Total ..	{ (f) 500		
Southern Circle.					
North Malabar	(g) 10	Eucalyptus, oara rubber, mahoghany, fons elastica, dendrocalamus, brandegee and other bamboos, pepper vines, Liberian coffee plants.	(g) 56	{ 396	5,063
South do.	1	Mango, pongamia glabra, tamarind, terminalia paniculata, eugenia jambolana.	20	{ (e) + 83	
Coimbatore, North	5	Palmyra, sandalwood, acacia arabica, albizia amara lebbek, mistia, satinwood.	317	(e) 103	(h) 103
Do. South	28	Tamarind, palmyra, coconut and pasture	267	40	5,290
Madura	(i) 24	..	91	..	13,893
Tinnevely	9	Mango, tamarind, gooseberry, palmyras, bamboos, banyan, jack, illupai, teak, vengai, casuarina and nim.	84	114	2,332
Total ..	72	..	835	738	31,690
Grand Total, Presidency.	608	..	10,677	3,390	2,78,138

- (a) The Bezwa Head Assistant Collector's office compound was added during the year.
 (b) One tope of 4 acres added during the year.
 (c) Added or deducted to tally with the audited figures of the Accountant-General.
 (d) Five topes were transferred to list of reserves and one expunged from the list having been ordered to be sold in auction. Hence the decrease in the number and area of the topes.
 (e) Three topes of 263 acres excluded; one tope of 2 acres added; 5 acres added by rounding off fractions.
 (f) The upper anicut padugais of about 500 acres were added during the year.
 (g) Eight topes of 86 acres added.
 (h) Cost of the previous years not reported.
 (i) Vide remark in the report for 1895-96.

ANNUAL REPORT OF THE

ANNUAL FORM No. 57.

Forest Department, Madras Presidency.

ACCOUNT of Timber cut or collected by Government Agency and brought to depôt, sold locally, or otherwise disposed of during the year 1896-97.

Name of district.	Balance at commencement of the year in forests and sale depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in forests and sale depôts.
1	2	3	4	5	6
TIMBER (CUBIC FEET).					
<i>Northern Circle.</i>					
Ganjâm	2,028	27,265	29,293	17,170	8,123
Vizagapatam	..	1,778	1,778	1,773	..
Godâvari	..	..	..	..	..
Kistna	..	28,480	28,480	19,805	8,675
Kurnool	2,302	9,792	12,094	7,918	4,176
Bellary	20,083	25,284	45,367	21,207	24,160
Anantapur	..	..	..	..	..
Total	25,012	88,694	113,706	67,773	45,933
<i>Central Circle.</i>					
Cuddapah	20	44,571	44,591	40,455	4,136
Nellore	42	1,525	1,567	1,563	..
Chingleput	..	..	..	..	..
North Arcot	47	1,188	1,235	312	1,923
South Arcot	376	1,503	2,079	1,006	1,073
Salem	921	2,833	3,754	2,889	865
Trichinopoly	..	..	..	..	..
Tanjore	..	..	..	..	..
Total	1,309	52,221	53,530	46,780	6,750
<i>Southern Circle.</i>					
South Canara	12,051	32,003	44,054	10,188	33,866
Malabar (North)	47,647	58,740	106,387	44,056	62,331
Do. (South)	85,222	134,823	219,045	112,081	106,964
Nilgiris	3,709	21,718	25,427	22,440	2,987
Coimbatore (North)	2,926	1,935	4,861	1,896	2,965
Do. (South)	53,748	64,416	118,164	40,796	77,368
Madura	161	1,042	1,203	882	321
Tinnevely	2,464	3,597	6,061	3,227	2,834
Total	215,527	308,973	524,500	264,997	259,503
Grand Total	244,848	449,988	694,206	369,550	324,656
FUEL (CUBIC FEET).					
<i>Northern Circle.</i>					
Ganjâm	..	456	456	456	..
Vizagapatam	149	23,001	23,150	38,150	..
Godâvari	..	..	..	..	..
Kistna	3,848	6,161	9,509	4,182	5,327
Kurnool	22,916	215	23,131	11,979	11,152
Bellary	207,466	19,440	227,906	152,304	75,602
Anantapur	..	..	..	..	..
Total	228,579	44,372	272,951	202,871	70,080
<i>Central Circle.</i>					
Cuddapah	5,170	6,260	11,430	10,430	1,000
Nellore	108,599	297,254	405,853	356,321	49,532
Chingleput	..	2,974	2,974	2,974	..
North Arcot	113,250	181,026	294,276	89,399	204,877
South Arcot	14,409	228,690	243,099	221,052	22,047
Salem	4,260	681,618	685,878	681,618	4,260
Trichinopoly	69,322	151,777	221,099	122,764	98,335
Tanjore	..	94	94	94	..
Total	304,710	1,636,206	1,940,910	1,442,429	498,481
<i>Southern Circle.</i>					
South Canara	..	..	..	..	..
Malabar (North)	1,910	12,726	14,636	14,679	..
Do. (South)	..	..	..	..	..
Nilgiris	..	1,800	1,800	1,435	365
Coimbatore (North)	328,784	425,056	753,840	422,679	331,161
Do. (South)	620	..	620	620	..
Madura	43,666	245,448	289,114	278,386	10,728
Tinnevely	4,103	50,692	54,795	51,323	3,472
Total	382,383	735,622	1,118,045	973,799	144,246
Grand Total	915,510	2,216,210	2,762,951	2,416,169	669,133

FOREST DEPARTMENT.

Account of Fuel collected by Government Agency and brought to depôt, sold locally, or otherwise disposed of during the year—continued.

Name of district.	Balance at commencement of the year in forests and sale depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in forests and sale depôts.
1	2	3	4	5	6
MINOR FOREST PRODUCE (MAUNDS OF 25 LB.).					
<i>Northern Circle.</i>					
Ganjâm	..	..	..	..	..
Vizagapatam	66,564	21,109	87,673	21,109	66,564
Godâvari	..	..	..	..	..
Kistna	62	1	63	63	..
Kurnool	99	544	643	588	55
Bellary	45	236	281	199	82
Anantapur	..	..	..	..	..
Total	66,770	21,890	88,660	21,959	66,701
<i>Central Circle.</i>					
Cuddapah	..	455	455	..	455
Nellore	6,121	1,094	7,215	1,381	5,834
Chingleput	..	..	..	..	..
North Arcot	..	100	100	100	..
South Arcot	..	..	..	..	..
Salem	7,036	..	7,036	7,036	..
Trichinopoly	..	185	185	185	..
Tanjore	..	..	..	..	..
Total	13,300	1,634	14,934	8,702	6,232
<i>Southern Circle.</i>					
South Canara	..	1,673	1,673	1,516	157
Malabar (North)	37	128	165	122	43
Malabar (South)	184	283	467	156	311
Nilgiris	1,112	603	1,715	1,122	593
Coimbatore (North)	184	19,400	19,584	14,254	5,330
Coimbatore (South)	19	3,469	3,488	3,210	278
Madura	..	..	..	..	..
Tinnevely	..	50	50	..	50
Total	1,486	25,508	26,994	20,436	6,558
Grand Total	81,456	49,143	130,599	51,097	79,502
BAMBOO (NUMBER).					
<i>Northern Circle.</i>					
Ganjâm	..	1,115	1,115	1,085	30
Vizagapatam	..	880	880	880	..
Godâvari	..	..	..	..	..
Kistna	5,220	3,200	8,420	4,400	4,020
Kurnool	653	2,164	2,817	1,616	1,201
Bellary	..	..	..	..	..
Anantapur	..	..	..	..	..
Total	6,133	7,349	13,482	7,981	5,501
<i>Central Circle.</i>					
Cuddapah	..	..	..	..	..
Nellore	..	..	..	..	..
Chingleput	..	..	..	..	..
North Arcot	1,293	6,787	8,080	5,183	2,897
South Arcot	..	10,212	10,212	2,868	7,344
Salem	..	7,592	7,592	7,592	..
Trichinopoly	..	..	..	..	..
Tanjore	..	..	..	..	..
Total	1,293	24,571	25,864	20,644	5,220
<i>Southern Circle.</i>					
South Canara	..	..	..	..	..
North Malabar	..	15,869	15,869	15,804	65
South Malabar	..	..	..	..	..
Nilgiris	..	105,966	105,966	100,206	5,760
North Coimbatore	11,800	78,600	89,400	84,500	4,900
South Coimbatore	620	6	626	626	..
Madura	..	220	220	220	..
Tinnevely	..	..	..	..	..
Total	12,220	196,961	209,181	201,266	7,915
Grand Total	19,746	229,852	245,598	229,851	15,716

ANNUAL FORM No. 55.
Forest Department, Madras Presidency.
OUTTURN (in cubic feet, solid) of Timber and Fuel during the year 1896-97, and Agency of Exploitation.

District.	Timber.					Fuel.					Total.	
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Timber.	Fuel.
1	2	3	4	5	6	7	8	9	10	11	12	13
Northern Circle.												
Benjam	33,308	109,620	2,910		136,838	456	607,603			608,059	714,044	
Vinayapuram	1,734	76,283	3,520		81,537	38,701	218,523			257,224	368,103	
Chidambaram		689,232	1,206		690,438	6,161	496,017			502,178	798,765	
Kidina	20,480	190,264	10,200		220,944	212	322,927			323,139	548,794	
Kannad	9,792	210,856	13,300		233,948	212	322,927			323,139	548,794	
Udumalpet	25,184	29,428	2,010		56,622	12,410	122,316			134,726	268,359	
Annapur		20,981	3,464		24,445		122,316			122,316	146,811	
Total	88,694	1,078,313	19,010	1,311	1,206,328	61,773	2,425,998		257,510	2,487,508	2,954,109	
Central Circle.												
Chidambaram	44,671	185,629	1,209		231,439	6,260	456,719			462,979	574,418	
Chidambaram	1,626	209,000	27,750		238,376	197,343	174,543			371,886	461,805	
South Arcot	1,156	22,927	4,314		28,397	2,074	124,420			126,494	125,184	
South Arcot	1,800	28,658	370		30,828	181,295	331,382			512,677	501,601	
Palani	2,633	22,659	2,244		27,536	228,000	374,862	400		603,782	611,201	
Tiruchengudi		18,745	2,244		20,989	680,618	420,647			1,101,265	1,329,256	
Tanjore		22,143			22,143	181,777	1,277,816			1,459,593	1,471,226	
Total	52,321	311,280	37,475		390,076	1,545,300	2,949,499	400		3,494,805	4,294,246	
Southern Circle.												
South Arcot	22,402	12,418	15		34,835	13,798	755,864			769,662	804,764	
North Arcot	68,740	3,350	4,850		76,940	1,764	1,764	4,373		6,137	71,994	
South Arcot	124,923	97,453	30		222,406	1,000	78,254			79,254	922,065	
Madurai	81,218	6,153	341		87,712	425,045	14,080			439,125	678,084	
North Arcot	1,438	18,410	750		19,598	345,448	689,387	540		905,315	905,315	
South Arcot	64,418	18,768	750		83,936	68,692	107,863			176,555	176,555	
Madurai	1,842	25,911	1,316		29,069	114,371	1,287,543			1,401,914	1,397,518	
Tamil Nadu	28,973	101,160	7,465	391	137,929	850,395	2,960,405	6,812	31	2,726,643	4,184,872	
Total	288,923	2,000,743	12,461	1,783	2,003,910	2,400,000	9,340,000	7,512	387,401	11,000,012	14,432,507	

ANNUAL FORM No. 56.
Forest Department, Madras Presidency.
OUTTURN of Minor Forest Produce during the year 1896-97.

Circle.	Description of produce.	Produce removed or utilized.												Total.	
		By Government Agency.			By purchases.			By free grants.			By right-holders.				
		Quantity.	Value.	No.	Quantity.	Value.	No.	Quantity.	Value.	No.	Quantity.	Value.	No.	Quantity.	Value.	No.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Northern Circle	Bamboos	7,349	284	15,906,473	6,004	13,046	336	20,489	128	16,006,357	70,392				
	Grass and grazing	21,109	236		1,238,202		129		700		1,25,004				
	Gallants, Soapnuts	292	149	25,380											
	Miscellaneous	529	336	71,010	1,39,343		605		48,450		1,97,849				
	Total		973					1,070		59,278		3,98,245			
Central Circle	Bamboos	23,642	9,390	12,142,270	3,705	70,270	428			12,586,182	1,01,184				
	Grass and grazing				1,75,158		74		366		1,78,868				
	Gallants, Soapnuts, Narvonics	1,318	865								856				
	Miscellaneous	427	399	42,079	2,33,072	308	840				2,30,311				
	Total		10,514		4,54,972		1,340		366		5,01,218				
Southern Circle	Bamboos	198,961	4,050	2,065,094	18,140	14,645	189	1,123	3	2,279,826	22,391				
	Grass and grazing				71,117				929		71,946				
	Gallants, Soapnuts, Narvonics	1,518	12,072								12,072				
	Miscellaneous	21,039	20,872								20,872				
	Total		12,537		18,600		125			432		1,18,942			
Grand Total			49,831		1,39,844		314		1,244		2,41,223				
			61,550		10,10,711		2,774		40,548		11,56,686				

ANNUAL FORM No. 58.

Forest Department, Madras Presidency.

Abstract showing the Value of Timber and other Produce at sale depôts, for the year 1896-97.

Description of timber or produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.
<i>Northern Circle.</i>								
Sel		1,744	680		7,136	2,676		
Teak		371	662		1,742	2,174		
Vengai		1,050	1,178		2,499	2,420		
Miscellaneous		22,017	3,225		24,683	6,392		
Total, Timber		25,182	5,745		45,058	13,662	8,217	
Fuel		228,879	11,599		84,791	4,686		7,088
Bamboos	No. 6,184		359	No. 5,501		394		166
Minor produce	Mds. 66,779		609	Mds. 66,701		877		878
<i>Central Circle.</i>								
Teak		255			117			
Vengai		53			45			
Red wood			493		839	1,838		
Miscellaneous		401			6,220			
Sandalwood		600	6,010		685	6,330		
Total, Timber		1,309	6,503		6,860	6,168	1,665	
Fuel		304,157	26,147		386,480	18,623		7,524
Bamboos	No. 1,293		152	No. 4,191		317	165	
Minor produce	Mds. 13,200		3,472	Mds. 6,243		3,641	169	
<i>Southern Circle.</i>								
Teak		69,711			23,061			
Rosewood		4,996			4,049			
Vengai		9,312	1,20,145		9,418	1,49,916		
Iron wood		241			648			
Miscellaneous		143,665			164,089			
Sandalwood		602	6,513		1,820	13,946		
Total, Timber		218,627	1,25,668		273,640	1,62,882	24,904	
Fuel		416,263	7,736		364,549	6,369		1,367
Bamboos	No. 12,320		106	No. 10,626		68		
Minor produce	Mds. 1,326		2,933	Mds. 6,944		5,743	5,502	
<i>Grand Total.</i>								
Timber		244,248	1,47,706		326,346	1,85,802	38,086	17,894
Fuel		949,252	45,412		835,820	38,346		
Bamboos	No. 19,746		699	No. 19,717		584		
Minor produce	Mds. 81,458		7,093	Mds. 79,608		12,649	5,649	

ANNUAL FORM NO. 72-A (Old Code).
Forest Department, Madras Presidency.

Timber and other produce cut, collected and removed by consumers or purchasers during 1896-97.

MONTHLY VALUE OF SALES.													
District.	Timber.	Firewood and charcoal.	Bamboos.	Timber.		Firewood and charcoal.		Bamboos.		Grain and fodder grass.		Minor produce.	Total.
				Amount realized during the year.	Amount actually realized during the year.	Amount realized during the year.	Amount actually realized during the year.	Amount realized during the year.	Amount actually realized during the year.	Amount realized during the year.	Amount actually realized during the year.		
Northern Circle.													
Ganjam ..	C. FERT. 109,930	G. FERT. 607,603	Rs. 10,248	Rs. 10,215	Rs. 7,955	Rs. 4,531	Rs. 4,531	Rs. 5,295	Rs. 5,295	Rs. 2,761	Rs. 4,650	Rs. 32,679	Rs. 32,706
Vizagapatam ..	95,283	215,525	6,666	5,378	2,148	6,141	8,928	8,928	2,762	2,762	6,506	26,207	26,207
Goa ..	355,252	5,567,482	44,431	44,431	13,844	13,844	37,573	37,573	4,147	4,119	3,180	1,03,406	1,03,417
Katna ..	18,964	322,937	7,643	7,643	7,643	16,299	16,299	70,389	70,389	18,509	18,509	1,08,883	1,08,890
Karnool ..	313,956	4,919,750	20,878	20,878	8,812	8,812	1,716	1,716	27,882	27,882	30,758	83,580	83,580
Bellary ..	99,458	492,098	7,378	7,378	7,378	1,716	1,716	27,882	27,882	47,870	73,082	92,963	117,575
Anantapur ..	20,981	122,246	7,890	7,890	3,753	3,753	154	154	6,148	6,438	56,170	56,585	61,896
Total ..	1,078,218	2,425,995	1,065,811	1,070,603	55,910	54,904	69,064	69,063	1,33,939	1,37,265	1,58,319	1,79,157	5,28,612
Central Circle.													
Cuddayah ..	185,648	636,719	14,312	14,312	13,634	16,097	6,648	6,648	33,877	33,877	65,631	32,752	1,33,898
Nellore ..	209,068	174,543	16,768	16,664	6,661	8,788	148	148	25,719	25,719	18,448	33,709	67,704
Chingelput ..	99,934	734,420	9,667	9,667	9,638	8,048	169	169	7,468	7,468	11,012	10,663	37,934
North Arcot ..	23,987	351,967	5,091	5,019	29,400	27,389	28,835	26,644	21,647	21,647	32,874	43,213	117,937
South do. ..	35,988	874,382	8,283	8,283	33,650	27,389	3,811	2,811	20,641	20,641	14,160	24,145	78,159
Salem ..	228,659	420,547	7,757	7,757	15,032	16,502	44,285	44,285	50,943	50,943	57,493	40,920	216,683
Tiruchinopoly ..	18,780	1,217,614	1,276	1,276	20,498	24,914	7,697	3,891	7,707	7,707	4,531	8,057	41,829
Tanjore ..	23,143	549,277	1,479	1,479	11,965	11,965	875	875	565	565	4,388	1,396	19,292
Total ..	811,290	3,866,639	89,956	89,800	1,30,938	1,47,339	91,468	91,071	1,78,438	1,78,470	2,19,072	2,33,945	7,09,762
Southern Circle.													
South Canara ..	12,425	755,584	2,886	2,886	11,908	11,908	1,221	1,221	4,807	4,807	17,635	16,335	38,105
North Malabar ..	3,350	1,764	739	739	17	17	1,221	1,221	1,912	1,912	1,079	1,251	1,368
South do. ..	67,498	78,294	9,689	9,689	1,049	1,049	7,787	7,787	1,912	1,912	1,079	1,251	1,368
Eligiri ..	4,788	14,080	1,833	1,833	924	924	2,402	2,402	8,131	8,131	1,425	1,425	14,396
North Coimbatore ..	12,860	209,334	1,165	1,165	20,372	19,656	5,381	5,381	35,914	35,914	7,631	11,268	14,616
South do. ..	18,410	669,267	9,632	9,632	10,218	10,218	4,048	4,048	5,076	5,076	8,987	11,268	69,479
Madras ..	18,768	167,836	13,392	13,392	39,369	39,369	2,082	2,082	8,883	8,883	39,207	43,393	66,135
Tiruvallur ..	26,911	1,252,523	49,316	49,316	39,369	39,369	468	468	1,855	1,855	29,210	24,331	85,759
Total ..	164,039	3,137,739	2,085,094	2,085,094	99,505	99,577	18,149	18,097	71,117	70,829	1,09,548	1,00,536	3,38,631
Grand total ..	3,043,632	9,423,425	2,45,885	2,44,696	2,76,943	2,89,220	1,79,281	1,89,451	3,78,494	3,76,351	4,77,930	5,13,948	15,53,865
Add outstandings from previous year as per audited figures ..													2,27,280
Deduct written off, &c. ..													17,80,764
Deduct amount realized as per Form No. 59 ..													8,181
Balance ..													17,72,673
Balance outstanding on 30th June 1957 ..													16,01,068
Balance outstanding on 30th June 1957 ..													1,70,909

ANNUAL FORM No. 59.

Forest Department, Madras Presidency, Northern Circle.

SUMMARY of Expenditure of the different districts for the forest year 1896-97.

District.	Madras.	Chingleput.	North Arcot.	South Arcot.	Salem.	Tiruchinopoly.	Tanjore.	Total.
A.—Conservancy and Works.								
I. Timber and other produce removed from the forests by Government Agency—								
(a) Timber	3,575	74	21	1,194	4,747	2,157	..	12,024
(b) Firewood and charcoal	..	1,724	..	494	496	2,174	..	4,789
(c) Bamboo	..	..	..	39	..	..	..	39
(d) Sandalwood	..	..	..	..	..	..	..	..
(e) Grass and other minor produce	..	..	..	..	..	..	..	..
II. Timber and other produce removed from the forests by consumers or purchasers	..	..	..	..	..	..	..	..
III. Condensed drift and white wood	..	..	..	..	..	..	..	..
IV. Revenue from forests not managed by Government	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government	..	..	..	..	..	..	..	10,000
VI. Live-stock, stores, tools and plant—								
(a) Purchase of cattle	..	..	..	..	..	..	..	..
(b) Feed and keep of cattle	1,086	520	..	717	..	..	..	1,981
(c) Stores, tools and plant	..	..	..	1,509	..	..	..	1,509
VII. Communications and buildings—								
(a) Roads and bridges	1,237	882	2,442	5,303	2,171	553	..	12,788
(b) Buildings	1,407	1,547	3,598	2,797	5,474	164	..	14,799
(c) Other works	71	70	..	2,192	450	..	..	2,720
VIII. Demarcation, improvement and extension of forests—								
(a) Demarcation	1,358	1,001	1,118	5,677	3,114	1,093	..	14,361
(b) Cost of forest settlement; compensation for land and rights	..	..	..	..	..	..	..	..
(c) Surveys—								
1. Local surveys	130	1,171	631	1,351	1,793	1,244	..	7,020
2. Survey of India	..	..	..	..	12,318	..	..	12,318
(d) Working plans	..	..	..	..	..	..	..	..
(e) Sowing and planting	..	..	..	..	..	..	..	..
(f) Protection from fire	..	..	..	..	..	..	..	..
(g) Other works	..	..	..	..	..	..	..	..
IX. Miscellaneous—								
(a) Refunds	20,191	..	..	..	..	..	..	20,191
(b) Law charges	180	113	..	..	..	..	..	293
(c) Other charges	..	..	..	..	..	..	..	..
Total, A.—Conservancy and Works.	1,407	57,299	16,432	24,818	46,774	22,275	80,063	2,42,026

MADRAS,
14th August 1897.(Signed) J. C. MITRA,
for Deputy Accountant-General.

FOREST DEPARTMENT.

ANNUAL FORM No. 59.

Forest Department, Madras, Central Circle.

SUMMARY of Expenditure of the different districts for the forest year 1896-97.

Budget heads.	Madras.	Chingleput.	North Arcot.	South Arcot.	Salem.	Tiruchinopoly.	Tanjore.	Total.
A.—Conservancy and Works.								
I. Timber and other produce removed from the forests by Government Agency—								
(a) Timber	73	8,294	..	145	360	1,420	..	10,492
(b) Firewood and charcoal	18,324	1,443	74	4,727	6,196	60,540	2,720	82,082
(c) Bamboo	..	..	..	1,091	526	805	..	2,412
(d) Sandalwood	..	..	..	158	1	729	..	888
(e) Grass and other minor produce	..	..	..	..	..	..	..	..
II. Timber and other produce removed from the forests by consumers or purchasers	1,397	70	..	..	..	..	..	1,467
III. Condensed drift and white wood	..	..	..	..	..	..	..	..
IV. Revenue from forests not managed by Government	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government	..	..	..	..	..	..	..	..
VI. Live-stock, stores, tools and plant—								
(a) Purchase of cattle	..	..	..	..	..	..	..	..
(b) Feed and keep of cattle	..	..	..	..	..	..	..	..
(c) Stores, tools and plant	..	..	..	..	..	..	..	..
VII. Communications and buildings—								
(a) Roads and bridges	..	..	..	..	..	..	..	..
(b) Buildings	..	..	..	..	..	..	..	..
(c) Other works	..	..	..	..	..	..	..	..
VIII. Demarcation, improvement and extension of forests—								
(a) Demarcation	..	..	..	..	..	..	..	..
(b) Cost of forest settlement; compensation for land and rights	..	..	..	..	..	..	..	..
(c) Surveys—								
1. Local Survey	238	360	722	355	242	240	1,030	3,616
2. Survey of India	..	..	..	..	..	..	..	..
(d) Working plans	..	..	..	..	..	..	..	..
(e) Sowing and planting	..	..	..	..	..	..	..	..
(f) Protection from fire	..	..	..	..	..	..	..	..
(g) Other works	..	..	..	..	..	..	..	..
IX. Miscellaneous—								
(a) Refunds	..	..	..	..	..	..	..	..
(b) Law charges	..	..	..	..	..	..	..	..
(c) Other charges	..	..	..	..	..	..	..	..
Total A.—Conservancy and Works.	2,193	26,024	88,081	10,447	49,644	27,437	1,12,242	3,06,570

MADRAS,
16th August 1897.(Signed) J. C. MITRA,
for Deputy Accountant-General.

Forest Department, Madras Presidency.

TIMBER and other Produce confiscated and sold during the year 1896-97.

District.	TIMBER.		FIREWOOD.		BAMBOOS.		Minor produce in value.	Total amount of sales.	Amount actually realized.
	Quantity in cubic feet.	Amount of sales.	Quantity in cubic feet.	Amount of sales.	Number.	Amount of sales.			
<i>Northern Circle.</i>									
Ganjān	1,267	171	343	12	1,270	5	1	191	191
Vizagapatnam	228	20	373	22	860	7	588	607	607
Gōdāvari	43,853	3,800	13,366	218	3,941	37	1	4,057	4,047
Kistna	1,150	210	410	10	5	1	4	235	235
Kurnool	2,931	1,438	862	65	11,764	135	53	1,781	1,705
Bellary	..	..	360	39	..	..	..	39	39
Anantapur	343	39	639	14	..	..	3	68	66
Total	49,917	5,741	16,241	280	17,990	187	648	6,946	6,890
<i>Central Circle.</i>									
Cuddapah	4,455	675	200	9	1,410	10	3	697	687
Nellore	..	..	2,950	248	..	..	4	288	282
Chingleput	849	63	1,094	140	410	2	0	211	211
North Arcot	504	31	631	69	134	3	8	98	98
South do.	103	50	2,282	143	80	3	28	224	224
Salem	987	140	933	56	1,755	43	25	269	268
Trichinopoly	202	12	227	10	111	3	12	47	47
Tanjore	21	2	22	1	..	..	1	4	4
Total	7,024	976	8,259	659	4,100	64	97	1,796	1,796
<i>Southern Circle.</i>									
South Canara	3,759	1,412	2,818	178	25	1	9	1,600	1,600
North Malabar	107	50	..	..	..	..	..	50	50
South do.	17	3	40	1	..	..	..	4	4
Nilgiris	..	..	33	1	286	3	5	9	9
North Coimbatore	464	218	563	14	1,823	31	4	267	267
South do.	2,130	231	5,167	25	49	1	209	456	456
Madras	293	165	518	61	5	..	33	749	248
Tinnevely	253	293	10,299	333	40	2	25	683	643
Total	7,062	2,272	19,465	618	3,360	38	275	3,198	3,198
Grand Total	64,003	8,989	43,945	1,662	24,890	289	1,020	11,960	11,874
Add outstandings due from previous year									5
Deduct amount realized during the year as per Form No. 59									11,965
									11,874
Balance outstanding on 30th June 1927									41

ANNUAL FORM No. 59.
SUMMARY of Revenue of the different districts, 1896-97 (Forest year).

[illegible]

WADSWORTH,
19th August 1897.

ANNUAL REPORT OF THE

ANNUAL FORM No. 59.

Forest Department, Madras, Southern Circle.

SUMMARY of Expenditure of the different districts for the forest year 1896-97.

Budget heads	Direction	Nilgiris	North Coimbatore	South Coimbatore	Madurai	Tinnevely	North Malabar	South Malabar	South Canara	Total
<i>A. Conservancy and Works.</i>	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I. Timber and other produce removed from the forests by the Government Agency—										
(a) Timber	..	3,655	100	17,550	107	2,357	3,203	12,817	5,191	44,771
(b) Firewood and charcoal	..	18,615	116	1,919	2,588	859	69	1	352	23,519
(c) Bamboos	..	..	1,579	211	209	0	..	21	..	2,320
(d) Sandalwood	..	636	1,121	..	..	..	..	..	..	1,757
(e) Grass and other minor produce	..	210	5,658	3,728	..	..	279	221	7,802	13,908
II. Timber and other produce removed from the forests by consumers or purchasers	..	1,395	2,195	3,725	2,021	2,665	389	19	6,605	19,017
III. Confiscated, drift and waifwood	..	..	77	66	305	..	..	..	99	547
IV. Revenue from forests not managed by Government	..	..	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government	..	..	..	..	..	..	..	..	..	..
VI. Live-stock, stores, tools and plant—	..	4,500	..	2,500	..	..	..	431	..	7,431
(a) Purchase of cattle	..	..	..	429	..	..	3,830	1,127	..	5,386
(b) Feed and keep of cattle	..	..	..	..	..	..	..	..	..	..
(c) Stores, tools and plant	..	3,391	..	4,077	..	..	7,862	9,301	458	25,089
VII. Communications and buildings—	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(a) Roads and bridges	..	1,348	12,385	4,535	761	6,039	1,585	646	23	27,132
(b) Buildings	..	2,210	3,673	3,835	1,339	4,108	775	4,898	319	21,157
(c) Other works	..	88	29	662	76	..	467	85	12	1,307
VIII. Demarcation, improvement and extension of forests—	..	..	..	..	..	..	..	..	..	..
(a) Demarcation	..	2,547	4,142	639	..	536	951	201	1,241	10,457
(b) Cost of forest settlement, compensation for land and rights	..	100	629	..	9	3	..	4,823	..	5,562
(c) Surveys—	..	..	..	..	..	..	..	..	..	..
(1) Local surveys	240	420	508	362	843	896	509	378	2,857	7,994
(2) Survey of India	..	..	..	..	..	..	..	..	..	..
(d) Working plans	..	..	..	51	..	626	..	..	..	677
(e) Sowing and planting	..	1,864	103	75	441	380	1,546	8,280	69	12,251
(f) Protection from fire	..	1,322	519	2,275	3,582	1,326	1,091	2,946	1,089	13,931
(g) Other works	..	610	7,331	1,770	1,398	4,807	1,042	2,919	2,107	22,039
IX. Miscellaneous—	..	..	..	..	..	..	..	..	..	..
(a) Refunds	..	..	..	..	..	..	..	..	..	..
(b) Law charges	..	33	509	481	267	1,002	639	..	287	2,902
(c) Other charges	..	3,000	347	234	1,313	16	64	149	6	4,819
Total A. Conservancy and works	1,132	44,815	40,412	60,558	18,120	26,269	24,877	48,374	20,709	2,79,068

MADRAS.

17th August 1897.

(Signed) W. H. MICHAEL,
Deputy Accountant-General.

SUMMARY of Receipts and Expenditure during 1893-97 for each Circle and for the Presidency prepared in the Board's office from the Accountant-General's statement.

Budget heads.	Northern Circle.	Central Circle.	Southern Circle.	Grand Total, Presidency.	
1	2	3	4	1896-97.	1895-96.
RECEIPTS.					
I. Timber and other produce removed from the forests by Government Agency—					
(a) Timber	18,098	11,124	1,47,653	1,76,875	1,69,257
(b) Firewood and charcoal	6,659	1,43,710	36,710	1,85,079	1,69,252
(c) Bamboos	115	4,378	3,885	10,068	3,025
(d) Sandalwood	—	13,026	2,684	16,710	21,418
(e) Grass and other minor produce	496	1,006	38,935	34,837	18,946
Total, I	25,368	1,77,262	2,27,987	4,23,607	3,69,818
II. Timber and other produce removed from the forests by consumers or purchasers—					
(a) Timber	1,07,103	89,800	45,392	2,42,295	2,40,067
(b) Firewood and charcoal	54,904	1,47,339	52,977	2,55,220	3,16,817
(c) Bamboos	69,684	96,071	18,097	1,82,852	1,99,976
(d) Grazing and fodder grass	1,37,256	1,78,470	70,629	3,86,355	3,10,496
(e) Other produce	1,76,167	2,33,846	1,00,536	5,10,549	6,15,107
Total, II	6,38,012	7,44,526	3,19,881	16,01,668	17,13,883
III. Confiscated drift and driftwood					
	3,580	1,706	8,198	11,484	10,073
V. Miscellaneous—					
(a) Fines and forfeitures	2,584	2,762	2,360	7,698	2,184
(b) Refunds	—	—	—	—	—
(c) Other sources	23,976	22,312	96,882	1,42,070	72,492
Total, V	26,560	24,974	99,242	1,49,768	74,676
Grand Total, Receipts	5,97,492	9,49,547	6,42,948	21,89,917	21,67,630
EXPENDITURE.					
A.—Conservancy and Works.					
I. Timber and other produce removed from the forests by Government Agency—					
(a) Timber	12,024	10,492	44,771	67,287	74,708
(b) Firewood and charcoal	8,789	82,083	22,816	1,10,388	1,02,068
(c) Bamboos	128	2,122	2,396	4,646	1,389
(d) Sandalwood	—	—	1,767	2,643	2,856
(e) Grass and other minor produce	169	1,487	12,988	15,644	8,217
Total, A-I	18,110	97,072	86,358	2,00,640	1,88,732
II. Timber and other produce removed from the forests by consumers or purchasers					
	49,789	20,668	19,017	89,474	89,941
III. Confiscated drift and driftwood					
	1,651	282	547	2,480	2,670
V. Rent of leased forests and payments to shareholders in forests managed by Government					
	10,700	10	7,434	17,444	31,088
VI. Live stock, stores, tools and plant—					
(a) Purchase of cattle	—	—	3,386	3,386	3,067
(b) Feed and keep of cattle	2,981	—	23,389	26,370	23,572
(c) Stores, tools and plant	4,947	2,423	4,756	11,816	5,929
Total, A-VI	7,928	2,609	30,917	46,646	32,649
VII. Construction of buildings—					
(a) Roads and bridges	19,739	7,398	27,112	47,969	28,318
(b) Buildings	16,749	10,322	21,151	48,222	41,108
(c) Other works	2,129	137	1,357	4,223	2,668
Total, A-VII	38,617	17,927	49,620	105,864	72,094
VIII. Demarcation improvement and extension of forests—					
(a) Demarcation	14,434	12,829	10,607	37,870	38,148
(b) Cost of forest settlement, compensation for land and rights	3,476	279	5,668	9,423	7,781
(c) Surveys (1) Local surveys	7,941	3,616	7,999	19,556	18,048
(2) Survey of India	13,318	70,330	—	83,648	44,887
(d) Working plans	789	178	—	967	887
(e) Sowing and planting	17,367	19,689	13,841	50,897	46,098
(f) Protection from fire	11,442	13,971	13,930	39,343	43,343
(g) Other works	16,967	22,094	22,526	61,587	66,745
Total, A-VIII	84,014	1,38,736	74,107	2,96,857	2,70,899

Summary of Receipts and Expenditure during 1896-97 for each Circle and for the Presidency prepared in the Board's office from the Accountant-General's statement—cont.

Budget heads.	Northern Circle.	Central Circle.	Southern Circle.	Grand Total, Presidency.	
1	2	3	4	1896-97.	1895-96.
EXPENDITURE—cont.					
A.—Conservancy and Works—cont.					
IX. Miscellaneous—					
(a) Refunds	33,090	4,420	2,963	40,473	10,806
(b) Law charges	358	280	162	790	1,946
(c) Other charges	5,429	518	5,366	11,313	7,511
Total, A-IX	38,877	5,168	8,491	52,536	29,262
Total, A.—Conservancy and Works	2,42,025	3,06,570	2,79,605	8,28,200	7,12,825
B.—Establishments.					
I. Salaries—					
(a) Conservators	18,200	19,200	13,200	46,600	48,624
(b) Superior officers	75,983	99,102	89,423	2,64,508	2,61,362
(c) Subordinate forest and depot establishments	41,603	59,231	56,076	1,56,910	1,66,986
(d) Office establishments	28,491	33,316	33,609	95,416	91,217
(e) Exchange compensation allowances	8,690	9,594	11,850	29,634	37,865
Total, B-I	1,70,967	2,30,443	2,03,658	6,95,068	6,98,074
II. Travelling allowances—					
(a) Conservators	2,646	2,452	2,931	8,029	9,699
(b) Superior officers	16,149	19,429	14,944	50,522	49,873
(c) Subordinate forest and depot establishments	11,563	16,503	17,070	45,136	44,711
(d) Office establishments	6,086	5,727	4,943	16,756	16,223
Total, B-II	36,444	43,211	39,888	1,19,543	1,19,506
III. Contingencies—					
(a) Stationery	3,640	2,534	8,220	9,394	7,715
(b) Carriage of tents and records	1,238	1,072	725	3,035	2,843
(c) Rents, rates and taxes	5,716	6,826	6,188	17,679	16,409
(d) Official postage and service telegrams	5,261	4,126	6,681	14,968	13,616
(e) Sundries	—	—	—	—	—
Total, B-III	15,844	14,558	14,664	45,066	40,583
Total, B.—Establishments	2,23,255	2,78,212	2,58,210	7,59,677	7,58,163
Grand Total of Expenditure	4,65,280	5,84,782	5,37,815	15,87,877	14,68,988
Surplus	1,82,142	3,63,765	1,05,133	6,01,040	6,98,642
Deficit	—	—	—	—	—
Total	5,97,422	9,48,547	6,42,948	21,88,917	21,67,630

ANNUAL FORM No. 60.
Forest Department, Madras, Northern Circle.
OUTSTANDINGS and Liabilities on account of contractors and disbursers for the forest year 1896-97.

District	Department Debtor		Department Creditor		Balance due	
	At commencement of year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	By department (liabilities).
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Conservator, Northern Circle	4,332 10 10	5,632 10 10	3 5 4	5,662 10 9	5,662 0 1	33 5 1
Forest Settlement Officer, Trichinopoly, &c.	831 15 6	431 15 6	24 6 1	813 3 9	813 9 10	6 10 3
Do. North Arcot, &c.	826 9 11	636 9 11	21 3 10	630 1 10	651 10 8	20 0 2
Forest School, Dohas Dun	..	..	78 10 9	..	78 10 9	78 10 9
Nellore	37,216 7 6	37,216 7 6	1,275 12 2	36,446 11 5	37,628 7 4	609 15 19
Cuddapah	10,423 12 9	10,423 12 9	3,761 5 11	10,027 4 10	19,738 13 9	386 0 9
Chingleput	49,574 13 7	49,574 13 7	692 2 5	51,477 0 3	56,359 2 8	2,784 5 1
North Arcot	65,643 4 10	66,643 4 10	2,626 0 8	65,738 2 7	69,364 11 10	2,722 7 9
South do.	54,863 15 11	55,002 15 11	1,616 2 10	57,293 6 2	58,846 9 0	1,553 9 1
Salem	67,247 5 6	37,997 5 6	3,394 9 7	37,408 18 7	38,843 7 2	361 1 6
Trichinopoly	16,449 3 8	16,449 3 8	719 10 3	16,363 6 4	16,971 15 7	472 8 10
Tanjore	..	..	..	..	..	..
Total	..	4,16,460 11 11	13,703 14 8	4,21,150 9 0	4,34,854 7 8	18,393 11 9

ANNUAL REPORT OF THE

ANNUAL FORM No. 60.
Forest Department, Madras, Central Circle.
OUTSTANDINGS and Liabilities on account of contractors and disbursers for the forest year 1896-97.

District	Department Debtor		Department Creditor		Balance due	
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Conservator, Central Circle	..	1,049 5 6	1,049 5 6	61 6 10	1,049 5 4	1,111 13 2
Forest Settlement Officer, Trichinopoly, &c.	..	2,839 5 0	2,839 5 0	..	2,848 9 1	2,848 9 1
Do. North Arcot, &c.	..	26 4 10	26 4 10	2 13 6	23 7 10	26 5 4
Forest School, Dohas Dun	..	60 0 9	60 0 0	60 0 0	..	60 0 0
Nellore	..	34,550 4 0	34,550 4 0	958 15 2	36,098 12 6	36,983 11 8
Cuddapah	..	71,424 2 11	71,424 9 11	2,121 13 2	71,412 2 5	78,738 16 8
Chingleput	..	29,863 7 7	29,868 7 7	853 14 6	29,611 7 9	30,470 6 2
North Arcot	..	60,135 7 2	60,135 7 2	1,670 5 8	62,629 6 1	63,992 10 4
South do.	..	66,863 9 2	66,865 9 2	2,494 18 7	67,112 7 2	69,607 4 9
Salem	..	1,26,012 4 8	1,26,012 4 3	4,856 18 2	1,30,882 3 3	1,35,239 0 5
Trichinopoly	..	22,796 0 11	22,796 0 11	312 7 4	22,944 16 10	23,297 7 2
Tanjore	..	7,923 0 8	7,923 0 8	417 8 2	7,906 11 9	8,323 3 11
Total	..	4,16,460 11 11	4,16,460 11 11	13,703 14 8	4,21,150 9 0	4,34,854 7 8

FOREST DEPARTMENT.

W. H. MICHAEL,
Deputy Accountant-General.

(Signed)

MADRAS,
27th August 1897.

ANNUAL REPORT OF THE

• This is inclusive of Re. 41-6-4 transferred from Northern Circle (side annual form No. 60 of that circle).

(Signed) **W. H. MICHAEL,**
Deputy Assistant-General.

ANNUAL FORM NO. 61.

Forest Department, Madras Presidency, Northern Circle

REVENUE received and Outstandings on account of revenue during the forest year 1898-97.

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MADRAS,
27th August 1897.

(Signed) W. H. MICHAEL,
Deputy Accountant-General.

ANNUAL FORM No. 61.
Forest Department, Madras Presidency, Central Circle.
REVENUE received and Outstandings on account of revenue during the forest year 1896-97.

District.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the department at end of year.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Direction ..	Timber and other forest produce.	..	52 3 0	52 3 0	52 3 0	..
Nellore ..	Do.	32,125 0 0	1,14,088 10 0	1,46,213 10 0	1,81,138 5 2	15,975 4 10
Cuddapah ..	Do.	4,886 14 4	1,49,712 1 5	1,54,599 0 1	1,85,905 11 4	19,393 4 9
Chingleput ..	Do.	1,460 8 0	40,085 1 10	41,545 9 10	38,788 14 8	2,775 11 4
North Arcot ..	Do.	59,543 15 4	1,33,244 13 10	1,92,787 13 2	1,57,243 2 4	35,544 10 10
South Arcot ..	Do.	16,553 15 6	1,09,925 11 11	1,26,478 16 7	1,15,325 12 2	10,153 4 4
Salem ..	Do.	3,170 7 8	3,14,497 0 4	3,17,667 8 0	2,83,791 2 3	33,876 6 9
Tiruchinopoly ..	Do.	27,910 5 7	51,617 14 3	79,528 3 10	66,828 18 5	12,702 6 5
Tanjore ..	Do.	700 0 10	29,217 13 11	30,017 14 9	29,325 8 2	692 6 6
Total ..		1,44,386 3 3	9,34,424 7 4	10,78,810 10 7	9,43,546 8 11	1,22,263 1 8

(Signed) W. H. MICHAEL,
Deputy Accountant-General.

MADRAS,
27th August 1897.

ANNUAL FORM No. 61.
Forest Department, Madras, Southern Circle.
REVENUE received and Outstandings on account of revenue during the forest year 1896-97.

District.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the department at end of year.	Remarks.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Direction ..	Timber and other forest produce.	..	12 0 0	12 0 0	12 0 0	..	
Nilgiris ..	Do.	344 0 10	66,157 0 2	67,001 1 0	60,943 2 10	6,057 12 2	
North Coimbatore ..	Do.	8,302 7 0	86,807 2 10	95,009 9 10	93,128 2 7	1,881 7 8	
South do. ..	Do.	1,711 0 0	1,47,576 8 11	1,49,287 8 11	1,47,375 12 4	1,911 12 7	
Madura ..	Do.	6,261 0 10	72,375 1 4	78,636 2 2	75,767 4 10	2,869 13 4	
Tinnevely ..	Do.	1,078 13 3	98,019 8 8	99,098 6 6	97,870 3 3	1,227 14 7	
North Malabar ..	Do.	503 10 8	30,615 3 7	31,318 14 5	28,727 15 3	2,591 15 0	
South do. ..	Do.	2,023 8 0	93,718 1 6	95,741 9 6	94,259 9 6	1,482 0 0	
South Canara ..	Do.	3 0 0	66,346 3 1	66,349 3 1	65,146 12 1	1,204 7 0	
Total ..		20,790 8 7	6,51,638 13 8	6,72,429 6 3	6,42,943 1 7	29,486 2 11	

* Rupees 80-1-9 written off in Government Order, No. 711, dated 10th December 1896, communicated in Board's Proceedings, Land Revenue, No. 2, dated 6th January 1897.

(Signed) W. H. MICHAEL,
Deputy Accountant-General.

MADRAS,
30th August 1897.

ANNUAL REPORT OF THE

• The value of elephants has now been fixed with reference to their probable selling value.

ANNUAL FORM No. 63.

Forest Department, Madras Presidency.

STATEMENT of Elephants during the year 1896-97.

PART I.

Elephants in possession of the reporting officers throughout the year.

(a) This is the rate arrived at according to the audited figures of the Accountant-General. The Collector's statement gives Rs. 57-1-5 as the rate, and no explanation has been given for the variation.

(b) Died on 31st March 1897.

District	Timber and other produce received from the forests by Government Agency.		Other revenue.		Forests, protection and improvement of forests.		Total.	
	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.
Northern Circle	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gudjam	5,649	7,312	4,211	60,910	20,811	24,240	24,240	24,240
Vizagapatnam	1,285	5,610	21,019	1,176	12,444	20,781	20,781	20,781
Goldavari	1,051	1,011	1,011	1,176	20,811	20,781	20,781	20,781
Kistna	1,172	7,712	1,172	29,794	42,111	42,111	42,111	42,111
Kurnool	8,113	7,312	1,172	43,474	42,111	42,111	42,111	42,111
Ballari	8,680	5,712	1,172	22,706	20,811	20,781	20,781	20,781
Anantapur				24,240	14,211	14,211	14,211	14,211
Total	29,616	34,222	28,222	4,42,142	1,99,666	6,97,423	6,97,423	6,97,423
Central Circle								
Nellore	26,112	1,172	24,240	13,679	15,310	1,31,126	1,31,126	1,31,126
Cuddapah	8,113	1,172	1,172	46,444	24,240	1,24,240	1,24,240	1,24,240
Chingleput	1,172	1,172	1,172	18,311	14,211	24,240	24,240	24,240
North Arcot	11,172	1,172	1,172	2,376	55,697	1,41,240	1,41,240	1,41,240
South Arcot	1,172	1,172	1,172	24,240	1,17,326	60,703	60,703	60,703
Salem	20,113	1,172	1,172	11,566	13,679	1,71,703	1,71,703	1,71,703
Tamil-nadu	1,172	1,172	1,172	18,311	40,800	64,091	64,091	64,091
Tanjore	8,113	1,172	1,172	2,376	4,408	20,226	20,226	20,226
Total	1,17,152	1,42,714	7,11,115	2,47,300	9,48,447	5,84,782	5,84,782	5,84,782
Southern Circle								
South Canara	20,113	21,642	1,172	15,002	10,200	66,121	66,121	66,121
North Malabar	18,311	2,788	1,172	1,172	10,200	20,781	20,781	20,781
South Malabar	6,113	2,788	1,172	1,172	10,200	20,781	20,781	20,781
Pilgona	1,172	1,172	1,172	1,172	10,200	20,781	20,781	20,781
North Coimbatore	20,113	1,172	1,172	1,172	10,200	20,781	20,781	20,781
South Coimbatore	20,113	1,172	1,172	1,172	10,200	20,781	20,781	20,781
Madurai	1,172	1,172	1,172	1,172	10,200	20,781	20,781	20,781
Tirunelveli	1,172	1,172	1,172	1,172	10,200	20,781	20,781	20,781
Total	2,47,300	2,47,300	2,47,300	2,47,300	2,47,300	2,47,300	2,47,300	2,47,300
Grand Total	4,42,142	4,42,142	4,42,142	4,42,142	4,42,142	4,42,142	4,42,142	4,42,142

* The Government of Madras has not yet received the difference between these figures and those given by the Accountant-General in Form No. 62.

ANNUAL FORM NO. 64.
Forest Department, Madras Presidency.
ABSTRACT showing the Value of Live-stock, Stores, Tools and Plant for 1896-97.

Districts.	Surveying, &c., instruments			Tools			Machinery			Furniture			Building materials, small stores, tents, &c.		
	On hand at commencement of the year.			On hand at commencement of the year.			On hand at commencement of the year.			On hand at commencement of the year.			On hand at end of the year.		
	Number.	Value.	Rs.	Number.	Value.	Rs.	Number.	Value.	Rs.	Number.	Value.	Rs.	Number.	Value.	Rs.
Northern Circle	24	403	Rs.	23	370	Rs.	6	40	Rs.	109	78	Rs.	76	625	Rs.
Direction	42	900		46	638		270	183		78	648		83	385	
Gudjam	19	668		19	668		204	275		107	1,243		147	1,243	
Vizagapatnam	60	534		60	534		600	1,108		87	661		245	1,794	
Goldavari	67	1,236		74	373		513	328		112	965		114	612	
Kistna	72	655		79	1,010		1,017	1,092		139	800		135	713	
Kurnool	83	201		97	278		440	615		46	282		61	408	
Ballari	53	240		53	228		247	710		91	663		107	613	
Anantapur	420	4,786		401	4,425		3,339	4,351		762	6,537		967	6,303	
Total, Northern Circle	49	980		49	798		3,339	4,351		109	78		76	625	
Central Circle	125	925		124	625		4	10		109	1,092		99	916	
Direction	57	301		57	411		1,374	1,374		118	872		130	926	
Cuddapah	31	369		20	197		36,081	36,081		87	600		86	438	
Nellore	20	342		43	615		79	16		73	698		78	495	
Chingleput	118	1,415		117	1,436		15	655		159	870		281	730	
North Arcot	133	1,458		137	1,470		7	371		193	1,714		163	1,820	
South Arcot	65	419		54	485		21	21		341	1,668		381	1,872	
Salem	31	150		30	150		10	10		153	680		125	701	
Tamil-nadu	590	6,156		621	6,604		270	49,379		50	276		29	270	
Tanjore	590	6,156		621	6,604		270	49,379		50	276		29	270	
Total, Central Circle	590	6,156		621	6,604		270	49,379		50	276		29	270	
Total	1,030	12,136		1,115	13,200		3,609	53,730		216	8,100		1,365	8,268	

(a) Omitted to be shown in last year's return.

* Revised figures.

Statement of Elephants during the year 1896-97—cont.

PART II.

Elephants received in the year.

District.	Names.	When purchased or otherwise obtained by Government.	Average monthly cost of keep including servants and food.
1	2	3	4
Nilgiris	Zahara	Captured on 14th March 1896 and transferred from North Malabar on 12th November 1896.	Per head Rs. 4. 12. 6
	Neville	Captured on 2nd September 1896	Do. 14. 1. 1
	Dora	Captured on 16th March 1896 and transferred from South Malabar on 25th December 1896.	Do. 22. 2. 2
South Coimbatore	Jumbo I	Transferred from South Malabar on 25th December 1896.	Do. 70. 0. 0
	Baghavate	Do. do.	Do. 58. 0. 0
South Malabar	Flo	Captured on 14th January 1897	Do. 32. 8. 0
	Ganapathy	Do. on 23rd February 1897	Do. 25. 0. 2
	Cow Elephant	Do. on 23rd February 1897	Do. 1. 2. 0
	Josephine	Do. on 9th March 1897	Do. 43. 9. 2
	Wilkie	Do. on 6th "	Do. 24. 6. 6
	Kunjuni	Do. on 17th March 1897	Do. 31. 4. 1
	Tusker Elephant	Do. on 19th "	Do. 36. 2. 8
	Sybil	Do. on 19th "	Do. 26. 3. 11
North Malabar	Arthur	Do. on 7th April 1897	Do. 29. 7. 3
	Makva Elephant	Do. on 14th "	Do. 64. 11. 6
	Pyramus	Do. on 15th "	Do. 16. 1. 6
	Marisa	Do. on 8th June "	Do. 11. 13. 9
	Barata	Do. on 8th "	Do. 50. 1. 4
	Donald	Do. on 13th "	Do. 50. 1. 4
	Ethel	Captured on 16th April 1896 and re-transferred to North Malabar on 6th July 1896 from the Nilgiris.	

* Charged under A. VI (c).

Statement of Elephants during the year 1896-97—cont.

PART III.

Elephants gone off the list during the year.

District.	Names.	When purchased or otherwise obtained by Government	Average monthly cost of keep including servants and food.	How disposed of.
1	2	3	4	5
Ganjim	Kesari Pyari	Purchased in November 1894 at the Sonapur fair.	Per head Rs. 4. 12. 6	Died on 1st April 1897.
Nilgiris	Ethel	Captured on 16th April 1896	Do. 14. 10. 0	Re-transferred to North Malabar on 8th July 1896.
South Canara	Canara Shankara	Purchased on 2nd August 1894.	Do. 50. 14. 2	Died on the 31st March 1897.
South Coimbatore	1. Neville	Captured on 2nd September 1896.	Do. 16. 5. 7	Transferred to South Malabar on 10th March 1897 and there sold for Rs. 825.
	2. Jumbo I	Arrived from South Malabar on 25th December 1896.	Do. 70. 0. 0	Transferred to Public Works Department with effect from 11th January 1897.
	3. Baghavati	Captured on 14th January 1897.	Do. 82. 8. 0	Sold in auction on 10th March 1897.
	4. Flo	Transferred from Wynad on 29th September 1896.	Do. 27. 2. 8	Transferred to South Coimbatore.
	5. Mary	Captured on 31st March 1896.	Do. 28. 10. 0	Sold in auction in March 1897.
	6. Alice	Transferred from South Coimbatore in December 1893.	Do. 22. 2. 0	Do.
South Malabar	7. Pragasam	Do. do.	Do. 21. 14. 0	Do.
	8. Dora	Captured on 16th March 1894.	Do. 32. 2. 8	Transferred to South Coimbatore on 25th December 1896.
	9. Baghavati	Captured on 27th June 1896 and transferred from North Malabar on 29th August 1894.	Do. 26. 10. 8	Do.
	10. Percy	Captured on 22nd November 1894.	Do. 21. 6. 0	Sold in auction in March 1897.
	11. Hary	Do. on 11th Feb. 1896	Do. 14. 12. 0	Do.
	12. Cow elephant	Do. on 23rd Feb. 1897	Do. 1. 2. 0	Died in the kraal on 27th February 1897.
	13. Tusker elephant.	Do. on 19th March "	Do. 64. 11. 6	Shot in the pit.
	14. Mukva	Do. on 14th April "	Do. 16. 1. 6	Died in the pit.
	15. Plato	Do. on 27th May 1896	Do. 26. 6. 11	Drowned in the Muthanga river on 20th November 1896.
North Malabar	16. Zahara	Do. on 14th March 1896	Do. 31. 0. 5	Transferred to Nilgiris.
	17. Shegaram	Do. on 14th "	Do. 13. 5. 10	Do.
	18. Braupathi	Do. on 25th Feb. "	Do. 21. 15. 9	Sold in auction on 15th February 1897.
	19. Pyrrah	Do. on 13th April "	Do. 22. 9. 7	Do.
	20. Colleen	Do. on 28th June "	Do. 24. 3. 11	Do.
	21. Saraswathi	Do. on 28th May "	Do. 23. 3. 6	Do.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—the following Proceedings of the Board of Revenue (Land Revenue), Forest No. 486, dated 13th November 1897:—

Read—file of reports received from Collectors and Conservators on the progress of Forest Administration during 1896-97.

Resolution—Forest No. 486, dated 13th November 1897.

The Board resolves to submit to Government the progress report of Forest Administration in the Madras Presidency for the year ending 30th June 1897.

2. The suggestions of Government as regards the arrangement of the appendices have been adopted and the length of all the returns except Forest No. 45 has, in anticipation of sanction, been curtailed in accordance with the circular from the Government of India referred to the Board for remarks in Government Order, Mis. No. 3431, Revenue, dated 7th July 1897.

3. Complete statistical returns from Kistna and Ganjam were not received in the Board's office till the 28th September and 5th October, respectively, and the revised timber returns called for on the 25th September from the Collector of Vizagapatam were not submitted by him till the 11th October.

4. The report has, as usual, been prepared by Mr. Popert, the Senior Conservator of Forests.

(True Extract.)

(Signed) R. C. C. CARR,
Secretary.

To the Secretary to Government, Revenue Department,
with three copies of the Administration Report.

ORDER—No. 273, Revenue, dated 16th May 1898.

Forest No. 71.

With its Proceedings read above,
the Board of Revenue submits its report on
the administration of the Madras Forest

Department for the year ending 30th June 1897.

2. The preparation of the report was, as in the previous two years, entrusted to Mr. Popert, the Senior Conservator of Forests. The statements appended have in some cases been curtailed in size and re-arranged in accordance with the suggestions contained in G.O., No. 370, Revenue, dated 31st May 1897, and in the Government of

India Circular No. 12-F.—245-1, dated 25th June 1897. Revised forms of statements giving detailed information as to the origin and results of injuries done to forests have also been inserted in the present report in accordance with the instructions issued by the Government of India in its Circular No. 9-F.—171-1, dated 10th June 1897. The suggestions made in the Government of India Circular of the 25th June last quoted above were, however, merely referred for the opinion of Local Governments and have not yet been finally adopted and prescribed. The Board was premature, therefore, in having taken action thereon at the present stage.

3. *Extension and constitution of State Forests—alteration of area.*—The subjoined statement compares the areas of reserved forests and reserved lands at the beginning and at the end of the year under review:—

	Area on 1st July 1896.	Area added during 1896-97.	Area excluded during 1896-97.	Net increase or decrease.	Area on 30th June 1897.
Reserved forests	SQ. MILES. 12,555	SQ. MILES. 803	SQ. MILES. 115	SQ. MILES. + 760	SQ. MILES. 13,243
Do. lands	SQ. MILES. 6,469	SQ. MILES. 333	SQ. MILES. 1,384	SQ. MILES. - 718	SQ. MILES. 5,414
Total	19,024	1,136	1,499	+ 742	20,363

Of the area added during the year, 845 square miles under reserved forests and 302 square miles under reserved lands represent the extent of new reserves, while the remainder is due to rectification of area. The area disafforested or freed from reservation in accordance with the policy enunciated by the Government of India in October 1894 was 80 square miles of reserved forests and 242 square miles of reserved lands, while the decrease due to rectification under the two classes of lands, was 88 square miles and 91 square miles, respectively. Under reserved lands, there was also a further reduction of 815 square miles due to final reservation and 73 square miles to exclusion at settlement. The rectified figures now reported do not, however, exclude the area of the enclosures in the Salem reserves, wrongly taken into account in the returns furnished by the Survey of India party as, owing to press of other work, the survey of these small areas could not be undertaken before the close of the year under review. The actual area of State forests at the end of the year is, therefore, somewhat less than 18,907 square miles, the figure given in the above statement.

4. The total area under the control of the department having been less than it was in the previous year, the percentages of that area to the total extent of Government lands (21.24) and to that of unoccupied lands (36.46) also show an almost proportionate decrease as compared with the figures, 21.43 and 36.80, respectively, of 1895-96. Abstract B, appended to paragraph 2 of the report, in which detailed information on the above points is furnished has been prepared with considerable care, but its completeness is marred by a few unexplained variations between the figures given in columns 2 and 3 and the corresponding figures given last year, and by the fact that the area for which returns are reported to be not available is in excess of the previous year's figure by 250 square miles. The attention of the Settlement Department should be drawn to the matter.

5. The Board in paragraph 10 of its report estimates that, if a liberal margin of unreserved land is to be allowed for free grazing, local requirements and extension of cultivation, it will not be possible to add more than 1,114 square miles to the area already brought under control. The Government agree that, making due allowance for the rectification of Salem figures and for the exclusion of areas at settlement, the area to be ultimately brought under control is not likely to exceed a total of 20,000 square miles. This represents about 22 per cent. of the total area of Government lands.

6. *Forest Settlement.*—The following table compares the outturn of Forest Settlement work during the year under review as gauged by the area added to the forests reserved under section 16 of the Forest Act with that of the previous four years:—

	1892-93 (fifteen months).	1893-94.	1894-95.	1895-96.	1896-97.
Outturn	SQ. MILES. 2,261	SQ. MILES. 1,350	SQ. MILES. 689	SQ. MILES. 222	SQ. MILES. 750

Note.—The figures given above are the net area arrived at, after allowing for rectification and after deducting the area disafforested from the total area notified.

The actual extent constituted as forest reserve during the year was, however, 845 square miles as against 858 square miles in 1895-96, while the extent in respect of which final notifications were issued during the two years was 656 square miles and 808 square miles, respectively. Judged by either criterion, therefore, the settlement work of the year fell short of that of the previous year. It has been pointed out in previous reviews that one of the main reasons for the slow progress made of late in settlement operations is that, while the blocks settled in former years were large hill areas comparatively free of rights and easy to deal with, those which have now to be settled are smaller and are situated in the neighbourhood of cultivated tracts and are more or less encumbered with communal or private rights. These difficulties have been, to some extent, met by the appointment of an additional Forest Settlement officer. But the Government must rely on the Board to see that the officers employed on this important work perform their duties efficiently and promptly. The Board should not hesitate to recommend the transfer to other duty of any officer who is found to lack the necessary energy and activity.

The outturn of settlement work by Revenue Divisional officers does not call for any special remarks.

7. Including the leased forests in the Nilgiri district, the total area under the control of the Forest Department was about 20,021 square miles classified at present as follows:—

	EQ. MILES.
Notified under section 16	13,188
Do. do. 4	4,030
Reserved under section 20	1,739
Further Selections	1,114

Of the area notified under section 4 of the Act, settlement work connected with 1,453 square miles was practically complete; by the close of the year under review 970 square miles was settled, but not reported on, and operations were being proceeded with in the case of 1,607 square miles. Making allowance for leased forests and future rectification, it is observed that, at the rate of outturn during the year under review, forest settlement work will take another six years to complete. The Government hopes, however, that no effort will be spared by all officers concerned to push on the work to as speedy a termination as is consistent with good and careful administration.

8. *Demarcation and Survey.*—As desired by the Government of India in its review of the report for 1895-96, the Board has, in its present report, dealt with the preliminary demarcation and survey of proposed reserves separately from the final demarcation and survey of settled reserves. In return No. 47, however, the distinction between the two classes of survey has not been maintained so far as they have reference to the work of the Survey of India parties. The Board has explained in a separate Proceedings that this is due to the plan found convenient in this Presidency, whereby a party when dealing with settled areas takes up at the same time any adjoining tracts recently added to the reserved area though not as yet settled. Preliminary surveys made by departmental officers have been excluded from the statement in accordance with the instructions of the Government of India.

9. *Preliminary demarcation and survey of proposed reserves.*—The work of preliminary survey done in the several districts is reviewed by the Board in paragraph 12 of its report. The information given is not very full; but the Government is glad to note that the outturn of work in preparing and revising the sketch-maps to accompany notifications under sections 4 and 16 was satisfactory. As regards demarcation, the outturn during the year under review (1,671 miles) showed an increase over that of the previous year (1,479 miles). The average rate per mile, however, for the whole

Presidency rose at the same time from Rs. 2-13-6 to Rs. 3-9-10. The cost per mile varied from As. 10-6 in South Canara to Rs. 15-10-8 in North Coimbatore. The latter rate is double that reported for the same division in the previous year. The Board explains that this increase as well as that observed in Tinnevely was justified by the nature of the forests in which the work had to be done. The work and consequently the cost of demarcation must, of course, vary with the particular locality; but the Government trusts that the expenditure in each case is carefully scrutinized by the District Forest-officers and Collectors.

10. *Final demarcation and survey of settled reserves.*—The work of final demarcation during the past three years is compared in the subjoined statement:—

	Permanent demarcation.			Re-clearing old lines, &c.		
	1894-95.	1895-96.	1896-97.	1894-95.	1895-96.	1896-97.
Northern Circle	Mls. 439	Mls. 855	Mls. 509	Mls. 270	Mls. 597	Mls. 1,189
Central	1,642	1,117	638	991	2,824	1,837
Southern	230	217	238	171	193	649
Total	2,271	2,189	1,376	2,432	3,614	3,675
Average cost per mile	Rs. A. P. 9 0 10	Rs. A. P. 9 8 6	Rs. A. P. 12 2 8	Rs. A. P. 6 8 11	Rs. A. P. 8 14 4	Rs. A. P. 4 13 0

The abnormal increase in the number of miles re-cleared in 1895-96 was ascribed by the Board to short work in previous years and the decreased cost was explained by the fact that the work was carried out mostly by guards and watchers. The fall in outturn and increase in cost in the year under review is apparently accounted for by the omission from the statement of lines re-cleared by subordinates. A portion of the enhanced cost has, however, to be ascribed to the special difficulties of clearing and erecting cairns in certain localities and in Kistna to bad work. It is presumed that the Board has taken suitable notice of the conduct of the officers responsible for the original wrong demarcation in Kistna. It is noted that only 1,376 miles of boundary were permanently demarcated during the year, and that 504 miles remained to be demarcated at the end of the year. The work is thus in arrears and should be pushed on.

11. The area topographically surveyed by the Survey of India Party No. 19 during the year under review was 745 square miles, and the cost incurred per square mile Rs. 84 as against 964 square miles and Rs. 66, respectively, in the previous year. The main cause of the decrease in outturn and increase in cost is reported to be the difficult nature of the country and the dense forests in the Kurnool district. The new Party No. 9 surveyed about 66 square miles only at a cost of about Rs. 354 per square mile. The abnormally high rate is attributed to the fact that the party was unable to work throughout the season owing to bad weather and the inefficiency of the subordinate staff, and that the cost of its transfer from the Central Provinces for work in Madras was very heavy. The Government is glad to note that arrangements have since been made to combine the two parties under the charge of one officer and to give the necessary training to the subordinates employed, and it is hoped that future operations will be more efficiently conducted.

As regards departmental surveys, the report mentions the work done in Bollary and Salem only; but from statement No. 47 appended to the report, it appears that a considerable amount of work was also done in Kistna, Trichinopoly, Ganjam, Vizagapatam, Kurnool, South Canara and North Malabar. In the absence of detailed information, however, it cannot be ascertained how far the outturn in the several districts was commensurate with the strength of the staff employed or with the work that had to be done. In future reports the matter should be more fully dealt with. The reports abstracted in Appendix D show that due attention was paid by District officers in all districts to the importance of having the maps maintained in accordance

cases are reported and more careful instruction of the subordinate staff seems to be required. The number of cases compounded increased by 1,362, an increase of 27 per cent. The amount of compensation realised was the largest yet reached, Rs. 45,279. The increase was most marked in the Northern and Southern Circles. The Board has not furnished any adequate explanation of these figures. The greatest care should be taken that the principles repeatedly laid down in the reviews of previous reports both by this Government and the Government of India as to the composition of forest offences are not overlooked in practice. District Forest-officers should carefully scrutinise every case proposed to be compounded and satisfy themselves that the case is a *bona fide* one clearly proved and that the compensation is not offered merely to escape the worry of a vexatious prosecution. The fall in the percentage of cases acquitted is satisfactory as showing that more care was exercised in entering prosecutions and it is noted that several of the acquittals were due to a mistake of law which has been since pointed out by a ruling of the High Court.

The number of cases of injury by fire remained practically stationary. The prevalence of illicit goat browsing in South Arcot and North Arcot suggests the need for making some further provision for goat browsing in these districts. The Government regrets to note a recrudescence of the lawless violence which affected forest officers in Cuddapah a few years back. It is hoped that the preventive measures taken will prove successful.

15. The results of the measures adopted for the protection of forests from fire during the past three years are exhibited in the following statement:—

Year.	Area in which fire was attempted.	Area in which fire was prevented.	Area in which fire was prevented per square mile.
1894-95	1,577	94	1 5 11
1895-96	1,525	94	1 5 12
1896-97	1,568	96	1 5 5

It is noted that the action of the ryots themselves in abstaining from intentionally causing fires in order that old grass-stalks might be destroyed and new shoots produced through fear of scarcity of fodder contributed largely to the satisfactory result attained during the past year.

16. The total areas closed and open to grazing during the past two years are compared in the following statement:—

Year.	Total area under control.	Closed to all animals.		Closed to goats or sheep or both.		Open to all animals.	
		Whole year.	Part of year.	Whole year.	Part of year.	Whole year.	Part of year.
1895-96	19,079	11,518	291	11,518	291	7,561	799
1896-97	18,921	11,518	291	11,518	291	7,403	744

The figures for 1896-97 in the last three columns of the statement above (taken from form No. 52) total up to 18,921 square miles or more than the area under control and are therefore apparently incorrect. It is, however, clear from the figures furnished that sheep were admitted to 11,518 square miles of reserves and goats to 340 square miles. The Board has since reported that further provision for goats has been made in the Cuddapah district.

17. *Improvement of forest growth.*—Natural reproduction appear to have proceeded satisfactorily except in the Northern and some parts of the Central Circle where owing to famine and the damage done to reserves by cattle and grass-cutters the results obtained were disappointing. The area under regular plantations rose from

18,067 acres in 1895-96 to 23,186 acres in 1896-97 and the expenditure from Rs. 34,070 to Rs. 34,865. There was a small decrease in the area in which cultural operations were carried on and a very small increase in that of topes. The progress made in experiments conducted with seeds and seedlings is reported to have been somewhat slow, but in regard to such of these as were carried out during the year some interesting information is furnished in paragraph 33 of the Board's report. In accordance with the wishes of the Government of India expressed in its review of the annual administration report for 1895-96 a special report has been called for from the Board in regard to the feasibility of growing forests of *centra* rubber in this Presidency. A report is also due from the Board on the subject of the ravages made by caterpillars in the sal tracts of Ganjam in May 1896. From the fact that the report now under review merely states that the natural reproduction of the tree in the district left nothing to be desired it may presumably be inferred that the attack was not repeated. The submission of the reports called for should, however, be expedited.

18. *Exploitation of major and minor forest produce.*—The operations connected with the exploitation and removal of major forest produce have been fully reviewed by the Board in paragraphs 34 to 38 of the present report and do not call for any special remarks. As regards minor produce the Government notes that notwithstanding the throwing open of the reserves in several of the districts to free grazing on account of famine the grazing revenue of the year reached the highest figure yet attained and amounted to Rs. 3,76,354 or nearly Rs. 36,000 more than in the previous year. The revenue was as usual the highest in Kistna (Rs. 70,339), Salem (Rs. 50,943) and North Coimbatore (Rs. 35,914) coming next. As compared with 1895-96 the increase in the two districts last mentioned alone was Rs. 27,745 and has been ascribed in the Board's report to revision of rates and in North Coimbatore to a very large addition to the number of licensed animals admitted into the reserves. Although the revenue was the highest in Kistna yet it was lower in this district than in the previous year. The Board remarks that "Kistna under the parcellaire system again shows a reduction of revenue"; but it is observed that the decrease has to be attributed to the fact that people were allowed to take some grass free and to the migration of professional herdsmen to better pastures. In Bellary as well as in Salem the increase of grazing revenue is ascribed in part to the enhancement of the rates. The Board should report the circumstances which led to an enhancement of the rates at a time of scarcity. As regards the smaller items of minor produce, the Government notes from paragraph 51 of the report that due attention is being paid to the importance of preventing the collection of such produce being monopolised by petty contractors to the detriment of the ryot.

19. *Gross yield and outturn of forest produce.*—The particulars under this head during the past five years are compared in the following statement:—

Years, &c.	Timber including sandalwood.	Fuel.	Bamboo.	Minor produce (gross value).
	C. FT.	C. FT.	NO.	RS.
1892-93 (15 months)	2,866,544	12,133,563	20,779,393	8,03,255
1893-94	3,072,496	12,181,696	20,304,261	7,39,361
1894-95	2,777,658	12,625,734	23,733,193	8,81,070
1895-96	2,907,945	13,759,385	33,738,819	10,76,388
1896-97	2,612,270	12,182,192	30,540,684	9,42,739
Increase or decrease in 1896-97 as against 1895-96	-295,675	-1,577,193	-3,198,135	-1,33,649
Percentage of the increase or decrease above mentioned.	-10.1	-11.3	-9.5	-12.7

The causes of the variations in the above figures in the case of collections and removals by Government and private agencies are set forth by the Board in paragraphs 43 and 44 of its report. The prevailing scarcity restricted the demand of purchasers. The removals of grass under free grants at the same time greatly increased owing to the opening of the forests in the affected districts. The forests have thus proved a substantial help to the people in their distress during the year.

20. The profit derived from the working of the forest produce by departmental and private agencies during the past two years is compared in the sub-joined table:—

	1895-96.			1896-97.		
	Rs.	A.	P.	Rs.	A.	P.
Departmental working—						
Timber per cubic foot	...	...	...	0	2	7
Fuel do.	...	...	...	0	0	1
Bamboos each	...	...	...	0	0	5
Sandalwood per cubic foot	...	...	...	3	13	10
Minor produce per maund	...	...	...	0	5	1
Private working—						
Timber per cubic foot	...	...	...	0	1	4
Fuel do.	...	...	...	0	0	5
Bamboos each	...	...	...	0	0	1
Net profit ... { Grazing	...	...	...	2,73,330	0	0
Minor produce	...	...	...	3,71,710	0	0
				3,69,557	0	0

Excluding sandalwood and minor produce, as regards which a comparison between the results obtained under the two systems of working cannot be made, the Government notes that departmental working had the advantage over private working in the matter of the collection of both timber and bamboos. This is, however, reported to have been due to the sale of a large quantity of valuable timber and to the extraction of a superior quality of bamboos by departmental agency. As indicated in several of the previous reports and reviews, however, no definite conclusion can be arrived at from a comparison of figures as to the relative advantages of the departmental and private systems of extracting forest produce. If competition is freely encouraged and monopolies thus guarded against, private working is, perhaps, less liable to abuse and more likely to meet the ryots' wants. In accordance with the views of the Government of India, instructions have been issued for the gradual introduction of private working in place of departmental agency wherever possible without detriment to the interests of the public.

21. Financial results.—The financial result of the year's working is compared with that of the previous year in the following statement:—

	Receipts.		Charges.		Surplus.		Proportion of surplus to gross revenue.
	Rs.	As.	Rs.	As.	Rs.	As.	
1895-96 *							
Northern Circle	7,28,859		2,83,877		+	3,99,982	47
Central "	9,39,783		5,80,996		+	3,78,787	46
Southern "	5,04,038		5,24,118		—	20,078	..
Total	21,72,680		13,88,991		+	6,98,642	52
1896-97 *							
Northern Circle	5,97,422		4,55,280		+	1,32,142	22
Central "	9,19,547		6,84,782		+	3,03,765	38
Southern "	6,42,945		5,37,815		+	1,05,130	16
Total	21,59,914		16,77,877		+	5,01,040	27
Increase or decrease in 1896-97 *							
Northern Circle	— 1,26,437		— 81,403		—	2,07,840	..
Central "	— 8,914		— 23,787		—	14,973	..
Southern "	— 1,34,910		— 13,699		+	1,26,211	..
Total	— 2,96,261		— 118,889		—	97,024	..
Average * for the four years ending 30th June 1896	19,34,302		14,08,218			6,25,084	37

* Forest year.

The surplus of revenue over charges was Rs. 6,01,040, i.e., about one lakh less than the surplus in the previous year. In so far as the decrease has to be ascribed to the free concessions made in the affected districts of the Northern Circle, the result must be considered very satisfactory.

22. Forest Administration.—The Government notes with satisfaction that the working of the rules under section 26 of the Forest Act has been generally successful. The Collector of Vizagapatam should carefully enquire into the reasonableness or otherwise of the complaint of the ryots, that only worthless trees are excluded from the classified lists. No allusion is made in the report to the working of the rules which have been framed under the Act for the management of forests and waste lands in certain private estates.* The Collectors of the districts where these estates are situated should be instructed to

* Viz., Jeypore, Vizianagram and Séptár. submit, for incorporation in the report, brief notes on any question of interest that may have arisen in the working of such forests during the year.

Complaints usually of a general nature and largely based on misapprehension having been frequently made against the administration of the department, the Government in July last issued a general order reviewing and re-affirming the principles of forest policy so often enunciated both by this Government and the Government of India. His Excellency in Council trusts that the publication of this order will lead to a better understanding of the policy of Government and heartier co-operation between the people and the officers of the department.

The conduct of the subordinate executive staff is not favourably reported on. The improvement in the pay and prospects of this branch of the department which has been effected by the recent re-organization will, it is hoped, in time remedy matters.

The Government is pleased to observe the testimony borne by the Conservators to the good work done by the Superior officers of the department.

23. The following minor discrepancies are noticed:—

(i) The area of the forests finally settled during the year, as given in statement No. 45, totals up to 796.8 square miles, while from abstract A in paragraph 1 and the statement in paragraph 5, it appears to have been 656 square miles or making allowance for rectification and rounding off 673 square miles. Even supposing that the whole area disafforested (80 square miles) was settled during the year, the total comes up only to 753 square miles.

(ii) In abstract F, attached to paragraph 10 of the report, against Ganjam, either the figure 85 given in column 4 is a mistake for 93 or the figure 649 given in column 5 is a mistake for 641. In the latter case, however, the percentages given in columns 6 and 7 against the district will have to be altered. It is observed that the heading of column 7 is slightly misleading as in calculating the percentages given therein the area of lands for which returns are not available has also been taken into account.

(iii) The figures for 1895-96 given in abstract G, appended to paragraph 14 of the present report, in a few cases do not agree with those given in the corresponding statement attached to the report for 1895-96.

(iv) In columns 23 and 24 of statement No. 47, the outturn of boundary surveys is shown in "miles", while in columns 15 and 16 of the same statement, as well as in the corresponding columns of the previous year's statement, it is shown in "square miles". Apparently the figures given in columns 15 and 16 represent the area of the reserves of which the boundaries have been surveyed.

(v) The figures given in appendix E, relating to the area for which final maps have been prepared, total up to 8,812 and not 6,712 as given by the Board.

(vi) In paragraph 29, the Board reports that 78 square miles were open in this Central Circle to all animals; but in the last column of form No. 82, the area so open is shown as 83 square miles.

24. *Conclusion.*—The continuance of Settlement work has impeded the development of the forests to some extent by diverting to that work the time and attention of a large portion of the forest staff and delaying the preparation of proper working plans. Nevertheless, the Government considers that much has been done towards the improvement of forest growth. The amounts of timber, fuel and grass removed—a great portion, especially in the affected districts, on free grants,—prove that the department has satisfactorily met the wants of the people.

(True Extract.)

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

[illegible]