

ANNUAL ADMINISTRATION REPORT

OF

THE FOREST DEPARTMENT,

MADRAS PRESIDENCY.

FOR THE

TWELVE MONTHS ENDING 30TH JUNE 1898.

(1897-98.)

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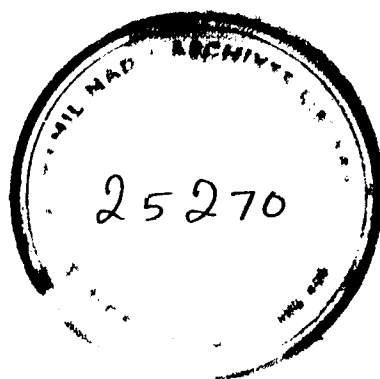


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PROGRESS REPORT

OF

FOREST ADMINISTRATION IN THE MADRAS PRESIDENCY

FOR THE TWELVE MONTHS ENDING WITH 30TH JUNE 1898.

CHAPTER I.—EXTENSION AND CONSTITUTION OF STATE FORESTS.

(i) Alteration of Area.

The area of reserved forests and reserved lands, at the beginning and at the end of the year under report, as well as the changes that have taken place during the year, is abstracted in the subjoined statement. Details of alterations in the forest area in each district are given in Form No. 44 :—

ABSTRACT A.—Classes and areas of forests.

	Area on 1st July 1897.	Added during the year.	Excluded during the year.	Net increase or decrease.	Area on 30th June 1898.
<i>Northern Circle.</i>					
Reserved forests ..	SQ. MLS. 4,445 { (a) 4 (b) 371	SQ. MLS. { (a) 18 (c) 28 (d) 371	SQ. MLS. { (a) 1 (c) 15 (f) 371	+ 357	SQ. MLS. 4,802
Do. lands ..	2,114 { (a) 19 (d) 385	{ (a) 19 (d) 385	{ (a) 19 (d) 385	— 11	2,103
Total ..	6,559	779	433	+ 346	6,905
<i>Central Circle.</i>					
Reserved forests ..	5,346 { (a) 231 (b) 10 (c) 8 (d) 80 (e) 9 (f) 231	{ (a) 231 (b) 10 (c) 8 (d) 80 (e) 9 (f) 231	{ (a) 231 (b) 10 (c) 8 (d) 80 (e) 9 (f) 231	+ 219	5,565
Do. lands ..	1,513 { (a) 16 (d) 61	{ (a) 16 (d) 61	{ (a) 16 (d) 61	— 251	1,262
Total ..	6,859	308	340	— 32	6,827
<i>Southern Circle.</i>					
Reserved forests ..	3,347 { (a) 25 (b) 50 (c) 4 (d) 17 (e) 5 (f) 50	{ (a) 25 (b) 50 (c) 4 (d) 17 (e) 5 (f) 50	{ (a) 25 (b) 50 (c) 4 (d) 17 (e) 5 (f) 50	+ 61	3,408
Do. lands ..	2,142 { (a) 8 (d) 35	{ (a) 8 (d) 35	{ (a) 8 (d) 35	— 29	2,113
Total ..	5,489	118	86	+ 32	5,521
<i>Total.</i>					
Reserved forests ..	13,138 { (a) 29 (b) 652 (c) 14 (d) 9 (e) 125 (f) 29 (g) 652	{ (a) 29 (b) 652 (c) 14 (d) 9 (e) 125 (f) 29 (g) 652	{ (a) 29 (b) 652 (c) 14 (d) 9 (e) 125 (f) 29 (g) 652	+ 637	13,775
Do. lands ..	5,769 { (a) 43 (d) 481	{ (a) 43 (d) 481	{ (a) 43 (d) 481	— 291	5,478
Grand Total ..	18,907	1,205	859	+ 346	19,253

(a) Rectification of area. (b) Transferred from reserved lands. (c) Disafforested or unreserved.
 (d) Newly constituted reserved lands. (e) Excluded at settlement. (f) Transferred to reserved forests.

There was a net increase of 346 square miles in the total area brought under the Forest Act, against a decrease of 171 square miles during 1896-97. The largest addition to the area was in *Kurnool*, where 276 square miles were newly notified by the Collector as reserved lands under section 26, and 76 square miles of unreserved land constituted as proposed reserves under section 4. In *Cuddapah*, the *Nilgiris*, *Gódvári*, *Chingleput* and *Kistna*, 49, 34, 22, 12 and 10 square miles, respectively, were added, but these additions were more than counterbalanced by the exclusions in other districts. As a result of the joint report of the Collector and the Conservator, on the subject of reservation in *Salem*, alluded to in paragraph 7 of the report for the preceding year, 41 square miles of lands notified under section 4, were abandoned during the year. A considerable portion of the extent which remained as reserved lands under the rules under section 26 at the end of 1896-97 in *Kurnool*, *Kistna* and *Cuddapah*, was notified under section 4 during the year. The increase in the area of reserved forests, occurred mainly in the districts of *Ganjum*, *Gódvári*, *Kistna* and *Kurnool* in the *Northern Circle*, and *Cuddapah* and *South Arcot* in the *Central Circle*. In *Salem* two erroneously included by the Survey of India Party in calculating the area of blocks mapped by that party, which was alluded to in the report for last year. The work was not completed, as the services of one of the surveyors had to be dispensed with in the middle of the year, owing to the unreliable nature of his work.

2. The percentage of the area brought under the Forest Act in each district, to district area, and to unoccupied lands, is shown in the following statement:—

ABSTRACT B.—District areas and forest reserves.

District.	Particulars of remaining area (column 3 — column 4).										Reserved forests and reserved lands.		Percentage of column 10 to column 3.	Percentage of column 10 to column 7.
	Total dis- trict area excluding feudatory and tribu- tary states.	Area excluding zemindari and whole inam villages.	Occupied area.	Unoccupied, culturable, and forest areas.		Area for which returns are not avail- able.	Total of columns 5 and 6.	Reserved forests under Act V of 1882.		Reserved lands.	Total of reserves, columns 8 and 9.			
				5	6			7	8			9		
1	2	3	4	5	6	7	8	9	10	11	12			
Northern Circle.														
Ganjam	8,369	4,437	606	1,147	2,684	3,831	245	318	563	12.69	14.69			
Vizagapatam	17,242	1,378	265	572	541	1,113	137	276	413	29.97	37.10			
Góda-vart	7,857	3,976	1,552	2,424	..	2,424	844	126	970	24.39	40.01			
Kistna	8,498	5,615	3,192	2,318	105	2,423	706	456	1,162	20.69	47.95			
Kurnool	7,514	6,799	2,041	4,758	..	4,758	1,962	708	2,670	39.27	66.11			
Bellary	5,718	1,944	2,692	1,944	..	1,944	458	157	615	13.26	31.63			
Anantapur	5,461	4,569	2,166	2,284	119	2,403	450	62	512	11.20	21.30			
Total ..	60,659	31,410	12,514	15,447	3,449	18,896	4,802	2,103	6,905	21.98	36.64			
Central Circle.														
Cuddapah	8,723	7,570	2,132	5,438	..	5,438	1,651	749	2,400	31.70	44.13			
Nellore	8,765	4,072	1,762	2,297	13	2,310	564	126	680	16.69	29.43			
Chingleput	3,092	2,049	1,027	1,013	9	1,022	201	14	215	10.49	21.03			
North Arcot	7,365	3,905	1,382	2,517	6	2,523	1,047	82	1,129	28.91	44.74			
South Arcot	5,216	4,969	2,467	2,429	73	2,502	676	35	711	14.30	28.41			
Salem	7,629	5,391	2,164	3,227	..	3,227	1,226	170	1,396	25.89	43.26			
Trichinopoly	3,631	2,686	1,661	1,008	17	1,025	192	86	278	10.35	27.12			
Tanjore	3,706	2,487	1,779	693	15	1,708	18	..	18	0.72	2.64			
Total ..	48,027	33,129	14,374	18,622	133	18,755	5,565	1,262	6,827	20.60	36.40			
Southern Circle.														
South Canara	3,902	3,883	683	3,200	..	3,200	166	957	1,123	28.92	35.09			
Malabar	5,394	1,593	1,593	3,792	..	3,972	197	405	602	10.81	15.15			
The Nilgiris	957	957	309	648	..	648	358	125	483	50.47	74.53			
Coimbatore	7,860	7,297	3,861	3,436	..	3,436	1,708	568	2,276	31.19	66.24			
Madura	8,813	3,244	1,684	1,560	..	1,560	567	46	613	18.89	39.39			
Tinnevelly	5,389	3,567	2,298	1,263	6	1,269	412	12	424	11.88	33.41			
Total ..	32,515	24,513	10,428	14,079	6	14,085	3,408	2,113	5,521	22.52	39.19			
Grand Total ..	141,201	89,052	37,316	48,148	3,588	51,736	13,775	5,478	19,253	21.62	37.21			

(a) Area by village papers is entered as it is in excess of the survey area.

(b) The large increases in the figures in columns 3 and 6 are due to the adoption during the year of the area of village papers in column 3 which is in excess of the area by survey owing to the inclusion for the first time in the former of the area of unsurveyed tracts roughly estimated. The Collector reports that this area which is included in column 5 has been incorrectly estimated and that he is taking steps to rectify the error.

(c) The increase in the area in column 3 is said to be due chiefly to correction of errors.

(d) According to the figures given in the statistical returns for 1896-97 received subsequent to the transmission of this return for that year, the figures in this return show an increase in the occupied area and a corresponding decrease in the unoccupied area owing to season.

(e) According to revised return for 1896-97 received in February 1898, the areas in columns 3, 6 and 6 would be 4,068, 2,316 and 6 square miles. This reduces the difference in the area for which returns are not available from 213 square miles in 1896-96 to 6 in 1896-97.

N.B.—The figures in column 3 are exclusive of the area of minor inams in Government villages.

(f) The Collector will be asked to explain the variations.

The percentage of the area reserved, to the unoccupied lands, has slightly risen from 36.46 to 37.21. The decrease in the area of unoccupied lands contributed in a small degree to the increase in the percentage.

3. The subjoined statement compares the area finally constituted into reserved forests in each district during the year, with that in the preceding year:—

ABSTRACT C.

Districts.	Prior to 1896-97.	During 1896-97.	During 1897-98.	Total.
<i>Northern Circle.</i>				
Ganjām	SQ. MLS. 133	SQ. MLS. 21	SQ. MLS. 99	SQ. MLS. 245
Vizagapatam	87	(c) — 8	1	137
Gódvári	634	176	(a) — 2	844
Kistna	641	(a) — 11	52	706
Kurnool	1,748	(c) — 3	156	1,962
Bellary	452	(a) — 1	(b) — 12	458
Anantapur	440	(c) — 6	(b) — 1	450
Total	4,135	310	357	4,802
<i>Central Circle.</i>				
Cuddapah	1,535	(c) — 45	(b) + 1	1,651
Nellore	436	112	17	564
Chingleput	200	(c) — 11	(c) — 7	201
North Arcot	995	3	26	1,047
South Arcot	505	26	103	676
Salem	1,224	(c) — 16	(a) — 2	1,226
Trichinopoly	192	(c) + 6	(c) — 1	192
Tanjore	19	(c) — 3	3	18
Total	5,106	240	219	5,565
<i>Southern Circle.</i>				
South Canara	114	..	(a) + 27	166
North Malabar	157	..	..	157
South Malabar	39	..	1	40
The Nilgiris	357	1	(c) — 1	358
North Coimbatore	859	(a) — 203	(c) — 4	1,054
South Coimbatore	651	(c) — 8	..	654
Madura	559	(b) + 1	(a) — 15	567
Tinnevely	411	(a) — 23	(c) — 10	412
Total	3,147	200	61	3,408
Grand Total	12,388	750	637	13,775

(a) Rectification of area.

(b) Rounding off fractions in previous year's returns.

(c) Declared unreserved.

The outturn was largest in *Kurnool*. *South Arcot* comes next, but 80 square miles of the area constituted, appertained to four blocks the notifications of which were published in 1896-97. *Ganjām* and *Cuddapah* rank 3rd and 4th. The outturn in the last-mentioned district was actually much larger than that shown above, as two blocks of an aggregate extent of 155 square miles (the initial notifications of which were pending from the years 1883-84 and 1886-87), were notified under section 16 of the Act during the year under report, but their reservation takes effect only from dates following the close of the year. The same remark applies also, in the case of the marginally-noted districts, to the extent entered against each. The sanction of the Government of India for the disforestation of certain small

	SQ. MILES.		SQ. MILES.
Vizagapatam ..	1	Nellore ..	18
Gódvári ..	3	South Canara ..	20
Kistna ..	7	North Coimbatore ..	2
Anantapur ..	8	Madura ..	5

reserves in the *Chingleput* district, aggregating 9 square miles, was notified during the year. Also portions of reserves, of an aggregate extent of about 5 square miles, were disafforested in the districts of *Salem*, the *Nilgiris* and *North Coimbatore*.

(ii) *Forest Settlements.*

4. The progress of forest settlement is shown in the following statement:—

ABSTRACT D.

Circle.	Area of reserved lands—vide Abstract A above.					Area brought under Chapter II of the Madras Forest Act.				
	On 1st July 1897.	Added during 1897-98.	Total.	Excluded during the year mainly by reason of constitution as reserved forests.	Balance at the end of the year.	Area notified under section 4, not constituted reserved forests on 1st July 1897.	Added during 1897-98.	Total.	Constituted reserved forest during 1897-98, or otherwise disposed of.	Balance notified under section 4 but not constituted reserved forests on 1st July 1898.
	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Northern Circle	2,114	404	2,518	415	2,103	1,373	(a) + 343	1,729	(b) 371	1,336
Central ..	1,513	77	1,590	328	1,262	1,244	118	1,362	(b) 231	1,072
Southern ..	2,142	43	2,185	72	2,113	1,413	(a) + 54	1,476	(b) 50	1,419
Total ..	5,769	524	6,293	815	5,478	4,030	537	4,567	740	3,827

(a) Rectification of area.

(b) Initial notifications cancelled.

(c) Excluded at settlement.

5. The statement in appendix A shows, district by district, the total area brought under settlement up to the end of the year, the area constituted reserved forests, and the number and area of blocks pending settlement, on the 30th June 1898. The following abstract statement, compares the number and area of blocks notified under section 4 and under section 16 during the year under report, with those of the previous year:—

	1896-97.		1897-98.	
	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.	542	SQ. MLS. 4,752	(a) 500	SQ. MLS. 4,030
(2) Notified under section 4 during the year	175	402	128	515
Total ..	717	5,154	629	4,567
(3) Deduct area finally constituted as reserved forests under section 16, or excluded at settlement, or the initial notifications of which were cancelled, &c.	(b) 136	(a) 845	(b) 132	(b) 652
	(b) 81	(b) 91	(b) 20	(b) 59
		(c) 73		(c) 29
Total of (3) ..	217	1,124	152	740
(4) Area which remained to be finally constituted at the end of the year	500	4,030	477	3,827

(a) By rectification.

(b) Initial notifications cancelled.

(c) Excluded at settlement.

There were, at the commencement of the year, 501 blocks covering an area of 4,052 square miles, which were previously notified as proposed reserves under section 4 remaining to be finally-constituted reserved forests. During the year, 128 blocks, of 515 square miles in extent were added, against 175 blocks, with an extent of 402 square miles, in the previous year.

The blocks notified in *Kurnool* and *Cuddapah* covered a large extent of land, and this explains the proportionate increase in the area notified. The decrease in the number is due to selection in several districts having come to a close. To provide for extension of cultivation, and for the exercise of communal privileges, twenty blocks of 59 square miles were abandoned, and 29 square miles were excluded at the settlement of reserves during the year. They include the cancellation of the initial notifications of blocks, covering an area of 41 square miles, referred to in paragraph 1 *supra*. One hundred and thirty-two blocks, with an extent of 652 square miles, were finally-constituted reserved forests during the year, against 136 blocks of 845 square miles in the previous year.

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

	1896-97.		1897-98.	
	Number of blocks.	Area in square miles.	Number of blocks.	Area in square miles.
(1) Notified under section 16 but not constituted reserved forests during the year ..	23	122	34	219
(2) With Board or Government awaiting publication of notification under section 16 ..	92	662	75	595
(3) Returned by the Board for revision and remaining either with Collector, District Forest-officer or Forest Settlement-officer ..	28	669	30	488
Total settled and reported on ..	143	1,453	139	1,302
(4) Settled but not reported on ..	72	970	81	638
(5) Settlement proceeding ..	285	1,607	257	1,887
Total of (4) and (5) ..	357	2,577	338	2,525
Total of (1), (2), (3), (4) and (5) ..	500	4,030	477	3,827

6. A statement, showing the causes of pendency of the blocks not yet constituted reserved forests, is given in appendix B. The small decrease in the number of blocks pending at the close of the year, is partly ascribable to the smaller number notified under section 4 during the year. The increase in the area of the reserves, the settlement of which is proceeding, is commensurate with the decrease in the area finally constituted reserved forests during the year, as compared with that in the previous year. Of the 81 blocks comprising 638 square miles shown as settled but not reported on—

- 19 were awaiting preparation of maps ;
- 6 do. disposal of appeals ;
- 16 do. expiry of time prescribed for appeals ;
- 14 do. payment of compensation or exchange of lands ;
- 8 do. replies to references made to Collector or Board ; and
- 18 were pending submission of final reports by Forest Settlement-officers.

Two hundred and fifty-seven were pending with the Forest Settlement-officers, District Forest-officers and Collectors in various stages of settlement.

7. The results of the settlement operations of the year under report are compared with those of the previous year in the following statement :—

Date.	Finally notified during the year.		Settled and reported on.		Settled but not reported on.		Total.	
	Number.	Area.	Number.	Area.	Number.	Area.	Number.	Area.
1	2	3	4	5	6	7	8	9
30th June 1897 ..	136	SQ. MLS. 845	{ 143 • —4 }	SQ. MLS. 1,453 • —11 }	72	SQ. MLS. 970	347	SQ. MLS. 3,257
30th June 1898 ..	132	652	139	1,302	{ + 81 + —12 }	{ 638 + —19 }	340	2,573

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

† Represents the number and area of the Nilambur leased forests, the settlement of which was suspended in 1896-97.

It will be observed from columns 8 and 9 of the last statement, that, although the number of blocks, in respect of which settlement operations were carried on, was only slightly less than in the previous year, the area involved fell short by 684 square miles. The general outturn of work of the several Settlement officers has been commented upon elsewhere.

In *Ganjām*, six blocks, of more than fourteen years' standing, were gazetted as reserved forests during the year. Eleven remained at the close of the year, and the completion of the settlement of five of these, was delayed for want of sketch-maps. The settlement reports of the six others were pending scrutiny in the Board's office. Every effort will be made to notify within the current year all the pending blocks in the district. No progress was made in the disposal of the four pending blocks in *Vizagapatam*, originally notified in the name of the Divisional-officers. The final report of one of them (*Barnakonda*) awaited perambulation of the boundaries by the Divisional-officer *Vizianagram*. The settlement records of another (*Dharakonda*), which was pending with the Board, have since been returned to the Collector for revision. The cancellation of the initial notification in respect of the Bointi reserve has been recommended to Government. As regards the fourth block (*Kadagandi*), the orders of Government, on the Board's proposal to transfer its settlement to the Special Forest Settlement-officer, have only lately been received. The final notifications of eleven small additions, notified in the name of Mr. Lushington during the previous year, were published in the Gazette during the year. In *Górávari*, three out of the eight blocks, which were pending for more than seven years, were disposed of during the year, and three more were awaiting the preparation of the final reports by the Forest Settlement-officer. The progress in *Kistna*, *Kurnool*, *Cuddapah*, *Nellore*, *Chingleput*, *North Arcot* and *South Arcot* was satisfactory. The two oldest blocks in *Cuddapah* were notified under section 16 during the year, but their reservation only took effect during the current year. In *Nellore* the settlement reports of the long-standing *Sriharikóta* block, have since been submitted to Government and orders thereon received. In *South Arcot* the settlement of all the pending blocks has been completed, and their notifications will be published within the current year. The progress in *Bellary* and *Anantapur* was slow, as the Special Forest Settlement-officer was engaged in other districts. In *Salem* the settlement of the proposed reserves, the retention of which has been sanctioned by Government, is being proceeded with. The progress in the other districts was not quite satisfactory. In *Trichinopoly* only one block was notified during the year, and the settlement reports of eleven others, covering 15 square miles, were received in the Board's office only at the close of the year. In *South Canara* the reservation of the *Charamadi-Kanapadi* block of 20 square miles, pending from the year 1885-86, took effect only from the current year, although the final notification was issued during the year. In addition to this, five blocks of 16 square miles were notified during the year, and the settlement reports of six others were pending with the Board. The short work in the district is ascribed by the Forest Settlement-officer to the inaccuracy of the section 4 forest maps, the inability of Forest officers to keep pace with him in the preparation of section 16 maps, and to the short period (viz., five months), during which the Forest Settlement-officer was at work in the district during the year. In *North Malabar* no blocks were notified during the year. The portions decreed to *Bavothi Haji* in *Peria* and *Kanoth* (two long-standing blocks), were duly excised from these reserves. The submission of the final report for the latter, and for the *Padri* reserve,

is being delayed, pending preparation of sketches, and the admission of certain rights of way. The Peria reserve is reported to be pending the Collector's decision as to the disposal of a piece of land acquired under the Land Acquisition Act as far back as 1887, but now included in the lands decreed to Bavothi Haji. All the leased forests in *South Malabar* await the cancellation of the initial notifications, and the question of the acquisition of certain portions of the Attipady valley proposed reserve, is under the consideration of Government.

8. *Outturn of work by the Special Forest Settlement-officers.*—The work done by the Special Forest Settlement-officers is presented in the following statement:—

ABSTRACT E.—Outturn of work by Special Forest Settlement-officers during 1897–98.

Names of Special Forest Settlement-officers.	Districts.	Issue of proclamation after notification under section 4.		Settlement of claims.		Report after settlement submitted.		Final notification proclaimed.		Cost.
		Number of blocks.	Area.	Number of blocks concerned.	Area.	Number of blocks.	Area.	Number of blocks.	Area.	
1	2	3	4	5	6	7	8	9	10	11
Mr. R. H. L. Lushington.	Ganjām ..	..	sq. m.	14	sq. m.	5	sq. m.	8	sq. m.	Rs.
	Vizagapatam ..	12	8	22	10	10	2	10	2	2,485
	Górávari ..	3	22	6	104	1	4	3	39	2,485
	Kistna ..	..	..	6	14	..	..	..	..	2,485
	Kurnool ..	..	..	4	149	..	..	..	..	1,864
	Total ..	15	30	52	554	16	118	21	133	11,804
Mr. E. A. Smith ..	Kistna ..	24	55	23	62	15	32	18	52	4,640
	Kurnool ..	6	195	4	33	4	25	12	165	469
	Bellary ..	4	6	3	6	3	6	1	15	228
	Anantapur ..	..	..	6	35	6	35	2	13	1,119
	Nellore ..	11	12	21	74	17	59	7	19	5,372
	Total ..	45	268	57	210	45	157	40	264	11,823
M.R.Ry. K. Ganapayya Garo.	Cuddapah ..	13	96	5	47	4	20	9	227	1,831
	North Arcot ..	1	5	5	18	6	29	7	26	2,396
	South Arcot ..	..	..	4	4	2	1	10	23	974
	Salem ..	2	9	4	42	2	10	..	..	2,321
	Chingleput ..	29	13	39	15	23	7	13	7	3,146
	Total ..	45	118	57	126	37	67	39	283	10,670
Mr. F. V. P. Gompertz ..	Trichinopoly ..	..	..	23	45	11	12	1	2	2,473
	Tanjore ..	..	..	..	..	..	..	1	..	2,473
	Madura ..	3	2	..	..	1	..	..	..	2,473
	Coimbatore ..	..	..	10	60	10	11	5	17	2,473
	Tinnevely ..	1	..	10	7	9	6	7	2	2,473
	Total ..	4	2	43	112	31	29	19	26	12,365
Mr. H. S. Mullins ..	Malabar ..	..	..	4	46	4	154	1	..	6,496
	South Canara ..	6	20	20	111	15	155	6	34	6,496
	Total ..	6	20	24	157	19	309	7	34	12,992
Grand Total ..		115	438	233	1,159	148	680	126	740	59,654
In 1896–97 ..		144	511	146	1,234	98	518	99	623	58,222

- * Includes one block of four square miles cancelled during the year.
† Includes one block of four square miles which has since been cancelled.
‡ Excludes the blocks the initial notifications of which were cancelled.
§ Below one square mile.

The total outturn of all the Forest Settlement-officers shows some advance on the preceding year's work, but there is still room for improvement. Mr. Lushington availed himself of privilege leave for one month in September 1897. He proceeded on furlough for one year at the beginning of May 1898, and no successor was appointed.

within the year. His absence on leave contributed to some extent to the short work in the districts under his charge. The blocks which Mr. Gompertz had to visit were more or less scattered and far from one another. Both M.R.Ry. Ganapayya Garu and Mr. Smith did good work during the year. The outturn of the former officer would have been larger, had it not been for his absence on privilege leave throughout the second quarter of the year. The work of the several officers was, as usual, regularly scrutinized in the quarterly reviews of the Board.

9. *Outturn of Forest Settlement work by Revenue Divisional-officers.*—In *Ganjām* none of the three blocks, which were pending with the Senior Assistant Collector, Berhampur, and Principal Assistant Collector, Chicacole, were disposed of during the year, and the causes of their pendency were much the same as those reported last year. The delay in the submission of the reports of the blocks entrusted to Divisional-officers in *Vizagapatam*, has already been explained in paragraph 7 *supra*. On the *Nilgiris* the progress of settlement was insufficient. The Head Assistant Collector, who was the Forest Settlement-officer, was new to the district, and also much occupied with his revenue and magisterial duties. During the year, he was chiefly engaged in the perambulation of the large Wenlock downs reserve. There were pending in the district 33 blocks of 35 square miles at the close of the year.

10. *Selections for further reservation.*—The suit brought by the Zemindar of Kharada, for the possession of the Dokrabadi jungles in the *Ganjām* district, was decided against him just at the close of the year, and the selections in the Agency tracts "Pondokhol" will soon be taken on hand. In *Vizagapatam*, of the areas which it was proposed to reserve in the Agency tracts, the selection of all the blocks, but one, was completed. Selections to the extent of 23 square miles—all extensions to existing reserves—were made during the year in the Ellore range of the *Górávari* district, but await the approval of, and inspection by, the District Forest-officer. The opinion of the Government Pleader, Madras, was obtained during the year, as to the legality of notifying certain proposed selections in the delta range, and the proposals are awaiting demarcation of the lands. Other selections in the same range were also made during the year. A final scheme for further reservation in *Kistna* was formulated during the year, and the sanction of Government to the same has since been accorded. In *Kurnool* a very large number of blocks was selected in Pattikonda, Ramalakota, Nandikotkur, Nandyal and Sirvel taluks, by Messrs. Cox and Lodge, and they have been notified as reserved lands under section 26. In all the taluks, except Koilkuntla, selection was almost complete. Selection in *Bellary* was practically completed, excepting 31 square miles in Bellary, Adóni and Alúr taluks, and 47 square miles in the Kudlighi taluk. A final scheme for reservation in the district, for all the taluks except Bellary, Adóni and Alúr, submitted by the Collector during the year, was considered by the Board, and has since been submitted to Government for approval. In *Anantapur*, selection and reservation, in so far as the fuel and fodder reserves are concerned, have already been completed, but, under the instructions of the Board, the Collector has been asked to submit proposals for the reservation of date-bearing areas on the Mysore border. It is reported that the entire work of selection in *Cuddapah* will be completed during the current year. The progress in *Nellore* was not satisfactory. Although 338 square miles remained at the commencement of the year to be notified under section 4, to complete reservation in the district, only 55 square miles were selected during the year under report. A final scheme of reservation in *Salem* has since the close of the year been submitted to Government for approval. The result of the deliberations by the Collector and the Conservator, has been the proposed abandonment of about 375 square miles, of the selections that have already been made. The Musiri blocks in *Trichinopoly* were received in the Board's office after the close of the year, and are under consideration. The selections in *Coimbatore* are awaiting the receipt of revenue survey maps. The latest estimate of reservation is, as usual, shown in the subjoined abstract. As regards the adequacy of the reservation, the Board has no further remarks to offer, than those already recorded in the report for the previous year. Schemes have been prepared for each district and approved by Government, and with regard to all of these it can be said that the reserved area is either as large as is desirable, or as large as the conditions of the districts permit of.

ABSTRACT F.

District.	Sanctioned estimate of areas for reservation.	Area brought under the Forest Act.	Additional estimated area selected or to be selected.	Total estimate proposed to be reserved.	Percentage of column 5 to the area of Government lands in the district.	Percentage of column 5 to the un-occupied Government lands in the district.
1	2	3	4	5	6	7
	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.		
Ganjām	656	563	85	648	14.60	16.91
Vizagapatam	415	413	..	413	29.97	37.10
Gódvári	997	970	93	1,063	26.73	43.85
Kistna	1,165	1,162	3	1,165	20.74	48.08
Kurnool	2,677	2,670	7	2,677	39.37	56.26
Bellary	462	615	278	893	19.26	45.93
Anantapur	535	512	..	512	11.20	21.30
Cuddapah	2,649	2,400	20	2,420	31.96	44.50
Nellore	1,132	680	338	1,018	25.00	44.06
Chingleput	231	215	..	215	10.49	21.63
North Arcot	(a) ..	1,129	1	1,130	28.93	44.78
South Arcot	835	711	..	711	14.30	28.41
Salem	1,096	1,396	198	1,594	29.56	49.39
Trichinopoly	(a) ..	278	56	324	12.06	31.60
Tanjore	23	18	1	19	0.76	2.68
South Canara	1,011	1,123	..	1,123	28.92	35.09
Malabar	(c) 273	602	16	618	11.10	15.55
The Nilgiris	(b) 411	(b) 393	22	415	43.36	64.04
Coimbatore	(c) 1,812	2,276	37	2,313	31.69	67.31
Madura	(a) ..	613	..	613	18.89	39.29
Tinnevelly	440	424	6	430	12.05	33.68

(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.*—The extent of these lands in each district is shown in Appendix C. In *Kurnool* it is nearly double the figure of last year, and the increase, due to the notification, at the close of the year, of a large number of blocks under the rules under section 26. Notifications under section 4 were, however, published during the year in respect of 134 square miles, and the progress may be considered satisfactory. In *Vizagapatam* the area is composed of 4 blocks. One of these is awaiting demarcation, and the question of reserving another is still under consideration. The notification under section 4 for one block has since been submitted to Government, and that for another is under preparation in the District Forest office. In *Kistna* good progress was made during the year, 31 blocks, of about 100 square miles, having been notified under section 4. The balance is, however, still large, and every effort will be made to clear off the arrears of work in this direction. In *Bellary* about half the area consists of the Sandúru leased forests, and the delay in notifying the rest, is ascribed to the non-receipt of correct statistics of villages from the Tahsildars and Range officers concerned. In *Salem* the Collector has since been directed to submit notifications under section 4 in respect of all the selections which it is now proposed to retain. In *South Canara* notifications under section 4, in respect of only 5 blocks of 19 square miles, were published during the year. The balance that still remains to be notified in this district is large, and it is hoped, that better results will be shown during the current year. The area in the *Nilgiris* consists of the leased forests in South-East Wynaad.

12. *Survey of proposed reserves, and departmental surveys.*—The Damarakadu proposed reserve (9.3 square miles) in *South Arcot*, the Nandyal extension I and the Eastern Nallamalai block (62 square miles) in *Kurnool*, and the Shelur, Mavar and Pattimedu extension proposed reserves (35 square miles) in *Salem*, were surveyed by the Survey of India Party. In the last-mentioned district part of the Kavuramalai reserve land was also surveyed by that Party.

Departmentally a staff of temporary surveyors and draughtsmen was also employed, in connection with the survey and mapping of proposed reserves and boundaries. In the *Northern Circle* 218 miles were thus surveyed and mapped departmentally in *Ganjām*, and the boundaries of two other reserves, for which there were only inaccurate enlargements from the one-inch scale, were also surveyed. In *Gódvári* the work consisted of the survey of 277 miles, and in *Kistna* of the survey and mapping of one reserve covering 20 square miles and 40 square miles of proposed reserves. In

Kurnool the surveyor continued to survey the enclosures of the Eastern Nallamalai blocks. Two reserves and one proposed reserve were also surveyed. In the *Central Circle* the departmental survey was confined to the *Salem district*. It consisted of the survey of lands comprised in five leases for coffee plantations on the Shevaroy Hills, and of the enclosures in certain reserves in three taluks. In the *Southern Circle* there were two departmental surveyors at work in *South Canara*, besides another whose services were placed at the disposal of the Forest Settlement-officer for survey and correction of boundaries. The work done by the former consisted of the survey of 147 miles of survey with chain and compass, and the demarcation of twelve blocks and preparing maps thereof. In *North Malabar* the services of a departmental surveyor were placed at the disposal of the Special Forest Settlement-officer, for the purposes of surveying and demarcating the portion of the hills in *Periya* and *Kanoth* adjudged by the High Court to *Bavoti Hadji*. The surveyor was also engaged in surveying the enclosures in the *Kanoth* and *Kanoth extension* proposed reserves, and the length of boundary line surveyed was about 37 miles. In *Tinnevelly* a district surveyor was engaged in surveying a coffee estate which forms an enclosure to the *Nángunéri* reserve.

The draughtsmen employed in all the circles were, as usual, engaged in preparing sketch-maps to accompany proposals for further reservation, and in posting and maintaining the maps prescribed in the Forest Code. The outturn of their work in this direction was generally satisfactory. Particulars of information, showing the progress of work in this direction, are given in appendix D.

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

PRELIMINARY demarcation work.

	During 1896-97.			During 1897-98.		
	Miles.	Cost.	Average cost per mile.	Miles.	Cost.	Average cost per mile.
1	2	3	4	5	6	7
<i>Northern Circle.</i>						
Ganjām	161	Rs. 535	Rs. A. P. 3 5 2	8	Rs. 20	Rs. A. P. 2 8 0
Vizagapatam	44	178	4 0 9	17	88	5 2 10
Gódvári	244	{ 897	{ 5 6 10	179	{ 1,034	{ 7 4 11
Kistna	{ 217	{ 527	{ 2 13 4	{ 217	{ 608	{ 2 12 11
Kurnool	{ (b) 38	{ (b) 196	{ ..	{ (b) 52	{ (b) 147	{ ..
Bellary	479	603	1 4 2	154	362	2 6 7
Anantapur	..	..	..	..	..	..
Total, Northern Circle ..	1,183	3,364	2 13 6	659	3,069	4 10 6
<i>Central Circle.</i>						
Cuddapah	179	{ 379	{ 4 3 1	{ 69	{ 206	{ 2 9 7
Nellore	37	{ (c) 381	{ 0 15 7	{ (b) 45	{ (b) 90	{ 3 4 11
Chingleput	29	111	3 13 3	133	440	3 3 11
North Arcot	12	35	2 14 8	..	..	..
South do.	6	11	1 13 4	10	14	1 6 5
Salem	1	8	8 0 0	6	46	7 10 8
Trichinopoly	..	..	..	..	..	..
Tanjore	..	..	..	..	..	..
Total, Central Circle ..	264	961	3 10 3	300	916	3 0 10
<i>Southern Circle.</i>						
South Canara	51	39	0 10 6	366	94	0 4 1
North Malabar	5	33	6 9 7	39	235	6 0 5
South do.	..	..	..	5	76	15 3 2
The Nilgiris	120	{ 763	{ 8 11 9	75	537	7 2 7
North Coimbatore	36	{ 285	{ 15 10 8	12	136	11 5 4
South do.	..	{ 564	{ ..	..	17	..
Madura	..	..	..	..	..	..
Tinnevelly	12	28	2 5 4	..	..	..
Total, Southern Circle ..	224	1,712	7 10 3	497	1,095	2 3 3
Grand Total ..	1,671	6,037	3 9 10	1,456	5,080	3 7 10

(a) Cost of erecting cairns.

(b) Repairs.

(c) Half the pay of the establishment employed on demarcation work, the other half being debited to permanent demarcation.

As explained in the report for 1896-97, the absence of work in some districts, and the short work in certain others, are accounted for by the fact that reservation therein has either been practically completed, or that the outturn was commensurate with the selected areas on hand. The work turned out in *Kistna* might have been larger, but considering that the areas remaining to be demarcated, lie in unsurveyed tracts, and have first to be surveyed by departmental surveyors, the outturn may be regarded as satisfactory. The increase in the number of miles demarcated in *Nellore* and *South Canara*, where large areas remained to be notified under section 4, is satisfactory.

As regards the average cost, the high rate in *Vizagapatam* is due to the erection of permanent cairns in the preliminary stage, in respect of blocks which have been inspected by the Forest Settlement-officer, and the boundaries of which are not likely to be altered. In *Kistna* the heavy growth that had to be cleared, and the planting of prickly-pear for 29 miles, at Rs. 8 per mile, on the boundary lines of three reserves, account for the increase. The increase in *Nellore* has not been explained, but that in *South Malabar* was due to the difficulty of the work, and inaccessibility of the forest demarcated. The rate in *Trichinopoly* is still high, and it is explained that the line cleared contained a dense growth of prickly-pear.

The reference from the Government, contained in G.O., No. 495, Revenue, dated 29th August 1898, calling for information, as to the "general utility of the preliminary demarcation when the permanent demarcation is effected", was received too late for obtaining reports from the different districts. It may be here, however, pointed out, that preliminary demarcation is indispensable for the purpose of defining reserve limits, as notified under section 4. The preliminary demarcation varies from very complete work in some parts, to the mere temporary marking of the line in others. It may be said generally, that the more substantial, or permanent demarcation, which follows the settlement notification under section 16, is, in the majority of cases, the preliminary demarcation *improved*—in which most of the preliminary expenditure is utilized.

(iii) Demarcation.

14. The system of permanent demarcation has been the same as in previous years. Form No. 46 exhibits the outturn of work under this head, as well as the expenditure incurred under new works and repairs.

The following statement shows the length of boundary lines permanently demarcated during the year as compared with the results of the previous year:—

ABSTRACT G.—Demarcation Work done during 1897-98.

Districts.	Permanent.				Re-clearing old lines, &c.			
	During 1896-97.		During 1897-98.		During 1896-97.		During 1897-98.	
	Miles.	Cost.	Average cost per mile.	Miles.	Miles.	Cost.	Miles.	Cost.
1	2	3	4	5	6	7	8	9
<i>Northern Circle.</i>								
Ganjam ..	30	808	Rs. A. P. 26 14 11	53	349	6 9 4	187	560
Vizagapatam ..	13	330	25 6 2	74	1,891	25 8 10	..	136
Goddavari ..	79	474	6 0 0	108	(a) 701	6 7 10	313	(b) 330
Kistna ..	125	2,184	17 7 6	78	(a) 1,645	21 1 5	49	(d) 1,202
Kurnool ..	75	2,391	31 14 1	85	3,133	36 13 9	414	(d) 184
Bellary ..	125	651	5 3 4	187	1,190	6 5 9	150	(b) 429
Anantapur ..	62	200	3 3 7	10	(c) 44	3 4 10	37	(c) 376
Total ..	509	7,038	13 13 3	595	8,986	15 1 8	1,150	4,022
<i>Central Circle.</i>								
Ududaph ..	165	1,385	8 6 3	437	3,160	7 3 8	..	12
Nellore ..	46	542	11 12 6	206	(a) 1,446	7 0 4	6	25
Chingleput ..	44	1,616	36 11 7	78	(a) 1,570	20 2 0	2	572
North Arcot ..	27	339	12 8 10	116	1,386	11 15 0	584	1,760
South Arcot ..	187	2,972	15 14 3	154	2,518	16 5 7	24	61
Salem ..	90	351	3 14 5	21	51	2 6 10	468	946
Trichinopoly ..	70	376	5 6 0	9	51	5 10 8	21	565
Tanjore ..	..	..	..	..	..	..	222	156
Total ..	629	7,581	12 0 10	1,021	10,181	9 15 7	1,327	4,097
<i>Southern Circle.</i>								
South Canara ..	133	1,202	9 0 7	259	1,442	5 9 1	..	430
North Malabar ..	..	..	..	18	199	11 0 11	76	488
South Malabar ..	1	49	49 0 0	..	..	..	18	154
The Nilgiris ..	37	411	11 1 8	3	21	7 0 0	201	1,088
North Coimbatore ..	24	313	13 0 8	43	975	22 10 9	213	2,864
South Coimbatore ..	..	..	..	..	..	..	36	639
Madura ..	..	..	..	..	..	..	..	3
Tinnevely ..	43	127	2 15 3	21	227	10 12 11	5	180
Total ..	238	2,102	8 13 4	344	2,864	8 5 3	549	6,247
Grand Total ..	1,376	16,721	12 2 5	1,960	22,031	11 3 10	2,390	14,366
				(c) + 4	(c) 636		(c) 2,093	(c) + 711
							697	4,581
								10,609

(a) Include cost of erecting cairns, &c.
(b) Cost of temporary establishments.
(c) Includes half the pay and allowances of temporary establishment, the other half being debited to Preliminary demarcation.
(d) Cost of demarcation of enclosures in 18 reserves.
(e) Includes rectifying 53 miles of demarcation.
(f) Rectification of demarcation previously done.

In several districts considerable progress has been made on permanent demarcation, and in most cases the work done was commensurate with the requirements. In *Kistna* the outturn was short, as the question of introducing stone slabs, in lieu of cairns, was under consideration. In *Kurnool* the work consisted of cutting the district and taluk boundaries on the ridges of the Nallamalai Hills, and of clearing the boundaries of some reserves. The cutting of the district boundary between Kurnool and Cuddapah, and the taluk boundary between Cumbum and Nandyal, was completed, and that of the taluk boundary between Nandikotkur and Markapur was in progress. In *Anantapur* demarcation of all the finally-notified reserves was, with one exception, completed. The demarcation of the Malayali settlements on the Javadi Hills in *North Arcot* could not be undertaken during the year, owing to the non-receipt of some sheets of the Survey of India map of the blocks in question. The length of boundaries newly demarcated consisted mainly of new lines cut for the rectification of existing boundaries. The short work in *Salem* was, as stated last year, due to the postponement of operations pending decision on the question of notifying under section 16, certain blocks, the settlement of which was completed. Demarcation in *Tanjore*, *South Malabar*, *South Coimbatore*, and *Madura* is practically complete.

Compared with the cost of the preceding year, there was a marked decrease in *Ganjām*, and an increase in *Kistna*, *Kurnool* and *North Coimbatore*. The decrease in *Ganjām* is explained by the fact, that, during the year under report, the work consisted merely of widening an already cut boundary on the plains, whereas the figures of the previous year included about twenty miles of Maliah boundary cut through very heavy jungle, and at enhanced rates of labour. The increased rate in *Kistna* is ascribed to the thick jungle through which the lines had to be cleared, and to the eradication of stumps. The difficulty of procuring labour on the Nallamalais, and the consequent expensive nature of the work of line cutting therein, has enhanced the rate in *Kurnool*. No explanation has been furnished for the high rate in *North Coimbatore*. The rate in *Vizagapatam* still continues high. The Collector explains that it is difficult to estimate the cost per mile, as, in some cases, cairns have not been erected where the settlement of the extension to a block is pending, and in others the actual distance demarcated is not actually known.

The total expenditure on permanent demarcation inclusive of re-clearing old lines amounted to Rs. 32,640.

(iv) Surveys.

15. The combined Parties Nos. 9 and 19, Survey of India, commenced field work between the first week of September, and the last week of October 1897. The work during the year under report was confined to five districts, and the year's outturn is shown in the following statement:—

Districts.	Triangulation.	Traversing.	Topography.	
			Total.	Reserved forests.
	SQ. MLS.	L. MLS.	SQ. MLS.	SQ. MLS.
Kurnool	720	79	214	214
Cuddapah	900	219	..	..
South Arcot	..	74	170	161
Salem	..	53	368	366
Coimbatore	1,711	287	300	300
Total	3,331	712	1,050	1,041
Total for the preceding year ..	2,450	1,252	1,147	811

The short work under topography and traversing, as compared with the preceding year's outturn, was compensated by the larger amount of work done under triangulation. Seven sheets of forest maps relating to Salem have been kept back from publication, pending corrections. The District Forest-officers, Salem, South Arcot, Kurnool and Coimbatore, visited the Survey office at Bangalore, between April and July 1898; for the purpose of verifying the maps; all omissions were supplied, and corrections made as far as possible.

The actual expenditure, inclusive of cost of instruments, amounted to Rupees 1,44,960-8-9 for the financial year, and Rs. 1,29,293-7-6 for the survey year ending 31st August 1898. The rate per square mile for topography rose from Rs. 84 to Rs. 119, and the increase is ascribed to the difficult nature of the ground, and the grant of extra travelling allowances, as explained in the report for the previous year. The topography in Kurnool and Coimbatore was of exceedingly difficult ground, and it is reported that the section employed in the former district was paralyzed with sickness from the start. The officer in charge writes thus: "Two officers were incapacitated by illness more than once, and had to leave their duty in the field. One sub-surveyor died, and several men were invalided for periods of varying length, and there was hardly a man who escaped fever altogether." The year's operations may, on the whole, be considered satisfactory.

The total cost of the combined parties, after deduction of the Government of India contribution as adjusted by the Accountant-General, amounted to Rs. 1,00,507 against Rs. 82,638 in the previous year. The strength of the party, it is reported, has since been reduced by two Extra Assistant Superintendents and one Sub-Assistant Superintendent. This arrangement will, it is believed, effect a reduction in the cost during the current year.

The area of reserved forests, for which final maps have been prepared up to 30th June 1898, amounts to 7,509 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.

16. No working plans have as yet been framed for the forests in *Ganjām*, *Vizagapatam* and *Kurnool*. In the first-named district, however, a record of girth of sal trees in selected plots of one-fourth of an acre was kept, and information showing the figures of yield for each reserve collected. In *Kurnool* attempts are being made to place the improvement fellings at Chalamam on a more systematic basis. The provisions of the plan for the Upputeru reserve in *Gódvári* were adhered to, while those of the Narasapur plantation were somewhat deviated from, owing to the demand from the Public Works Department. Steps are being taken for the preparation of plans for the Bendamurlanka plantation and the Kandikuppa reserve, and for rotation fellings in the reserves near Yeleswaram. In *Kistna* a rough working plan was approved by the Conservator for the working of timber in the Bollapalle and Gangalakunta reserves, comprising an area of 88 square miles. The former reserve was divided into six compartments of 32 coupes, and the latter into twelve compartments of 35 coupes. The scheme in respect of Bollapalle was brought into force, but that relating to the Gangalakunta reserve required revision. The provisions of the working plan for the Guntur babul (*Acacia arabica*) and the Gopuvanipalam casuarina plantation working-circles were adhered to. In the report for 1896-97 it was stated that the growth of casuarina in the Gopuvanipalem working circle was unequal, and fellings in selected plots of equal size were experimented on in different months to ascertain the influence of the season of felling upon the coppice. The result has been that coppice does not suit casuarina. The provisions of the working plan for the eastern slopes of the Ramandrug range, in the *Bellary* district, were not carried out during the year. There was no demand for the Sanduru fuel and timber, owing to famine, which continued till November. In *Anantapur* the working plan for the Khojipalle reserve has been in abeyance, on account of the impracticability of carrying out its provisions.

CENTRAL CIRCLE

In *Cuddapah* the provisions of Balapalle working plan were adhered to. Fifty-five acres were cut over, and yielded an outturn of 3 tons engine fuel, and about 3½ tons brushwood per acre. The Surveyapalle reserve in *Nellore* was worked in accordance with the working plan, but the plan for the Rapur Yerrakondas had to be held

in abeyance, the coupe lines not having been cut. Working plans for the Nellore, Kavali, Kottapalli, Dugadodi and Vavveru reserves were approved by the Conservator during the year. In *South Arcot* the provisions of the preliminary working schemes for the Anamalai reserved forest in the Tiruvannamalai range, the casuarina plantations in Talankodu and Shanankuppam comprised in the working-circle A, and Donidorai (N. and S.) and Nochikadu comprised in the working-circle B, Cuddalore range, were carried out. The financial results in the case of the first-named reserve were favourable, while those in respect of the others were not satisfactory, owing to slackness of demand. Simple working plans, based upon area, exist for 28 blocks, but over half of them were left unworked for want of demand. The Morur block in *Salem* was worked in accordance with the working plan. In *Trichinopoly* the provisions of the working schemes for the Cauvery south bank plantations, and the Udaiyarpalaiyam cassan (*Memecylon edule*) reserves, were closely adhered to. Those of the preliminary working plan for the Manappara hill reserved forest were deviated from, owing to an error in fixing the size of coupes, and the matter is under correspondence between the Collector and the Conservator. The Tirumulavásal casuarina plantations in *Tanjore* were worked in accordance with the provisions of the working plan. Plans were prepared for certain reserves in the Tanjore taluk, but owing to the poorness of the growth, the question whether it is advisable instead, to close the blocks for some time, is under consideration.

SOUTHERN CIRCLE.

In *North Malabar* no regular working plans were prepared, but selection fellings were continued, and information showing yield was registered. In *South Malabar* the operations in the Nilambur teak plantations, and the new Amarampalem forest, were conducted in accordance with the working plan. The Walayar forest continued to remain unworked, as it was considered desirable to give it rest, but purchasers were allowed to fell and remove bamboos from the coupes already worked. The Chenat Nair reserve was worked under a rough plan, on the selection system. During the year under report the Inspector-General of Forests to the Government of India inspected the Nilambur teak plantations, and forwarded certain suggestions on the working plan prepared for these plantations by Mr. P. M. Lushington. Mr. Ribbentrop's suggestions dealt with the following points:—

- The classification of soils, and the preparation of a soil map.
- The advisability of cutting down some of the most inferior teak stock, and replanting the areas with mahogany and other soil-improving species in mixture.
- The continuance of experiments in planting mahogany either pure, or in mixture with trees less antagonistic to their growth than teak.
- The doubtful utility of extracting healthy teak trees in vigorous growth, to secure uniformity of age in the several blocks.
- The discontinuance of the practice of clearing the undergrowth.
- The evils attending on the conduct of thinning operations on a too severe and uniform scale.
- The extension of the annual planting operations over as large an area of suitable soil as means will permit.
- The continuance of experiments in growing rubber-yielding plants, till the most suitable tree is found which will grow in localities not required for the extension of teak plantation.

The above points were referred to the Acting Conservator, Mr. Brasier, who submitted his recommendations, which generally agreed with those of the Inspector-General. The Board, in its Proceedings, Forest No. 282, dated 12th July 1898, approved of these recommendations. In the *Nilgiris* the working plan, drawn up by Mr. Tireman for the Ootacamund plantations, remained in abeyance, owing to absence of demand. Work was carried on both there and at Coonoor, in accordance with Mr. Gamble's preliminary plan. In Mudumalai an attempt was made to carry out Mr. Popert's suggestions for felling and removing large teak trees 6 feet and more in girth, and crooked hollow and unsound trees, in the leased forests, but the results were not satisfactory, owing to the illness of the ranger. In the report for 1896-97 it was

stated that in *North Coimbatore* a regular working plan, for the experimental treatment of a portion of the Vellamundi reserve (Thottampalayam working circle), was approved, and that the main feature of the plan consisted in the restocking of blanks by sowings of various species, with the castor-oil plant as a nurse. There were operations on these lines during the year, but the result was a failure, owing to want of rain. The collection of sandalwood was carried out in the coupes selected by the District Forest-officer in the several ranges, and the results were on the whole satisfactory, notably in Satyamangalam, coupe No. II. In *South Coimbatore* the Sholakarai working circle was given a rest, as the rotation proved too short. The whole scheme has to be revised, and an additional area brought under the provisions of the next working plan. The Chinnar working scheme was approved by the Board in February 1898, but it was not found possible to work one of the coupes within the year. Coupe No. II in the Aiyarangel working scheme was cut over departmentally with good results. The sowing and planting operations in Singaratope working circle, conducted for securing the introduction of more valuable species, were again a complete failure. There are no sanctioned working plans in *Madura*. Plans for the forests in Palamedu and Kanavoi-patti ranges are expected to be ready shortly. In *Tinnevely* three working plans were approved during the year, so that, at the close of the year, there were twelve working coupes in which fellings were systematically carried out. The results of the several coupes worked over in the various working circles of Tinnevely are shown below:—

Name of coupe.	Area in acres.	Extent worked.	Outturn.		Cost of felling establishment, &c.	Net profit.	Net profit per acre.	Net profit per acre per annum.	Remarks.
			Quantity.	Value.					
Rangarcovil W. C., compartment A, coupe No. II.	56	56	Timber, 39 c. ft. Firewood, 161 tons.	140	8	132	2 5 10	0 1 11	....
Rangarcovil W. C., compartment B, coupe No. II.	56	56	Firewood, 91 tons.	59	8	51	0 14 8	0 0 9	....
Valaikulam, coupe No. II.	56	56	Timber, 51 c. ft. Charcoal, 2 tons. Firewood, 320 tons.	630	5	625	11 2 7	0 8 11	....
Aiyararcovil W. C., compartment A, coupe No. I.	280	280	Timber, 5,090 c. ft. Charcoal, 335 tons. Firewood, 411 tons.	839 1,593 317	119	2,630	9 6 3	0 7 6	Mostly worked in 1896-97, but completed during the year. Not shown in last year's report; therefore included here.
Aiyararcovil W. C., compartment A, coupe No. II.	270	270	Timber 4,633 c. ft. Charcoal, 318 tons. Firewood, 160 tons.	1,361 1,375 351	187	2,900	10 11 11	0 8 7	....
Panniamudukuteri, compartment A, coupe No. I.	74.50	74.50	Timber, 1,142 c. ft. Charcoal, 202 tons. Firewood, 1,132 tons.	235 1,099 1,436	270	2,500	33 8 11	1 10 10	....
Courtallam W. C., coupe No. I.	239	102.25	Timber, 393 c. ft. Charcoal, 299 tons. Firewood, 185 tons. Bamboos, 256 c. ft.	83 1,569 122 32	277	1,529	14 15 3	0 12 0	Contractor was very slow and did not complete the coupe.
Koilteri W. C., coupe No. I.	100	100	Timber, 162 c. ft. Charcoal, 293 tons.	36 1,537	182	1,391	13 14 7	0 11 2	....
Kalakad W. C., coupe No. II.	157	157	Timber, 1,018 c. ft. Charcoal, 137 tons. Firewood, 469 tons.	157 565 512	173	1,061	6 12 2	0 5 5	....
Padarmalai, coupe No. IV.	75	75	Timber, 220 c. ft. Charcoal, 3 ton. Firewood, 855 tons.	93 10 3,058	1,499	1,662	22 2 6	1 1 9	Worked departmentally.
Do. do.	60	60	....	1,080	..	..	..	..	Worked on contract. Not yet completed.

The results obtained were on the whole satisfactory, notably those from the Panniamudukuteri, compartment A, coupe No. I. The coupe in the Padarmalai working circle, which was worked departmentally, yielded a better return than the coupe similarly worked in 1896-97, owing to better supervision.

(b) Annual Plans of Operations.

17. In the *Northern Circle* the plans of operations were, with only a few exceptions, adhered to in *Ganjam*, *Kistna* and *Anantapur*. In *Vizagapatam* the plan was deviated from; departmental operations for working timber and fuel were not complete, and construction of roads and buildings was deferred for further consideration. In *Gódvári* the construction of several proposed roads and buildings was deferred in favour of other urgent works. In *Kurnool* the chief alterations were the postponement of the construction of certain roads and buildings, owing to the necessity of first completing the previous year's works, and the delay in preparing estimates. There were some alterations in *Bellary*. Drought interfered with the plan for the *Sandúru* forests, and with the sowing and planting operations. The Commissariat Department required no grass, and the allotment on buildings and roads was not spent, as works, other than emergent, were stopped. In the *Central Circle* the plans of operations were fairly followed in *Chingleput*, *North Arcot*, *Trichinopoly* and *Tanjore*. In *Cuddapah* the bamboos in the *Balapalle* working circle were leased out, instead of being cut departmentally. One proposed road was deferred, and the departmental collection of small timber in *Badvel* abandoned, for want of men to supervise. In *South Arcot* the departmental felling of timber, and the construction of certain road and demarcation works, had to be deferred, in view of the general orders regarding curtailment of expenditure. In the *Southern Circle* the plan was mostly adhered to in *South Canara*, *North* and *South Malabar*, *Madura* and *Tinnevely*. In the *Nilgiris* the programme for the cutting of timber and fuel was not followed for want of demand, and the construction of some buildings, not previously proposed, became necessary. There were some variations in *North Coimbatore*. It was found advisable to extend operations connected with bamboo fellings, owing to brisk demand, and to undertake again the collection of minor produce departmentally, in lieu of leasing it out to contractors. Certain inspection paths and buildings were postponed, as funds were required for payment of a portion of work executed in the previous year. In *South Coimbatore* certain special works at *Mount Stuart*, in connection with the setting up of sawing machinery, a pump, and a wire ropeway, for which funds were required, necessitated alterations. The subject has not been dealt with in the reports from *Nellore* and *Salem* in the *Central Circle*.

(2) WORKING OF THE YEAR.

(a) Communications and Buildings.

18. The following statement shows the outlay incurred on communications and buildings during the year under report, as compared with the previous year:—

	1896-97.	1897-98.
	RS.	RS.
Roads and bridges	47,268	33,689
Buildings	48,342	44,205
Other works	4,223	5,783

There was a decrease in the expenditure under "Roads and bridges" and "Buildings," and an increase under "Other works." The decrease is due generally to the orders of the Government requiring curtailment of expenditure.

The expenditure on roads amounted to Rs. 11,649 in the *Northern Circle*. A large portion of this was incurred in *Kistna*, *Gódvári* and *Kurnool*. Forty miles of new roads in *Kistna*, and six miles in *Gódvári*, were constructed at a cost of Rs. 6,219 and Rs. 1,895, respectively. In *Kurnool* four miles of new road were constructed from *Gazulapalli* to *Basvapuram*, at a cost of Rs. 1,504.

In the *Central Circle* the amount expended on roads was Rs. 7,010, chiefly in *Cuddapah* and *Salem*. In the former district, the construction of two miles of the *Pedarallasagudu* road was continued, and a sum of Rs. 3,160 was spent. The work in *Salem* consisted of two new roads, at a cost of Rs. 1,843.

In the *Southern Circle* there was an expenditure of Rs. 15,030 on roads. The districts in which the expenditure is most noticeable, are the *Nilgiris*, *Coimbatore (North)* and *Tinnevely*. The chief work in the first-named district consisted of repairs, and a small amount was spent in opening a portion of the *Benne Mukatti* road, and a small

road to a new forest station. In *Coimbatore (North)* the sum of Rs. 1,974, shown in F. No. 49 as incurred on new works, represents the amount paid during the year for the work done to the *Gundila* valley road in the previous year. Two important roads were repaired during the year, at a cost of Rs. 2,308. In *Tinnevely* the new *Pápanásam* road was completed during the year, as also the construction of the bridge on it, alluded to in the report for last year. Two other necessary roads, not provided for in the budget, were also constructed.

Under "Buildings" the most important new work in the *Northern Circle*, was the construction in *Kistna* of six Range camps, and the completion of another left over from the previous year. A large outlay was incurred in executing repairs to the existing buildings in this district, and to the *Nandyal* range and head-quarter bungalows in *Kurnool*. The expenditure on new buildings in the *Central Circle* was chiefly confined to *Chingleput* where a rest-house, a forest guard's hut, and a tanna shed, were constructed during the year. Sundry repairs were also made to the existing buildings. In the *Southern Circle* several new works were executed in *South Malabar*, the *Nilgiris*, and *Coimbatore (North and South)*. In *South Malabar*, quarters for the *Nilambur* Range officer and Foresters were completed, and those for the *Amarampalam* Range officer constructed at *Mandankoduru*. In the *Nilgiris* the *Benne* station was reconstructed, and an inspection lodge at *Susigundy* built, besides certain forest buildings at *Kallar*. The new works in *North Coimbatore* consisted of the commencement of the *Tamarakarai* bungalow, and the completion of two out-houses, besides some minor buildings and repairs to the existing ones. The reconstruction of the Foresters' quarters at *Anaipadi*, and the completion of the saw-mill building, and the tram line to the workshop, formed the principal items of new works in *South Coimbatore*. The large outlay under "Other works" in this division was due to the special works connected with the setting up of machinery. In *Tinnevely*, besides repairs to existing buildings, a depot-keeper's house, a kitchen, and a certain sundry works, were constructed.

19. *Tramways*.—In the review on the report for the previous year, the Government directed the Board to consider whether a more satisfactory way of estimating the usefulness of these tramways could not be devised, and the Conservators, *Central* and *Southern Circles*, were accordingly requested to report upon the point, after communicating with the Collectors of *Coimbatore*, *Nellore*, and *Cuddapah*. This report has not yet reached the Board, and the suggestion of the Government of India, that the real value of the tramway would seem to be represented by the net profit realized from the sale of the otherwise unexploitable wood, was received too late to allow of enquiries, during the year under report, as to whether there were any objections to the adoption of this suggestion. Under these circumstances, the tramway statements, appended to this report, have been prepared on the same lines as those adopted in the report for the previous year. In the *Sríharikóta* Range in the *Nellore* district, the tramway was worked a distance of $5\frac{3}{4}$ miles, against $2\frac{1}{2}$ miles, and the number of tons of fuel carried was slightly larger than in the previous year. In the *casuarina* plantation range 1,705½ tons were carried over a distance of 4 miles, against 1,099 tons in the preceding year. The Collector of *Nellore* reports that it is impossible to procure carts, that the estimate of the cost of conveyance by carts, reported on in previous years, was based on imaginary data, and that actual experiments by cooly labour were made during the year under report. These points will be considered separately, for the reasons already explained. In *Cuddapah* the loss was greater than usual, owing to the shorter haulage, and to the smaller quantity of wood removed during the year. The Collector is, however, doubtful if the tramway will ever pay at *Balapalle* (the locality in which it is now laid), as the fuel to be trucked annually, is limited to the outturn of two compartments of the *Balapalle* working circle. It is evident that a tram line, which involves heavy outlay, will only be profitable, when a very large amount of work is done.

In *South Coimbatore* the number of miles worked was $5\frac{1}{2}$, against $4\frac{1}{2}$ in the previous year, a branch tram line of about $6\frac{1}{2}$ furlongs having been extended to the saw-mill. The quantity trammed was 40,880 cubic feet of timber, or 15,859 cubic feet less than in the previous year. The smaller quantity trucked, was due to the retention in forest depots of some of the timber, to secure seasoned wood for the saw-mill. The difficulties in connection with the tramping, alluded to in the report for the last year,

continued also during the year under report, and the contractor refused to undertake the tramming without a considerable increase in rates. It is, however, noted that arrangements are being made to work the tramway departmentally. The smaller loss during the year was due to the greater length of tram distance worked.

(b) *Protection of Forests from Injury.*

(1) GENERAL PROTECTION AND BREACHES OF FOREST LAWS.

20. The particulars of cases relating to prosecutions for breaches of Forest laws during the year under report, and the preceding year, are summarised in the following statement:—

Circle.	Year.	Number of cases pending at commencement of the 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	1896-97	567	33	2,268	913	398	3,612	4,179	710
	1897-98	710	17	2,672	1,384	369	4,442	5,152	666
	Difference	+ 143	- 16	+ 404	+ 471	- 29	+ 830	+ 973	- 45
Central	1896-97	595	22	2,629	2,745	209	5,596	6,191	682
	1897-98	682	53	3,710	3,825	377	7,965	8,647	1,054
	Difference	+ 87	+ 31	+ 1,081	+ 1,080	+ 177	+ 2,369	+ 2,456	+ 372
Southern	1896-97	418	43	1,050	814	523	2,430	2,848	384
	1897-98	384	42	1,525	762	257	2,586	2,970	462
	Difference	- 34	- 1	+ 475	- 52	- 266	+ 156	+ 122	+ 78
Presidency	1896-97	1,580	98	5,947	4,472	1,121	11,638	13,218	1,776
	1897-98	1,776	112	7,907	5,971	1,003	14,993	16,769	2,181
	Difference	+ 196	+ 14	+ 1,960	+ 1,499	- 118	+ 3,355	+ 3,551	+ 405

* Petty offences in South Canara let off with a warning have not been included.

Taking the Presidency as a whole, there was an increase under every head except "Other offences" and the total number of new cases during the year increased by 28.8 per cent. As regards the circles individually, there was an increase of 22.9 per cent. in the *Northern Circle*, 42.3 per cent. in the *Central Circle*, and 6.4 per cent. in the *Southern Circle*.

The number of cases of injury by fire diminished in the *Northern Circle*. The decrease occurred in the districts of *Gódvári*, *Kistna*, *Bellary* and *Anantapur*. In the *Central Circle* there was an increase of 31 cases, of which 25 were in *South Arcot* alone. The number of cases in the *Southern Circle* was the same as in the preceding year, the decrease in *Madura*, *Tinnevely* and *South Canara* being counterbalanced by the increase in the other districts, chiefly *South Coimbatore*, where there were no cases reported in the preceding year. The increase under "Unauthorized felling" was spread over all the circles. In the *Northern Circle* the increase in *Ganjám*, *Kurnool* and *Anantapur* was due to better supervision, and increased vigilance on the part of the subordinates, and in the first two districts also, to increased staff consequent on the reorganization of the subordinate establishment. The distress that prevailed in *Kistna* is given as the chief cause for the increase in that district. In *Vizagapatam* the number of cases under this head increased largely (48.6 per cent.), but the increase has not been accounted for. There was a falling off in the number of cases in *Bellary* (22.6 per cent.), the season having changed for the better, which reduced the temptation to cut firewood for sale without permits. In the *Central Circle* there was an increase in all the districts, notably in *Cuddapah*, *Nellore*, *Trichinopoly* and *Salem*. In *Cuddapah* the number of cases were 537, against 247 in the preceding year. There was much illicit removal of fuel from unreserved lands during the sugarcane boiling season, and also of red-sanders timber. In many cases a license for one or two cart-loads of fuel was taken out, and a large quantity in excess was cut. In *Nellore*, *Trichinopoly* and *Salem* there was an increase of 63, 60.7 and 50.6 per cent., respectively. In *Nellore* many of the cases were petty ones. In *Trichinopoly* the increase

was the result of the prohibition imposed during the year on the removal of manure leaves from the Pachamalai reserved forest, and in *Salem* chiefly to prolonged drought. As in the previous year, the increase in *South Arcot* is ascribed to better detection of offences, chiefly in unreserved lands. In the *Southern Circle* the increase in *North* and *South Coimbatore* was due to better detection, and in the southern division, partly to the introduction of the timber transit rules.

In *Tinnevely* and *South Malabar*, many of the cases were of a petty nature. Under "grazing without permission" the number of cases increased by about 51 and 39 per cent. in the *Northern* and *Central Circles*, and diminished slightly in the *Southern Circle*. In *Vizagapatam* and *Gódvári* the number of cases reported on was 120 and 205, against 50 and 31 in the previous year. In the first-mentioned district the increase has not been explained. In *Gódvári*, as well as in *Kurnool*, it was due to better supervision, while in *Kistna*, *Cuddapah*, *Nellore* and *Salem* to the continuance of the drought that prevailed last year, and in *Anantapur*, *North* and *South Arcot* to illicit browsing of goats. It is reported that in *Anantapur*, on payment being enforced, the people evaded taking out permits, preferring the risk of detection. In *South Arcot* alone there was an increase of 655 cases. The enhanced pound fees sanctioned for the Tiruvannamalai taluk was enforced during the year, but it is too soon to form an opinion on the effect produced. The old rate of one anna prevailed during the first 2½ months of the year, when 7,795 goats were impounded in 58 cases, and during the rest of the year, when the increased rate of four annas was in force, 11,963 goats were impounded in 149 cases. The total amount paid by owners was Rs. 3,478 as pound-fees, Rs. 3,940 as compensation, and Rs. 711 as fines.

"Other offences" decreased in the *Northern* and *Southern Circles*, notably in the latter, and increased in the *Central Circle*. The decrease occurred principally in *Gódvári* and *Bellary* in the *Northern Circle*, and *South Canara* in the *Southern Circle*. In *Vizagapatam*, where there was a large increase, the offences were petty ones, the podu cultivators in the Agency tracts being the most persistent offenders. In *Bellary* there was a fall in the illicit tapping of date trees, due to the introduction of the tree-tax system, and the effect produced by severe punishment awarded in the cases prosecuted during the previous year. In *South Canara* a few cases of clearing, and unauthorized kumri, were reported on. The increase in the *Central Circle* occurred principally in *South Arcot*, and has not been accounted for.

The number of cases pending at the close of the year was 2,181, or only 405 more than the number pending at the close of the previous year, and this result is satisfactory, considering the large increase (3,355) in the number of cases reported on during the year.

21. The disposal of offences during the year is compared with that in the previous year in the following statement:—

Circle.	Year.	Total.	Withdrawn.		Compounded.		Prosecuted.		Percentage of cases prosecuted to disposals.	Percentage of acquittals to cases prosecuted.
			Number.	Percentage.	Number.	Percentage.	Convicted.	Acquitted.		
Northern	1896-97	3,469	546	15.7	1,742	50.2	948	283	34.1	19.7
	1897-98	4,487	702	15.7	2,235	49.8	1,356	194	34.5	12.5
	Difference	+ 1,018	+ 156	..	+ 493	- 0.4	+ 408	- 39	+ 0.4	- 7.2
Central	1896-97	5,509	727	13.2	3,356	59.1	1,284	242	27.7	15.8
	1897-98	7,593	1,348	17.8	4,255	56.0	1,691	299	26.2	15.0
	Difference	+ 2,084	+ 621	+ 4.6	+ 999	- 3.1	+ 407	+ 57	- 1.5	- 0.8
Southern	1896-97	2,464	351	14.2	795	32.3	1,121	197	53.5	14.9
	1897-98	2,508	370	14.8	1,204	48.0	777	157	37.2	16.8
	Difference	+ 44	+ 19	+ 0.6	+ 409	+ 15.9	- 344	- 40	- 16.3	+ 1.9
Presidency	1896-97	11,442	1,624	14.2	5,793	50.7	3,353	672	35.1	16.7
	1897-98	14,588	2,420	16.6	7,694	52.7	3,824	650	30.7	14.5
	Difference	+ 3,146	+ 796	+ 2.4	+ 1,901	+ 2.0	+ 471	- 22	- 4.4	- 2.2

There was a decrease in the percentages of cases acquitted, to cases dealt with, by the Magistracy, in the *Northern* and *Central Circles*, and an increase in the *Southern Circle*, the figures being 7.2, 0.8 and 1.9, respectively. The decrease in the *Northern Circle* was contributed by all the districts, except *Ganjām* and *Bellary*, where the percentages rose from 15 and 10, to 18 and 16, respectively. The increase in the former district is ascribed to several old cases having been long left unreported by the Range officer in Bugada, and that in the latter district to the unsuccessful prosecution of certain cases of illicit date tapping on lands, the possession of which was in dispute between Government and the ryots. In *North Arcot* and *Salem* in the *Central Circle*, the percentage rose from 18 and 17, to 21 and 23, respectively. The increase in *Salem* is ascribed to the conduct of cases having been unavoidably entrusted to forest guards. In *South Canara*, where the percentage rose from 16 to 20, the acquittals were chiefly in cases against Kumaki rules, and in most of these cases the accused did not produce evidence in their favour at the preliminary enquiry, but produced it before the Magistrate. The percentage of acquittals in *North Coimbatore* was also large, being 25 against 16 in the previous year. It is explained that the reliable cases were compounded, and the doubtful ones sent to the Magistrates.

The percentage of cases withdrawn, to cases disposed of, during the year, shows but a slight increase, taking the Presidency as a whole. In the *Northern Circle*, the net result remained unaffected, the increase in *Ganjām* (8 to 11 per cent.), *Vizagapatam* (16 to 20 per cent.) and *Gōdāvari* (7 to 21 per cent.) being counterbalanced by decrease in the other districts of the circle. In the *Central Circle* there was an increase of 12 per cent. in *Cuddapah*, 10 per cent. in *South Arcot*, and 6 per cent. in *North Arcot*. In *Gōdāvari*, *Cuddapah* and *South Arcot*, offenders in petty cases were let off with a warning, and the cases withdrawn. In *North Arcot* it was due to the practice of withdrawing charges of illicit grazing against new offenders, on condition of purchasing permits for their cattle immediately. The increase in *Ganjām*, *Vizagapatam* and *Salem*, being only small, calls for no remarks. In the *Southern Circle*, an increase is noticeable in *South Coimbatore*, the percentage having risen from 6 to 17. This is said to be due to the withdrawal of several long-pending cases in which the offenders could not be found, and to offenders under the timber transit rules having been let off, as they were ignorant of the introduction of the new rules in the district. The percentage of cases compounded diminished in the *Northern* and *Central Circles*, while in the *Southern Circle*, and for the Presidency, it increased by 15.9 and 2 per cent., respectively. In *South Canara*, *South Malabar*, *North Coimbatore* and *Madura*, the percentage rose from 21, 7, 32 and 4, to 46, 52, 39 and 25, respectively. Petty cases, or clear cases, or in which the offenders unmistakably confessed their guilt, are alone reported to have been compounded.

The amount of compensation realised in each circle during the year, as compared with that in the preceding year, is shown in the following statement:—

Circle.	During 1896-97.			During 1897-98.		
	Amount realised.	Average per case.	Average per person accused.	Amount realised.	Average per case.	Average amount per person accused.
Northern	Rs. 18,406	Rs. A. P. 10 9 0	Rs. A. P. 3 11 7	Rs. 21,333	Rs. A. P. 10 12 6	Rs. A. P. 3 4 4
Central	19,286	5 14 9	2 3 7	31,747	7 7 5	3 1 2
Southern	7,587	9 8 8	3 9 3	8,803	7 4 11	2 14 2
Total ..	45,279	7 13 0	2 13 7	61,883	8 5 1	3 1 9

* The figures for Vizagapatam, not being reported, have been excluded from this statement.

The amount of compensation realized was considerably larger than in the previous year, and was due to higher rates of composition levied, for the purpose of producing a deterrent effect. The increase occurred mainly in the districts of *Kistna* and *Kurnool* in the *Northern Circle*, *Cuddapah*, *South Arcot* and *Salem* in the *Central Circle*,

15,868 and 5,787, against Rs. 3,925, 2,083, 743, 9,082 and 4,051, respectively, in the preceding year. The rate per case, and per person accused, in the *Southern Circle* decreased, as many of the cases compounded were of a trivial nature.

There were three important cases of forged Government marks on logs in the *Ganjām* district, and the matter is under enquiry with the Deputy Magistrate, Goomsur. The prosecution of the *rela* bark lessees, connected with illicit wholesale fellings of *rela* (*Cassia fistula*) in the *Anantpur* district, alluded to in the report for the previous year, resulted in 15, out of the 18 men who were charged, being convicted, and fined in sums varying from Rs. 100 to 200, and aggregating to Rs. 2,150. In *Cuddapah*, the illicit cutting of red sanders was generally done by gangs of Muhammadan woodcutters, who out-numbered the forest subordinates, and so escaped arrest. In one case however, the ringleaders of the gang, who seriously assaulted the forest subordinates, were identified, and convicted to six months' imprisonment. Of the Range officers referred to in the report for the last year, as being responsible for not having reported the fellings, one was dismissed, one reduced, and the third let off with a warning. In the Saidapet taluk of the *Chingleput* district, five big cases of unauthorised felling in unreserved lands were detected, in which a village munsif and other influential ryots were concerned. They were convicted and fined Rs. 1,000 in all. In *South Arcot* a watcher was murdered in the forest, but the case, which went up to the sessions, resulted in the acquittal of the accused. The Collector surmises that the watcher met with his death, either for having done his duty, or perhaps in violation of some prior arrangement made with the villagers. In the same district there was also a case of assault on a watcher, who was severely beaten by eighteen persons in Tirukkóyilūr range, while engaged in detecting a case of illicit cutting of firewood. The accused were convicted and sentenced to fine and rigorous imprisonment for three months. In *Salem* a person was fined Rs. 100 for theft of sandalwood from Government forests, and some forest subordinates, who concocted a case of theft of sandalwood from the Kollimalais, were dismissed from the service. In *North Coimbatore*, a merchant and fifteen of his workmen, were convicted of illicit removal of sandalwood, and sentenced to six and three months' rigorous imprisonment, respectively.

22. No rewards were paid during the year to informers in the districts of *Ganjām*, *Bellary*, *Nellore*, *Trichinopoly*, *South Malabar*, the *Nilgiris* and *South Coimbatore*. No information on the subject is contained in the reports from the districts of *Vizagapatam*, *Salem*, *Tanjore*, *North Malabar* and *Tinnevely*. In the other districts, rewards, to an aggregate extent of Rs. 604 to informers (including forest subordinates), and Rs. 813, to subordinates of the Abkari department, were disbursed. The Board is issuing a proceedings on the subject of Forest offences and regulation of grazing, copy of which will be forwarded for the information of Government. The following are the statements called for by the Government of India in letter, No. 3268, Revenue, dated 29th June 1897.

No. I.

Division or Circle.	Cases taken into Court.				Cases compounded.				Cases withdrawn or undetected.				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.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Northern Circle.																
Ganjam †	1	155	51	15	..	85	13	3	..	29	1	3	1	269	65	21
Vizagapatam	..	234	30	74	..	179	70	7	..	149	..	..	..	562	100	81
Godavari	..	139	47	13	..	191	188	43	..	58	..	..	..	388	196	137
Kistna	..	83	141	13	..	207	250	22	..	43	147	5	..	333	688	40
Kurnool	..	201	126	23	..	393	151	36	..	58	26	11	..	652	303	70
Bellary	..	33	11	13	..	202	50	77	..	10	28	..	..	245	89	90
Anantapur	..	82	85	2	..	70	58	3	..	21	5	1	..	173	148	6
Total, Northern Circle.	3	927	491	153	..	1,327	730	191	17	368	218	101	20	2,622	1,439	445
Central Circle.																
Cuddapah	8	182	116	4	..	159	285	6	..	177	98	2	8	518	499	12
Nellore	1	88	175	5	..	40	1	17	..	6	4	2	1	134	180	24
Chingleput	..	64	28	6	..	197	79	14	..	16	11	5	..	277	118	24
North Arcot	3	77	60	11	..	494	474	14	..	39	80	1	..	610	614	26
South Arcot	5	322	173	59	1	646	729	24	29	111	115	211	35	1,079	1,017	294
Salem †	1	148	169	20	1	440	464	9	16	4	14	1	18	592	647	30
Trichinopoly	..	105	161	8	..	94	178	8	..	37	198	9	..	236	537	25
Tanjore	..	8	7	1	..	13	6	1	..	7	16	3	..	28	29	6
Total, Central Circle.	18	994	889	113	2	2,083	2,216	93	45	397	536	234	65	3,474	3,641	440
Southern Circle.																
South Canara †	7	250	13	93	..	257	2	48	46	4	1	..	53	511	16	141
North Malabar	1	10	1	..	..	..	3	1	..	..	..	..	1	27	4	3
South Malabar	..	21	49	46	..	14	18	10	..	3	..	..	..	28	..	..
The Nilgiris †	1	71	86	13	..	63	83	5	..	21	40	9	13	155	62	56
North Coimbatore	1	18	12	7	..	141	86	5	..	36	15	5	1	195	209	27
South Coimbatore	11	124	152	16	..	80	47	1	26	23	29	11	37	227	113	17
Madura	..	20	7	..	..	228	98	13	..	64	35	9	1	312	228	28
Tinnevely	1	20	7	..	..	..	..	..	..	..	..	..	..	..	140	22
Total, Southern Circle.	23	615	320	175	1	790	332	83	83	151	120	36	107	1,456	772	294
Grand Total.	44	2,436	1,700	441	3	4,200	3,278	367	145	916	874	371	192	7,652	5,852	1,179
Grand total of cases.																
	18															356
																21
																81
																743
																137
																727
																40
																916
																1,026
																431
																327
																4,526
																1,037
																339
																24
																419
																1,263
																2,425
																1,287
																798
																62
																7,620
																721
																9
																27
																159
																392
																27
																326
																520
																475
																2,629
																1,179
																14,775

* Figures corrected in the Board's office to agree with Form No. 50. † The Collector has not explained the large variations between these figures and those entered in Form No. 50.

No. II.

Division or Circle.	Details of prosecutions for offences by fire.						Amount of punishment.
	Serial No. of fire.	Acres burnt.	Character of offence (whether careless or intentional).	Whether acquitted or convicted.	Section of Law under which convicted.	Section of Law under which convicted.	
Ganjam	1	No information.	Intentional	Acquitted	Section 26 (f) and (h) of the Forest Act.	Four accused fined Rs. 8 each and guns, &c., confiscated.	
Godavari	1	0.2 acres.	Careless	Convicted	Section 21 (b) of the Forest Act	Fined Rs. 110 and awarded Rs. 200 compensation to the Forest Department.	
Kurnool	1	16 square yards.	Intentional	Convicted	Section 21 (b) of the Forest Act	Two were sentenced to 45 days' rigorous imprisonment.	
	2	12,000 "	Do.	Withdrawn	Section 21 of the Forest Act	Fined Rs. 20, in default one month's rigorous imprisonment.	
	1	No information.	Do.	Convicted	Do.	Two were fined Rs. 2 each or two days' simple imprisonment.	
	2	300 acres.	Do.	Convicted	Do.	Seven were fined Rs. 1 each or one day's simple imprisonment.	
	3	No information.	Do.	Do.	Do.	One was fined Rs. 8 or one day's simple imprisonment.	
Cuddapah	4	Do.	Careless	Do.	Do.	..	
	5	Half an acre.	Intentional	Withdrawn	Section 21 of the Forest Act	Sentenced to three weeks' rigorous imprisonment.	
	6	60 acres.	Do.	Do.	Do.	Two were fined Rs. 20 each and one month's rigorous imprisonment.	
	7	1 acre.	Do.	Convicted	Do.	Two were fined Rs. 5 and Rs. 3, respectively.	
	8	30 acres.	Do.	Do.	Section 21 of the Forest Act	Sentenced to two months' rigorous imprisonment.	
Nellore	1	No information.	Careless	Do.	No information	..	
North Arcot	2	500 acres.	Intentional	Do.	Section 21 (c) of the Forest Act	Two were fined Rs. 10 each, in default ten days' rigorous imprisonment.	
	3	24 "	Careless	Case pending	Do.	Fined Rs. 10, in default ten days' rigorous imprisonment.	
	4	50 "	Do.	Do.	Rules under section 26	Two were fined Rs. 5 each.	
	1	30 "	Intentional	Acquitted	..	..	
	2	3 "	Careless	Convicted	..	..	
South Arcot	3	4 "	Do.	Do.	..	..	
	4	10 "	Do.	Do.	..	..	
	5	150 "	Intentional	Case pending	..	..	
	6	5 "	Do.	Do.	..	..	
Salem	1	25 "	Careless	Convicted	..	..	
	2	12 "	Do.	Case pending	..	..	
	3	110 "	Do.	Acquitted	..	..	
South Canara	4	20 "	Intentional	Case pending	..	..	
	5	10 "	Do.	Do.	..	..	
	6	5 "	Do.	Do.	..	..	
	7	17 "	Do.	Convicted	..	..	
The Nilgiris	1	120 "	Do.	Do.	..	..	
North Coimbatore	1	42 "	Do.	Do.	..	..	
	2	395 "	Do.	Acquitted	..	..	
	3	10 "	Do.	Case pending	..	..	
	4	19 "	Do.	Do.	..	..	
South Coimbatore	1	15 "	Do.	Convicted	..	..	
	2	480 "	Do.	Do.	..	..	
	3	25 "	Do.	Acquitted	..	..	
Malura	1	No information.	Do.	Convicted	..	..	
Tinnevely	1	300 acres.	Do.	Acquitted	..	..	

No. III.

Division or Circle.	C. Fires beginning inside the reserve or fire traced areas.									
	A. Fire caused by accident or through carelessness in burning fire lines.		B. Fires entering the forests by crossing exterior fire traces.		Owing to carelessness or accident.					
					By workmen employed in the forests, by purchasers of forest produce, and by Yab-cutters.		By villagers, travellers, &c., passing through the forests.		By railway engines.	
	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.
1	2	3	4	5	6	7	8	9	10	11
<i>Northern Circle.</i>										
Ganjam	..	..	..	185	..	..	1	50	..	..
Vizagapatam	..	..	..	..	..	..	..	..	..	..
Godavari	..	10	2	700	..	..	4	155	..	..
Kistna	..	..	..	..	..	..	..	..	..	..
Kurnool	..	..	..	..	..	..	..	..	..	..
Belary	..	..	..	..	..	..	1	400	1	70
Anantapur	..	..	..	..	..	..	4	596	..	..
Total, Northern Circle	1	10	6	885	..	..	10	1,231	1	70
<i>Central Circle.</i>										
Cuddapah	..	..	..	..	..	..	..	..	2	1,500
Nellore	..	..	3	72	..	..	..	..	..	..
Chingleput	..	..	13	3,953	..	..	2	325	..	..
North Arcot	..	..	8	1,523	..	74	2	537	1	1
South Arcot	..	1,147	2	550	..	107	6	270	..	..
Salem	..	..	..	..	..	..	2	39	..	..
Trichinopoly	..	..	..	..	..	..	..	..	..	..
Tanjore	..	..	..	..	..	..	..	..	..	..
Total, Central Circle	8	1,147	26	6,093	5	181	11	1,171	3	1,501
<i>Southern Circle.</i>										
South Canara	..	..	..	..	15	396	..	..	..	..
North Malabar	..	..	..	..	..	..	..	..	..	..
South Malabar	..	..	..	..	..	..	..	..	..	..
The Nilgiris	..	..	..	..	..	..	1	1	3	33
North Coimbatore	..	..	..	..	..	375	11	3,694	..	..
South Coimbatore	..	302	33	3,475	..	3	1	220	..	..
Madura	2	..	8	311	2	..	..	..	1	1,145
Tinnevely	..	..	..	..	..	..	..	..	4	..
Total, Southern Circle	2	302	41	60,648	18	774	13	3,915	3	33
Grand Total, Presidency	11	1,459	73	67,631	23	955	84	6,317	7	1,604

* Not known.

No. III—cont.

Division or Circle.	O. Fires beginning inside the reserve or fire traced areas—cont.									
	In order to obtain new grass.		In order to turn out game or to reduce cover.		By intentional firing.		Total.		Causes unknown.	
					Maliciously fired.					
	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.
	14	15	16	17	18	19	20	21	22	23
<i>Northern Circle.</i>										
Ganjam	5	610	8	905	..	..	13	1,515	10	2,027
Vizagapatam	..	..	..	..	..	..	..	..	..	1,496
Godavari	..	..	..	..	..	..	..	..	10	4,664
Kistna	..	..	..	..	..	..	..	..	5	178
Kurnool	..	..	..	..	2	13,280	2	13,280	13	15,670
Belary	..	..	..	..	..	..	..	..	5	823
Anantapur	..	..	..	..	..	..	..	..	..	..
Total, Northern Circle	5	610	8	905	2	13,280	15	14,795	43	24,858
<i>Central Circle.</i>										
Cuddapah	..	..	..	..	3	831	3	331	57	20,825
Nellore	..	..	..	..	..	..	..	..	..	2,585
Chingleput	..	..	..	..	..	..	..	..	..	..
North Arcot	14	2,600	..	..	..	2,600	14	2,600	28	12,122
South Arcot	11	2,229	..	..	..	845	21	8,074	6	682
Salem	2	200	..	..	10	..	2	200	6	550
Trichinopoly	1	5	..	..	..	..	1	5	1	60
Tanjore	..	..	..	..	..	..	..	..	..	..
Total, Central Circle	28	5,034	..	..	13	1,176	41	6,210	98	36,824
<i>Southern Circle.</i>										
South Canara	..	..	..	..	2	45	4	79	32	1,353
North Malabar	..	34	..	..	..	..	..	..	..	..
South Malabar	..	..	..	..	..	..	..	..	..	..
The Nilgiris	..	..	..	..	1	120	1	120	8	70
North Coimbatore	1	11	..	..	2	519	2	519	1	6
South Coimbatore	..	..	..	..	4	439	6	450	26	14,297
Madura	7	505	..	..	9	11,837	19	11,837	17	1,637
Tinnevely	5	1,332	2	302	19	2,289	26	3,923	..	..
Total, Southern Circle	15	1,882	5	314	37	14,732	57	16,928	84	17,363
Grand Total, Presidency	48	7,526	13	1,219	52	29,188	113	37,933	225	79,045

Total A, B and C.

(2) PROTECTION FROM FIRE.

23. The results of the measures adopted for the protection of forests from fire are shown in the following statement :—

Circles.	During 1896-97.			During 1897-98.		
	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	1,158	98	RS. A. P. 9 14 1	1,069	94	RS. A. P. 9 0 4
Central	2,362	98.5	5 14 7	2,379	96.7	5 9 8
Southern	1,843	99	7 8 1	1,873	89.7	7 3 7
Total ..	5,363	98.6	7 5 5	5,321	93.6	6 13 9

The area attempted to be protected was slightly larger than that in the previous year in the Central and Southern Circles, but fell short, by 89 square miles, in the Northern Circle, and 42 square miles for the Presidency. The amount expended during the year was Rs. 36,515 against Rs. 39,343 in the preceding year, the decrease being mainly contributed, by *Ganjām*, *Kurnool* and *Kistna* in the Northern Circle. In *Kistna* no fire-patrols were entertained, and the area shown in Form No. 51 was protected successfully by the ordinary establishment, without extra expense. The sum of Rs. 301 shown against the district, represents the cost of special establishment for June 1897, charged in the accounts of the year under report. The decrease in *Ganjām* is commensurate with the decrease in the area attempted to be protected, and was due in this district, as well as in *Kurnool*, to the curtailment of the budget allotment under this head. In *Trichinopoly* agreements were entered into with the Malayalis for keeping the boundary lines clear, and for preserving the forests from fire. The average cost per square mile, and the percentage of the area which escaped fire, showed a decrease both for the Presidency, as well as for each Circle.

24. In North Coimbatore the results are being carefully recorded on maps, but the reports from other districts contain no information on the subject, although the matter was pressed on the attention of all Collectors in paragraph 28 of the Board's report for the previous year. The origin of fires is generally ascribed to (1) incendiarism, and (2) to firing by the cowherds, in order to secure an even crop of young grass.

25. The percentages of fires in each district, to the area attempted, are compared with those relating to the season of 1896-97, in the following statement :—

Northern Circle.			Central Circle.			Southern Circle.		
Districts.	Percentage of fires to area attempted		Districts.	Percentage of fires to area attempted		Districts.	Percentage of fires to area attempted	
	In 1896-97.	In 1897-98.		In 1896-97.	In 1897-98.		In 1896-97.	In 1897-98.
<i>Ganjām</i> ..	3	2.8	<i>Cuddapah</i> ..	3	5.3	<i>South Canara</i> ..	2	0.6
<i>Vizagapatam</i> ..	12	2.0	<i>Nellore</i> ..	..	2.2	<i>North Malabar</i> ..	0.15	80.7
<i>Gódvári</i> ..	1	3.9	<i>Chingleput</i> ..	2	0.3	<i>South do.</i> ..	..	..
<i>Kistna</i> ..	..	0.1	<i>North Arcot</i> ..	1	2.6	<i>The Nilgiris</i> ..	2	0.2
<i>Kurnool</i> ..	3	37.4	<i>South do.</i> ..	0.2	4.4	<i>North Coimbatore</i> ..	..	5.9
<i>Bellary</i> ..	2	0.7	<i>Salem</i> ..	5	2.5	<i>South do.</i> ..	0.5	4.5
<i>Anantapur</i> ..	4	0.5	<i>Trichinopoly</i> ..	..	0.1	<i>Madura</i> ..	0.6	19.4
			<i>Tanjore</i> ..	..	..	<i>Tinnevely</i> ..	2	2.2
	2	6		1.5	3.3		1	10.3

The year under report showed a falling off in the results of fire protection, and the percentage of the area burnt, to the area attempted, was, as seen from the above statement, 6 in the *Northern*, 3.3 in the *Central*, and 10.3 in the *Southern Circles*, against

2, 1.5 and 1, respectively, in the year preceding. The results in *Ganjām*, *Vizagapatam*, *Kistna*, *Bellary*, *Anantapur*, *Chingleput*, *Salem*, *South Canara*, the *Nilgiris* and *Tinnevely* were good. It is reported that the figures, regarding fire protection in *Vizagapatam*, are not sufficiently reliable. In *Gódvári*, the main fires occurred in the *Bhadrachalam* sub-division, where 4,434 acres were burnt. In *Kurnool* the percentage rose from 3 to 37. The Collector writes, "In a season like the past one, when the forests are very much parched, if once fires are started in the *Nallamalais* it is impossible to beat them out, owing to absence of villages and internal fire lines." The protection is considered to be inadequate, but it is noted that schemes are being formulated for the better protection of the forests. In *Bellary*, about Rs. 400 worth of timber was burnt in 10 (b) compartment, by the fire in the *Ramandrug* range, and about 600 seedlings of *Hardwickia binata* suffered on account of the fire in the *Kupgal* reserve. The success in *Anantapur* was doubtless due to cattle-owners having abstained from setting the grass on fire, fearing a repetition of the past season's scarcity. In all, four fires occurred, one covering 500 acres. The damage done was slight, and the fires are ascribed to accident. In *Cuddapah*, an area of 1,450 acres was burnt in the specially-protected *Lankamalais* block. The fire is reported to have crossed from the unprotected area during a high wind, before the staff could reach the spot. The increase in the percentage of the area burnt in *North* and *South Arcot*, *North Malabar*, *North* and *South Coimbatore*, and *Madura*, is ascribed to the dryness of the season. In *South Arcot* there were 25 fires, and 4,586 acres burnt. The fires in *Trichinopoly* occurred for the most part in treeless grassy portions. In *North Malabar*, all areas of deciduous forest in the *Begur* and *Chedalet* ranges were burnt. A small area (10 acres) of young teak plantation at *Begur* was burnt, but much damage does not seem to have been caused, as the plants are reported to be as healthy as ever. A few acres under regeneration at *Chedalet*, and 4 acres planted with mahogany last year, were also burnt. In *North Coimbatore*, an area of 42 and 477 acres, in the specially-protected *Hasanur* and *Bylur* sandalwood compartments respectively, was burnt, the fires being principally caused by incendiaries. The fire in the *Hasanur* compartment, though small in area, was specially serious, as it overran the two plots experimented upon for the natural reproduction of sandal. There were 13 fires in *South Coimbatore*, and it is reported that, owing to the large accumulation of combustible matter, due to absence of fires for several years, the fires during the year were not extinguished till they had burnt for six days. In *Madura*, there were no less than 71 fires, burning 41,767 acres of the specially-protected blocks. In the *Cumbum* range the fires are reported to have originated from the *Travancore* forests, where no attempts appeared to have been made, either to prevent fires, or to beat them out when they occurred. In *Tinnevely*, it was found necessary to close some grazing compartments in the *Ambásamudram*, *Nángunéri* and *Tenkási* taluks, on account of the persistent firing of the forests by graziers.

(3) REGULATION OF GRAZING AND PROTECTION FROM CATTLE.

26. Form No. 52 shows the areas opened and closed to grazing, in each district. In *Kurnool*, *Bellary*, *Anantapur*, *Cuddapah*, and in the *Udayagiri* and *Atmakúru* taluks of the *Nellore* district, the reserved forests were open to free grazing, more or less, during the first quarter of the year under report.

The total area of reserved forests and reserved lands, was 19,253 square miles. In 1,792 square miles, grazing was closed to all animals throughout the year, 300 square miles in the *Northern*, 284 in the *Central*, and 1,208 in the *Southern Circles*, against 311, 243 and 1,213 square miles, respectively, in the previous year. The causes, explained in the report of the preceding year, for the comparatively large area closed in the *Southern Circle*, hold good also during the year under report. The proposal, to throw open additional areas in *South Coimbatore*, was not effected, as the hill sides of the *Pollachi* taluk were burnt, presumably by cattle-owners as soon as they had an inkling of the intention to throw open the lands. The area open to all animals was larger than in the previous year, especially in *Bellary* and *Kurnool*. In the latter district the area open, consisted of the lands which were notified by the Collector at the close of the year as "reserved lands" under the rules under section 26, and no restrictions were imposed. Goat-browsing was not allowed in *Ganjām*, *Gódvári* and *Anantapur* in the

Northern Circle, in *South Arcot* and *Trichinopoly* in the *Central Circle*, and in all the districts of the *Southern Circle*. In *Kurnool* 2 square miles were reserved for goats, and in *Kistna* and *Bellary* they were admitted with other cattle in 242 and 452 square miles, respectively. The question of opening larger areas in *Kurnool*, in localities where the distribution of waste lands is not equally proportioned, is, it is noted, receiving the attention of the Collector. In *Ganjám* and *Gódvári*, no hardship was felt, because of the large area of unreserved lands. In *Anantapur* the increase of offences under "grazing without permission" was ascribed, during the year, to the illicit browsing of goats. In the *Central Circle*, larger provision was made during the year for goats, and they were allowed to browse in 61 square miles in *Cuddapah*, 35 square miles in *Nellore*, and 18 in *Chingleput*. In the *Salem* district one reserve of about 15 square miles, in the *Uttangarai* taluk, was open to goat-browsing in November 1897 as an experimental measure. In *North Arcot*, 12 square miles were made available. In *Tanjore* 168 acres were opened. In the *Southern Circle*, proposals to throw open some coupes in rotation in the *Madura* district are under consideration. The Board is not satisfied that sufficient provision has been made for goat-browsing throughout the Presidency and instructions are being issued on the subject. In *Anantapur*, *South Canara* and *North Malabar* no permits were issued for sheep, the reason being as regards the latter two districts owing to the heavy rainfall practically no sheep are kept. They were also not admitted in 511 square miles in *Gódvári*, 15 square miles in *North Coimbatore* and, 1 square mile in *Tinnevely*, which were open to other animals, except goats. Grazing in the *Coringa* reserve in the *Gódvári* district was leased out, and the leasing system was continued in respect of the *Padugais* in *Trichinopoly*. It is noted that, in *Nellore*, arrangements have been made to replace the *kancha* system by that of the issue of permits, and that no sales of *kanchas* will be held from the current year. In *South Arcot* each reserve was treated as a separate grazing-ground, and a separate permit required for each reserve. The number of cattle admitted under licenses in reserved forests and reserved lands, is shown below:—

	Buffaloes.	Bulls and cows.	Sheep.	Goats.	Horses.	Asses.
Northern Circle	56,218	290,218	311,431	94,040	..	3
Central Circle	26,642	542,599	464,943	67,424	1	..
Southern Circle	21,418	280,672	69,409	..	59	103
Total	104,278	1,113,489	845,783	161,464	60	106

The *Koyas*, *Reddis* and *Telegas* of the *Bhadrachalam* sub-division in the *Gódvári* district and the *Malayalis* in the *Javadi* hills in *North Arcot*, *South Arcot* and *Salem* were, as usual, allowed to graze their cattle free.

(c) *Improvement of Forest growth.*

(1) *NATURAL REPRODUCTION.*

27. Cattle, fires and incomplete protection, continue to retard natural reproduction, but taking the Presidency as a whole, the progress under this head may be regarded as somewhat satisfactory. The following is a *resume* of the district reports:—

Northern Circle.

Reproduction of *sál* in *Ganjám* continued excellent. In *Vizagapatam*, the rapid growth of *Ohloroxylon swietenia* from coppice was noticeable in all the coupes. In *Gódvári*, there was a prolific young growth of many useful species, particularly those of *Tectona grandis*, *Terminalia tomentosa* and *Hardwickia binata*. In the *Peddapuram* range, reproduction of *Xylia Chloroxylon* and *Anogeissus* was very promising. The coppice growth of *Acacia Arabica* in the *Kuragalla* reserve in *Kistna* was very encouraging, and there was also a good crop of seedlings and root-suckers. A considerable number of seedlings of several species sprang up in the closed portion of the *Kondapalle* reserve, while the western portion of the *Budavada* reserve was becoming clothed with young forest, the chief species being *Acacias* and *Albizias*, with a sprinkling of *Meila indica*. The reproduction of *Hardwickia binata* in the *Bollapalle*, *Kakirala* and *Guttikonda* reserves was satisfactory. This result is ascribed to the prohibition of goat-browsing, and restriction of general grazing. A large number of seedlings and root-suckers of this tree was

also coming up in the *Kandlakunta* reserve. In *Kurnool*, *Bellary* and *Anantapur* the year was unfavourable to natural reproduction, owing to the failure of the monsoon, and to the permission accorded to graze cattle free in reserves. In *Kurnool*, excessive fires did damage to the forests; the chief sufferers were *Tectona grandis*, *Dalbergia*, *Pterocarpus*, *Terminalia* and *Anogeissus*, the teak suffering most. In some places young crops of *Hardwickia binata* were coming up, but they showed signs of having been eaten and trampled down by cattle. In *Bellary* the production of date, and of *Acacia Arabica*, was fair in localities where these species grow; the growth of *Chloroxylon swietenia*, *Pongamia glabra*, *Wreightia tinctoria* in the *Gudikota* reserve, and of *Butea frondosa*, in the *Kakkuppi* reserve was good.

Central Circle.

In *Cuddapah* the year was a bad one for reproduction, both from seed and coppice, owing to the drought, which necessitated reserves being thrown open for free grazing of cattle. In closed areas *Anogeissus latifolia*, *Hardwickia binata*, *Chloroxylon swietenia* and *Cassia fistula* coppiced best. With regard to the experiment made in 1896, of cutting over an acre each month in *Thanakonda* and *Kodur* hill reserves in order to ascertain the results of coppicing, it is reported that the most favourable months for cutting over are July to September, and the worst months January to March. *Satinwood* (*Chloroxylon swietenia*) appeared, however, to have invariably coppiced well, without being affected by the season in which it was cut. In *Nellore*, regeneration from coppice and seed was satisfactory. In *Chingleput*, regeneration from coppice was somewhat affected by the drought, but that from seed in closed areas was good. In *North Arcot*, owing to the continuance of the drought, reproduction from seed was far from satisfactory, but that from coppice was fairly good, particularly *Chloroxylon swietenia*. The seedlings of bamboo in *Chamala* and *Napier* reserves were promising. In *South Arcot* coppice growth in the coupes was satisfactory, particularly that of *Butea frondosa*, *Wreightia tinctoria*, *Chloroxylon swietenia* and *Albizia amara*. The growth of seedlings was far from good, except under shade and moisture. There was an abundance of seedlings in the hill forests, the chief species being *Tectona grandis*, *Anogeissus latifolia*, *Dalbergia latifolia*, *Pterocarpus marsupium* and *Terminalia tomentosa*. In the *Annamalai* forest, which has been regularly worked under a working scheme for the last five years, some interesting measurements of marked coppice shoots have been recorded, the results of which are given below:—

Species	Height in feet.									
	Maximum.					Average.				
	Age.					Age.				
	1	2	3	4	5	1	2	3	4	5
<i>Butea frondosa</i>	10	13	18	..	16	7.5	12	14	..	14
<i>Melia azadirachta</i>	10	14	16	17	..	9.5	12.8	15	14.2	..
<i>Wreightia tinctoria</i> ..	11	12.5	15	13.5	18	8.7	10.3	13.3	12.2	13.5
<i>Acacia sundra</i>	8	14	14	16	17	6.7	12.7	11.7	12	14.2
<i>Grewia</i> sp.	11	13	12	17	15.5	10	10.7	10.5	14.3	14.2
<i>Chloroxylon swietenia</i> ..	8	10	11	14	17	6.4	8.8	9.7	12.2	15.1
<i>Albizia amara</i>	5	8.5	..	9	11	3.9	7.5	..	7.5	9.7

Species	Girth in inches.									
	Maximum.					Average.				
	Age.					Age.				
	1	2	3	4	5	1	2	3	4	5
<i>Butea frondosa</i>	7	9	12	..	17.5	5.1	7	9.4	..	13.4
<i>Melia azadirachta</i>	5	6.5	9	14	..	4	5.8	8.2	8.1	..
<i>Wreightia tinctoria</i> ..	6	7.2	11.5	7.5	11	4.7	5.6	8	6.6	7.6
<i>Acacia sundra</i>	6	8.7	9	10	8.2	4.7	6.7	7.7	7.5	7
<i>Grewia</i> sp.	6	7.5	8	10	14	5.3	6.1	7.2	8.4	9.6
<i>Chloroxylon swietenia</i> ..	4	5.75	8	7.5	14.5	2.7	4.7	6	6	9.1
<i>Albizia amara</i>	2	4.2	..	4	7.7	1.5	3.5	..	4	5.6

In *Salem* reproduction from coppice continued to be fair. In *Trichinopoly* regeneration from coppice and seed was satisfactory, the chief species being *Inga dulcis*, *Acacia Arabica*, *Cassia*

florida, *Chloroxylon swietenia*, *Mimusops hexandra*, *Albizia amara*, *Acacia planifrons* and *Memecylon edule* (casan). In *Tanjore* natural reproduction from seed was not encouraging, owing to the dry and sandy nature of the soil, while that from coppice was good. The coppice growth of casuarina on the coast in the plantations at Tirumalaivasal is being gradually replaced by artificial planting, as the former does not do so well as the latter.

Southern Circle.

In *South Canara* the coppice growth continued to be excellent, and regeneration from seed in the catechu blocks was also good. In *North Malabar* it is reported that all the young teak shoots of 1895-96 had been burnt, but they were again springing up. An experiment is to be made to assist natural reproduction by removing the undergrowth, and breaking up the soil near the seed-bearing teak trees. A large number of *Dalbergia* seedlings sprang up, specially in the burnt portions of the forest. Numbers of seedlings of jack (*Artocarpus integrifolia*) were found, and *Terminalia tomentosa* and *Paniculata* reproduced themselves freely from seed. In *South Malabar* there was abundant reproduction from seed of *Lagerstræmia microcarpa*, *Xylia* and *Terminalia tomentosa*. On the laterite soil, where teak died off, the blanks were filled up by *Xylia* and *Dalbergia*, the first-named being by far the most vigorous, and crowding out the latter. In *Amarampalem*, *Tectona grandis* and *Lagerstræmia* were coming on well in the better parts of the block. *Xylia* also appearing on the laterite, and *Terminalia tomentosa* at the edge of the swamps. The coppice growth in *Walayar* was fair, and there were also a few seedlings. In *Chenat Nair*, seedlings were plentiful. On the *Nilgiris* reproduction from coppice in the Eucalyptus plantations was, as usual, good. Some seedlings were noticeable in the open spaces within the plantations, where the undergrowth was not dense. There was a fair crop of sandalwood seedlings in parts of the Jakamaree reserve, and *Melur* slopes forests, and also in parts of *Sigur* range. Reproduction from *Tectona grandis*, *Pterocarpus marsupium* and *Dalbergia latifolia* was good in *Sigur*, *Mudumalai* and *Benne*. In the last-named two forests, there seems every promise of vigorous reproduction of these species, but it is not regular. The exclusion of fire, and extension of improvement fellings are expected to create a change for the better. Regeneration of teak from seed in *North Coimbatore* was poor, but that of *Terminalia tomentosa* and *Dalbergia* was good. A large number of seedlings of *Hardwickia binata* was found on the slopes between *Ramapuram* and *Thathakarai*. The sandalwood was extending both by seedlings and root-shoots, the former being especially noticeable in the fire-protected areas in *Kollegal*. The coppice reproduction of *Chloroxylon swietenia*, *Acacia sundra* and *Anogeissus latifolia*, was satisfactory. In *South Coimbatore*, large numbers of seedlings of *Tectona grandis* were observed springing up in the *Tunacadavu* range, on areas over which fires had passed. The coppice growth in *Aiyarantal* continued excellent, but that in *Chinnar* working circle was irregular, good in some parts and poor in others. In the deciduous forests of *Madura*, containing timber, reproduction from seed was very poor, on account of the thinness of the forest, and the rank grass fires. In *Tinnevely* reproduction from coppice was satisfactory throughout the district.

(2) ARTIFICIAL REPRODUCTION, PLANTATIONS, AND CULTURAL OPERATIONS.

28. 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 operations:—

In *Ganjām* 40 acres of the *Agusti Nowgam* plantation were planted with 48,400 casuarina plants, bringing the total up to 3,82,725 plants. The expenditure was Rs. 2,542, as compared with Rs. 9,484 in 1896-97. The plants put out are flourishing. The *Ceara rubber* plants, put out in 1895-96, are doing well, and are from 10 to 15 feet in height. The *Swietenia macrophylla*, planted at *Russelkonda* in 1896, mostly died. It appears to do best near the coast, and in moist garden soils. In *Gódvári* a sum of Rs. 220 was spent in adding nearly 8 acres to each of the two casuarina plantations at *Narasapur* and *Bandamurlanka*. In *Kistna*, 18 acres were planted with casuarina in the *Gopuvani* reserve, 9 feet apart, and one hundred and seventy acres in *Bápatla* division with *Casuarina equisetifolia*, mixed with *Dalbergia sissoo*, *Pithecolobium dulce*, *Albizia lebbek* and *Pongamia glabra*, 20 feet apart. The casualties in both these places were numerous, owing to the unusually hot season. In the *Chirala* reserve 30 acres were planted with casuarina, 9 feet apart, and the casualties therein replaced with *Sissoo* and *Kanuga*. The plants look healthy and strong. The nurseries in the *Weld* plantation, and at *Bápatla*, are well-stocked. The chief work in *Bellary* consisted of the replacement of previous year's failures, by nursery-grown seedlings, mostly of *Hardwickia binata*. The cost of this work, and the watering charges of the previous year's plantings, amounted to Rs. 390. The pits that were made last year in the *Toranagallu* reserve, were filled and planted with *kanuga*, *nim*, and other indigenous species with moderate success, at a cost of Rs. 98.

In the *Horsleykonda* reserve in *Cuddapah* about 9,000 seedlings of various sorts were basketted and put out in blanks, but most of them perished owing to the drought. The species which have thrived best are *tamarind*, *Pongamia glabra* and *Anogeissus latifolia*. There was no addition to the plantations made during the year in *Nellore*, but the younger plants of the previous

year's plantations were watered. In *North Arcot*, the bamboos, teak and red sanders seedlings, which were planted out in 1894 in the *Vellore* range, have proved a failure in places, owing to the drought. In *South Arcot*, 62 acres were planted with casuarina in different localities, at an average cost of Rs. 15-13-0 per acre, against Rs. 9-5-0 in the preceding year. The increased rate is ascribed to the heavy and continued watering necessitated by the failure of the monsoon, and to the watering and maintenance of the previous year's plantings. The plants are in a healthy condition in all the plantations, except in certain unfavourable parts of one plantation (*Nochikadu*). The casuarina, obtained from the *Tenasserim* seeds, continues to be healthy and thriving. The experiment of bamboo planting, referred to in the last report, has not been altogether satisfactory. Want of seasonable rains has caused considerable casualties. In *Tanjore*, 44 acres were planted with casuarina in *Tirumalaivasal*, 4' x 9'. The number of plants amounted to 52,000, and the plants are reported to be doing fairly well in the north plantation. In the south plantation, 2,000 plants died, and a similar number in the *Neidavasal* plantations was washed away by the sea. The plantations of the previous two years were maintained.

In *North Malabar*, the tuckie planting of teak was continued. The plantations of 1896-97 near *Chedleth* are doing well, except in one of four acres, where the plants materially suffered from the drought, only 80 plants per acre surviving. Two other plantations are being planted at *Chedleth* and *Muthanga*, and these, as well as those of 1897, are planted by the *Kurumbars* free of charge in their tuckies, on condition that they are paid at the rate of As. 8 per 100 surviving plants of one year old. On the same system planting was carried on in *Begur* during the year under report. The old plantations in *Begur* are doing well. Some bamboo clumps in *Begur* and *Chedleth* ranges were burnt, and the sites were sown with teak seeds as an experiment. In *Kanoth* range the old teak plantations have fared badly, having been attacked by caterpillars. The earlier plantations are reported to be growing well. *Black-wood* and *Vengai*, planted near *Chedleth* in *Kurumber* tuckies, are doing well, as also the one acre planted with *Black-wood* near the *Muthangi* *Serambi* cleared of *Lantana* growth. The sandal-wood plantation near *Begur* looks more healthy, some of the shade about it having been removed. Of the 300 plants put out last year, 100 are living and look healthy. In *South Malabar*, the 80 acres in *Karimpoya* reserve, prepared last year, were planted up with teak during the year, in accordance with the provisions of the working plan. A fresh area of 80 acres in the same reserve was felled, and the site prepared for planting. Twenty-four acres of the *Ramalur* plantation were felled, and replanted with teak, at a total cost of Rs. 1,750. An attempt has been made to fill up blanks, and swampy soils, in the *Panangod* plantations, and 800 seedlings of *Terminalia tomentosa* have been planted. In the *Nilgiri* district the period of five years, in the scheme for planting up waste lands in the *Badaga* villages at 100 acres per annum, having ended, and a separate report on the operations having been received, it has been decided to do nothing more, than to maintain the areas operated on, for five years to come, so as to afford time for judging. The area, experimented on, which amounts to about 250 acres, has been rather irregularly stocked with *Acacia melanoxylon* and *Dealbeta*, and varieties of *Eucalyptus*, and the *Grevillea robusta*, and it is reported that these promise better than the other plants. The *Benne* nurseries are well stocked with teak and mahogany plants, for use in "tuckie" grounds, and elsewhere. In *Madura*, in the blue gum plantation of *Gundan shola*, only 15,000 plants were put out. Of these, 9,000 died, owing to the failure of the north-east monsoon, and although these were replaced, the new plants are not doing well, for want of rain. Some mahogany plants were put out below the *Tirtamantapam* on the *Alagar* hill, and they promise well. In *Tinnevely*, an attempt was made to start a casuarina plantation at *Tuticorin*, which was a failure; 75 per cent. of the plants died off, and it has been decided not to persevere with it.

In *Vizagapatam*, date seeds were sown in two blanks of the *Vemagiri* reserve. In one blank, the plants died from continued drought, and in the other the seedlings in one acre are thriving. Seeds of *Terminalia chebula* (kadakai) were dibbled into the coupe fellings of *Madalammakonda*, but with indifferent success, owing to the damage by deer. In *Kistna*, four acres were ploughed and date seeds dibbled in, with the result that 20,000 seedlings sprang up; 12½ per cent. of these died owing to the unusually hot season during the year. In *Beilary*, broad-cast sowings, with seeds of various species, were undertaken during the year at a small cost, but the result was a failure, except in the case of date, of which a few seeds germinated. In *Anantapur*, 58 acres were sown with date seed, at an average cost of Rs. 2-11-10 per acre, and 5 acres with *Acacia arabica*, at Rs. 1-3-2 per acre. The result of the sowing with date in 36 acres proved a failure, owing to the drought, but as regards the remaining area, sown with date and babul, the operation was undertaken towards the close of the year, and it was too early to report results. In *Chingleput*, seeds of *margosa*, *tamarind*, *Albizia lebbek*, *Ingadulcis*, &c., *Jambulana* were sown in various reserves, and although 90 per cent. germinated, most of the seedlings died, owing to the prolonged drought. The area sown was 371 acres, and the expenditure incurred Rs. 166. In *South Arcot*, no areas in reserved forests were leased out during the year under report for cultivation of cashew (*Anacardium occidentale*) under the terms referred to in the last report, but proposals for extending the system are under consideration. In the *Tiruvannamalai* range 6 acres of land were sown with babul seeds. The seedlings are vigorous, numbering about 2,000, their average height being about 4 feet. In *Salem*, some sandal and *nim* seeds, sown during past years in the *Kurumbapatti* and *Mallapuram* reserves are doing well. In *Trichinopoly*, the area of 24 acres in the *Kariappakkam* extension reserved land, that had been sown with *Acacia arabica* and *Ingadulcis*, in patches of three feet apart, in the previous year, was washed away by the

floods during the year, with the exception of 10 acres. In *South Canara*, the dibbling of valuable species of seeds in certain reserves has not proved successful. The system of planting in kumari areas, with teak and other species, by the hill tribes, and paying them Rs. 1-4-0 for every 100 seedlings at the end of the season, has been introduced, and is working well. The Maraties (a hill tribe) were hitherto allotted 2 acres to each family for *kumari* cultivation, on payment of a rupee per acre, and on condition of their supplying labour for the department who required to do so, but this payment has now been dispensed with, and they are required instead to plant up the area kumari on the terms referred to above. In *North Coimbatore*, the experiments begun in previous years, for aiding natural reproduction of sandal-wood in Byalur and Hassanur, by ploughing up the ground and sowing seeds, were continued. At Byalur a considerable number of seedlings have thus been obtained, and are fairly established, the oldest being four years old. At Hassanur seedlings germinated, but died for the most part at the end of the first year. In *South Coimbatore*, a sum of Rs. 239 was spent on ploughing 11 acres in compartment No. 7, and 2 acres in compartment No. 8, of the Tekadi leased forest, and dibbling in seeds of teak, vengai and rose-wood. The result was not known at the close of the year. In coupe 4 of compartment I of the Singaratope working circle, seeds of castor-oil, vagai and tamarind were sown in 2 acres, at a cost of Rs. 2-8-0.

(3) EARLY THINNINGS ; (4) OTHER OPERATIONS FOR THE IMPROVEMENT OF THE GROWING STOCK.

29. In *Kurnool*, thinnings of bamboo clumps were continued, and creeper cutting was carried out over 4,000 acres, at a cost of Rs. 802. In *Cuddapah* a heavy thinning of the red-sanders plantation at Kodur was made. Although the trees are now thirty years old, they were found to possess a very small proportion of heartwood. Most of the plantations in *North Malabar* were weeded, and improvement felling was begun in the Kurichyat block of 400 acres, by leasing it out to a contractor for three years, at Rs. 4 per acre, on the condition of his removing all trees marked by the Ranger, and all creepers. In *South Malabar* thinnings were carried on at a cost of Rs. 619, while other operations, including weeding and parasite-clearing, cost Rs. 3,203. In *South Coimbatore* cutting and girdling of less valuable trees were carried out in the areas subjected to cultural operations in the Tunacadavu range, besides the cutting and removal of creepers and prickly-pear in certain coupes. In *Tinnevely*, on the Mandanthorai plateau, the coupe watchers were made to remove the undergrowth around seedlings of valuable species.

(5) EXPERIMENTS.

30. Experiments were continued during the year. The various important exotics tried, and the progress made during the year under report, are shown below :—

Acacia decurrens.—The growth of these on the Nilgiris is good.

Acacia pyrantha.—Those on the Nilgiris continue to look seedy, and are of poor growth.

Acer Campbelli.—The plants on the Nilgiris continue to be healthy, but the growth is slow.

African seeds.—In *South Malabar*, of the 75 plants referred to in last report, only 8 are reported to be doing well.

Abies Douglasii.—The plants that survived in the Nilgiris last year, have all died.

Bucklandia populnea.—Planted in 1887 and 1888 on the Nilgiris. Growth fairly good on the whole.

Bamboos.—In *Kistna* 600 bamboo plants were put out over an area of 3 acres in the Weld Reserve, and they are doing well, with but few casualties. In *South Malabar*, *Bambusa longispatha* and *Cephalostachyum pergracile* on the river banks in Pokote and Mulathmanna, as well as *Arundinaria Brandisii* and *Dendrocalamus longispatus*, are doing well. *Arundinaria Brandisii* (giant bamboos), planted in *Ayravallikava* in 1879, continued to flourish. The circumference of the largest culm is 22 inches. The species is being propagated from shoots. Of the 35 shoots raised in 1896-97, 10 have been planted in the old Amarampoliem plantations, one in the office compound, and 11 in *Ayravallikava*. The remaining 13 shoots died. Of the *Bambusa vulgaris* planted in 1879, only one clump appears to be flourishing, others are backward in growth.

Coccoloba rubber.—Of the 435 trees in the *South Arcot* district, some have attained a height of 37 feet. No attempt has been made to tap the trees.

Cephaelis Ipecacuanha.—Of the 92 that remained on the *Nilambur* hill (*South Malabar*), all died. 13 in *Ayravallikava* are not thriving.

Date.—In *Kistna*, 5 acres, of *Bandur* fort reserve along the coast, has been dibbled with date seeds, without success. The plants in *Allipuram* plantation in the *Nellore* district, are reported to be a failure. The plants do not flourish there. In *North Arcot*, out of the 100 plants referred to in previous year's report, 40 have died, owing to prolonged drought. None of the trees in *South Arcot* have flowered. Those in the *Anamalai* reserved forest have developed 10

offshoots, 6 of which have been transplanted. In *Salem*, all the plants of 1889-1890, and 1890-91, are said to have died, except a few in *Dharmapuri* and *Tirupatur* ranges. In *Trichinopoly*, of the 172 seedlings planted in previous years on the *Pachamalais*, only 13 have survived, the soil and climate not being suited to the growth. Their average height at present is reported as between 5 and 6 feet. In *Tanjore*, of the 225 plants put out in 1881 in the *South Date* garden, *Vettangudi* reserved forest, 14 survived, but there is no improvement in the growth, the greatest height at the commencement and close of the year being 11 feet 3 inches, and 13 feet respectively. Of the 100 offsets that were planted in 1886, 66 survived at the commencement of the year, of which 5 died during the year. Of the 221 plants planted in 1881 in the *North Date* garden in the *Vettangudi* reserved forest, 136 trees survived, varying from 4 to 15 feet in height. Besides these there are 139 offsets. The dates have not fruited.

Dillenia indica.—Seedlings in *South Coimbatore* are doing well. 95 remain.

Divi Divi.—In *South Arcot* the yield in *Tindivanam* has not been good, owing to insufficient rainfall. In *South Canara* it has been a failure.

Ficus elastica.—In *North Malabar* some seed was obtained from *Assam* during the year, but none of it germinated. The cuttings put out last year at *Begur* and at *Manantoddy*, are growing vigorously, though some of the former have died, owing to unfavourable weather.

Hevea brasiliensis.—The trees in *North Malabar* are doing well. They are reported to be bearing seed.

Mahogany.—The young trees at *Gazulapalli*, and near *Chelama* in *Kurnool*, are doing well. In *Cuddapah* 510 seeds were put down in July 1897, but only 37 seedlings appeared, and of these only 15 survive, and these are not healthy. Of the 1,050 seeds, sown in previous year, 382 seedlings appeared and were basketted. They are healthy. Of the 80 seedlings planted in the *Casuarina* plantations of the *Nellore* district, only 37 are alive. The cause of the death of the remainder is reported to be due to an insect at the roots. The 4 seedlings referred to in the previous year's report, are reported to be doing well. Plants put out in the *Chittoor* and *Casuarina* plantation ranges in the *North Arcot* district, proved a failure. In *South Arcot* 3,000 seeds were sown in the *Ramapuram* reserved forest, but only 26 have germinated, and of these only 18 survive, owing to scarcity of water. In *Trichinopoly* the 25 plants in the *Udayarpalaiyam* range, referred to in previous year's report, are still alive, and the height and girth of some of them range from 6 feet 4 inches, to 15 feet 3 inches. All the 110 mahogany plants in the *Madanathoor* plantation, which had germinated from seed at the end of the previous year, were destroyed by floods. In *Tanjore*, of the 24 plants planted in 1886 in the *Vettangudi* reserved forest (nursery), 16 survived, and they vary in height, from 10 to 22 feet, and in girth from 9 inches to 2 feet 6 inches. The two plants in the *South Date* garden in the *Vettangudi* reserved forest, referred to in previous year's report, are in height 12' 3" and 13' 6", and in girth 7" and 1' 3" respectively. Of the 5 plants in the same reserve, referred to in last year's report, one died and the remaining 4 vary in height from 15 feet 3 inches, to 32 feet, and in girth from 1 foot to 2 feet 9 inches. In *South Canara* the plants in *Puttur* are reported to fare better, the maximum height of a three years' old seedling being 17½ feet, and girth 12 inches. At *Wandse* depot the plant does not thrive well. In *North Malabar*, the mahogany planted out in June 1897 at *Chedleth* mostly died, owing to absence of rain. The rest were burnt during the fire season. The 9 plants, given last year to Mr. Macdonald of *Karticoom* estate, were attacked by borer in August and all died. Of three hundred plants put out at *Muthanga* serambi last year, only 18 survive. The plants at *Kanoth* are doing well, one being nearly 30 feet high. In *South Malabar* the single *Swietenia macrophylla* tree in *Chathambarai*, measures 87 feet in height, and 74 inches in girth, against 86½ feet in height and 70 inches in girth last year. The *Swietenia* mahogany planted in *Tiruvallikava*, *Ramalur*, and *Panangad*, and referred to in previous report, is reported to be stunted in growth for their age. Those planted in site C attached to plantation 44 of *Ramalur*, were clean felled with that plantation during the year, in accordance with the working plan. The trees were very small. The *Swietenia macrophylla*, planted in *Pokote* and *Edacode*, are doing well. Of the 95 plants put down in the *District Forest-office* compound in the previous year, more than half the number have died, the average height of the remainder is 3 feet. Out of the 3 lb. of seed sown in the *Nilambur* range last year, 700 seeds germinated, of which 329 plants died. In the *Amarampoliem* range, 1,125 seeds were put out in bamboo pots, from which 432 healthy seedlings were obtained. About 6,000 seeds were put down in bamboo pots in *Pokote*. Of these 4,000 have germinated. The plants in *Walayar* are not doing well. Those in *Dhoni* continue to thrive. In the *Nilgiris*, the mahogany planted in the experimental block near *Benne*, has proved a failure. The trees in the *Kullar* nursery are doing well. In *South Coimbatore*, mahogany seeds were sown during the year in the *Bollampatti*, *Pollachi*, and *Udamalpet* ranges. In the *Bollampatti* range, they were sown in the *Chinnar* and *Sholakarai* working circles. In the former none germinated. In the latter, of the 978 seeds sown, only 31 germinated, and 29 plants are in good condition. In *Pollachi* range the seeds were sown at *Lower Ponnachi*. Only 4 seeds germinated, of which 3 seedlings died, and 1 is reported to be in good condition. In *Udamalpet* range the seeds were sown near *Esalammanthurai*, and only 13 germinated, 6 of the seedlings died, and 7 survive. Of the mahogany plants planted in 1890 in the *Kuvandamalais* in the *Madura* district, only 3 have survived, their height varying from 6 feet to 8 feet 3 inches, and their girth from 5 inches to 6 inches.

Peltophorum ferrugineum.—Of the 30 trees planted in 1886 in the Vettangudi reserve forest, 24 survive and are doing well. The height varies from 20 feet to 45 feet, and the girth from 1 foot 9 inches to 4 feet.

Syncarpia Laurifolia.—The growth of these plants on the Nilgiris continues to be good.

(d) *Exploitation of Major Forest Produce.*

(1) CLEAR OR REGENERATION FELLINGS.

31. In *Kistna* the Allinagaram plantation, which contained a stunted and irregular growth of casuarina trees, was cleared, to make room for better trees. The prescribed casuarina coupes in *South Arcot* and *Tanjore* were cut over. In the latter district 45 acres were felled over by contractors, the trees being sold standing. The yield amounted to 361 tons of sized wood, and 179 tons of unsized wood, and the rate realized per ton was Rs. 4-12-0 for the former, and As. 12 for the latter. In *South Malabar* 80 acres of forest, in coupe No. 1 of the Karimpoya reserve, were cleared for teak planting. The contractor paid Rs. 3,150 for the timber and bamboos standing thereon. The Ramalur plantation (24 acres) was also clean felled, and the site replanted with teak.

(2) SELECTION FELLINGS.

32. The only departmental operation in *Ganjām*, was the felling of sâl (shorea) for the Gun Carriage Factory. About 4,000 cubic feet were cut, and the parts that were not sufficiently large to meet the requirements of the factory, were cut into sleeper logs, and carted to Russellkonda. In *Gôdâvari*, large quantities of teak, and other reserved trees on unreserved lands, in the sub-division, were cut by permit-holders, after the trees were marked. In Yernagudem range, selection fellings were carried on by contract. In *Kistna*, casuarina, and some miscellaneous timbers, were cut to meet the demands of the Bezwada-Madras Railway, and of private individuals. In *Kurnool* the collection of valuable timbers, for supply to depots, was continued, and in view to a sustained yield, valuation surveys are being considered. The operations in *Bellary* were very limited, as there was a stock, of the previous year's quantity, remaining unsold at the beginning of the year, and in *Anantapur* they were limited to the marking of palmyra trees for removal. In *Chingleput*, the departmental fellings consisted of the dead and dying casuarina trees and babul wood, for supply to the Chingleput Reformatory School and the Ordnance Department, respectively. Four hundred and fifty-nine tons of crooked and branch wood, which resulted from the fellings, were sold to private contractors, at rates varying from Rs. 2-8-0 to Rs. 4 per ton. In *North Arcot*, bamboos were felled and supplied to the Ordnance Department, for lance-staves and tent-poles, and to the Police Department, for lathies for the use of ghaut taliaries. Dead and dying casuarina trees were also felled and supplied to the Central Jail, at a net profit of Rs. 3-12-0 per ton. In *South Arcot*, babul trees were selected and felled for conversion into tent pegs, of which 242 tons were supplied to the Ordnance Department, and also into engine fuel, of which about 400 tons were delivered to the South Indian Railway. One thousand one hundred and sixty babul trees, yielding about 670 tons of billet wood, were also selected, and were felled, by a contractor of the Public Works Department, at the request of the Executive Engineer. In *Trichinopoly*, selection fellings of babul (*Acacia arabica*) were carried out departmentally, and the felled material, consisting of 7,155 cubic feet of wood, was supplied as fuel to the Trichinopoly Central Jail. In *Tanjore*, casuarina trees were felled, and the poles, 72 in number, were supplied to the Tahsildar of Shiyali, for closing breaches in the banks of the Coleroon river. Two hundred trees were felled in *South Canara*, and yielded 369 logs. These, together with the previous year's stock of 569 logs, which remained in the forest unremoved, amounted to 938 logs, of which only 425 had reached the sale depots at the close of the year, owing again to difficulty in carting. In *North Malabar*, selection fellings yielded 46,149 cubic feet of timber cut by the department. Dead and dying trees, previously marked by the Range officer, were removed by contractors. Selection fellings were carried on in *South Malabar*, both by the department and by contractors, the trees in the latter case being marked by Range officers. The operation yielded 153,658 cubic feet, of which 120,246 cubic feet came from 3,955 acres of coupe No. III of the Karimpoya reserve, 25,502 cubic feet from 15,203 acres of the Chenat Nair reserve, and the rest from the Punakadu reserve, and the new Amarampalem forest. One thousand six hundred and

eighty-five cubic feet of miscellaneous timber were extracted from the Talamalai and Doddasampagai reserves in *North Coimbatore*, but the sales were not satisfactory. In *Tinnevely* selection fellings were carried on both by the departmental agency, and by contractors. The fellings conducted departmentally were for saplings required for departmental use. Six thousand and three hundred cubic feet were removed by contractors, the trees having been marked by departmental officers.

(3) IMPROVEMENT FELLINGS AND (4) COPPICE FELLINGS AND COPPICE WITH STANDARD FELLINGS.

33. In the *Northern Circle* improvement fellings were carried on in *Vizagapatam*, *Kistna*, *Bellary* and *Kurnool*. In *Vizagapatam*, coupes, to the extent of 100 acres in the Madalammakonda and Arlova reserves, were felled. The material obtained was sold as timber, fuel and charcoal, and yielded an average net profit of Rs. 4 per acre, against Rs. 1-8-0 in the preceding year. The babul area in *Kistna* was operated on in accordance with the working plan. The Mangrove working circle was not cut over, owing to the silting up of the Hamsaladivi channel. In the Kondapalli reserve, bamboos were cut under regulations, coupes were marked off, and a certain number of bamboos were permitted to be cut from each clump, the total number of bamboos cut being put up to auction. In *Bellary*, the coupe of 200 acres in the Neraniki reserve, sold in 1896-97, was not completely felled. Two coupes of 410 and 120 acres were sold in the Hyrada reserve to iron-smelters, under the system of coppice with standards, at Rs. 2 per acre. In *Kurnool*, improvement fellings were carried out over 113 acres at Chelama.

In the *Central Circle*, 1,255 acres were treated under coppice with standards, and the wood was supplied to the Madras Railway. The cutting was done by contractors, and the average price obtained was Rs. 13-1-0 per acre. Under similar system, sixteen coupes, aggregating an area of 2,413 acres, were sold in the *Chingleput* district, and in *North Arcot*, 5,010 acres were sold, at an average rate of Rs. 5-8-5 per acre. In *South Arcot*, coupes in two reserves were felled over departmentally for supply of engine fuel to the South Indian Railway, and a coupe in one reserve was selected and allowed to be cut over by permit holders, standards, about 20 per acre, being left, and the stools being trimmed by the purchasers of permits. Coupes in eight other reserves were coppiced by contractors. The total area of the coupes amounted to 1,367 acres. In *Salem*, several coupes were opened for working departmentally, as well as by contractors, in connection with railway fuel and local supply. Seven Casan (*Memecylon*) coupes, covering an area of 795 acres, were sold to contractors in the *Trichinopoly* district, and thirteen other coupes, comprising 470 acres, were worked as coppice with standards. The felling over seven coupes was conducted departmentally for supply of engine fuel to the South Indian Railway, and the right of felling over the remaining six coupes was sold to contractors at public auction. Three coupes of 106 acres, in the Vettangudi reserved forest in *Tanjore*, were sold standing, the price realized being Rs. 355.

In the *Southern Circle*, coppice fellings were conducted in five blocks by contractors, and departmentally in Sabladi, where 20 acres yielded 5,570 cubic feet of fuel, the cost of felling being Rs. 224, and the revenue Rs. 350. In *South Malabar*, 486 trees of inferior species, were cut from the Karimpoya block under improvement fellings. In *Madura*, three coupes, aggregating an area of 132 acres, were sold for Rs. 871; and 251 acres of tank-beds containing babul trees, estimated to yield 500 tons, were sold for Rs. 3,215. One coupe in Alagar Hill, and one in the Sirumalais, were worked as coppice departmentally, 66 acres yielded 383 tons of fuel, at a cost of Rs. 304, the revenue realized being Rs. 877.

(5) UNREGULATED FELLINGS.

34. The system of felling and removal under permits, continues to prevail in almost all the districts. In *Gôdâvari*, teak, in the form of poles, has been removed from unreserved lands on permits in the sub-division in large quantities, the trees being marked prior to felling. A similar system was attempted in Yernagudem, but not persisted in. In *Anantapur*, permits were issued for the removal of first, second and third class timbers from forest reserves, and also from unreserved lands, and for bamboos and firewood in the former. Greenwood from reserves was removed on permit for sugar manufacture. In *Chingleput*, only thorns were allowed to be removed from reserves

under permits. From unreserved lands, the local demand for firewood and timber, for house building and agricultural implements, continued to be met by the issue of permits, by permit-issuing officers and range officers. In *North Arcot*, a few permits were issued for building materials and fuel, when such produce was not available from coupes in the neighbourhood. In *South Arcot*, the permit system was discouraged, but permits were sometimes issued for the removal of dead wood, gravel, stone, &c., from reserved and unreserved areas, and in some cases for standing trees. In *North Malabar*, the free grant of inferior kinds of timber, and some fuel and bamboos, was included under unregulated fellings. In *Tinnevely*, a certain number of babul trees in tank-beds were felled by purchasers. Only trees above $2\frac{1}{2}$ feet in girth were marked for sale.

(e) *Extraction and transport of Major Forest Produce by land and water.*

35. There is nothing to be recorded under this head which has not already been reported. As stated in previous reports, the chief means of transport are by carts, tramways, water, and rail, and where produce is extracted from forests difficult of access, elephants are employed. In the report for 1896-97, it was stated that the experiment of floating timber down the Bhaváni above Méttupálaiyam in *South Coimbatore* was unsuccessful, and that a further trial would be made during the year under report with smaller logs. The experiment was accordingly made, but the result was again a failure, owing to the existence of several large outcrops of rock in the bed of the river.

(f) *Exploitation of Minor Forest Produce.*

(1) *EXTRACTION OF FODDER.*

36. Owing to the continuance of the drought which prevailed in the previous year, reserved forests in several districts in the *Northern Circle*, and in *North Arcot* in the *Central Circle*, continued to remain open for free grazing, and for the cutting of grass during the early months of the year. In *Kurnool* and *Kistna*, free grazing was permitted during the first two and three months, respectively. In the latter district, free removal of leaves for fodder, other than the six species referred to in the report for last year, was also allowed. In *Bellary* and *Anantapur*, large quantities of fodder were allowed to be removed from all the reserves on free permits. In *Chingleput*, permits for cutting and removal of thatching grass were issued at the rate of 3 pies per headload, and in certain cases the right to collect the same was leased out, and a sum of Rs. 73 realized. In the Anamalai reserved forest in *South Arcot*, 4,542 headloads of green grass, at 3 pies per head, were cut and removed by ryots, for the cattle brought for sale at Tiruvannámalai. In *Trichinopoly*, either permits were issued on payment for the removal of grass, or the right to cut grass, for periods of not more than a year, was sold by public auction. In *South Canara*, the right to cut and remove grass was as usual sold by auction, and a sum of Rs. 361 realized, against Rs. 334 in the previous year. In *South Malabar*, no other fodder than grass from the Chenat Nair and Walayar forests was extracted.

(2) *GRAZING.*

37. During the year under report, the question of treating certain areas as "special tracts," for the purposes of grazing, was considered, and the orders of Government obtained for the levy of increased rates in those tracts. The enhanced fees were, however, not enforced during the year, except in *Bellary* and *North Coimbatore*. The ordinary rate was generally three-fourths of the old maxima.

The grazing revenue decreased by Rs. 12,449, and the following abstract compares the results of the present, with those of the previous year:—

	1896-97.	1897-98.	Difference.
	RS.	RS.	RS.
Northern Circle	1,27,255	1,10,480	— 16,775
Central „	1,78,470	1,77,021	— 1,449
Southern „	70,629	76,404	+ 5,775
Total ..	3,76,354	3,63,905	— 12,449

In the *Northern Circle*, *Ganjám*, *Gódvári* and *Kurnool* showed an increase, which was, however, more than counterbalanced by large decreases in *Kistna*, *Bellary* and *Anantapur*. In *Gódvári*, the revenue rose from Rs. 4,119 to Rs. 9,580. The increase is ascribed to better supervision and check of cattle grazing within the reserves, and to the levy of fees, in the Yellavaram division, on cattle coming from the delta. The better promise for the season, after September, is reported to have contributed to the increase of Rs. 6,428 in *Kurnool*. The increase in *Ganjám* was due to the adoption of rates at three-fourths of the old maxima. The revenue in *Kistna* decreased by Rs. 15,135, and the fall during the last three years is striking, the figures for 1894-95 and 1897-98 being Rs. 90,144 and Rs. 55,254, respectively. The decrease was due to the drought, and the consequent emigration of breeders to the Nizam's Dominions, also to fewer foreign cattle being pastured within the reserves, and also to the reduction of rates by 25 per cent. In *Bellary*, where also there was a large decrease (Rs. 12,168), the number of animals licensed was considerably less than in the previous year, as grazing was regulated only from October. As in *Bellary*, the decrease in *Anantapur* was due to free grazing being allowed till 30th September, and to the abundance of pasturage obtainable free from the unreserved lands after the concession was withdrawn. In the *Central Circle*, the large decrease of Rs. 19,934 in *Cuddapah* was counterbalanced by an almost equally large increase of Rs. 19,049 in *South Arcot*. *Trichinopoly* and *Chingleput* showed also an increase of Rs. 2,860 and Rs. 1,845, respectively, and *Salem* a decrease of Rs. 4,082. The decrease in *Salem* is ascribed to the abandonment of certain reserved lands, that in *Cuddapah* to free grazing allowed during the early part of the year. The increase in *Chingleput* was due to the adoption of a better method of collecting grazing fees, that in *Trichinopoly* to more efficient control, and to the throwing open of some more padugais. The increase in the number of animals for which licenses were taken, and credited in the accounts of the year under report on account of grazing to be permitted in the current year, contributed to the increase in *South Arcot*.

In the *Southern Circle*, in all the districts, except *North* and *South Coimbatore* and *Madura*, the revenue was less than in 1896-97, but the decrease was small. In *Tinnevely* it fell from Rs. 7,855 to Rs. 5,983, and is accounted for by the fact, that the revenue due for the year was realized during the previous year, and that sufficient pasturage was obtainable elsewhere free of charge. In *Madura*, the increase of Rs. 1,529 was due to better supervision, while that in *North Coimbatore* (Rs. 7,117) and *South Coimbatore* (Rs. 578), to the increase in the number of animals licensed.

(3) *MISCELLANEOUS PRODUCE.*

38. As stated in previous reports, the collection of miscellaneous produce was, with but few exceptions, undertaken by contractors under leases. In *Vizagapatam*, the contract system was in force during the year in Golconda, but resulted in a loss to the contractor, caused by his own lax supervision. In *Palkonda*, produce was collected departmentally. In *Gódvári*, the leasing system was adopted in two taluks, but proposals for the whole district are now before Government, and awaiting further information from the Conservator. In *Anantapur*, minor produce was continued to be leased out, except leaves for manure, which, in this district, as well as in *Tanjore* and *Madura*, were removed on permits. The demand for manure leaves in the last-named district is increasing, owing to a large extent of land having been brought under wet cultivation under the Periyár irrigation scheme. Preparation of working plans for blocks supplying leaves for manure is under the consideration of the District Forest-officer. The revenue from two ranges rose from Rs. 3,171 to 3,985 and from Rs. 20 to Rs. 567, respectively, during the year. In *Chingleput*, *North Arcot* and *Trichinopoly*, the collection of *divi-divi* pods was undertaken departmentally. In *South Canara*, about 17 tons of catechu were manufactured at a cost of Rs. 192 a ton, as against Rs. 216 in the previous year. The revenue realized amounted to Rs. 836 a ton, against Rs. 715 in 1896-97. The quantity was obtained from 5,148 trees. Twenty-eight sandal and cinnamon stills were worked, and gave Rs. 128. Twenty-two cinnamon oil stills were worked, and Rs. 112 were realized. The chief item of minor produce in *North Malabar*, is the gum-kino. It is noted that proposals are under the consideration of the Collector for preparing the gum in a more careful way.

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

39. The subjoined abstract shows the total yield under timber and other produce during the year, as compared with the results of the previous year :—

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).	
	1896-97.	1897-98.	1896-97.	1897-98.	1896-97.	1897-98.	1896-97.	1897-98.
1	2	3	4	5	6	7	8	9
By Government Agency ..	449,988	412,399	2,450,068	2,086,473	229,852	258,738	47,746	50,921
By purchasers (including confiscations) ..	2,107,635	2,142,931	9,467,371	9,573,202	30,437,257	28,833,424	852,453	905,832
By free grants ..	82,951	62,652	7,212	5,168	157,961	203,578	1,773	1,829
By right-holders ..	1,702	1,811	257,541	257,585	21,614	21,314	40,767	40,411
Total ..	2,642,276	2,619,793	12,182,192	11,922,428	30,846,684	29,317,049	942,739	998,993
Increase or decrease in 1897-98 as compared with 1896-97 ..	..	22,483	..	259,764	..	1,529,635	..	+ 56,254
Percentage of increase or decrease over the previous year's total ..	..	..	..	2.1	..	4.9	..	+ 5.9

* Includes grazing fees.

The result under all heads, except minor produce, shows a decrease, and the causes of the difference are explained below under the respective items.

Section I.—Departmental Operations.

40. The following abstract shows the produce collected and disposed of departmentally during 1896-97 and 1897-98 :—

Produce collected.	During 1896-97.			During 1897-98.		
	Quantity.	Cost.	Average.	Quantity.	Cost.	Average.
1	2	3	4	5	6	7
Timber C. ft.	447,438	Rs. 67,287	Rs. A. P. 0 2 5	410,039	Rs. 59,062	Rs. A. P. 0 2 4
Fuel " "	2,450,068	1,10,388	0 0 8	2,086,473	1,01,118	0 0 9
Bamboos No.	229,852	4,576	0 0 4	258,738	4,751	0 0 4
Sandalwood C. ft.	2,550	2,645	1 0 7	2,360	2,756	1 2 8
Minor produce Mds. (25 lb.)	49,143	15,644	0 5 1	34,188	16,563	0 7 9
Total ..	..	2,00,540	..	..	1,84,250	..

Produce disposed of.	During 1896-97.			During 1897-98.			Stock on 1st July 1897.	Stock on 30th June 1898.
	Quantity.	Cost.	Average.	Quantity.	Cost.	Average.		
	8	9	10	11	12	13	14	15
Timber C. ft.	367,693	Rs. 1,76,885	Rs. A. P. 0 7 9	418,996	Rs. 2,29,669	Rs. A. P. 0 8 11	323,391	319,434
Fuel " "	2,564,100	1,88,079	0 1 2	2,265,967	1,73,419	0 1 3	835,820	666,326
Bamboos No.	229,881	10,086	0 0 8	260,314	9,223	0 0 7	19,717	18,141
Sandalwood C. ft.	1,797	15,720	8 12 0	3,911	33,699	8 9 10	1,955	404
Minor produce. Mds. (25 lb.)	51,091	34,837	0 10 11	71,821	32,291	0 7 2	79,508	41,875
Total ..	..	4,25,607	..	..	4,78,301	..	..	..

Compared with the collection of the preceding year, the total quantity collected under timber, fuel, sandalwood and minor produce, shows a decrease, while that under bamboos shows a slight increase. The decrease under timber is noticeable particularly in *Kistna*, *Bellary*, *Cuddapah*, *South Canara*, *North Malabar* and *South Coimbatore*. In *Kistna* the decrease was due to smaller number of trees available in coupe No. 4 of Gopuwanipole reserve; and in *Bellary* to absence of fellings in the Eastern slopes of Ramandrug range according to the working plan. The small collections made of redwood roots and stumps in the *Cuddapah* district, accounts for the large decrease in that district. The decrease in *North Malabar* was due to the felling operations not having been pushed on by the Ranger in May and June as rapidly as in the previous year. In *South Coimbatore* it was due to smaller quantity felled in the Tekadi leased-forest, and to the closing of the Sholakarai working-circle for a period of rest. No explanation has been furnished for the decrease in *South Canara*. The decreases in the above-named districts were somewhat counterbalanced by the increases which occurred, chiefly in *Kurnool*, *South Arcot* and *South Malabar*. The increase in *Kurnool* is ascribed to the opening of a third depot at Rudravaram, and to the collection of a large quantity of timber at the two existing depots, with a view to give labour to Widders working for the department, and to the Chenchus on account of the unfavourable season which prevailed at the beginning of the year. The supply of babul billets to the Madras Ordnance Department accounts for the increase in *South Arcot*. In *South Malabar*, it is attributed to a larger number of trees having been felled from coupe No. III of Karimpoya reserve than was estimated, and partly to the clean felling of 24 acres in Ramalore.

Under "fuel" there was a noteworthy decrease in *Vizagapatam*, *Kistna*, *Bellary*, *Cuddapah*, *Nellore*, *South Arcot*, *Nilgiris*, *South Coimbatore*, *Madura* and *Tinnevely*. This decrease was somewhat made up by increases in *Kurnool*, *Chingleput*, *Salem* and *Trichinopoly*. As observed in the previous year's report, the decrease was generally due to the substitution of private working. The decrease in *Bellary* was due to causes already explained under "Timber." The supply of engine fuel in *Cuddapah* through private agency, accounts for the decrease. The decrease in *Nellore* is ascribed to the prevalence of fever on the coast, and the consequent difficulty of procuring coolies, and also to the Bezvada-Madras State Railway works, where coolies were paid higher rates than those paid by the department. In *South Arcot*, the indent from the South Indian Railway was for a smaller quantity during the year, than that indented for in the previous year. The cessation of demand from the Commissariat Department accounts for the decrease in the *Nilgiri* district. In *South Coimbatore* the decrease was due to the closing of the Sholakarai working circle for rest; to the working of coupe I of compartment I of the Chinnar working circle by a contractor; and to absence of collection in Singaratope working circle, owing to want of labour. In *Madura* there was a cessation of departmental working. In *Tinnevely* half the Padarmalai coupe was given over to a contractor at a fixed rate per acre, instead of the whole coupe being worked by departmental agency as in the previous year, and this accounts for the decrease in the departmental collection. No explanation has been furnished for the decrease in *Vizagapatam* and *Kistna*. The increase in *Kurnool* was due to the working of improvement fellings at Chelama, and also to the removal of babul trees from some waste lands in Veldurti village, which were given in exchange for some patta fields included in Veldurti reserve. Further the collection of charcoal for the depot at Rudravaram was undertaken during the year to meet local demand, as the burning of charcoal by purchasers themselves in the forests was prohibited. The increase in *Chingleput* was due to the sale of babul wood to the Ordnance Department, and to private contractors on a larger scale, and to the sale of casuarina wood to the Reformatory School at Chingleput. In *Salem* the supply of a larger quantity of engine fuel to the Madras Railway Company accounts for the increase. The increase in *Trichinopoly* is attributed to the larger indent received from the South Indian Railway, and to arrangements made for carrying on felling operations through contractors.

Under "Bamboos" there were large increases in some districts, slightly counterbalanced by decreases in others. *Kurnool*, *South Malabar* and *North Coimbatore* contributed chiefly towards the increase, while *South Arcot* and *South Coimbatore* showed decreases. The services of an extra forester having been available in *Kurnool*,

larger collections were made in that district. The increase in *South Malabar* was due to the floating down to Kallai of big teak logs, a large number of which was cut during the year. In *North Coimbatore* there were extensive operations by departmental agency. The decrease in *South Arcot* and *South Coimbatore* was due to absence of demand.

Under "sandalwood" there was a slight decrease, which occurred chiefly in *North Arcot* and *Salem*. This decrease was however partly counterbalanced by an increase in the *Nilgiris*. The decrease in *North Arcot* was due to the closing of sandalwood areas to felling, and that in *Salem* to restrictions also imposed on felling. In the *Nilgiris* the increase was due to a better demand.

Under "minor produce" the decrease occurred chiefly in *Vizagapatam*, *North* and *South Coimbatore*, and was partly counterbalanced by an increase in *Nellore*. The decrease in *Vizagapatam* is accounted for by a smaller quantity of rela and avuru grass being collected during the year, than in the previous year. The decrease in *South Coimbatore* was due to new coffee estates absorbing some of the labour hitherto employed on the collection of minor produce. No explanation has been furnished for the decrease in *North Coimbatore*, nor for the increase in *Nellore*.

Under "disposals," the total quantity shows an increase under all heads except "fuel." The increase under "timber" occurred chiefly in *Ganjām*, *Kistna*, *South Arcot*, *North Malabar* and *South Malabar*. It was somewhat counterbalanced by decrease in *Cuddapah*, the *Nilgiris* and *South Coimbatore*. The increase in *Ganjām* was due to brisk demand at Russelkonda, and that in *Kistna* to large supply of piles and poles to the Bezwada-Madras Railway, and to auction sale of the stock in Tenali depot. The increase in *South Arcot* was due to causes already explained under collections, and that in *North Malabar* was due to disposal during the year of a considerable portion of the timber felled during the previous year. No explanation has been furnished for the increase in *South Malabar*. Want of sale for redwood roots in *Cuddapah* accounts for the decrease in that district. In *South Coimbatore* it is reported that the teak timber contractor removed a very large quantity of teak in 1896-97 after paying for it, and removed the balance, which was only small, in 1897-98. No explanation has been furnished for the decrease in the *Nilgiris*.

The disposals under "fuel" which show a decrease, occurred mainly in *Vizagapatam*, *Bellary*, *Cuddapah*, *Nellore*, *South Arcot*, the *Nilgiris*, *South Coimbatore*, *Madura* and *Tinnevely*. On the other hand there were increases in *Chingleput*, *North Arcot*, *Salem* and *Trichinopoly*. In *Tinnevely* the disposals represent not fuel, but fuel converted into charcoal, and this accounts for the apparent decrease. No explanations have been furnished for the decreases in *Vizagapatam* and the *Nilgiris*. The decrease in the remaining districts mentioned *supra*, was due to causes already explained under collections; that in *North Arcot* to the sale of the stock of improvement fellings of the previous year at Naikaneri, and to a quantity of 87,923 cubic feet written off to profit and loss from the Mamundur depot. In *Trichinopoly* it was due to causes already explained under collections.

Under "bamboos" there was an increase principally in *South Malabar* and *North Coimbatore*, and a decrease in *South Arcot* and *South Coimbatore*. The increase was due to causes explained under collections. The small quantity disposed of in *South Arcot*, represents bamboos rejected by the Ordnance Department out of the supply made in 1896-97. The decrease in *South Coimbatore* was due to causes explained under collections.

The quantity of sandalwood disposed of, shows an increase mainly in the *Nilgiris* and *North Coimbatore*. In the *Nilgiris* there were fair offers, and consequently the whole quantity, including the collections of the past year, was disposed of. The increase in *North Coimbatore* has not been explained, but it was apparently due to a better demand.

Under "minor produce", the increase relates to avuru grass, and occurs mainly in *Vizagapatam*. It was due to the inclusion of about 50,000 maunds of grass written off from the previous stock.

As regards cost of collections, there was a slight decrease in the rate for timber, and an increase for fuel, sandalwood and minor produce. The decrease, in the case of

timber, was chiefly due to the rate of felling in the Tekadi leased forest (*South Coimbatore*) having been less than that in the previous year, and to the fact that out of 40,880 cubic feet trammed during the year, 17,618 cubic feet were trammed to the new workshop, the rate for which was 6 annas less per candy ($12\frac{1}{2}$ cubic feet) than to the upper depot. The low rate effected in the cost of collection in the *Nilgiri* district, also accounts for the decrease. The increase in the rate for "fuel" is slight, and calls for no remark. The increase under sandalwood, was principally due to extra charges incurred in *North Coimbatore* in bringing to head-quarters the stock of the previous year, as well as that of 1897-98. The increase under minor produce, was due to the collection of a larger quantity of products—such as gallnuts, tamarind, soap-nuts, cardamoms, elephant tusks, in *North* and *South Coimbatore*.

The average rate of sales shows an increase under timber and fuel, and a decrease under bamboos, sandalwood and minor produce. The increase under timber was due chiefly to sale of a larger quantity of better class timber in *Kurnool*, *South Malabar* and *North Coimbatore*, and to increased rates obtained for the sleeper logs in *Ganjām*, also better prices secured, from Mysore contractors, for timber in the *Nilgiris*. The increase under fuel is small and calls for no remark. The decrease under bamboos was due mainly to want of competition in *South Arcot*, *Salem* and *South Coimbatore*. In the first two-named districts, the bamboos sold were those rejected by the Ordnance Department. The decrease under minor produce, was due chiefly to the writing off the account of *Vizagapatam*, of a large quantity of avuru grass from the previous year's stock, and to the unfavourable season of the year.

41. The subjoined abstract shows the quantity and value of timber and other produce removed by purchasers, as compared with those of the preceding year:—

(FORM No. 72-A.)

ABSTRACT K.—Produce removed by purchasers.

	During 1896-97.			During 1897-98.		
	Quantity.	Amount of sales.	Average.	Quantity.	Amount of sales.	Average.
North Circle.						
	TONS.	RS.	RS. A. P.	TONS.	RS.	RS. A. P.
Timber C. ft.	1,078,313	1,08,811	0 1 7	967,369	1,08,203	0 1 9
Firewood "	2,425,998	55,510	0 0 4	2,077,816	47,746	0 0 4
Bamboos No.	15,905,473	69,664	0 0 1	12,264,891	61,930	0 0 1
Grass and grazing "	..	1,23,989	..	..	1,10,463	..
Minor produce "	..	1,53,319	..	..	2,46,345	..
Total ..	..	5,16,243	..	..	5,74,687	..
Central Circle.						
	TONS.	RS.	RS. A. P.	TONS.	RS.	RS. A. P.
Timber C. ft.	811,280	89,956	0 1 9	778,857	92,689	0 1 11
Firewood "	3,859,689	1,30,828	0 0 7	4,059,078	1,56,964	0 0 7
Bamboos No.	12,442,370	91,468	0 0 1	12,303,451	98,698	0 0 2
Grass and grazing "	..	1,78,488	..	..	1,76,968	..
Minor produce "	..	2,19,072	..	..	2,13,738	..
Total ..	..	7,09,762	..	..	7,38,952	..
Southern Circle.						
	TONS.	RS.	RS. A. P.	TONS.	RS.	RS. A. P.
Timber C. ft.	154,039	47,041	0 4 10	344,351	49,393	0 2 3
Firewood "	3,137,739	90,505	0 0 6	3,357,082	73,761	0 0 4
Bamboos No.	2,065,094	18,149	0 0 2	4,178,232	24,079	0 0 1
Grass and grazing "	..	71,117	..	..	76,614	..
Minor produce "	..	1,00,548	..	..	81,243	..
Total ..	..	3,27,360	..	..	3,04,090	..
Presidency.						
	TONS.	RS.	RS. A. P.	TONS.	RS.	RS. A. P.
Timber C. ft.	2,043,632	2,45,808	0 1 11	2,090,577	2,49,185	0 1 11
Firewood "	9,423,426	2,76,843	0 0 6	9,493,976	2,78,471	0 0 6
Bamboos No.	30,412,937	1,79,281	0 0 1	28,746,574	1,84,702	0 0 1
Grass and grazing "	..	3,73,494	..	..	3,64,045	..
Minor produce "	..	4,77,939	..	..	5,41,326	..
Total ..	..	15,53,365	..	..	16,17,729	..
Grand Total of Sales ..	..	15,53,365	..	..	16,17,729	..

The total value of sales in the year shows a net increase of Rs. 64,364, as compared with that of the previous year, as noted in the margin. The increase is distributed over all classes of produce, except grass and grazing. Under timber there was a noticeable increase in the districts of <i>Ganjám</i> , <i>Salem</i> and <i>Madura</i> , which was partly counterbalanced by a large decrease in <i>Cuddapah</i> and <i>Nellore</i> , due to bad season. In <i>Ganjám</i> it was due to demand for sál sleepers for the East Coast Railway,				
Timber	...	...	...	+ 3,377
Fuel	...	...	...	+ 1,628
Bamboos	...	...	...	+ 5,421
Grass and grazing	...	...	...	— 9,449
Minor produce	...	...	...	+ 63,387
Total	...	...	...	+ 64,364

and for the proposed Parlákimedi light railway. The crediting of a large amount of tree value on darkhast lands, and the payment of the second instalment by coffee planters, on account of lands leased out in the reserved forests on the Shevaroy, contributed towards the increase in the *Salem* district. The success of the Periyár irrigation, which has induced ryots to put in a larger number of darkhast applications in the Palamedu range, and the sales of coupes in Kanavaipatty range, were the main causes for the increase in *Madura*. The net increase under fuel was not large. Taking the districts individually, the increase was mainly spread over the districts of *Kurnool*, *Cuddapah*, *Chingleput*, *North* and *South Arcot*. In *Góddavari*, *North Coimbatore* and *Tinnevelly* there was a large decrease, which was somewhat counterbalanced by the large increase in the districts mentioned above. The increase in *Kurnool* was due to the sale of a large quantity of dead trees on darkhast lands. In *Cuddapah* more engine fuel was supplied during the year, and the price obtained for it was considerably higher than that obtained for fuel used locally. The sale of a larger number of coupes, and of trees in a casuarina tope, in the *Chingleput* district, accounted for the increase in that district. Extensive sales of coupes to contractors during the latter half of the year, for supply of fuel to railway, contributed to the increase in *North Arcot*. In *South Arcot* the increase was due to the sale of patches of old casuarina in Merkanam, and other places around Tindivanam. The large decrease in *Góddavari*, was due to small demand from Public Works Department, and to famine, but mainly to the lease amount of the compartment in Coringa reserve, for the year under review, having been credited in the accounts for the previous year. In *North Coimbatore* no explanation for the decrease has been furnished, while the explanation furnished for the decrease in *Tinnevelly* is not clear. The increase under bamboos occurred chiefly in *North Arcot*, but was counterbalanced to a certain extent, by decreases in *Góddavari*, *Salem* and *Trichinopoly*. In *North Arcot* the fifteen months' lease of the Amerdi tannah bamboos, was converted into a three years' and three months' lease, and the other leases were sold for fifteen months, from 1st April 1898 to 30th June 1899, instead of for twelve months as hitherto. The whole amount of the leases was shown as sales for the year. These changes in the leases contributed to the increase in the district. The decrease in *Góddavari* was due to large removals in the previous year, and to want of demand in the market at Rajahmundry during the year under review. The restrictions imposed on the felling of bamboos in the *Salem* district, accounted for the decrease in that district. In *Trichinopoly* the decrease was due to slack demand, and to restrictions imposed on the removal of bamboos from the Pachamalais. The decrease under "grass and grazing" is explained under grazing.

The year, previous to that under report, was exceptionally poor for minor produce, and, as compared with it, there was therefore a large increase in the sales. The increase occurred chiefly in *Bellary*, *Anantapur*, *Chingleput*, *South Arcot* and *Trichinopoly*. The increase in *Bellary*, *Anantapur* and *South Arcot* has not been explained. In *Chingleput*, the increase was chiefly due to realizations by sale of shells in the Kurivithattoo reserved forest in the Ponnéri taluk, and of leaves, fruits, &c., of palmyra trees not tapped. The biennial and triennial leases for certain instalments in the *Trichinopoly* district fell during the year, and this accounts for the increase in that district. This increase was partly counteracted by large decreases in *Cuddapah*, *Salem* and *Tinnevelly*. The decrease in *Cuddapah* was due to drought, which continued during the first-half of the year. The tamarind and mango crops were poor, and the tanks were dry, with consequently no demand from the ryots for manure leaves.

The decrease in *Salem* was due to the collection, at the close of 1896-97, of certain contract amounts due for the year under report. The poor prices realized for babul pods and gum in *Tinnevelly*, accounted for the decrease in that district.

42. The following statement shows the comparative cost of departmental and private working, and the net profit derived under each system :—

Items.	Measure.	Quantity sold.	Amount of sale-proceeds.	Charges.			Net profit or loss.	Rate of net profit (column 8 ÷ column 3) per measure in column 2.
				A. Conservancy and works.	B. Establishment and contingencies.	Total.		
1	2	3	4	5	6	7	8	9
Departmental Working—				RS.	RS.	RS.	RS.	RS. A. P.
Timber	C. F.	413,996	2,29,669	59,062	65,656	1,24,718	+1,04,951	+0 4 1
Fuel	"	2,265,967	1,73,419	1,01,118	1,12,407	2,13,525	— 40,106	—0 0 3
Bamboos	NO.	260,314	9,223	4,751	5,281	10,032	— 809	—0 0 2
Sandalwood	C. F.	3,911	33,699	2,756	3,064	5,820	+ 27,979	+7 2 1
Minor produce ..	MDS.	71,821	32,291	16,563	18,412	34,975	— 2,684	—0 0 7
Private Working—								
Timber	C. F.	2,090,577	2,49,185	13,612	31,550	45,162	+2,04,023	+0 1 7
Fuel	"	9,493,976	2,78,471	15,211	35,257	50,468	+2,28,003	+0 0 5
Bamboos	NO.	28,746,574	1,84,702	10,089	23,385	33,474	+1,51,228	+0 0 1
Grazing	"	..	3,64,045	19,886	46,090	65,976	+2,98,069	..
Minor produce ..	"	..	5,41,326	23,570	68,533	98,108	+4,43,218	..

From the above, it will be seen that the profit under departmental working, in respect of timber, is much greater than that obtained for the same under removals by private agency. This is mainly due to the extraction of a superior quality of timber; to higher rates obtained for the sleeper logs in *Ganjám*; and to better prices paid by Mysore contractors for timber on the Nilgiris.

Under fuel, bamboos, and minor produce, departmental working has resulted in a loss, while private working showed a profit. The decrease of departmental net profit, was mainly due to the re-organization of the executive establishment, which raised the charges. Under fuel, of the quantity shown as sold, about 130,000 cubic feet were used departmentally, or written off as useless, and under minor produce, about 50,000 maunds of avuru grass were written off from previous year's stock in the Vizagapatam district. As regards bamboos, there was a want of sale competition, and many of the number sold were those rejected by the Ordnance Department.

As compared with the previous year, under departmental working, a better rate of profit was obtained for timber and sandalwood. The increased profit for timber has been explained above. Under sandalwood, the increase in the rate of profit was due to the fact that a much larger quantity was sold, as compared with the previous year.

Private working under timber and fuel shows an increase over the rate obtained in the previous year. This is due mainly to a better competition at coupe sales.

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

(FORM No. 72-B.)

ABSTRACT L.—Confiscation.

	During 1896-97.			During 1897-98.		
	Quantity.	Value.	Average.	Quantity.	Value.	Average.
Northern Circle.						
Timber C. ft.	49,917	Rs. 5,741	Rs. A. P. 0 1 11	38,334	Rs. 3,172	Rs. A. P. 0 1 4
Firewood "	16,241	330	0 0 4	53,454	927	0 0 3
Bamboos No.	17,960	187	0 0 2	74,237	681	0 0 2
Minor produce .. Money value.	..	648	..	..	200	..
Total ..	..	6,956	..	..	4,980	..
Central Circle.						
Timber C. ft.	7,024	976	0 2 3	7,629	3,208	0 6 9
Firewood "	8,239	659	0 1 3	7,967	731	0 1 6
Bamboos No.	4,100	64	0 0 3	5,107	123	0 0 5
Minor produce .. Money value.	..	97	..	..	167	..
Total ..	..	1,796	..	..	4,229	..
Southern Circle.						
Timber C. ft.	7,062	2,272	0 5 2	6,391	1,670	0 4 2
Firewood "	19,465	613	0 0 6	17,805	752	0 0 8
Bamboos No.	2,260	38	0 0 3	7,506	92	0 0 2
Minor produce .. Money value.	..	275	..	..	94	..
Total ..	..	3,198	..	..	2,608	..
Presidency Total.						
Timber C. ft.	64,003	8,989	0 2 3	52,354	8,050	0 2 5
Firewood "	43,945	1,652	0 0 7	79,226	2,410	0 1 0
Bamboos No.	24,320	289	0 0 2	86,850	896	0 0 2
Minor produce .. Money value.	..	1,020	..	..	461	..
Grand Total ..	..	11,950	..	..	11,817	..

The total amount of sales shows a slight decrease of about Rs. 130, which calls for no remark. It is noted that a large amount was realized in Cuddapah, by the high prices realized from the sale of red sanders timber seized and confiscated in Cuddapah and Pullampet ranges.

44. The following abstract statement shows the quantity and value of produce removed under rights or free grants:—

	Timber.		Fuel.		Bamboos.		Minor produce.	Grazing.	Total value.
	Cubic feet.	Value.	Cubic feet.	Value.	Number.	Value.	Value.	Value.	
<i>By Right-holders.</i>									
Northern Circle	1,311	Rs. 94	257,510	Rs. 4,328	20,489	Rs. 128	Rs. 38,450	Rs. 700	Rs. 44,200
Central Circle	..	..	..	..	..	..	..	356	356
Southern Circle	500	37	75	4	825	2	290	615	948
Total ..	1,811	131	257,585	4,332	21,314	130	38,740	1,671	45,504
<i>By Free-grantees.</i>									
Northern Circle	27,741	2,154	888	36	32,910	169	1,066	357	3,782
Central Circle	28,620	3,413	400	25	1,55,071	486	105	..	4,029
Southern Circle	6,291	909	3,880	61	15,592	217	301	..	1,488
Total ..	62,652	6,476	5,168	122	2,03,573	872	1,472	357	9,299

There were many fires in several districts, as drought continued during the year. In the *Trichinopoly* district, some houses were destroyed by Coleroon floods in the Udaiyarpalaiyam taluk. In its review on the administration report for 1896-97, the Government of India desired that the value of grazing, admitted free on account of distress caused by drought, should be noted in the reports for future years. The Government of India Resolution was received too late to obtain the information for embodiment in the present report. It is observed that in *Cuddapah* free grazing was allowed for five months in the year, but its value cannot be estimated. In *North Arcot*, free removal of fodder grass was allowed during drought in the reserves north of the Palar river. No produce was granted on free permit in the districts of *Chingleput* and *Tanjore*.

CHAPTER IV.

45. The subjoined table shows the financial results of the year, compared with those of 1896-97. The results show a decrease of Rs. 38,415 in the net revenue:—

Forest year.	Circle.	Revenue.	Expenditure.			Net results.
			A. "Conservancy and works."	B. "Establishments."	Total.	
1896-97	Northern	Rs. 5,97,422	Rs. 2,42,025	Rs. 2,23,255	Rs. 4,65,280	+ 1,32,142
	Central	9,48,547	3,06,570	2,78,212	5,84,782	+ 3,63,765
	Southern	6,42,948	2,79,605	2,58,210	5,37,815	+ 1,05,133
	Total ..	21,88,917	8,28,200	7,59,677	15,87,877	+ 6,01,040
1897-98	Northern	5,99,670	2,06,027	2,61,999	4,68,026	+ 1,31,644
	Central	8,88,834	2,78,206	2,78,281	5,56,487	+ 3,32,347
	Southern	6,62,610	2,84,977	2,78,999	5,63,976	+ 98,634
	Total ..	21,51,114	7,69,210	8,19,279	15,88,489	+ 5,62,625

The receipts of the year, compared with that of the previous year, fell by Rupees 37,803, and the variations are explained below:—

Departmental working.

Timber + Rs. 52,784. Due mainly to sale of the previous year's stock in *North* and *South Malabar*; to brisker demand for timber in the former district and in *Ganjām*, and to better prices secured in the *Nilgiri* district from Mysore contractors.

Fuel — Rs. 14,660. Due mainly to a smaller supply of engine fuel to the South Indian Railway in *South Arcot*, and to the prevalence of fever on the *Nellore* coast, whereby coolies were difficult to obtain.

Bamboos — Rs. 863. Needs no explanation.

Sandalwood + Rs. 17,979. Due principally to sale of the previous year's stock in the *Nilgiris* and *North Coimbatore*.

Minor produce — Rs. 2,546. Requires no explanation.

Removals by purchasers.

Timber — Rs. 420. Requires no explanation.

Fuel — Rs. 18,024. Due generally to prevalence of scarcity in several districts, and to the unusually large revenue realized in 1896-97 in certain districts, notably *North Arcot*, *Trichinopoly*, *Tanjore* and *North Coimbatore*.

Bamboos — Rs. 20,184. Absence of demand for bamboos in *Goddavari*, and to the restrictions imposed on the felling of bamboos in *Salem* and *Trichinopoly*.

Grazing — Rs. 12,449. Vide explanation under grazing.

Other produce — Rs. 17,460. Ascribed to the failure to realize the revenue from sales of tangedu bark in *Bellary*, *Kurnool* and *Nellore*, and also to the bad season generally.

Confiscated wood and miscellaneous revenue — Rs. 21,960. The large amounts realized from lands opened out for coffee cultivation in the Anamalais in *South Coimbatore*, during the year previous, is accountable for the deficiency this year.

The total expenditure under A. "Conservancy and Works" was less than that of the previous year by Rs. 58,990. The decrease occurred mainly under I, II, VII and IX. The short expenditure under I, was due to restricted collection of redwood roots in *Cuddapah*, to the substitution of private working, and to the curtailment of felling in *Madura*. In *Cuddapah* and *South Arcot*, the supply of engine fuel was restricted. In *Nellore*, labour could not be procured, owing to prevalence of fever in coast villages. On the *Nilgiris*, felling operations were curtailed, as there was an

absence of demand for firewood. The fall under II was due mainly to reductions in the temporary establishment, owing to the augmentation of the permanent establishment. Under VII the decrease occurred chiefly in *North* and *South Coimbatore*, and *Nellore*. In the two first-named districts, the decrease occurred under roads, and in the last-named district under buildings. The decrease under IX was due to the large refunds in the Northern Circle in the previous year. The cost of establishment increased by Rs. 59,602, due mainly to the reorganization of the executive establishment.

The following districts contributed chiefly to the net surplus: *Salem* over 24 per cent., *Bellary* 10, *North Arcot* and *South Malabar* 9 each, and *Anantapur* 8.

CHAPTER V.—IMPORTANT ADMINISTRATIVE CHANGES.

46. *Realization of Revenue from the Usufruct of Toddy-yielding trees in the Reserved Forests and Government Waste and Poramboke Lands.*—In *Ganjám* the revenue under this head was small, and it is reported that in the *Berhampur* and *Chicacole* taluks, zemindars and other proprietors charge less than the Government rates. The realizations under the new system were not as satisfactory as they were under the old system in *Anantapur*, the revenue realized being Rs. 11,550 against Rs. 29,553 in the previous year. In *North Arcot*, fixed fees were levied on only a few trees in the reserved forests, and the introduction of the system has been, it is reported, postponed to 1899–1900. In *Madura* there are scarcely any toddy-yielding trees in reserved forests. There were no bidders for the right of tapping the trees on Government waste and poramboke. The reports from other districts contain little information as to the effect of the system on the revenues from this source.

47. *Working of the Department—Improvement of the Forest Growth, and the Wants of the People.*—Collectors have been requested to give effect to the instructions of Government in the matter of encouraging the growth of manure leaf-yielding trees and shrubs, and the measures adopted will be noted in the annual reports for the current and future years. It is reported that in *Gódávári* no leaf is used at all for manure, and the ryots are not accustomed to use it, as the lands are naturally fertile. The irrigated lands in *North Coimbatore* are distant from the forest areas, and no arrangement appears to be necessary in the matter of the supply of manure leaves in the district. In *Kurnool*, depots were opened at *Atmakur*, *Yernipad* and *Rudravaram*, but the prices, based on seigniorage rates plus the cost of extraction and carriage, are reported to be too high for all classes, except the timber traders and the more wealthy people. The subject of opening depots, within reach of easy lines of transport, and near villages, is under the consideration of the Collector. The system of selling babul pods in *Bellary* directly to the goat herds, at a price fixed by the District Forest-officer, was extended to the whole of the district except *Hospet* taluk, as complaints were received that the lessees demanded excessive fees from the graziers. In *Anantapur* the requirements of the people were kept in view in working the forests, and the rates charged were similar to those prescribed for the various classes of timber and minor produce from unreserved areas. In *Chingleput* the growth in unreserved lands was found insufficient to meet the wants of the people, and coupes in reserves were opened for the purpose. Additional permit-issuing stations were also opened, in order to enable the people to obtain permits for forest produce, without having to travel long distances. In *North Arcot* coupes to an extent of 5,010 acres were leased out in different parts of the district, and were supplemented by issue of permits for timber and fuel, on payment of seigniorage wherever necessary. The opening of a few more fuel depots in *Salem* is under consideration, and the leaves of III-class trees were allowed to be removed on permits and on leases for manure. The required information on the improvement of standing growth, and efforts to aid it, are given in paragraphs 27 and 28 of chapter II.

48. *Rules under the Forest Act.*—The Timber Transit Rules in *Ganjám* have had a good effect on the revenue, but are reported to have led to forest offences in the shape of forging Government hammer marks. The *Vizianagram* estate forest rules

gave no trouble, and proved suitable, while those sanctioned for the *Jeypore* estate were found not altogether suited to the circumstances of the country. A revised set of draft rules have since been submitted to Government for approval. The rules under sections 35 and 36 for the *Kurnool* district worked satisfactorily, and the *North Coimbatore Sandalwood Transit Rules* have had the effect of checking, though not absolutely stopping, the illicit trade in the wood. The rules sanctioned for the *Saptur* estate forests remained practically inoperative, as the blocks to be constituted reserved lands, have not yet been selected. The District Forest-officer reports that the forests are poor, containing practically no timber of any size or value, and that if they are in any way to be improved, the privileges must at any rate be curtailed; but the rules sanctioned by Government permit of no interference with existing privileges. Timber Transit Rules, under sections 35 and 36 of the Forest Act, were sanctioned during the year, for the districts of *Vizagapatam*, *Cuddapah*, *South Canara*, *Kistna* and *Gódávári*. Those for *Malabar* have since been published, and for *Tinnevely* await the sanction of Government. Revised Drift Timber Rules for *Gódávári* were also approved by Government, as well as rules regulating the rights of *Chenchus* in the *Nallamalai* forests in *Kurnool*. The Forest Manual, which awaited the approval of Government at the close of the previous year, was issued during the year.

49. *Working of the Rules under Section 26 of the Forest Act.*—The concession allowed under Rule 7 of the rules under section 26, was availed of by the people generally in all the districts, and there was no abuse of the privileges worth mentioning. Some difficulty was felt in working the rule in *Chingleput* and *North Coimbatore*, due to the removal of produce for sale, under pretext of using it for domestic purposes. As regards the complaints of the ryots in *Vizagapatam*, alluded to in the report for the previous year, it is noted that certain species have been excluded from class III, in dealing with unreserved lands. Collectors have now been requested to submit, for the Board's approval, separate lists of selected trees for each range, taluk or other convenient local area, containing only the names of those valuable timbers or fruit trees which are to be found in considerable numbers on the unreserved lands of the areas in question, and these lists will be widely published locally, as the lists of the reserved and classified trees within the meaning of Rule 7, in so far as that particular locality is concerned. In this connection, the attention of Collectors has also been drawn to Dr. Brandis' opinion, that special protection can only be effectual and practically useful, if the number of protected trees is limited to a few which can be easily recognized and identified. These measures will, it is believed, remedy the objection which is made from time to time, that the concession of free felling is more nominal than real.

50. *Coffee cultivation in Reserved Forests.*—On the *Shevaroy*s in the *Salem* district no fresh applications were entertained during the year, but a sum of Rs. 4,249 was realised on account of the value of tree growth on the lands already leased out. The question of opening the *Yelagiris* and *Kollimalais* to coffee cultivation is still under consideration. In *North Coimbatore*, the Board has approved of the proposal to throw open the *Minchiguli* valley, on terms similar to those under which leases are to be granted on the *Anamalais*, and the proposals are awaiting the sanction of Government. In *South Coimbatore*, the leases of lands on the *Anamalais* have not yet been executed for any of the blocks already granted. Seventeen blocks aggregating 15,997 acres have been sold, and twelve blocks of 10,896 acres, for which applications were received, have not been sold, pending survey of the areas by a surveyor from the Survey of India Party. Government has since directed that no further applications need be entertained for some time, and that it will issue orders as regards the disposal of the pending applications.

51. *Tours of Forest Member.*—Mr. S. H. Wynne was the Forest Member of the Board of Revenue, from 3rd January to 5th April 1898, and the Hon'ble Mr. Sturrock for the rest of the year. In March 1898 Mr. Wynne proceeded to *Coimbatore* and the *Nilgiris*, and conferred with the District Forest-officers on matters of forest interest. Mr. Sturrock visited *Salem* in September 1897, and the *Nilgiris* and *Coimbatore* in May and June 1898.

52. *Conservators' Inspection.*—The names of Conservators who held charge of the three circles, the time spent by them in camp, and the names of the districts visited by them during the year, are shown in the following statement:—

Circle.	Names of Conservators.	Number of days in charge.	Number of days spent in camp.	Districts visited.	District Forest-offices inspected.
Northern ..	Mr. A. W. Peet ..	275	204	All districts	{ Ganjám. Kurnool.
Central ..	" E. D. M. Hooper ..	90			
	" E. P. Popert ..	261	200	All districts except Nellore.	{ All except Nellore, South Arcot and Salem.
	" J. W. Cherry ..	104			
Southern ..	" E. D. M. Hooper ..	76	228	{ All districts except South Canara and North Malabar.	{ Madura. Tinnevelly.
	" H. A. Gass ..	69			
	" J. W. Cherry ..	108			
	" C. E. Brasier ..	112			

53. *Touring of District Forest-officers.*—All the District Forest-officers, except those of Vizagapatam, North Arcot and South Arcot, spent in camp more than half the year. In South Arcot Mr. Peake had to remain at head-quarters for a longer period than is ordinarily necessary, owing to the frequent changes which took place among the clerks of the District Forest-office.

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

55. *Audit of the Accounts of the District Forest-offices.*—The Local Fund inspecting staff of the Accountant-General's office audited, as usual, the accounts of all District Forest-offices, except Ganjám and South Arcot, and the results were, on the whole, fair.

56. *Forest School.*—One Deputy Ranger from the Central Circle, and three from the Northern Circle, were deputed to Dehra Dun for training. Two returned from the school to the Southern Circle with Ranger's certificate, and one to the Northern Circle.

57. *Conference of District Forest and Divisional Officers during Jamabandi.*—In Government Order, No. 569, Revenue, dated 13th July 1897, the Government defined certain principles to be observed in the administration of the forests of this Presidency. Collectors have now been directed to instruct their District Forest-officers and Divisional Officers, to arrange to meet, from time to time, when Jamabandi is being held, at a station in the neighbourhood of the forests, or at some other place, so that any petitions complaining of the working of the Forest Rules may conveniently be taken up jointly for investigation and disposal, referring for the orders of the Collector any points on which the officers concerned are unable to agree. The Collectors have also been directed to instruct the officers, during these Conferences, to make enquiries as to whether the forest administration is being carried on in the manner best adapted to meet local conditions; and whether satisfactory arrangements exist under which ryots can easily obtain wood for agricultural implements on payment, when none is available on unreserved lands; whether the periodical closure of grazing grounds is being carried out with as little inconvenience as possible; whether ryots are encouraged to cut and remove fodder from closed areas; whether forest prosecutions are instituted with discrimination; and whether it is possible to enlist the co-operation of the villagers in fire protection.

58. *Conduct and work of the Establishment.*—The conduct and work of the subordinate executive and protective staff is still not as good as is desirable. In the Northern Circle, one Forester in Góddavari was prosecuted for bribery, but the result of the case is yet not known. A supervisor was suspended in Kistna, and the services of another were dispensed with. A case of temporary misappropriation, by a license issuing

gumastah, was pending before the Deputy Magistrate of Narsapur. In Kurnool, one Ranger was suspended, one Deputy Ranger dismissed, and the services of a forester dispensed with. In Cuddapah in the Central Circle, one Deputy Ranger was dismissed, and another reduced. Two Foresters in Nellore were transferred from the district for bad work and misconduct. In Chingleput, one forester was suspended, and two permit issuing officers were dismissed. Two Foresters were dismissed in South Arcot. In Salem, a Ranger was reduced, and the services of another dispensed with on charges of cheating and disobedience of orders. A Forester in Trichinopoly was criminally prosecuted before the Deputy Magistrate of Musiri, and sentenced to four months' imprisonment, for embezzlement of Government money and illegal gratification. In the Southern Circle, a Deputy Ranger was suspended in North Coimbatore for overstaying his leave, and a Forester removed from the service. In South Coimbatore, a Ranger was reduced to the bottom of his grade, and in Madura, another was suspended. In Tinnevelly, a Forester was suspended for eight months, for conniving at illicit fellings by a contractor.

There were several dismissals and suspensions amongst the forest guards and watchers, for misconduct, and gross neglect of duty. In North Malabar, two guards were convicted, one for extortion, and the other for conniving at a house-breaking case.

59. *Health of the establishment.*—In the Northern Circle, Ganjám and Góddavari continued to be unhealthy, and no officer escaped fever during the year. In the first-mentioned district one draughtsman died of cholera, and a temporary Surveyor of pneumonia. In the latter district, one tannadar, two forest guards, and one permit gumastah, died of fever. Vizagapatam and Kurnool continued also to be unhealthy. The establishment suffered much from fever, and a guard in Kurnool died. There was a great deal of cholera in Anantapur, but the health of the establishment generally remained good. In the Central Circle, the subordinates of the Cuddapah taluk suffered considerably from fever. The health of the establishment was bad in Nellore, (guinea worm and fever being the most frequent complaints), and far from good in North Arcot, South Arcot, Madura, the Nilgiris, South Malabar, and South Coimbatore.

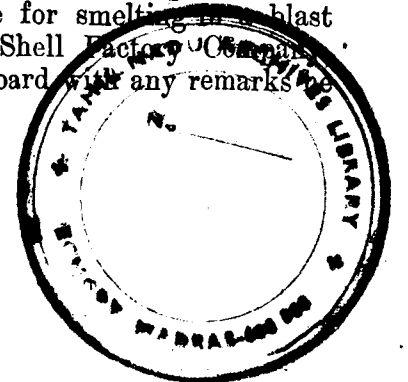
60. *Service books.*—In all the districts, except North Arcot, South Arcot and Madura, service books are reported to have been maintained, and verified up to the close of the year under report.

61. *Inventory of valuable Stock.*—Stock registers are reported to have been kept and verified in all districts.

62. *Elephants.*—Ten elephants were captured during the year, seven in North Malabar, one in South Malabar, and two in South Coimbatore, of which the two captures in the last-mentioned district died. Thirteen elephants were sold during the year, of which two were from the fresh captures in North Malabar. One was transferred to the Police department, and two to the Agent to the Governor, Góddavari. Another elephant was transferred temporarily to the Public Works department. The number of animals borne at the close of the year on the strength of the Forest department, was 52, as per Form No. 63, against 62 in the previous year.

63. *Rain-gauges.*—As usual, rain-gauge readings are reported to have been properly recorded in all the districts, except Ganjám and Anantapur in the Northern Circle; Nellore, Chingleput, Trichinopoly and Tanjore in the Central Circle; and South Canara and the Nilgiris in the Southern Circle. Two, out of the six rain-gauges in Kistna, were out of order for the greater part of the year.

64. *Iron industry in the Salem District.*—The question of the cost of charcoal for iron smelting in the Salem District, and the annual supply of charcoal available, was considered during the year. Test experiments were made at Middlesborough with Bengal coal and Salem ore, and the results, as communicated in the Right Honourable Secretary of State's despatch since received, show that the coal is difficult to coke; that the coke when made is unsuitable for blast furnace work; that the sample of Salem iron-ore contained only 40 per cent. of magnetic iron; that the ore is too poor and too siliceous to be worth exporting; and that it is unsuitable for smelting in a blast furnace. Major Mahon, Superintendent of Foundry and Shell Factory, Coimbatore, has however since been requested to favour the Board with any remarks



may wish to offer on these results. His attention has also been drawn to the fact that one of the recent applicants for a prospecting license for Kanjamalai, has remarked, that magnetic beds notoriously vary both as to grade and to quality, and that it is therefore possible that a different verdict might have been obtained as regards the ore, if the specimens had been selected by a mining expert. Much better analyses were obtained from other specimens, and plenty of good ore was obtained by the old East India Iron Company.

65. *Work and Services of Superior Officers—Northern Circle*.—The zeal and energy of Mr. A. W. Lushington, Deputy Conservator of Forests, and of Mr. Nallaswami Naidu, Extra Assistant Conservator in the Kistna district; the sound work of Mr. Lodge; the energy of Mr. Hearsey in inspecting the forests in his subdivision; and the good selection work of Mr. Fischer, in the Kurnool district; have been acknowledged by the Collectors of Kistna and Kurnool. The reports from the other districts make no mention of the work of the District Forest-officers, or their Assistants.

Central Circle.—The Acting Conservator Mr. Cherry writes: "From what Mr. Popert told me, and from my observations during the short time I have been in charge, all the District Forest-officers of the Circle continue to use their best endeavours, and to give satisfaction."

Southern Circle.—The Acting Conservator remarks: "No Collector has stated his opinion of his District Forest-officer's administration, but the annual reports show that all District Forest-officers have worked well and energetically."

APPENDICES.

ANNUAL FORM NO. 44.
Forest Department, Madras Presidency.
Area of reserved forests and reserved lands, 1897-98.

FOREST DEPARTMENT.

District.	Area of reserved forests.				Area of reserved lands.				Total area of reserved forest and reserved lands on 30th June 1898 in square miles.	
	Area on 1st July 1897.		Added during the year.	Excluded during the year.	Area on 30th June 1898.		Excluded or transferred to other heads.	Area on 30th June 1898.		
	Acres.	Equivalent in square miles.			Acres.	Equivalent in square miles.		Acres.		Equivalent in square miles.
	Acres.	Equivalent in square miles.	Acres.	Equivalent in square miles.	Acres.	Equivalent in square miles.	Acres.	Equivalent in square miles.		
<i>Northern Circle.</i>										
Ganjam ..	93,517	146	62,969	245	156,486	262,532	410	7,170	203,350	318
Vizagapatam ..	87,139	136	561	137	87,700	178,484	279	422	176,446	276
Godavari ..	518,459	810	23,070	844	540,474	91,200	143	13,806	80,406	126
Kistna ..	418,708	654	33,648	706	431,560	326,187	510	8,504	291,960	456
Kurnool ..	1,155,960	1,806	99,942	1,962	1,255,902	335,807	525	225,675	453,156	708
Bellary ..	291,468	456	11,911	458	283,228	108,832	170	2,967	100,466	157
Anantapur ..	279,526	437	8,125	450	287,651	49,542	77	..	40,170	62
Total ..	2,844,767	4,445	240,226	4,802	3,073,001	1,352,584	2,114	258,544	1,345,953	2,103
<i>Central Circle.</i>										
Cuddapah ..	1,009,024	1,576	47,526	1,651	1,056,550	501,665	784	40,466	479,333	749
Nellore ..	343,411	537	11,105	554	354,516	93,556	146	..	80,967	126
Chingleput ..	129,749	203	4,924	201	128,731	6,137	10	8,006	8,886	14
North Arcot ..	653,346	1,021	16,998	1,047	670,344	72,434	113	554	52,820	82
South Arcot ..	366,850	573	65,713	676	432,563	90,796	142	..	22,253	35
Salem ..	786,488	1,229	..	784,791	1,226	134,618	210	..	108,474	170
Tiruchinopoly ..	121,217	189	1,655	192	122,851	69,356	108	..	55,263	86
Tanjore ..	11,419	18	100	18	11,519	100	..	..	..	..
Total ..	3,421,504	5,346	148,021	5,565	3,561,865	968,662	1,513	49,036	807,496	1,262
<i>Southern Circle.</i>										
South Canara ..	72,790	114	33,581	166	106,371	636,630	995	..	612,204	957
Malabar, North ..	100,722	157	129	157	100,851	75,107	117	..	74,978	117
Do. South ..	25,227	39	189	40	25,416	184,920	289	..	184,731	288
The Nilgiris ..	228,874	368	179	368	238,962	59,134	92	21,851	80,092	125
Coimbatore, North ..	673,898	1,053	2,607	1,054	674,382	365,046	570	..	361,357	565
Do. South ..	418,292	654	..	654	418,292	1,982	3	..	1,952	3
Madura ..	359,808	562	9,585	567	363,081	37,660	59	5,424	29,823	46
Tinnevelly ..	262,559	410	1,451	412	263,974	10,488	17	607	7,505	12
Total ..	2,142,170	3,347	47,721	3,408	2,181,329	1,370,967	2,142	27,882	1,352,762	2,113
Grand Total ..	8,408,441	13,138	435,968	13,775	8,816,195	3,692,213	5,769	835,462	3,506,211	5,478

FORM

Forest

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			
Northern										
Ganjam ..	146	No. 727, dated 27th August 1897.	Deppaguda	SQ. MLS. 2	RS. ..	RS. ..	RS. A. P. ..			
		No. 748, dated 3rd September 1897.	Kuddapada	2	..	..	..			
		No. 921, dated 8th November 1897.	Kuricholi	9	..	..	..			
		No. 922, dated 8th November 1897.	Hukuma.. .. .	7	..	..	..			
		No. 176, dated 24th March 1898.	Pippaliponka	13	..	..	..			
		No. 221, dated 23rd April 1898.	Brahmanasayi	13	..	..	..			
		No. 236, dated 27th April 1898.	Baiballi	44	..	..	..			
		No. 80, dated 10th February 1898.	Mundapetta	9	..	..	..			
		No. 504, dated 29th June 1897.	Napier's park	*	..	..	..			
		Total ..		99	..	..	..			
		Vizagapatam.	136	No. 6, dated 4th January 1898.	Barnakonda extension block No. 29.	1	..	..	..	
No. 5, Rev., dated 4th January 1898.	Boddapalem									
No. 6, dated 4th January 1898.	Kadagandi extension block No. 32.									
No. 293, Rev., dated 20th May 1898.	Antikonda extension block No. 30, I and II.			1	..	..	..			
No. 292, dated 20th May 1898.	Arlova extension No. 4									
Do. Do. " 5	Do. " 2									
No. 290, dated 20th May 1898.	Do. " 2			† 1	..	..	..			
Do. Do.	Pedimikonda extension			1	..	..	..			
No. 280, Rev., dated 18th May 1898.	Sinivaram extension									
No. 355, Rev., dated 3rd June 1898.	Kadagandi reserve extension..									
Total ..				2	..	..	..			
Gôdâvari ..	810 (a)-2	No. 1064, Rev., dated 17th December 1897	Beddadavole	23	..	..	..			
		No. 164, Rev., dated 28th March 1898.	Kandikuppa	13	..	..	..			
		No. 353, Rev., dated 23rd June 1898.†	Marlagudam	3	..	..	..			
		Total ..		39	..	..	..			
Kistna ..	663	No. 499, dated 28th June 1897.	Bandar Fort extension No. 1..	1	..	..	..			
		No. 707, dated 20th August 1897.	Amudalapalli	2						
		No. 747, dated 3rd September 1897.	Bollapalli extension No. 3 ..	4						
		No. 756, dated 4th September 1897.	Veldurti	6						
		No. 855, dated 7th October 1897.	Guttikonda extension No. 7 ..	3						
		No. 870, dated 12th October 1897.	Potumerakaparra	9						
		No. 871, dated 12th October 1897.	Kandipad							

(a) Rectification of area.

* Below one square mile.

† Reservation takes effect from 1898-99.

No. 45.

Department.

incurred on, Forest Settlements during 1897-98.

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.								
Teliki	SQ. MLS.	24		SQ. MLS.	RS.	RS.	85	
Darpangia	25		..	2,485	..	..		
Gullery	37	.....	..					
Ambozora	50	.....	..					
Gundribadi and extensions ..	34	.....	..					
Gogodo	24	.....	..					
Paichalia	22	.....	..					
Kriamba	36	.....	..					
Rogada	25	.....	..					
Dougam	4	.....	..					
Raipada	11	.....	..					
Chatrapuram	1	.....	..					
Podara	1	.....	..					
Rankuhanumanthapuram	2	.....	..					
Bainamari	6	.....	..					
South Mohiri	6	.....	..					
Ramagodo	10	.....	..					
Total ..	318		..				2,485	..
Kadagandi	166	Arlova extension No. 42 I-A.	8	1,914	..	101		
Dharakonda		Do. " 42 I-B.						
Bointie		Karaka extension " 41 II-A.						
Bharnakonda inclusive of Molalanka and Gadilavalasa.		Do. " 41 II-B.						
		Do. " 40, I ..						
		Pedimikonda extension No. 1.						
		Chinnagora extension No. 1 ..						
		Do. " 2 ..						
		Do. " 3 ..						
		Do. " 4 ..						
	Do. " 5 ..							
Total ..	166		8	1,914	..			
Jilugumilli	5	Singampalli	22	2,485	..	93		
Dharbhagudem	3	Ultimathule						
Kopalli	30	Rajahvommangi						
Kovada	30							
Papikonda	33		22	2,485	..			
Total ..	101							
Nizampatam	10	Vedullapalli extension No. 2 ..	1					
Nayanapalli extension No. 1..	4	Ipurupalem	9					
Kothur extension No. 4 ..		Chirala	4					
Gollapudi		Balusapad	2					
Rudavada extension No. 1 ..		Jaggiapet extension No. 5 ..						
Do. " 2 ..	Do. " 6 ..							
Do. " 3 ..	Do. " 7 ..	8						
Matsavaram	Gondrayi							
Vemavaram	Kuragalla extension No. 1 ..							
Bollapalli extension No. 1 ..	Kandipad do. " 1 ..							
Vinukonda	Tangeda do. " 1 ..							
Yellamanda block No. II ..	Do. do. " 2 ..							
Muppala	Madinapad do. " 1 ..							
Bollapalli extension No. 7 ..	Do. do. " 2 ..							
Kakirala " No 7. ..								

† Represents the expenditure incurred by the Forest Settlement-officer and proportionately debited by him to this district.

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

<i>Northern</i>							
Kistna—cont.	SQ. MLS.	No. 886, dated 23rd October 1897.	Narasayapalem extension No. 1	SQ. MLS.	RS.	RS.	RS. A. P.
	..	Do.	Do.	1	..	..	..
		No. 923, dated 8th November 1897.	Bandar Fort extension No. 2..	2	2,395	..	..
		No. 946, dated 13th November 1897.	Adavuladeviparra	3	..	..	..
		No. 966, dated 16th November 1897.	Takkellapad	3	..	..	..
		No. 147, dated 10th March 1898.	Kamepalli	3	..	..	..
		No. 146, dated 10th March 1898.	Janapad	5	..	..	..
		No. 230, dated 25th April 1898.	Gopuwanipalem extension No. 2.	4	..	..	..
		No. 630, dated 26th July 1897.	Pasvemula extension No. 4 ..	4	..	..	..
		No. 346, dated 16th June 1898.*	Venkatayapalem extension No. 3.	4	..	..	..
		No. 291, dated 20th May 1898.*	Venkatayapalem extension No. 6.	4	..	..	..
		No. 298, dated 23rd May 1898.*	Bollapalli extension No. 8 ..	2	..	..	..
		No. 337, dated 7th June 1898.*	Bapatla block No. 3	1	..	..	..
		Total ..		50	2,395	..	47 14 5
Kurnool ..	1,811	No. 601, dated 20th July 1897.	Somidevipalle	18	..	10	..
		No. 619, dated 24th July 1897.	Tokapalle	2	..	8	..
		No. 641, dated 27th July 1897.	Pyalakurti	1	..	8	..
		No. 665, dated 2nd August 1897.	Ambavaram	16	..	12	..
		No. 995, dated 29th November 1897.	Jaladurgam	28	10	20	..
		No. 996, dated 29th November 1897.	Tambalapalle	3	..	20	..
		No. 1053, dated 15th December 1897.	Uyyalavada addition	31	149	23	..
		No. 1067, dated 17th December 1897.	North Dhone	22	..	20	..
		No. 10, dated 5th January 1898.	Millampalli	5	60	23	..
		No. 104, dated 19th February 1898.	Sirvel addition No. 2 ..	25	55	25	..
		Total ..		151	274	169	2 14 11
		Expenditure incurred on reserves notified in previous year.		..	12	5	..
		Grand Total ..		..	286	174	..
Bellary ..	456 (a)—13	No. 726, dated 27th August 1897.	Neraniki	15	..	..	..
		Total ..		15	..	..	..

(a) Rectification of area.

* Reservation takes effect from 1898-99.

incurred on, Forest Settlements during 1897-98—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	

Civile—cont.

Gangalakunta additions Nos. 1, 2 and 3.	SQ. MLS.	Sitaramapuram	SQ. MLS.	RS.	RS.	SQ. MLS.
Darvemula extension No. 1 ..	2	Pamidipad	8	4,108	..	272
Pasvemula do. „ 5 ..	8	Mekapad	10	..	..	..
Goli	5	Koppuram block No. 1 ..	11	..	..	..
Tumuruocodu extension No. 4..	5	Mukteswaram	32	..	..	..
Do. „ 5 ..	10	Koppukonda extension No. 1..	8	..	..	..
Nizampatam extension No. 1..	6	Mutukur do. „ 5..	1	..	..	..
Pullaripalam	18	Rekulagadda	..	..	..	..
Guttikonda extension No. 9 ..	69	Kandlagunta extension No. 1.	..	..	..	..
Gadimetla	15	Madugula	..	..	..	..
Tumuruocodu extension No. 2..	11	Gamalapad	..	..	..	..
Perallavalapalem	20	Gangalakunta extension No. 1.	..	..	..	..
Muthayapalem extension No. 1.	33	Rentachintala	..	..	..	..
	6	Paluvayi	..	..	..	..
	86	Pasvemula extension No. 9 ..	..	..	..	..
	94	Bollapalli extension No. 9 ..	..	..	..	..
Total ..	86		94	..	..	..
Sirvel addition No. 3	18		..	..	31	..
Velugode	69		..	..	622	..
Maduva	1		..	..	31	..
Betamcherla	15		..	..	119	31
Nandyal addition No. I ..	11		..	..	88	31
Do. No. II ..	20		..	..	40	31
Veludurti	2		..	..	..	31
Guvvalagunta	27		..	..	..	621
Eastern Nallamalai block No. I of Cumbum.	20		..	..	..	621
Do. No. II ..	33		..	..	..	621
Duddiyala	6		..	..	..	31
	..		..	..	..	31
	..	Eastern Nallamalai block No. III of Cumbum.	50	..	..	..
	..	Loddipalli	4	..	..	13
	..	Panem	47	..	..	10
	..	Alamur	88	..	..	10
	..	Gani	11	..	..	2
	..	Giddalur block No. I ..	11	..	..	2
	..	Do. No. II ..	..	..	..	..
Total ..	222		211	303	2,780	..
Molagavalli	2	Jittinakatti north-east ..	1	..	..	..
Kodala	2	Kadaluru	2	..	..	..
Ubbalagandi extension ..	3	Kalluru, east	1	..	..	..
Marutla	5		..	..	..	..
Kosigi	1		..	..	..	..
Bellahumshi	2		..	..	28	223
Hampasagaram	2		..	..	..	..
Basarakodu	2		..	..	..	..
Bachigondanahalli	3		..	..	..	..
Chintalapalli, north ..	2		..	..	..	..
Do. south	2		..	..	..	..
Koyilargatti extension ..	1		..	..	..	..
Kalluru, west	2		..	..	..	..
Jittinakatti south-east ..	2		..	..	..	..
Total ..	31		4	28	223	..

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 accounts.	In other accounts.	
1	2	3	4	5	6	7	8

Northern

Anantapur.	Sq. Mls. 437	No. 32, dated 17th January 1898.	Golla	Sq. Mls. 11	RS.	RS.	RS.	A.	P.
		No. 31, dated 17th January 1898.	Iyampalli	2	..	..	..	..	..
		No. 261, dated 18th May 1898.*	Kalagira	8	..	..	..	..	..
		No. 331, dated 3rd June 1898.*	Durgam extension						
			Total ..	21	..	..	..	..	..

Central

Cuddapah ..	1,578 + 1	No. 426, dated 7th September 1897.	Chennupalle	6	..	..	..	..	..
		No. 58, dated 28th January 1898.	Sancherla extension	8	..	..	..	..	..
		No. 34, dated 10th January 1898.	Kottakota Dasaripalli extension.	33	..	..	..	..	..
		No. 533, dated 12th November 1897.	Yerrappakonda	5	..	..	..	..	..
		No. 521, dated 3rd November 1897.	Horsleykonda extension	10	..	..	..	..	..
		No. 320, dated 5th July 1897.	Gundlur	3	..	..	..	..	..
		No. 343, dated 20th July 1897.	Marripad	7	..	..	..	..	..
		No. 269, dated 27th May 1898.*	Palakondas	137	..	..	..	..	..
		Do. *	Wengimalla	18	..	..	..	..	..
			Total ..	227	..	..	..	..	..
Nellore ..	641	No. 514, dated 1st July 1897.	Duttalur	8	..	..	..	..	..
		No. 942, dated 12th November 1897.	Potukonda extension						
		No. 979, dated 22nd November 1897.	Veminabhi extension	2	..	..	..	..	..
		No. 978, dated 22nd November 1897.	Peramanakondur						
		No. 1066, dated 17th December 1897.	Rapur-Veligonda extension A.	3	..	..	..	..	..
		No. 73, dated 7th February 1898.	Vedanaparti						
		No. 299, dated 23rd May 1898.	Cherlopalli extension	5	..	..	..	..	..
		No. 301, dated 23rd May 1898.	Mogallur block B extension						
		No. 295, dated 20th May 1898.	Rapur-Veligonda extension C.	11	..	..	..	..	..
		No. 300, dated 23rd May 1898.	Pallakonda						
		No. 302, dated 23rd May 1898.	Tummalatalpur extension	2	..	..	..	..	..
		No. 329, dated 3rd June 1898.	Rapur-Veligonda extension B.						
		No. 328, dated 3rd June 1898.	Sydapuram A extension	2	..	..	..	..	..
		No. 328, dated 3rd June 1898.	Do. B extension						
		No. 354, dated 23rd June 1898.	Tirumalapad						
			Total ..	31	1,322	..	42	10	4

* Reservation takes effect from 1898-99.

† By rounding off fraction.

incurred on, Forest Settlements during 1897-98—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.

Ratnagiri	Sq. Mls. 3	..	Sq. Mls.	RS.	RS.	Sq. Mls.
Hottabetta, north	13	..	..	..	..	..
Kondapalli	7	..	..	..	..	..
Narasampalli	3	..	..	..	..	..
Yemmihatty	5	..	..	..	..	..
Pillahalli	6	..	..	..	..	..
Iydukallu	7	..	..	..	..	..
Shetturu	10	..	..	..	..	..
Khyrevu	..	..	..	..	..	..
Total ..	54	..	..	..	..	..

Circle.

Lankamalai extension	68	Papepalle east	17	1,835	..	115
Idupalapaya extension	21	Do. west	..			
Ganganapalle extension	60	Gandikota extension A	..			
Yellutla extension	8	Do. B	11			
Sangasamudram	8	Do. C	..	4,050	..	338
Seshachalam extension	71	Kosinipalle extension	2			
Vontimitta extension	4	Pandikunta	4			
Palakonda extension	49	Kanakalakonda extension	7			
Konarazupalle extension	36	Cheyyaveram extension	8			
Chitvel extension	22	Seshachalam extension D	26			
Kanchelamoram extension	25	Kokilatikanama extension	10			
Neridikonda	10	Patur extension	8			
Musalikonda	4	Dhodyam extension A	3			
Gundlakonda	7					
Madhaveram extension, east	8					
Do. west	..					
Sibyal extension, north	2					
Do. south	..					
Total ..	403		96	1,835	..	
Sriharikota	40					
Mabimalur	15					
Gavaravaram	11					
Tammenapatam extension	1					
Yenukolla-Gundamadakala	6					
Balayapalli	1					
Korisakonda	7					
Udayagiri-Veligonda extension.	4					
Rapur-Veligonda B block extension.	3					
Chintalapalem	1					
Chipinapi	1					
Chaganam extension	5					
Gundlakonda	..					
Total ..	95		..	4,050	..	

(a) Amount spent during the year.

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 accounts.	In other accounts.	
1	2	3	4	5	6	7	8
Central.							
Chingleput.	sq. MLS. 203 (c)—9	No. 771, dated 8th September 1897.	Kolilyalam	2	..	..	..
		No. 770, dated 8th September 1897.	Tirukkalku Kundaram extension No. II.	2	..	..	..
		No. 34, dated 17th January 1898.	Kovilpadagai extension No. I.	..	..	..	..
		No. 33, dated 17th January 1898.	Meyyoor extension No. II ..	..	..	..	..
		No. 107, dated 21st February 1898.	Nandambakkam extension No. I.	1	..	..	..
		No. 118, dated 28th February 1898.	Nannangalam extension No. I.	..	..	..	..
		No. 158, dated 18th March 1898.	Meyyoor extension No. I ..	..	..	..	..
		No. 216, dated 22nd April 1898.	Melmeyyoor	..	..	..	..
		No. 800, dated 20th September 1897.	Vallam extension No. 2 ..	..	..	..	..
		No. 775, dated 9th September 1897.	Ugumudi extensions Nos. 1, 5 and 6	2	..	..	..
		No. 1058, dated 16th December 1897.	Perumbakkam extension I ..	..	..	..	..
		No. 113, dated 25th February 1898.	Tirumalavoyal extension I ..	..	..	..	..
		No. 67, dated 2nd February 1898.	Tirumeni extension II ..	..	..	..	..
		Total ..		7	..	..	..
		North Arcot.	1,023	No. 584, dated 17th July 1897.	Pakala A and B	9	..
No. 650, dated 29th July 1897.	Penamur extensions A and B ..			2	..	..	..
No. 755, dated 4th September 1897.	Kempasamudram A and B ..			1	..	..	..
No. 891, dated 25th October 1897.	Santhapet extensions A, C and D.			..	..	..	..
No. 1021, dated 6th December 1897.	Tandappan tangal extension A.			9	..	..	..
No. 1065, dated 17th December 1897.	Nambodu extensions A, B and C.			..	..	..	..
No. 246, dated 29th April 1898.	Sanankuppam			3	..	..	..
No. 235, dated 27th April 1898.	Palmaner			24	..	..	..
Total ..				2	..	..	..
South Arcot.	653			No. 839, Revenue, dated 23rd October 1897.	Uchimalai	2	..
		No. 815, Revenue, dated 27th September 1897.	Munnurmangalam	6	Information not available.	..	
		No. 677, Revenue, dated 4th August 1897.	Annamangalam				
		No. 791, Revenue, dated 16th September 1897.	Melakondalapadi eastern bit ..				
		Do.	Do. western bit ..	10			
		Do.	Do. central bit ..				
		No. 795, Revenue, dated 17th September 1897.	Pichavaram extension ..				

(c) Disafforested.

(c) Disafforested.

incurred on, Forest Settlements during 1897-98—cont.

Areas undergoing settlement.						Estimate of area 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.

Tandarai extension No. I	}	1	Kattankolathur extension No. I	}	13	RS.	RS.	SQ. MLS.
Nannangalam extension No. II.			Anjur extension No. I					
Tirumalavoyal extension No. II			Sonallur extension No. I					
			Do. No. II					
			Senkundram extension No. I					
			Sirukundram extension No. I					
			Kavanur extension No. I					
			Gudalur extension No. I					
			Do. No. II					
			Madayathur extension No. I					
			Alathur extension No. I					
			Sirukundram B extension No. I					
			Vemali extension No. II					
			Kattur extension No. I					
			Do. do. " II					
			Do. do. " III					
			Illalur extension No. I					
			Do. do. " II					
		13	Maiyur					
			Kattu Gudalur extension No. I					
			Acharavakkam extension No. I					
			Karunguli					
			Marudam					
			Kavanipakkam					
			Edamanchie					
			Valluvapakkam					
			Salaiyur					
			Madambakkam extension No. I					
			Vattambakkam extension No. I					
Total		..		13		3,145	..	
Pattikonda		7						
Peddur extension		15						
Musalimadugu extension		3	Kinatipalli extension B	..	•	2,396	..	1
Pallelakuppam extension A		10						
Kallapadi		10						
Solavaram extension		1						
Basuvareddipalli extensions A and B.		8						
Alapalli		3						
Nellipatla		12						
Virabalunda		4						
Totakanama		8						
Total		81		..		2,396	..	
Pinjur		12						
Sorakolathur		8						
Damarakadu								
Marur		11						
Odiyanatham		3						
			Nil.	Nil.		983	Information not available.	..

* Below one square mile.

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 accounts.	In other accounts.	
1	2	3	4	5	6	7	8

Central

South Arcot —cont.	..	No. 673, Revenue, dated 4th August 1897.	Thottapadi	SQ. MLS. 2	RS. 10	RS.	RS. A. P.
		No. 698, Revenue, dated 17th August 1897.	Tachur	2			
		No. 895, Revenue, dated 27th October 1897.	Ravathanallur				
		No. 894, Revenue, dated 26th October 1897.	Melpalankur	11			
		No. 872, Revenue, dated 12th October 1897.	Aviriyur				
			Total ..	23	10	..	..
Salem ..	1,226	....	....	..	..	..	..
Trichinopoly.	189	No. 838, dated 5th October 1897.	Valaiyur	3	..	..	..

incurred on, Forest Settlements during 1897-98—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.

Sankarapuram tope, north ..	SQ. MLS. 1		SQ. MLS.	RS.	RS. A. P.	SQ. MLS.
Kottuvananjur tope ..	1					
Puttai tope		Nil.	Nil.			..
Rattumylur extension ..						
Total ..	35		..	983	..	
Vellalagundam	5	Velampatti	9			
Pattimedu extension ..	35	Kurichi				
Mavur	6					
Shelur	12					
Onnakkarai	6					
Vathampatti	5					
Morappur	19					
Ponnagarapatti						
Poyappatti						
Ubbarani						
Total ..	88		9	2,321	..	
Tatchankurichi	4	....	..			
Kudur Kalvarayankolam ..	4	....	..			
Peruvalappur						
Adavathoor tank-bed ..						
Punganur do.						
Kumarikutti hill						
Mogavanur	6	....	..			
Shemmalai extension No. 1 ..						
Nanganur (Viramalai eastern extension).						
Aniyappur (Viramalai western extension).	4	....	..			
Arasadi Arivithi						
Puliyur extension No. 1 ..						
Kurumbalur	12	....	..			
Naranamangalam						
Irur						
Pillankolam						
Iyanarpalayam	4	....	..			
Kariyanur						
Vannarampundi						
Mattavarai Mavalingai ..						
Sirukodal	8	....	..			
Kunnam						
Mangalam						
Sittalai						
Vempavur	12	....	..			
Mettupalayam						
Pulambadi No. 1						
Do. .. 2						
Puliyur extension No. 2 ..	13	....	..			
Siruvachur						
Peraiyur						

* This figure was arrived at by the Forest Settlement-officer by dividing the total expenditure by the number of weeks the Forest Settlement-officer was in charge.

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 accounts.	In other accounts.	
1	2	3	4	5	6	7	8

<i>Central</i>							
Trichinopoly —cont.	SQ. MLS. 189	....	....	SQ. MLS. ..	RS. ..	RS. ..	RS. ..
Tanjore ..	18	....	North casuarina extension ..	..	..	..	..

<i>Southern</i>							
South Canara. +25 (a)	128	No. 984, dated 24th November 1897.	Murkodihola	13	Nil.		Approximately Rs. 385-5-4.
		No. 1020, dated 6th December 1897.	Suraladvi				
		No. 9, dated 5th January 1898.	Herur				
		No. 7, dated 5th January 1898.	Nujina Ane		Approximately Rs. 11-10-10.		
		No. 105, dated 19th February 1898.	Kurseguddi	20			
		No. 306, dated 25th May 1898.	Charmadikanapadi † ..	33			

(a) Rectification of area.

* Below one square mile.

† Takes effect from 1898-99.

incurred on, Forest Settlements during 1897-98—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.

	SQ. MLS.		SQ. MLS.	RS.	RS.	SQ. MLS.
Periyavalayam eastern extension No. 1.						
Periyavalayam western extension No. 2.						
Yedayathangudi	5	....	..	..	..	
Sundareswarapuram extension ..						
Ulliyakkudi extension						
Pilakkurichi						
Tirukonam extension						
Vilangudi extension No. 1 ..						
Do. " 2 ..	1	....	..	..	..	
Vengaram	1	....	..	..	..	
Alavoy extension	1	....	..	..	..	
Karaiyakam extension	2	....	..	..	..	
Siluvacheri	2	....	..	..	..	
Kulumur extension	2	....	..	..	..	
Kilakolathur						
Total ..	78		..	..	..	

Circle.

Hulimishipare ..	3	Nananjimale ..	2	} Nil.	Approximately Rs. 6,110-10-8.		
Mensinaguddi ..	1	Porkal ..	7				
Hullumurdibare ..	16	Kadimbila ..	3				
Halakkihola ..	}	Shiradi extension ..	7				
Balkattihola ..		Shibaje ..					
Vad-naberuhola ..		5					
Jarkalane ..							
Sutthihola ..							
Hulkuppama Ane ..							
Mudugulpare ..	12						
Naganakalbare ..	10						
Kamradihola ..							
Naravi ..	101						
Mottukallagudde ..	9						
Karkamudi ..	2						
Neralamankane ..	}						
Sampekere ..		4					
Chittur ..							
Jarvuttukadu ..		1					
Markalgudde ..							
Doddinamane ..	6						
Bakudihola ..	2						
Halisomeshwar ..	3						
Jattakattumale ..	2						
Madibare ..	30						
Koratikalbare ..	10						
Megani valley ..	28						
Tombattu ..	20						
Surikodlu ..	6						
Balimane ..	20						
Mavinakodlu ..	3						
Someshwar ..	37						
New Someshwar ..	4						
Baregundi ..	13						
Baindur ..	10						
Mavinaguli ..	2						
Dodd-naberu ..	1						
Hurabe ..	1						
Kalangimale ..	}						
Karadka ..		9					

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 accounts.	In other accounts.	
1	2	3	4	5	6	7	8

<i>Southern</i>							
South Canara —cont.	SQ. MLS.			SQ. MLS.	RS. A. P.	RS.	RS.
North Malabar.	157	No. 997, dated 29th November 1897.	Wood-stock	0.20	Approximately 56 6 5	..	..
South Malabar.	40	....	....	..	..	..	..
The Nilgiris.	353	No. 496, dated 28th June 1897.	Nirbarra	179 acres or 0.29 sq. mls.	..	..	..

incurred on, Forest Settlements during 1897-98—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.
Mulliar	3	....	..	..	..	
Chinkramale extension	1	....	..	..	..	
Savantagudde	1	....	..	..	..	
Virakhamba	3	....	..	..	..	
Kodiamale	2	....	..	..	..	
Mensinakan	2	....	..	..	..	
Panambare	1	....	..	..	..	
Total ..	384		19	..	..	
Kannoth	40	....	..	..	..	
Kannoth extension A	2	....	..	..	..	
Periya	21	....	..	..	..	
Dindimal	2	....	..	..	..	
Padri	48	....	..	..	..	
Periya extension	2	....	..	..	..	
Total ..	115		..	..	..	
<i>Nilambur Range.</i>						
1. Nilambur block	..					
2. Pokote	..					
3. Panangoi	..					
4. Valluvasseri	..					
5. Kanakut	..					
6. Erumbadam	..					
7. Ambalakandi	..					
8. Arimbracuttamala	..					
9. Mangalasseriparamba .. .. .	..	....	..	..	..	29
10. Puthalath and Chitharikalparamba	..					
<i>Amarampalem Range.</i>						
11. Muriat	..					
12. Kariem	..					
13. The new Amarampalam forest	..					
<i>PALOHAT RANGE.</i>						
<i>Attopady Valley.</i>						
14. Block No. I	..					
15. Do. " II	..					
16. Do. " III	..					
17. Do. " IV	..					
Total ..	259		..	..	..	
Beleramdu Hulla	..					
Keraipadu	..					
Mullimalai	..					
Arappilai	..					
Sampangi	..					
Bikkemara	..					
Neggilhada	..					
Thoralhatti	..					
Mokkai	..					
Uchehukadavu	..					
Konemara	..					
Selemara	..					
	1					
Wenlock downs	..		33	..	..	
Carritt Shola No. 1	..					
Do. " 2	..					
Do. " 3	..					
Do. " 4	..					
Do. " 5	..					
Thambrakadavu	..					
Ullanni	..					
Salada	..		1	..	..	22
Arigodalu	..					
Selikallu	..					
Bikkamalai	..					
Rajbag	..					
Gathada	..					
Halakarai addition No. 1	..					
Do. " 2	..					

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

Southern

The Nilgiris—cont.	SQ. MLS. ..	....	....	SQ. MLS. ..	RS. A. P. ..	RS. ..	RS. ..
Total ..				..	..	..	..
North Coimbatore.	1,054 (c)—3	No. 103, dated 19th Feb 1898.	Virumandampalayam ..	3	..	2,473	824
		No. 152, dated 12th March 1898.	Sinnaveerasangili ..				
		No. 157, dated 18th March 1898.	Voipadi ..				
		No. 352, dated 23rd June 1898.	Vellodu *	2	..	..	..
		No. 279, dated 16th May 1898.	Guligi *				
Total ..				5	..	..	..
South Coimbatore.	654	....	....	..	..	..	..
Madura ..	565 (a)—10	No. 506, Rev., dated 29th June 1897.	Kappuvamadi ..	12	374 7 11	..	31 3 4
		No. 816, Rev., dated 27th Sept 1897.	Mulaiyar ..				
		No. 156, Rev., dated 16th March 1898.	Nallatevanpatti ..				
		No. 228, Rev., dated 25th April 1898.	Kudavanar ..				
		No. 261, dated 7th May 1898.	Kodimaagalani *				
Total ..				17	..	..	..
Tinnevely ..	410	No. 1009, Rev., dated 3rd December 1897.	Melapatnam ..	2	..	..	..
		No. 620, Rev., dated 24th July 1897.	Extension to Kottamadakki reserved forest block V.				
		No. 229, Rev., dated 25th April 1898.	Vannamutti ..	1	..	..	..
		No. 334, Rev., dated 7th June 1898.	Alakonandal *				
		Do. ..	Shermalai *				
		Do. ..	Nelliyuthu *				
		No. 283, Rev., dated 18th May 1898.	Mahendragiri *	†	..	..	..
Total ..				2	..	..	..

(a) Rectification.
* Reservation takes effect from 1898-99.

(c) Disafforested.
† Below one square mile.

incurred on, Forest Settlements during 1897-98—cont.

Areas undergoing settlement.							Estimate of areas in which settlement opera- tions 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.

	SQ. MLS.	Dolphin reserve addition	SQ. MLS.	RS.	RS. A. P.	SQ. MLS.
		Ottupattadai ..	..	..	..	..
		Karimara ..	..	..	..	..
		Black bridge addition	..	..	..	..
		Black heath ..	..	..	..	..
Total ..		1	34	..	..	..
Yedaralli ..	212	..	..	..	..	37
Maddeswaramalai or Ponnachi.	246	..	..	..	..	
Cowdally ..	25	..	..	..	..	
Arachalur ..	..	..	..	..	..	
Sennimalai ..	..	..	..	..	..	
Pandianpalayam ..	..	..	..	..	..	
Kanjicoll ..	9	..	..	..	..	
Attavani ..	..	..	..	..	..	
Thambikalayan ..	..	..	..	..	..	
Hanur ..	34	..	..	..	..	
Total ..		526	..	..	..	..
Sankarayapuram ..	3	..	..	..	..	2,472 15 3
Nellimalai ..	..	..	..	..	..	
Andipatti, south	9	..	..	..	..	
Anaigirishola ..	2	..	..	..	..	
Kadavumalai ..	..	..	..	..	2,472 15 3	
Koviladi ..	1	..	..	..	..	
Siruganimalai ..	..	..	..	..	..	
Umaiya ..	9	..	..	..	..	
Sirumalai north-west slopes	14	..	..	..	..	
Thoppasamimalai ..	6	..	..	..	..	
Erakalamali ..	..	..	..	..	..	
Total ..		41	..	..	2,472 15 3	..
Manpothai ..	2	Lands adjoining Srivilliputtur	..	..	..	2,472-15-3.
Gangaikondan ..	2	ghaut forests block I ..	..	..	..	
Vaippar ..	..	Kansapuram ..	1	45	..	
Chintamony block ..	2	Melavittan extension ..	..	..	..	
Mullakadu block ..	..	..	..	..	..	
Extension to Kadayanalloor	..	..	..	146	..	
reserved forest III C ₂ A.	..	..	..	..	..	
Extension to Kadayanalloor	1	..	..	38	..	
reserved forest III C ₂ B.	..	..	..	..	..	
Total ..		7	1	..	..	

Note.—Figures in column 13 represent compensation paid to owners of patta rights acquired in the tracts noted against each.

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 1897-98.		Total number and area of blocks constituted finally as reserved forests up to end of 1897-98.		Balance at end of 1897-98.	
	Number.	Area.	Number.	Area.	Number.	Area.
1	2	3	4	5	6	7
<i>Northern Circle.</i>						
Ganjām	44	SQ. MLS. { (a) + 12 (d) - 5 }	25	SQ. MLS. 245	19	SQ. MLS. 318
Vizagapatam	50	{ 312 975 }	25	137	25	175
Górávari	80	{ (a) - 2 (d) - 3 }	71	{ 846 (a) - 2 }	9	126
Kistna	{ (b) - 2 184 }	{ (a) + 2 (b) - 6 (d) - 2 }	118	706	64	187
Kurnool	58	{ 2,399 (d) - 4 }	40	1,962	18	433
Bellary	125	{ (a) - 12 (e) - 1 }	108	{ 471 (a) - 12 (e) - 1 }	17	35
Anantapur	{ (b) - 1 76 }	{ (b) - 1 (d) - 1 }	64	450	11	62
Total, Northern Circle ..	614	6,138	451	{ 4,817 (a) - 14 (e) - 1 }	163	1,336
<i>Central Circle.</i>						
Cuddapah	{ (b) - 1 178 }	{ (b) - 5 2,310 }	144	{ 1,650 (e) + 1 }	33	654
Nellore	157	{ (d) - 3 670 }	135	554	22	113
Chingleput	{ (a) + 1 (e) - 31 }	{ (e) - 9 225 }	198	{ 210 (c) - 9 }	32	14
North Arcot	149	{ (b) - 3 (d) - 2 }	136	1,047	13	81
South Arcot	{ (b) - 1 159 }	{ (b) - 1 (d) - 3 }	148	676	10	35
Salem	{ (a) - 2 (b) - 14 }	{ (a) - 2 (b) - 41 (e) - 1 }	141	{ 1,229 (a) - 2 (c) - 1 }	12	97
Trichinopoly	111	270	65	192	46	78
Tanjore	15	18	15	18	..	..
Total, Central Circle ..	1,119	6,637	{ 982 (c) - 31 }	{ 5,576 (a) - 2 (e) - 10 (c) + 1 }	168	1,072
<i>Southern Circle.</i>						
South Canara	93	{ (a) + 25 564 }	40	{ 141 (a) + 25 }	53	423
North Malabar	23	272	17	157	6	115
South Malabar	27	299	10	40	17	259
The Nilgiris	274	393	211	359	33	35
North Coimbatore	41	{ (e) - 3 (d) - 2 }	29	{ 1,057 (c) - 3 }	12	528
South Coimbatore	18	657	16	654	2	3
Madura	149	{ (a) - 2 (d) - 1 }	139	{ 577 (a) - 10 }	10	46
Tinnevelly	{ (b) - 1 55 }	{ (b) - 2 (d) - 2 }	41	412	13	10
Total, Southern Circle ..	679	4,827	533	{ 3,397 (a) + 15 (e) - 4 }	146	1,419
Grand Total ..	2,412	17,602	{ 1,966 (c) - 31 }	{ 13,790 (a) - 1 (c) - 14 }	477	3,827

(a) Rectification.
(d) Excluded at settlement.

(b) Initial notifications cancelled.

(e) By rounding off fractions in previous year's figures.

(c) Disafforested.

APPENDIX A—cont.

Forest Settlement—cont.

Particulars of balance of Lands under Settlement—cont.

Classification of balance in columns 6 and 7.												
District.	Settled and reported on.											
	Notified under section 16 during 1897-98, but reservation effected only after 30th June 1898.		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.	Number.	Area.	Number.	Area.	Number.	Area.
	8	9	10	11	12	13	14	15	16	17	18	19
<i>Northern Circle.</i>												
Ganjám	..	..	6	123	1	25	7	148	5	54	7	116
Vizagapatam	8	1	2	73	..	..	10	74	5	93	10	8
Górávari	1	3	..	..	..	..	1	3	3	92	5	31
Kistna	4	7	7	14	3	7	14	28	1	7	49	152
Kurnool	..	..	2	19	1	1	3	20	2	21	13	392
Bellary	..	..	3	6	..	..	3	6	..	..	14	29
Anantapur	2	8	1	13	..	..	3	21	3	12	5	29
Total, Northern Circle.	15	19	21	248	5	33	41	300	19	279	103	757
<i>Central Circle.</i>												
Cuddapah	2	155	1	11	1	68	4	234	1	4	28	416
Nellore	9	18	6	66	..	..	15	84	5	27	2	2
Chingleput	..	..	12	3	2	1	14	4	2	1	16	9
North Arcot	..	..	3	18	3	18	6	36	3	10	4	35
South Arcot	..	..	3	11	1	12	4	23	6	12	..	..
Salem	..	..	2	9	5	26	7	35	1	28	4	34
Trichinopoly	..	..	11	15	..	..	11	15	..	..	35	63
Tanjore	..	..	..	..	..	..	..	..	..	..	..	..
Total, Central Circle ..	11	173	38	133	12	125	61	431	18	82	89	559
<i>Southern Circle.</i>												
South Canara	1	20	6	22	5	103	12	145	11	136	30	142
North Malabar	..	..	..	..	1	2	1	2	4	111	1	2
South Malabar	..	..	1	150	..	..	1	150	12	19	4	90
The Nilgiris	..	..	3	..	..	..	3	..	14	1	16	34
North Coimbatore	2	2	4	39	1	212	7	253	2	1	3	274
South Coimbatore	..	..	1	1	..	..	1	1	..	..	1	2
Madura	1	5	..	..	2	9	3	14	1	9	6	23
Tinnevelly	4	..	1	2	4	4	9	6	..	..	4	4
Total, Southern Circle.	8	27	16	214	13	330	37	571	41	277	65	571
Grand Total, Presidency.	34	219	75	595	30	468	139	1,302	61	638	257	1,887

* Below one square mile.

APPENDIX A—cont.

Forest Settlement—cont.

Particulars of balance of Lands under Settlement—cont.

District	Of lands notified under section 4 in the year.																			
	1883-84.		1884-85.		1885-86.		1886-87.		1887-88.		1888-89.		1889-90.		1890-91.		1891-92.		1892-93.	
	Number.	Area.	Number.	Area.	Number.	Area.	Number.	Area.	Number.	Area.	Number.	Area.	Number.	Area.	Number.	Area.	Number.	Area.	Number.	Area.
	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
<i>Northern Circle.</i>		S. M.	S. M.																	
Ganjám ..			11 278	3 22													1 2	4 16		
Vizagapatam ..																	2 41	2 125		
Górávari ..													5 71	1 33						
Kistna ..													3 12				1 13	2 3		
Kurnool ..																	3 49			
Bellary ..																		3 85		
Anantapur ..																		4 12	10 19	8 4
Total ..			11 278	3 22								8 83	1 33		7 105	8 144		16 150	10 25	45 157
<i>Central Circle.</i>																				
Cuddapah ..	1 137					1 18												1 68		
Nellore ..	1 40																	2 27	2 13	17 33
Chingleput ..																			3 1	29 13
North Arcot ..																	1 7	3 21	2 18	6 35
South Arcot ..																	2 20			
Salem ..												1 4					1 6	3 15	5 63	2 9
Trichinopoly ..																				46 78
Tanjore ..																				
Total ..	2 177					1 18						1 4					3 88	2 18	15 237	17 236
<i>Southern Circle.</i>																				
South Canara ..				1 20														19 64	10 207	8 90
North Malabar ..			2 69	1 40													1 2	1 2		10 23
South Malabar ..								12 19	5 240										1 2	
The Nilgiris ..																				
North Coimbatore ..													2 458				1 34	4 8		5 28
South Coimbatore ..																			1 3	1 *
Madura ..																9 46		1 *		
Tinnevely ..																				
Total ..		2 69	2 60			12 19	5 240		2 458	9 46					22 100	16 218	13 100	35 393	55 28	1 2
Grand Total ..	2 177	13 347	5 82	1 18	12 19	5 240	9 87	3 491	16 151	11 232	24 113	47 605	40 361	162 393	127 511					

* Below one square mile.

† Thirty-one blocks were notified during the year, but the initial notification of one them was cancelled.

‡ By rectification or rounding off fractions.

APPENDIX B.
Causes of delay in the submission of final Notifications of Forest Reserves.

Districts.	Causes of delay.											
	Notified under section 16 during 1897-98, but with effect only after 30th June 1898.		With Board or Government awaiting publication of notification under section 16.		Pending preparation of maps.		Awaiting disposal of appeals.		Awaiting expiry of time prescribed for appeal.		Only recently notified or re-notified under section 4.	
	2	3	4	5	6	7	8	9	10	11	12	13
Ganjám ..												
Vizagapatam ..												
Górávari ..												
Kistna ..												
Kurnool ..												
Bellary ..												
Anantapur ..												
Cuddapah ..												
Nellore ..												
Chingleput ..												
North Arcot ..												
South Arcot ..												
Salem ..												
Trichinopoly ..												
Tanjore ..												
South Canara ..												
North Malabar ..												
South Malabar ..												
The Nilgiris ..												
North Coimbatore ..												
South Coimbatore ..												
Madura ..												
Tinnevely ..												
Total ..	34	75	19	6	16	17	14	64	31	53	23	8
Other causes, i.e., awaiting information from the District Court, &c.												
Awaiting inspection by the Forest Settlement-officer.												
Awaiting replies to reference made to Collector or Board.												
Pending with the Collector or Forest Settlement-officer for revision of notification.												
Pending with the Collector or Forest Settlement-officer for final report pending with the Collector or Forest Settlement-officer.												
Awaiting District Forest-officer's answers to claims, demarcation, &c.												
Awaiting settlement of claims under enquiry.												
Awaiting payment of compensation or exchange of lands.												
Total ..	16	15	63	8	54	477						

APPENDIX C.

RESERVED Lands not under Settlement in square miles.

Districts.	Up to 1896-97.	Added during 1896-97.	Added during 1897-98.	Total.	Transferred for settlement.				Balance remaining "reserved lands" not under settlement.
					Up to 1896-97.	During 1896-97.	During 1897-98.	Total.	
1	2	3	4	5	6	7	8	9	10
<i>Northern Circle.</i>									
Ganjam ..	559	{ (a) + 6 (b) - 9 }	{ (a) + 12 (b) - 5 }	563	{ (b) 550 (c) - 5 }	{ (a) + 6 (b) + 12 }		563	..
Vizagapatam ..	415	..	{ (c) - 3 (d) 22 }	413	{ (d) 302 (e) - 2 }	2	8	312	101
Godavari ..	975	{ (a) + 7 (b) - 28 (c) - 1 }	{ (a) - 2 (b) - 3 (c) 10 }	970	{ (d) 946 (e) - 2 (f) - 3 }	{ (a) + 7 (b) 22 }		970	..
Kistna ..	1,212	{ (b) - 25 (c) - 33 (d) - 11 }	{ (a) + 3 (b) - 2 (c) - 13 }	1,162	{ (b) 749 (c) - 2 (d) - 6 }	52	{ (a) 98 (b) + 2 }	893	269
Kurnool ..	2,244	{ (a) + 8 (b) - 1 }	{ (b) - 4 (c) - 9 (d) 8 }	2,670	{ (b) 2,099 (c) - 4 }	89	211	2,395	275
Bellary ..	637	{ (c) - 10 (d) - 1 }	{ (c) - 8 (d) - 2 (e) - 1 }	615	{ (d) 484 (e) - 12 }	18	{ (a) 4 (b) - 1 }	493	122
Anantapur ..	517	{ (c) - 3 (d) - 1 }	{ (b) - 1 (c) - 1 }	512	{ (b) 514 (c) - 1 }	..	..	512	..
Total ..	6,559	..	346	6,905	5,608	174	356	6,138	767
<i>Central Circle.</i>									
Cuddapah ..	2,357	{ (a) - 28 (b) - 17 (c) 36 }	{ (a) + 9 (b) - 18 }	2,400	{ (c) 2,183 (d) - 5 }	31	96	2,305	95
Nellore ..	661	{ (b) - 1 (c) - 12 (d) - 1 }	{ (b) - 3 (c) 12 }	630	{ (b) 634 (c) - 3 }	36	..	667	13
Chingleput ..	238	{ (c) - 26 (d) 16 (e) - 1 }	{ (b) - 12 (c) - 9 (d) - 1 }	215	{ (b) 211 (c) - 1 (d) - 9 }	1	13	215	..
North Arcot ..	1,131	{ (b) - 1 (c) - 12 (d) 4 }	{ (b) - 2 (c) - 3 (d) - 1 }	1,129	{ (b) 1,098 (c) - 2 (d) - 3 }	35	..	1,128	1
South Arcot ..	779	{ (b) - 12 (c) - 56 (d) 3 }	{ (b) - 3 (c) - 1 (d) - 1 }	711	{ (b) 711 (c) - 3 (d) - 1 }	4	..	711	..
Salem ..	1,464	{ (a) - 1 (b) - 32 (c) + 5 }	{ (c) - 41 (d) - 2 (e) - 3 }	1,396	{ (c) 1,358 (d) - 1 (e) - 41 }	..	9	1,323	73
Trichinopoly ..	233	{ (c) - 6 (d) - 1 }	{ (a) - 3 (b) - 16 }	278	{ (c) 191 (d) - 2 }	79	..	270	8
Tanjore ..	19	..	..	18	18	..	..	18	..
Total ..	6,882	- 23	- 32	6,827	6,333	186	118	6,637	190
<i>Southern Circle.</i>									
South Canara ..	1,134	{ (a) + 1 (b) - 61 (c) 2 }	{ (a) - 11 (b) + 25 }	1,123	{ (d) 522 (e) + 25 }	23	19	589	534
North Malabar ..	272	..	..	274	270	2	..	272	2
South Malabar ..	328	..	..	328	299	..	..	299	29
The Nilgiris ..	452	{ (a) - 1 (b) - 2 (c) 2 }	{ (c) - 34 (d) - 1 (e) - 1 }	483	358	1	34	393	90
North Coimbatore ..	1,717	{ (a) - 80 (b) - 15 (c) - 1 }	{ (b) - 2 (c) - 3 (d) + 1 }	1,619	{ (b) 1,559 (c) - 2 (d) - 3 }	28	..	1,582	37
South Coimbatore ..	657	..	..	657	612	..	..	657	..
Madura ..	649	- 28	{ (b) - 1 (c) - 5 }	613	{ (b) - 1 (c) - 10 (d) - 1 }	{ (a) + 4 (b) + 9 }		613	..
Tinnevely ..	428	{ (c) - 3 (d) - 4 }	{ (b) - 1 (c) - 2 (d) - 2 }	424	{ (b) 424 (c) - 2 (d) - 2 }	1	1	422	2
Total ..	5,637	- 148	32	5,521	4,705	59	63	4,827	694
Grand Total ..	19,078	- 171	346	19,253	16,646	419	537	17,602	1,651

(a) By rectification. (b) At settlement. (c) Unreserved or disafforested.
 (d) By rectification of areas already constituted reserved forests. (e) By rounding off fractions in previous year's return.

ANNUAL FORM No. 46.

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
<i>Northern Circle.</i>									
Ganjam ..	53	260	383	696	265	131	1,092	(a) 349	(a) 567
Vizagapatam ..	74	..	(b) 239	313	(b) 50	Not known.	363	(c) + 119	156
Godavari ..	108	296	556	960	49	374	1,383	(a) 701	(d) 428
Kistna ..	78	41	738	857	(e) ..	..	857	(a) 1,635	641
Kurnool ..	85	{ (g) 483 }	..	574	639	157	1,370	(c) + 10	(f) 404
Bellary ..	187	20	1,018	1,225	90	..	1,315	(c) + 81	(d) 267
Anantapur ..	10	..	1,105	1,115	16	..	1,131	(c) + 15	..
Total ..	595	1,106	4,039	5,740	1,109	662	7,511	(h) + 44	2,479
<i>Central Circle.</i>									
Cuddapah ..	(i) 437	33	2,034	2,504	43	..	2,547	3,160	163
Nellore ..	206	60	1,037	1,303	139	86	1,528	(a) 1,446	158
Chingleput ..	78	21	730	829	..	..	829	1,570	(d) 706
North Arcot ..	116	254	2,073	2,443	60	12	2,515	1,385	964
South Arcot ..	154	{ (g) 51 }	1,531	1,786	340	..	2,126	2,518	(d) 747
Salem ..	21	305	1,866	2,192	180	93	2,465	51	563
Trichinopoly ..	9	{ (g) 177 }	309	545	511	..	1,056	51	258
Tanjore ..	..	..	79	79	..	..	79	..	..
Total ..	1,021	1,001	9,659	11,681	1,273	191	13,145	10,181	3,549
<i>Southern Circle.</i>									
South Canara ..	259	..	1,305	1,564	..	2	1,566	(e) + 243	..
Malabar, North ..	18	..	420	438	80	2	520	(c) + 57	..
Do. South ..	..	18	108	126	102	92	320	..	482
The Nilgiris ..	3	240	603	846	..	175	1,021	21	(d) 1,412
Coimbatore, North ..	43	347	331	721	2	237	960	975	1,897
Do. South ..	..	36	442	478	13	77	568	..	267
Madura ..	..	15	1,443	1,458	32	139	1,629	..	(a) 326
Tinnevely ..	{ (g) 4 }	41	274	340	183	17	540	227	163
Total ..	348	697	4,926	5,971	412	741	7,124	2,864	4,581
Grand Total ..	1,964	2,804	18,624	23,392	2,794	1,594	27,780	22,031	10,609

N.B.—Boundaries include, besides the outer perimeter, the limits of enclosures of private or other lands within the forests, but not the limits of sub-divisions, such as blocks, compartments, coupes. The difference between the totals of columns 3 and 4 of this statement and column 5 of the previous year's statement is due to more correct computation of lengths and to the omission during the year of the boundaries of proposed reserves which were incorrectly included in the return for 1896-97.

- (a) Includes cost of cairns repaired or erected.
 (b) Approximate figures.
 (c) Added to tally with the Accountant-General's audited figures under A VIII (a).
 (d) Includes cost of establishment.
 (e) Several reserves have yet to be demarcated permanently, but the work has been postponed pending the settlement of the question of introducing stone slabs instead of cairns. The lengths of the boundaries of these reserves have not been shown in the column, as the Collector has not supplied the information.
 (f) Cost of boards for boundary and coupe lines.
 (g) Cleared by the forest establishment.
 (h) Cost of demarcating enclosures in 18 reserves.
 (i) Includes rectifying 88 miles of demarcation at a cost of Rs. 590.

ANNUAL FORM No. 47.
Forest Department, Madras Presidency.

STATEMENT of Forest Areas surveyed and under survey during the year 1897-98.

Areas surveyed and under survey during the year 1897-98.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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	With details of growing stock.			Without details of growing stock.			Total cost.	Pre-vious.	Of year.	L. Mls.	L. Mls.	Rs.	With details of growing stock.		Without details of growing stock.		Total cost.	Previous.	Of year.	Rs.	L. Mls.	L. Mls.	Of year.	Total cost.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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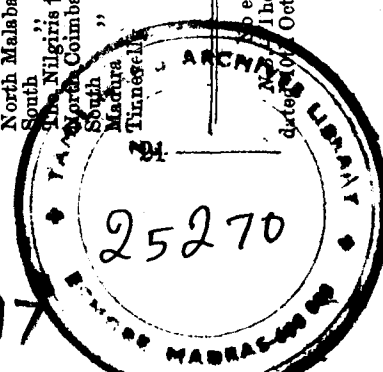
* No entries have been made by the Collector in the first 22 columns.
 † The Collector has again submitted a "nil" return and the several columns have therefore not been filled in.
 N.B.—The preparation of this form has not been correctly understood in the District-offices and the instructions of the Government of India finally disposed of in Government Order, No. 585, Revenue, dated 10th October 1898, have been since communicated to the officers. Correct figures will be obtained for the report for the current year.

Statement of Forest Areas surveyed and under survey during the year 1897-98—cont.

Districts.	Areas surveyed and under survey during the year 1897-98—cont.												
	Chain and compass or other surveys by local officers.												
	With interior details.						Boundary surveys.						
	4-inch or over.		Under 4-inch.		Total cost.		Previous.		Of year.		Total cost.		
	Previous.	Of year.	Previous.	Of year.	Previous.	Of year.	Previous.	Of year.	Previous.	Of year.	Previous.	Of year.	
	18	19	20	21	22	23	24	25	26	27	28	29	30
	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	RS.	L. MLS.	L. MLS.	RS.	SQ. MLS.	SQ. MLS.	RS.	RS.	Entire cost of all surveys to end of the year.
Ganjām *	114	..	..	..	2,411	258	145	9,226	245	7,519	1,707	9,226	
Vizagapatam	93	..	..	..	..	94	50	1,163	137	8,574	..	3,574	
Gōdāvari	..	..	..	..	..	..	..	..	844	..	..	..	
Kistna	4	..	..	..	56	146	..	..	706	6,186	1,866	8,022	
Kurnool	5	..	..	..	284	103	23	1,713	1,962	14,137	36,862	50,999	
Bellary	..	..	..	..	..	..	..	..	458	1,035	..	1,035	
Anantapur	450	..	..	..	..	..	..	..	9	..	..	..	
Cuddapah	1,565	..	..	..	..	..	..	..	450	..	10,527	10,527	
Nellore	554	..	..	..	..	..	..	..	1,651	..	..	..	
Chingleput	201	..	..	..	..	..	..	..	554	..	..	..	
North Arcot	26	..	..	..	..	..	..	..	201	..	..	..	
South "	6	..	..	..	..	..	..	..	1,047	15,320	..	15,320	
Salem	9	..	..	..	52	..	..	..	676	52	8,828	8,880	
Trichinopoly	1	..	..	..	..	2	..	..	1,226	34,093	33,872	67,465	
Tanjore	18	..	..	..	..	..	..	..	192	25,000	..	25,000	
South Canara	168	..	..	..	..	..	..	..	18	..	..	..	
North Malabar	..	..	..	..	..	317	148	..	166	2,753	1,002	3,845	
South "	28	..	..	..	..	34	37	728	157	493	255	728	
North Nilgiris †	..	..	..	..	..	..	..	..	40	314	..	314	
South "	..	..	..	..	..	..	..	..	358	..	..	..	
North Coimbatore	..	..	..	..	..	..	..	..	1,054	..	37,635	37,635	
South "	..	..	..	..	..	..	..	..	654	..	..	..	
Madura	..	..	..	..	..	..	..	..	567	..	305	1,148	
Tinnevely	..	..	..	..	..	..	..	..	1	843	..	..	
Total	3,240	..	..	..	2,773	954	403	12,830	4,273	13,775	1,11,289	1,32,429	2,43,718

† The Collector has again submitted a "nil" return and the several columns have therefore not been filled in.
 The preparation of this form has not been correctly understood in the District-offices and the instructions of the Government of India finally disposed of in Government Order, No. 585, Revenue, dated 10th October 1898, have been since communicated to the officers. Correct figures will be obtained for the report for the current year.

JB. 2117 M97



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-three reserve maps were prepared during the year and the district and range maps posted up to 30th June 1898. All the maps prescribed in section 81 of the Forest Code were maintained except those for working circles, there being neither working plans nor working circles in the district.

Vizagapatam.—Range, reserve and other maps have been maintained as usual.

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

Kistna.—Eighty-five maps for 38 reserves were prepared for printing them at the Central Survey office. One hundred and ninety-seven sketches for 57 reserves were prepared to follow notifications under section 4 of the Forest Act.

Kurnool.—The district and range forest maps have been maintained and posted up to date; separate maps for the reserves were prepared in tracing cloth and copies sent to Range officers. During the year a range map (scale 1" = 4 miles) showing the necessary information was prepared and supplied to the Conservator of Forests and Range officers.

Bellary.—Instructions regarding the maintenance of the district, range and reserve maps were attended to.

Anantapur.—The district key-map has been posted up to date, as also taluk maps for eight taluks.

Central Circle.

Cuddapah.—The district and range maps prescribed in the Forest Code were maintained and posted up to date. Tracings of 54 reserve maps were prepared and issued to Range officers. Maps for fifteen new reserves were prepared.

Nellore.—Fourteen sketch-maps of reserves were prepared and supplied to Range officers during the year.

Chingleput.—The district, range, taluk and reserve maps have been maintained and posted up to date and copies of 75 sketches of final maps have been made and supplied to Range officers. Twenty-nine new sketches have been prepared to follow notification under section 4, and 58 of the same were prepared for the use of Range officers and for office reference.

North Arcot.—The district map has been posted up to date as also the taluk maps, and each Range officer possesses a copy of the latter. Copies of maps prepared by the Survey of India Party were received and distributed to the Range officers concerned. For reserves other than those surveyed by the Survey of India Party, correct maps are being prepared departmentally and copies thereof are being gradually supplied to Range officers. Besides these, maps for 65 reserves comprising an area of 25 square miles have been prepared to follow notifications under sections 4 and 16 of the Forest Act. Of the 103 square miles of the finally reserved area excluded from the Survey of India maps, final maps for 16 square miles remain to be prepared departmentally.

South Arcot.—The district forest reference map has been maintained and posted up to date. The range and reserve maps have also been maintained and the Range officers possess copies of these.

Salem.—The district and range maps have been maintained; maps for 71 reserves prepared by the Survey of India Party are available in the District Forest office. A commencement will be made to maintain separate maps for each reserve.

Trichinopoly.—The district as well as the range reference maps have been maintained. A map for the new Kulitalai range which includes the Cauvery south bank plantations is under preparation. Maps for the reserves in the Musiri and Perambalur ranges are under preparation by the Survey of India Party. As regards reserves in the Udaiyarpalayam range, tracings taken

from the village maps are the only reserve maps in existence. A separate map for the Viramalai reserve in the Vyangudi range was prepared during the year; maps for reserves in the Vyampatti and Kulitalai ranges will be prepared as soon as the perambulation of the reserves by the Range officers are finished. Separate working circle maps were prepared during the year for the Manapparai hill reserved forests.

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 indicated therein. Working plan maps are maintained for the Vettangudi reserved forest and the north, the south and Neidavasal casuarina plantations. The Vettangudi map is not quite complete and steps have been taken to remedy the defect.

Southern Circle.

Tinnevely.—The district forest reference map has been posted up to 30th June 1898. Reduced lithographed copies of the ghât forest reserves were received during the year from the Survey office. Range officers have copies of Survey of India maps for reserves surveyed by that party.

Madura.—The District Forest-office and Range offices have been supplied with copies of District and Range Forest reference maps. New range maps were prepared during the year as the ranges were reconstituted. In the case of six reserves which were surveyed locally, maps have been fair-copied and will shortly be forwarded to the Survey office for reproduction.

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 maintained and in the latter most of the particulars relating to five ranges have been entered on them. There are Survey of India maps for all the reserves, but some details have still to be entered therein. Separate maps for each of the working circles have also been maintained.

Nilgiris.—The district and range reference maps have been posted up to 30th June 1898. There are no reserve maps separately, but settlement maps for each village in the district are properly maintained, all the reserves having been distinctly shown therein. Working Circle maps are also maintained.

North Malabar.—The district reference map has been posted up to 30th June 1898. Separate maps are maintained for all the reserves in the district with the exception of two.

South Malabar.—The district reference map has been posted up to 30th June 1898. The range reference maps have not yet been prepared for want of the services of a draughtsman. There are separate maps for each reserve, and working circle maps have been prepared for areas for which working plans were prepared.

South Canara.—The district reference map has been maintained and range maps except that of Coondapoor are inaccurate and incomplete and nothing can be done before the publication of the taluk maps by the Survey Department. Maps for all reserves except Bhagimale are maintained. Forest maps continue to be prepared departmentally.

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.
Ganjām	245	245
Vizagapatam	137	(a) ..
Gódvári	844	93
Kistna	706	415
Kurnool	1,962	..
Bellary	458	(b) 232
Anantapur	450	407
Cuddapah	1,651	1,565
Nellore	554	544
Chingleput	201	(c) 201
North Arcot	1,047	560
South Arcot	676	676
Salem	1,226	704
Trichinopoly	192	25
Tanjore	18	18
South Canara	166	147
North Malabar	157	1
South Malabar	40	39
The Nilgiris	358	(d) ..
North Coimbatore	1,054	16
South Coimbatore	654	654
Madura	567	560
Tinnevelly	412	407
Total	13,775	7,509

(a) There are maps for all reserves drawn by surveyor with plane table and compass, but none contain surveyed interior details. No explanation has been furnished by the Collector for the omission of the figure '14' entered in Appendix B to the report for 1896-97.

(b) Revised figure.

(c) These are only copies of maps attached to the final notifications, but are, however, only approximately correct wherever the boundaries go through unsurveyed areas.

(d) No final maps in accordance with the instructions contained in Board's Proceedings, Forest No. 37 of 1894, have been prepared.

ANNUAL FORM No. 48.

Forest Department, Madras Presidency.

PROGRESS made in Working Plans during 1897-98.

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
<i>Northern Circle.</i>								
Ganjám	..	..	..	..	563	563	..	A sum of Rs. 185 was spent under this head during the year.
Vizagapatam ..	..	..	..	..	413	413	..	
Gódvári	31	..	..	13	926	970	..	
Kistna	8	..	* 680	88	386	1,162	..	
Kurnool	..	..	..	..	2,670	2,670	..	Rs. 61 were spent during the year under this head.
Bellary	12	..	38	..	565	615	..	
Anantapur ..	1	..	..	..	511	512	..	
Total	52	..	718	101	6,034	6,905	..	
<i>Central Circle.</i>								
Cuddapah ..	3	..	..	..	2,397	2,400	..	A sum of Rs. 165 was spent under this head during the year.
Nellore	..	† ..	40	96	544	680	..	
Chingleput ..	..	..	..	..	215	215	..	
North Arcot ..	..	..	..	..	1,129	1,129	..	
South Arcot ..	† ..	† ..	‡ 99	..	612	711	‡ 52	Rs. 7 were spent during the year.
Salem	1	..	..	..	1,395	1,396	..	Rs. 27 were spent during the year under this head.
Trichinopoly ..	34	(a) ..	..	..	244	278	..	
Tanjore	4	..	4	..	10	18	..	
Total	42	..	143	96	6,546	6,827	..	
<i>Southern Circle.</i>								
South Canara ..	1	..	..	..	1,122	1,123	..	Not known.
North Malabar ..	..	..	..	..	274	274	..	
South Malabar ..	34	..	24	..	270	328	99	
The Nilgiris ..	(b) 6	..	..	..	477	483	83	
North Coimbatore ..	..	..	(c) ..	..	1,619	1,619	..	A sum of Rs. 915 was spent during the year.
South Coimbatore ..	10	..	..	7	640	657	..	
Madura	..	..	12	..	601	613	..	
Tinnevelly	(d) 39	17	..	..	368	424	31	
Total	90	17	36	7	5,371	5,521	..	Grand Total
Grand Total ..	184	17	897	204	17,951	19,253	..	

* This consists of 33 grazing working circles.

† The 40 square miles shown in this column in the previous year's return have been taken to column 4 in accordance with the instructions of the Government of India in its circular No. 12-245-1-F., 25th June 1897.

‡ Working scheme for 6 square miles and simple working plans based upon area for 93 square miles.

§ So far as known.

(a) The working plan for the upper ancient padugais was approved by the Board during the year but the area covered thereby has not been included in this statement as the area is not reserved under the Forest Act.

(b) Fuel plantations around Ootacamund and Coonoor.

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

(d) The difference between this column and the total of columns 2 and 3 in the previous year's return is due to the fact that the unworkable extent of the plans was erroneously omitted in the latter.

ANNUAL
Forest Department,
Communications

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
Northern						
Direction ..	..	RS.	(c) Others ..	MLS. P.	RS.	RS.
Ganjám ..	(c) Houses for subordinate establishments ..	88	(a) Cart roads ..	2 5	452	
			(b) Block lines or bridle-paths ..	3 5	132	
	Total, Ganjám ..	88	Total ..	6 2	584	672
Vizagapatam.	(b) Rest-houses ..	450	(a) Cart roads ..	10 0	373	
	(c) Houses for subordinate establishments ..	800				
	(d) Others ..	65				
	Total, Vizagapatam ..	1,315	Total ..	10 0	373	1,688
Górávari ..	(b) Rest-houses ..	313	(a) Cart roads ..	6 1	1,895	
	(c) Houses for subordinate establishments ..	646				
	(d) Others ..	203				
	Total, Górávari ..	1,162	Total ..	6 1	1,895	3,067
Kistna ..	(b) Rest-houses ..	1,828	(a) Cart roads ..	39 2	5,276	
			(b) Bridle-paths ..	1 1	943	
	Total, Kistna ..	1,828	Total ..	40 3	6,219	8,047
Kurnool ..	(c) Houses for subordinate establishments ..	229	(a) Cart roads ..	4 0	1,504	
	(d) Others ..	63				
	Total, Kurnool ..	292	Total ..	4 0	1,504	1,796
Bellary ..	....	..	....	..	..	..
	Total, Bellary ..	..	Total ..	..	..	..
Anantapur ..	....	..	....	..	..	..
	Total, Anantapur ..	..	Total ..	..	..	..
Total, Northern Circle.	(a) Head-quarter houses ..	..	(a) Cart roads ..	69 0	9,500	
	(b) Rest-houses ..	2,591	(b) Bridle-paths ..	4 6	1,075	
	(c) Houses for subordinate establishments ..	1,763	(c) Others ..	..	418	
	(d) Others ..	331				
	Total, Northern Circle ..	4,685	Total ..	73 6	10,993	15,678

† Rupees 55 have been deducted from the Collector's figures in order to make them agree with the Accountant-General's.

FORM No. 49.
Madras Presidency.
and Buildings.

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
Circle.					
(a) Head-quarter houses ..	85	....	..	..	85
(b) Rest-houses ..	486	(a) Cart roads ..	5 0	177	..
(c) Houses for subordinate establishments ..	1,360	(b) Bridle-paths ..	2 1	9	..
		Add A-VII (c) ..	7 1	186	2,032
		Total ..	..	..	28
	* 1,846	Total ..	..	..	2,060
(b) Rest-houses ..	753	(a) Cart roads ..	10 0	150	..
(c) Houses for subordinate establishments ..	256				
(d) Others ..	35				
	1,044				
Add pay of watchers ..	102				
	1,146	Add A-VII (c) ..	..	..	37
		Total ..	..	..	1,333
(b) Rest-houses ..	433	(c) Others ..	..	25	..
(c) Houses for subordinate establishments ..	73				
(d) Others ..	156				
	662				
Add pay of watchers ..	938				
	1,600	Total ..	..	25	1,625
(b) Rest-houses ..	1,550	(a) Cart roads ..	18 0	96	..
(c) Houses for subordinate establishments ..	7				
	1,557	Add A-VII (c) ..	18 0	96	1,653
		Total ..	..	..	130
		Total ..	..	..	1,783
(a) Head-quarter houses ..	2,001	(a) Cart roads ..	..	140	..
(b) Rest-houses ..	955				
(c) Houses for subordinate establishments ..	† 602				
(d) Others ..	66	Add A-VII (c) ..	..	..	438
	3,624				
Add pay of watchers ..	514				
	4,138	Total ..	..	..	4,716
(c) Houses for subordinate establishments ..	32	(a) Cart roads ..	7 1	59	..
		Add A-VII (c) ..	7 1	59	91
		Total ..	..	..	579
		Total ..	..	..	670
(a) Head-quarter houses ..	85				
(b) Rest-houses ..	62				
(c) Houses for subordinate establishments ..	88				
	235				
Add pay of watchers ..	384				
	619	Total ..	..	..	619
(a) Head-quarter houses ..	2,171	(a) Cart roads ..	40 1	622	..
(b) Rest-houses ..	4,239	(b) Bridle-paths ..	2 1	9	..
(c) Houses for subordinate establishments ..	2,418	(c) Others ..	..	26	..
(d) Others ..	257				
	9,085				
Add pay of watchers ..	1,938	Add A-VII (c) ..	42 2	656	11,679
	11,023	Total ..	..	..	1,212
		Total ..	..	..	12,891

* Includes pay of watchers.

audited figures under A-VII (b). The variation has not been explained by the Collector.

Communications

District.	New work undertaken during the year.					Total expenditure on new work.
	Buildings.		Roads and paths.			
	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

Central

		RS.			MLS. P.	RS.	RS.
Cuddapah ..	(c) Houses for subordinate establishments	39	(a) Cart roads	1 6	3,160	..	..
	(d) Others	196	(c) Others	9 0	22	..	..
	Total, Cuddapah ..	235		Total ..	10 6	3,182	3,417
Nellore ..	....	..		....	..	..	..
	Total, Nellore ..	..		Total ..	..	..	..
Chingleput ..	(b) Rest-houses	1,313	(a) Cart roads	5 0	268	..	..
	(c) Houses for subordinate establishments	23					
	(d) Others	48					
	Total, Chingleput ..	1,384		Total ..	5 0	268	1,652
North Arcot ..	(b) Rest-houses	705	(a) Cart roads	2 2	936	..	..
	(c) Houses for subordinate establishments	10					
	(d) Others	41					
	Total, North Arcot ..	756		Total ..	2 2	936	1,692
South Arcot ..	....	..		....	..	..	..
	Total, South Arcot ..	..		Total ..	..	..	..
Salem ..	(b) Rest-houses	113	(a) Cart roads	..	1,843	..	..
	(d) Others	152					
	Total, Salem ..	265		Total ..	..	1,843	2,108
Trichinopoly..	(c) Houses for subordinate establishments	533		....	..	..	..
	Total, Trichinopoly ..	533		Total ..	..	..	533
Tanjore ..	(c) Houses for subordinate establishments	46		....	..	..	..
	Total, Tanjore ..	46		Total ..	..	..	46
Total, Central Circle.	(b) Rest-houses	2,131	(a) Cart roads	9 0	6,207		
	(c) Houses for subordinate establishments	651	(c) Others	9 0	22		
	(d) Others	437					
	Total, Central Circle ..	3,219		Total ..	18 0	6,229	9,448

* Rs. 40 have been deducted from the Collector's figure so as to make it agree with the
† Rs. 13 added to Collector's figure so as to make it agree with the Accountant-General's
‡ Rs. 10 have been deducted from the Collector's figure to make it agree with the Accountant-General's

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

Circle.

				RS.					RS.	RS.	RS.
				* 531					..	..	815
(b) Rest-houses	..	..	..	13	....				..	..	
(d) Others	..	..	..								
				544							
Add pay of watchers				271							
Total				815		Total	..	..	..	815	
(c) Houses for subordinate establishments	..	..	..	196	....				..	..	310
(d) Others	..	..	..	114							
Total				† 310		Total	..	..	..	310	
(b) Rest-houses	..	..	..	214	Add A-VII (c)	....			..	..	231
(d) Others	..	..	..	17	..	..	..	..	..	..	— 50
Total				231		Total	..	..	..	181	
(a) Head-quarter houses	..	..	..	142	(a) Cart roads	..	..	..	11 3	584	..
(b) Rest-houses	..	..	..	844							
(c) Houses for subordinate establishments	..	..	..	220					11 3	584	2,496
Add pay of watchers				1,206	Add A-VII (c)	..	..	..	..	..	80
Total				706		Total	..	..	..	2,576	
(b) Rest-houses	..	..	..	38	(a) Cart roads	..	..	..	..	197	..
(c) Houses for subordinate establishments	..	..	..	40							
Add pay of watchers				78							
Total				339		Total	..	..	..	197	614
(b) Rest-houses	..	..	..	† 851	....				..	..	939
(c) Houses for subordinate establishments	..	..	..	41	Add A-VII (c)	..	..	..	..	..	110
(d) Others	..	..	..	47							
Total				939		Total	..	..	..	1,049	
(b) Rest-houses	..	..	..	50	Add A-VII (c)	....			..	..	50
Total				50	..	..	..	..	..	..	4
....				..							
Total				..		Total	..	..	..	..	54
(a) Head-quarter houses	..	..	..	142	(a) Cart roads	..	..	..	11 3	781	..
(b) Rest-houses	..	..	..	2,528							
(c) Houses for subordinate establishments	..	..	..	497					11 3	781	5,455
(d) Others	..	..	..	191	Add A-VII (c)	..	..	..	..	..	144
Add pay of watchers				3,358							
Total				1,316		Total	..	..	..	5,699	
				4,674							

Accountant-General's audited figures under A-VII (b). The variation has not been explained.
audited figures under A. VII (b). The variation has not been explained.
General's audited figures. The variation has not been explained.

Communications

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>Southern</i>						
South Canara.	..	..	....	MLS. FS.	RS.	RS.
				..	..	..
	Total, South Canara ..	..	Total ..	..	..	..
North Malabar.	(d) Others	90	(c) Others	0 7	102	..
	Total, North Malabar ..	90	Total ..	0 7	102	192
South Malabar.	(b) Rest-houses	333	....	..	..	..
	(c) Houses for subordinate establishments	1,002				
	(d) Others	544				
	Total, South Malabar ..	1,879	Total ..	..	..	1,879
The Nilgiris..	(b) Rest-houses	670	(a) Cart roads	4 5	298	..
	(c) Houses for subordinate establishments	1,299				
	Total, The Nilgiris ..	1,969	Total ..	4 5	298	2,267
North Coimbatore.	(b) Rest-houses	1,175	(a) Cart roads	..	1,974	..
	(c) Houses for subordinate establishments	353	(b) Bridle-paths	..	212	..
	(d) Others	78				
	Total, North Coimbatore ..	1,606	Total ..	..	2,186	3,792
South Coimbatore.	(b) Rest-houses	19	(a) Cart roads	0 3	233	..
	(c) Houses for subordinate establishments	587	(c) Others	0 * 6	459	..
	(d) Others	4,448				
	Total, South Coimbatore ..	5,054	Total ..	1 1	692	5,746
Madura ..	(b) Rest-houses	734	....	..	..	..
	(c) Houses for subordinate establishments	474				
	Total, Madura ..	1,208	Total ..	..	..	1,208

* Tram line.

† Rs. 56 deducted from the Collector's figure to make it agree with the Accountant-General's audited figures. The variation has not been explained.

and Buildings—cont.

Repairs executed during the year.									
Buildings.			Roads and paths					Total expend- ed on repairs.	
Nature of repairs.	Expend- iture incurred.		Nature of repairs.	Length repaired.	Expend- iture incurred.				
8	9		10	11	12		13		
Circle.									
(c) Houses for subordinate establish- ments.	Rs. 182		(a) Cart roads	MLS. FS. ..	Rs. 800		Rs.		
(d) Others	47		(c) Others	..	43				
			Add A-VII (c)	..	843		1,072		
					..		442		
Total ..	229		Total ..	..	..		1,514		
(a) Head-quarter houses	489		(a) Roads	57 5	796				
(b) Rest-houses	429								
(c) Houses for subordinate establish- ments.	376								
			Add A-VII (c)	57 5	796		2,090		
					..		65		
Total ..	† 1,294		Total ..	..	..		2,155		
(a) Head-quarter houses	55		(a) Cart roads	5 4	291				
(b) Rest-houses	47		(b) Bridle-paths	3 0	23				
(c) Houses for subordinate establish- ments.	191		(c) Others	..	29				
(d) Others	341								
			Add A-VII (c)	8 4	343		977		
					..		149		
Total ..	634		Total ..	..	..		1,126		
(c) Houses for subordinate establish- ments.	972		(a) Roads	73 0	1,048				
			Add A-VII (c)	73 0	1,048		2,020		
					..		180		
Total ..	972		Total ..	..	..		2,200		
(b) Rest-houses	565		(a) Cart roads	27 5	2,308				
(c) Houses for subordinate establish- ments.	184								
(d) Others	79								
	828								
Add pay of watchers ..	397								
	1,225		Total ..	27 5	2,308		3,533		
(b) Rest-houses	52		(a) Cart roads	† 8 4	320				
(c) Houses for subordinate establish- ments.	227		(b) Bridle-paths	1 0	156				
(d) Others	211		(c) Others	..	91				
			Add A-VII (c)	9 4	567		1,057		
					..		3,289		
Total ..	490		Total ..	..	..		4,346		
(b) Rest-houses	418		(c) Others	..	§ 52				
(c) Houses for subordinate establish- ments.	341								
(d) Others	54								
	813								
Add pay of watchers ..	323		Add A-VII (c)	..	..		1,188		
	1,136						129		
Total ..	1,136		Total ..	..	..		1,317		

† Includes 6 miles 6 furlongs of tram road.

§ Pay of road watchers, &c.

Communications

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
Southern						
Tinnevely ..	(b) Rest-houses	Rs. 359	(a) Cart roads	Mls. fs. 5 7	Rs. 984	
	(c) Houses for subordinate establishments.	1,050	(b) Bridle-paths	0 5	985	
	(d) Others	50	(c) Others	..	866	
	Total, Tinnevely ..	1,459	Total ..	6 4	2,835	
Total, Southern Circle.	(b) Rest-houses	3,290	(a) Cart roads	10 7	3,489	
	(c) Houses for subordinate establishments.	4,765	(b) Bridle-paths	0 5	1,197	
	(d) Others	5,210	(c) Others	1 5	1,427	
	Total, Southern Circle ..	13,265	Total ..	13 1	6,113	
Grand Total, Presidency.	(b) Rest-houses	8,012	(a) Cart roads	88 7	19,196	
	(c) Houses for subordinate establishments.	7,179	(b) Bridle-paths	5 3	2,272	
	(d) Others	5,978	(c) Others	10 5	1,867	
	Total, Presidency ..	21,169	Total ..	104 7	23,335	

and Buildings—cont.

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
Circle—cont.					
(b) Rest-houses	Rs. 1,292	(a) Cart roads	Mls. fs. 71 0	Rs. 2,071	
(c) Houses for subordinate establishments.	48	(b) Bridle-paths	22 1	863	
(d) Others	19	(c) Others	2 0	26	
		Add A-VII (c)	95 1	2,960	4,319
					173
Total ..	1,359	Total ..			4,492
(a) Head-quarter houses ..	544	(a) Cart roads	243 2	7,634	
(b) Rest-houses	2,803	(b) Bridle-paths	26 1	1,042	
(c) Houses for subordinate establishments.	2,521	(c) Others	2 0	241	
(d) Others	751				
	6,619				
Add pay of watchers ..	720	Add A-VII (c)	271 3	8,917	16,256
					4,427
Total ..	7,339	Total ..			20,683
(a) Head-quarter houses ..	2,857	(a) Cart roads	294 6	9,037	
(b) Rest-houses	9,570	(b) Bridle-paths	28 2	1,051	
(c) Houses for subordinate establishments.	5,436	(c) Others	2 0	266	
(d) Others	1,199				
	19,062				
Add pay of watchers ..	3,974	Add A-VII (c)	325 0	10,354	33,390
					5,783
Total ..	23,036	Total ..			39,178

Statement showing the results of transport of wood by tramway, &c.—*cont.*

II. Cuddapah District.

Capital Account.

	1896-97.	1897-98.		1896-97.	1897-98.
To balance from previous year <i>Dr.</i> ..	Rs. 10,905	Rs. 10,251	By depreciation at 6 per cent. <i>Cr.</i> ..	Rs. 654	Rs. 615
			„ balance of stock ..	10,251	9,636
Total ..	10,905	10,251	Total ..	10,905	10,251

Revenue Account.

	1896-97.	1897-98.		1896-97.	1897-98.
To working expenses .. <i>Dr.</i> ..	Rs. 62	Rs. 57	By revenue .. <i>Cr.</i> ..	Rs. 246	Rs. 844
„ road repairs ..	7	8	„ balance written off ..	1,248	844
„ depreciation ..	654	615			
„ interest at 4 per cent. ..	436	410			
„ Tramway repairs ..	89	..			
Total ..	1,248	1,090	Total ..	1,248	1,090

	1896-97.			1897-98.		
	Number of tons of fuel carried.	Number of miles carried.	Total ton-miles.	Number of tons of fuel carried.	Number of miles carried.	Total ton-miles.
Work done	547	2	1,094	320	1½	400

	1896-97.			1897-98.		
	Total number of ton-miles.	Total cost of carrying.	Rate per ton-mile.	Total number of ton-miles.	Total cost of carrying.	Rate per ton-mile.
Actual charges for carrying ..	1,094	Rs. 1,248	Rs. A. P. 1 2 3	400	Rs. 1,090	Rs. A. P. 2 11 7
Estimated cost by carts ..	1,094	1,094	1 0 0	400	400	* 1 0 0

* The estimated cost by carts is based on the number of trips which one cart can make in one day carrying half a ton.

ABSTRACT OF PROFIT AND LOSS.

Year.	Profit.	Loss.
	Rs.	Rs.
1892-93 to 1896-97	..	3,897
1897-98	..	690
Net Loss	..	4,587

Statement showing the results of transport of wood by tramway, &c.—*cont.*

III. South Coimbatore District.

Capital Account.

	1896-97.	1897-98.		1896-97.	1897-98.
To balance from previous year <i>Dr.</i> ..	Rs. 47,244	Rs. 45,085	By depreciation at 6 per cent. <i>Cr.</i> ..	Rs. 2,878	Rs. 2,728
„ extension of tram line ..	669	388	„ balance of stock ..	45,085	42,745
„ construction of temporary sheds for storing tram materials.	50	..			
Total ..	47,963	45,473	Total ..	47,963	45,473

Revenue Account.

	1896-97.	1897-98.		1896-97.	1897-98.
To working expenses .. <i>Dr.</i> ..	Rs. 3,834	Rs. 2,871	By balance written off .. <i>Cr.</i> ..	Rs. 8,873	Rs. 7,597
„ depreciation at 6 per cent. ..	2,878	2,728			
„ interest at 4 per cent. ..	1,918	1,819			
„ repairs to roadway ..	100	44			
„ repairs to tram trucks ..	143	135			
Total ..	8,873	7,597	Total ..	8,873	7,597

	1896-97.			1897-98.		
	Number of tons of timber carried.	Number of miles carried.	Total ton-miles.	Number of tons of timber carried.	Number of miles carried.	Total ton-miles.
Work done	1,419 tons (4,539 candies or 56,739 cubic feet.)	4½	6,563	1,022 tons (3,270½ candies or 40,880 cubic feet.)	5½	5,621

	Total number of ton-miles.	Total amount spent.	Rate per ton-mile.	Total number of ton-miles.	Total amount spent.	Rate per ton-mile.
Actual charges for carrying ..	6,563	Rs. 8,873	Rs. A. P. 1 5 6	5,621	Rs. 7,597	Rs. A. P. 1 5 7
Estimated cost by carts ..	6,563	6,836	1 0 8	5,621	5,855	1 0 8
Annual cost of maintaining cart road before construction of tramways now saved ..	..	1,200	..	..	1,200	..
Total ..	6,563	8,036	..	5,621	7,055	..

ABSTRACT OF LOSS.

Year.	Loss.
	Rs.
1889-90 to 1896-97	22,973
1897-98	542
Net Loss	23,515

N.B.—The rate paid for carting from Sungam to Venthmudi, a distance of 6 miles prior to the construction of the tramway, was Rs. 2 per candy of 12½ cubic feet. This comes to slightly more than 5 pies per cubic foot per mile, or Rs. 1-0-8 per ton mile, a ton being taken as equivalent to 40 cubic feet. Hence the estimated cost by carts has been calculated at the rate of Rs. 1-0-8 per ton-mile.

ANNUAL FORM No. 50.

Forest Department, Madras Presidency.

PROSECUTIONS for breaches of Forest Rules during 1897-98.

District.	NEW CASES OF THE YEAR.						DISPOSED OF DURING THE YEAR.												Cases pending at close of year.
	Cases pending from 1896-97.	Injury to forest 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.	Total new cases of the year.	Total cases.		Convictions.		Acquittals.		Compounded.		Withdrawn.		Total.		
							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	
Northern Circle.																			
Ganjām	38	1	269	65	21	356	394	162	457	36	130	88	191	35	83	321	861	73	
Vizagapatam	90	1	556	120	81	758	848	318	815	20	166	256	571	149	358	743	1,872	105	
Gōdāvari	152	1	329	205	78	613	765	172	498	28	111	372	862	151	358	723	1,829	42	
Kistna	84	5	336	499	52	892	976	215	805	22	141	479	2,065	200	443	916	3,454	60	
Kurnool	226	2	755	243	53	1,053	1,279	294	476	57	159	580	1,913	95	231	1,026	2,779	253	
Bellary	82	7	257	93	70	427	509	45	99	9	17	339	1,003	45	160	431	1,279	78	
Anantapur	38	..	170	159	14	343	381	147	523	22	128	131	485	27	77	327	1,213	54	
Total	710	17	2,572	1,384	369	4,442	5,152	1,356	3,673	194	791	2,255	7,090	702	1,733	4,487	13,287	665	
Central Circle.																			
Cuddapah	103	7	537	469	22	1,035	1,138	268	652	42	222	450	1,145	277	867	1,037	2,876	101	
Nellore	49	1	134	180	29	344	393	241	592	28	99	58	118	12	30	339	839	54	
Chingleput	93	..	245	177	30	452	475	87	201	10	68	200	830	32	65	419	1,164	56	
North Arcot	154	3	605	642	32	1,282	1,436	119	319	32	116	982	1,667	120	250	1,253	2,352	183	
South Arcot	175	37	1,186	1,132	205	2,554	2,739	470	1,332	89	363	1,409	3,793	466	767	2,425	6,255	314	
Salem	92	5	729	640	29	1,403	1,495	243	794	71	302	775	2,036	171	495	1,260	3,627	235	
Trichinopoly	81	..	246	556	21	823	904	247	875	27	153	280	678	244	620	798	2,326	106	
Tanjore	5	..	28	29	5	62	67	16	43	..	..	20	53	26	75	62	174	6	
Total	682	53	3,710	3,825	377	7,965	8,647	1,691	4,808	209	1,326	4,255	10,320	1,343	3,159	7,593	19,613	1,054	
Southern Circle.																			
South Canara	134	7	508	17	105	637	771	262	434	65	173	307	445	36	43	670	1,095	101	
North Malabar	5	1	1	4	5	11	16	3	3	..	..	4	6	2	4	9	13	7	
South Malabar	18	..	24	..	1	25	30	9	32	1	2	14	49	3	8	27	91	8	
The Nilgiris	43	1	24	51	53	129	147	52	128	2	2	29	120	6	10	89	260	58	
North Coimbatore	43	1	133	209	29	384	427	128	381	43	219	151	453	70	264	392	1,317	35	
South Coimbatore	24	4	269	109	20	392	416	34	91	4	16	232	477	56	150	326	734	90	
Madura	105	28	242	233	24	527	632	268	706	36	157	128	444	89	154	520	1,460	112	
Tinnevely	50	..	314	147	20	481	531	21	106	7	27	339	1,055	108	436	476	1,624	56	
Total	384	42	1,525	762	257	2,586	2,970	777	1,880	157	596	1,204	3,049	370	1,069	2,508	6,594	462	
Grand Total, Presidency	1,776	112	7,907	5,971	1,003	14,993	16,769	3,824	10,361	650	2,713	7,694	20,459	2,420	6,961	14,588	39,494	2,181	

* Concerned in cases convicted.

† Excludes 1,896 petty offences committed by 2,314 persons let off with a warning.

ANNUAL FORM No. 51.

Forest Department, Madras Presidency.

AREA of Forest Tracts protected from Fire during 1897-98.

District.	Ranges or taluks.	Area actually protected up to 30th June 1897.	During dry season of 1897-98.			Cost during the season.	Remarks.
			Area attempted to be protected.	Fires.	Actually protected.		
1	2	3	4	5	6	7	8
Ganjām	Northern Circle.		ACS.	ACS.	ACS.	ACS.	RS.
	Kukuluba ..	..	41,537	42,547	410	42,137	268
	Mojjaguda ..	..	56,707	58,242	1,585	56,657	362
	Surada ..	..	9,450	7,850	1,200	6,650	120
	Buguda ..	..	10,120	9,840	600	9,240	186
Vizagapatam.	Berhampur ..	..	15,492	14,120	12	14,108	105
	Total, General, Ganjām.	..	133,316	132,599	3,807	128,792	1,041
	.....	..	28,306	74,966	1,496	73,470	456
	Gódvári—	..	..	..	..	..	..
	Special ..	..	..	..	..	..	..
Gódvári—	Bhadrachalam ..	..	13,871	13,912	73	13,839	485
	Marrigudem ..	..	28,756	29,300	2,655	26,645	702
	Rékajalle ..	..	9,410	9,500	1,706	7,794	197
	Total, Special, Gódvári.	..	52,037	52,712	4,434	48,278	1,384
	General ..	..	..	..	..	..	..
General ..	Rajahmundry ..	..	47,915	45,015	55	44,960	203
	Peddápur ..	..	2,150	2,150	100	2,050	38
	Yernagudem ..	..	17,540	22,050	240	21,810	287
	Ellore ..	..	17,340	17,340	700	16,640	257
	Total, General, Gódvári.	..	84,945	86,555	1,095	85,460	785
Kistna—	Total, Special and General, Gódvári.	..	136,982	139,267	5,529	133,738	2,169
	Special ..	..	..	..	..	..	..
	General ..	..	..	..	..	..	..
	Total, Special and General, Kistna.	..	164,008	85,290	151	85,139	301
	Kurnool ..	..	..	..	..	..	..
Bellary—	Special ..	..	70,824	77,307	28,950	48,357	2,456
	Sandúr ..	..	39,091	40,000	400	39,600	1,443
	Kódiari ..	..	19,000	18,163	..	18,163	429
	Bellary ..	..	1,066	1,066	..	1,066	(a) ..
	Total, Special, Bellary ..	..	59,157	59,229	400	58,829	{ 1,872 — 29
General ..	Sandúr ..	..	12,000	..	..	..	..
	Adóni ..	..	1,329	1,574	70	1,504	(b) ..
	Total, General, Bellary ..	..	13,329	1,574	70	1,504	..
	Total, Special and General, Bellary.	..	72,486	60,803	470	60,333	1,843
	Anantapur ..	..	..	..	..	..	..
Anantapur ..	.....	..	121,415	113,757	596	113,161	1,379
	Total, Special, Northern Circle.	..	194,856	197,231	4,985	192,246	3,528
	Total, General, Northern Circle.	..	532,481	486,758	36,014	450,744	6,117
	Grand Total, Northern Circle.	..	727,337	683,989	40,999	642,990	9,645
	Central Circle.	..	..	..	..	..	..
Cuddapah—	Special ..	..	..	+ 7,000	1,450	5,550	784
	General ..	..	409,870	415,380	21,206	394,174	{ 3,870 — 13
	Total, Special and General, Cuddapah.	..	409,870	422,380	22,656	399,724	4,641

* Added or deducted as per Accountant-General's audited figures.
† This area was shown under general last year.

Area of Forest Tracts protected from Fire during 1897-98—cont.

District.	Ranges or taluks.	Area actually protected up to 30th June 1897.	During dry season of 1897-98.			Cost during the season.	Remarks.
			Area attempted to be protected.	Fires.	Actually protected.		
1	2	3	4	5	6	7	8
<i>Central Circle—cont.</i>		ACS.	ACS.	ACS.	ACS.	RS.	
Nellore ..	....	115,720	115,720	2,585	113,135	668	
Chingleput—Special ..	....	23,473	23,873	72	23,801	394	
North Arcot—							
Special ..	Chittoor	47,789	50,256	92	50,164	354	
	Chendragiri	97,503	104,252	5,167	99,085	1,092	
	Palmanér	65,663	66,839	2,260	64,579	582	
	Gudiyáttam	80,508	80,452	2,350	78,102	458	
	Vellore	107,192	113,975	714	113,261	1,174	
	Polur	126,494	126,714	6,993	119,721	1,099	
	Arcot-Wallajah ..	9,036	10,776	219	10,557	289	
	Total, Special, North Arcot.	534,185	553,264	17,795	535,469	5,048	
General ..	Chittoor	33,940	30,228	..	30,228	..	
	Chandragiri	10,850	5,570	..	5,570	..	
	Palmanér	52,978	52,978	74	52,904	..	
	Gudiyáttam	14,685	14,685	..	14,685	..	
	Vellore	7,523	1,002	..	1,002	..	
	Polur	43,426	43,426	1,206	42,220	..	
	Wallajah	3,078	3,078	..	3,078	..	
	Wandiwash	10,801	10,759	..	10,759	..	
	Arcot	7,329	7,326	..	7,326	..	
	Total, General, North Arcot.	184,610	169,052	1,280	167,772	..	
	Total, Special and General, North Arcot.	718,795	722,316	19,075	703,241	5,048	
South Arcot—							
Special ..	Tiruvannámalai ..	51,510	9,725	90	9,635	208	
	Kallakurchi	14,338	14,338	150	14,188	100	
	Total, Special, South Arcot.	65,848	24,063	240	23,823	308	
General ..	....	30,290	79,389	4,346	75,043	353	
	Total, Special and General, South Arcot.	96,138	103,452	4,586	98,866	661	
Salem ..	Salem, West	10,500	9,419	..	9,412	519	
	Uttankarai	13,628	5,278	..	5,278	187	
	Tirupattūr	11,782	14,155	751	13,404	534	
	Krishnagiri	6,800	7,327	..	7,327	247	
	Hosūr	..	13,172	400	12,772	233	
	Salem, East	..	2,482	140	2,342	86	
	Total, Salem ..	42,690	51,833	1,291	50,542	1,806 + + 12	
Trichinopoly.	Musiri	49,981	50,060	65	49,995	105	
	Perambalur	32,600	32,600	25	32,575	..	
	Total, Trichinopoly ..	82,581	82,660	90	82,570	105	
Tanjore ..	....	..	..	..	..	..	
	Total, Special, Central Circle.	623,506	608,200	19,557	588,643	6,534	
	Total, General, Central Circle.	865,761	914,034	30,798	883,236	6,801	
	Grand Total, Central Circle.	1,489,267	1,522,234	50,355	1,471,879	13,335	

* Of these 14,093 acres were transferred to special protection during the year 1897-98.

† Added or deducted as per Accountant-General's audited figures.

Agreements have been entered into with the Malayalis for keeping lines clear and preserving the forests from fire on payment to them of lump sums at certain rates.

Area of Forest Tracts protected from Fire during 1897-98—cont.

District.	Ranges or taluks.	Area actually protected up to 30th June 1897.	During dry season of 1897-98.			Cost during the season.	Remarks.
			Area attempted to be protected.	Fires.	Actually protected.		
1	2	3	4	5	6	7	8
<i>Southern Circle.</i>		ACS.	ACS.	ACS.	ACS.	RS.	
South Canara.	Coondapoor range ..	16,248	20,644	144	20,500	252	10,350 acres of the area protected last year were not protected this year and new areas to the extent of 21,807 acres were brought under protection.
	Udipi range	11,125	13,890	60	13,830	272	
	Mangalore range ..	7,175	4,916	43	4,873	80	
	Uppinangadi range ..	4,605	4,593	48	4,545	82	
	Puttur range	5,256	11,823	50	11,773	134	
	Total, South Canara ..	44,409	55,866	345	55,521	820	
North Malabar—							
Special ..	Begur range	..	1,972	10	1,962	..	
	Chedaeth range ..	65,512	6,025	60	5,965	..	
	Kanoth	..	* 224	..	224	34	
	Total, Special, North Malabar.	65,512	8,221	70	8,151	34	
General ..	Begur	..	18,368	13,394	5,474	1,194	
	Chedaeth	..	43,460	43,460	..	† — 20	
	Total, General, North Malabar.	..	62,328	56,854	5,474	1,174	
	Total, Special and General, North Malabar.	65,512	70,549	56,924	13,625	1,208	
South Malabar—							
Special ..	Nilambur range ..	4,685	4,685	10	4,675	878	
	Amarampalam range ..	80,779	80,779	..	80,779	512	
	Palghat range	18,344	18,344	..	18,344	963	
	Total, Special, South Malabar.	103,808	103,808	10	103,798	2,353	
The Nilgiris.	Special	10,089	12,097	207	11,890	1,730	
	General	71,740	74,256	..	74,256	153	
	Total, The Nilgiris ..	81,829	86,353	207	86,146	1,883	
North Coimbatore—							
Special ..	Satyamangalam range ..	5,648	2,140	42	2,098	79	
	Kollegal range	4,691	4,677	† 483	4,194	286	
	Talamalai range	332	2,043	..	2,043	131	
	Total, Special, North Coimbatore.	10,671	§ 8,860	525	8,335	496	
South Coimbatore—							
Special ..	Tunacadavu range ..	24,000	24,000	12,800	11,200	1,021	
	Pollachi range	9,775	9,775	53	9,722	394	
	Udamalpet range ..	485	485	..	485	135	
	Mettupálaiyam range ..	230	230	..	230	29	
	Bolampatti range ..	23,366	23,433	698	22,735	984	
	Total, Special, South Coimbatore.	57,856	57,923	13,551	44,372	2,563	
General ..	Tunacadavu	38,843	38,843	..	38,843	..	
	Pollachi	72,543	72,543	..	72,543	..	
	Udamalpet	140,794	141,544	3,550	137,994	Nil.	
	Mettupálaiyam	49,370	49,370	15	49,355	..	
	Bolampatti	56,629	58,069	1,700	56,369	..	
	Total, General, South Coimbatore.	358,179	360,369	5,265	355,104	..	
	Total, Special and General, South Coimbatore.	416,035	418,292	18,816	399,476	2,563	
Madura ..	Special	180,880	180,827	41,767	139,060	2,782	
	General	36,412	35,003	46	34,957	162	
	Total, Madura ..	217,292	215,830	41,813	174,017	2,944	

Area of Forest Tracts protected from Fire during 1897-98—cont.

District.	Ranges or taluks.	Area actually protected up to 30th June 1897.	During dry season of 1897-98.			Cost during the season.	Remarks.
			Area attempted to be protected.	Fires.	Actually protected.		
1	2	3	4	5	6	7	8
<i>Southern Circle—cont.</i>		ACS.	ACS.	ACS.	ACS.	RS.	
Tinnevely— Special ..	Ambásamudram taluk ..	9,203	9,225	72	9,153	4	
	Nángunéri taluk ..	2,918	5,456	..	5,456	65	
	Tenkási taluk ..	1,715	4,235	484	3,751	21	
	Sankaranayinárkóvil taluk ..	4,996	6,155	..	6,155	..	
	Srivilliputtúr taluk ..	7,705	7,706	10	7,696	50	
	Total, Special, Tinnevely.	26,537	32,777	566	32,211	140	
General ..	Ambásamudram taluk ..	78,272	81,034	1,075	79,959	95	
	Nángunéri taluk ..	47,999	48,199	1,025	47,174	357	
	Tenkási taluk ..	13,269	20,624	1,410	19,214	101	
	Sankaranayinárkóvil taluk ..	21,284	21,534	755	20,779	166	
	Srivilliputtúr taluk ..	34,664	35,264	551	34,713	452	
	Total, General, Tinnevely.	201,488	206,655	4,816	201,839	1,171 — 43	* Added or deducted as per Accountant-General's audited figures.
	Total, Special and General, Tinnevely.	228,025	239,432	5,382	234,050	1,268	
Total, Southern Circle—							
Special ..		455,353	404,513	56,696	347,817	10,098	
General ..		712,228	794,477	67,326	727,151	3,437	
Grand Total, Southern Circle.		1,167,581	1,198,990	124,022	1,074,968	13,535	
Total, Presidency—							
Special ..		1,273,715	1,209,944	81,238	1,128,706	20,160	
General ..		2,110,470	2,195,269	134,138	2,061,131	16,355	
Grand Total, Presidency.		3,384,185	3,405,213	215,376	3,189,837	36,515	

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.

ANNUAL FORM No. 52.

Forest Department, Madras Presidency.

AREA closed and open to Grazing during 1897-98.

District.	Total forest area as per Form No. 44.	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>						
	Sq. MLS.					
Ganjám ..	563	123	..	(a) 563	..	..
Vizagapatam ..	413	1	..	138	..	275
Goddavari ..	970	1	..	(b) 970	..	..
Kistna ..	1,162	132	..	920	..	242
Kurnool ..	2,670	..	(c) 121	..	(e) 2,392(d)	278
Bellary ..	615	43	92	43	120	(e) 452
Anantapur ..	512	..	19	512	..	..
Total ..	6,905	300	232	3,146	2,512	1,247
<i>Central Circle.</i>						
Cuddapah ..	2,400	(f) 7	(f) 1	..	2,339	(g) 61
Nellore ..	680	7	..	645	..	(h) 35
Chingleput ..	215	35	..	197	..	18
North Arcot ..	1,129	98	..	(a) 1,117	..	12
South Arcot ..	711	14	..	(a) 711	..	..
Salem ..	1,396	63	..	(i) 1,396	..	..
Trichinopoly ..	278	59	..	(a) 278	..	..
Tanjore ..	18	1	..	(k) 18	..	..
Total ..	6,827	284	1	4,362	2,339	126
<i>Southern Circle.</i>						
South Canara ..	1,123	16	..	(a) 1,123	..	..
Malabar, North ..	274	52	..	(a) 274	..	..
Do. South ..	328	328	..	(l) 328	..	..
The Nilgiris ..	483	12	..	(a) 483	..	..
Coimbatore, North ..	1,619	215	..	(a) 1,619(m)	..	..
Do. South ..	657	265	..	(a) 657	..	..
Madura ..	613	29	..	(a) 613	..	..
Tinnevely ..	424	291	..	(a) 424(n)	..	..
Total ..	5,521	1,208	..	5,521	..	..
Grand Total, Presidency ..	19,253	1,792	233	13,029	4,851	1,373

- (a) Closed to goats only.
(b) In 511 square miles sheep were also not admitted.
(c) Closed for 10 months during the year. During July and August free-grazing was allowed over all the forests.
(d) In 2 square miles goats were admitted.
(e) During the first quarter of the year 572 square miles were open to free-grazing.
(f) Plantations or areas in which located fellings have been conducted.
(g) Goats were admitted in this area.
(h) Reserved for goats.
(i) Closed to goats only. In 15 square miles of this area goat browsing was allowed from November 1897.
(k) Open to sheep. Of this, 168 acres were also open to goats.
(l) No demand for grazing.
(m) In 15 square miles sheep were also not admitted.
(n) In 1 square mile sheep were also not admitted.

ANNUAL FORM No. 53.

Forest Department, Madras Presidency.

AREA of Plantations, 1897-98.

District.	Number of plantations on 30th June 1898.	Area in acres.				Receipts	Charges	Remarks.
		On 1st July 1897.	Added during the year.	Ex-cluded during the year.	Area on 30th June 1898.	Of the year.		
1	2	3	4	5	6	7	8	9
REGULAR PLANTATIONS.								
<i>Northern Circle.</i>								
Ganjām	1	304	44	..	348	..	2,544	(a) By rectification.
Górávari	2	476	..	(a) 55	421	1,163	(b) 758	(b) Includes cost of establishment.
Kistna	(c) 19	1,484	222	4	1,702	2,302	3,071	(c) One was abandoned during the year and 2 were newly added.
Total	22	2,264	266	59	2,471	3,465	6,373	
<i>Central Circle.</i>								
Nellore	2	(a) 3,213	..	(d) 3,194	19	9,305	1,670	(d) Included in reserved forest and so omitted.
Chingleput	2	352	..	(d) 263 (e) + 3	86	300	284	(e) Transferred to topos.
North Arcot	6	1,048	..	..	1,048	3,435	2,630	(f) Municipal tax.
South Arcot	13	8,618	..	..	8,618	6,459	2,824	
Tanjore	4	539	..	..	539	2,809	(f) 253 2,012	
Total	27	13,770	..	3,460	10,310	22,308	9,673	
<i>Southern Circle.</i>								
South Canara	3	183	..	..	183	1,243	100	
North Malabar	11	(a) 684	50	(g) 407	327	..	591 (h) —55	(g) Failure.
South do.	18	4,560	80	..	4,640	56,111	7,511	(h) Added or deducted as per Accountant-General's audited figures under A-VIII (e).
The Nilgiris	22	1,610	..	..	1,610	10,167	404	
South Coimbatore	4	28	..	..	28	..	..	
Madura	6	212	40	19	233	..	817	
Total	64	7,277	170	426	7,021	67,521	9,368	
Grand Total, Regular Plantations	113	23,311	436	3,945	19,802	93,294	25,414	

ANNUAL FORM No. 53—cont.

Forest Department, Madras Presidency.

AREA of Plantations, 1897-98.

District.	Area in acres.				Receipts	Charges	Remarks.
	On 1st July 1897.	Added during the year.	Ex-cluded during the year.	Area on 30th June 1898.	Of the year.		
1	2	3	4	5	6	7	8
CULTURAL OPERATIONS.					RS.	RS.	
Northern Circle.							
Direction	..	..	..	..	..	272	
Ganjām	404	..	..	404	27	178	
Vizagapatam	..	..	..	..	..	(a) + 123	(a) Added or deducted as per
Górávari	..	..	..	..	..	(b) 6	Accountant - General's
Kistna	62	3	..	65	2 {	658	audited figures under
Kurnool	..	..	..	..	..	(a) + 320	A-VIII (e).
Bellary	132	23	1	154	..	(b) 88	(b) Planting up certain bunga-
Anantapur	151	73	202	(c) 22	45	876	low and range house
						180	compounds.
Total ..	749	99	203	645	74	2,701	(c) Of these areas planted with
							date, 9 acres are failures
							and 9 acres only partially
							successful.
Central Circle.							
Cuddapah	601	..	(d) 5	596	176 {	(e) 1,081	(d) By rectification of error.
Nellore	1,132	4	..	1,136	6 {	(a) - 8	(e) Includes Rs. 445 being the
Chingleput	..	..	..	..	..	221	charges on account of the
North Arcot	1,556	216	520	1,252	17	(a) - 4	plantations included in
South Arcot	1,490	..	1,490	..	..	(a) + 164	reserved forests.
Salem	..	..	..	..	..	(f) 786	(f) This represents the difference
						(a) + 34	between the Collector's
Trichinopoly	{ mls. 90	..	..	{ mls. 90	666	(a) 1,043	figure under A-VIII
	{ acs. 104			{ acs. 104			(e) and the audited figures
Tanjore	756	320	..	1,076	..	28	and is probably the ex-
							penditure on bamboo
Total ..	{ 5,639 mls. 90	540	2,015	{ 4,164 mls. 90	865	4,920	planting.
Southern Circle.							
The Nilgiris	479	6	..	485	..	718	
South Coimbatore	227	15	..	242	..	241	
Tinnevelly	3,404	18	..	3,422	..	(a) + 791	
						482	
Total, Southern Circle ..	4,110	39	..	4,149	..	2,232	
Total, Cultural operations, Presidency	{ 10,498 mls. 90	678	2,218	{ 8,958 mls. 90	939	9,853	
Total, Regular plantations and cultural operations, Northern Circle.	3,013	365	262	3,116	3,539	9,074	
Total, Regular plantations and cultural operations, Central Circle.	{ 19,409 mls. 90	540	5,475	{ 14,474 mls. 90	23,173	14,593	
Total, Regular plantations and cultural operations, Southern Circle.	11,387	209	426	11,170	67,521	11,600	
Presidency total, Plantations and cultural operations ..	{ 33,809 mls. 90	1,114	6,163	{ 28,760 mls. 90	94,233	35,267	

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.			ACS.	RS.	RS.
Ganjām	7	Miscellaneous	101	..	922
Vizagapatam	2	Teak, and a large variety of other indigenous trees.	78	132	1,152
Kistna	(b) 13	Graft mangoes, tamarind, margosa, nim, palmyras, soapnut, date, bamboo, neredu, &c.	131	448	(a) 4,085
Kurnool	30	Tamarind, mango, margosa and ippa	206	122	10,036
Bellary	30	Casuarina, tamarind, mango, margosa, figs, ippa, &c.	212	130	2,430
Anantapur	95	Palmyra, babul and tamarind	2,885	82	9,395
Total	177	Total	3,613	914	28,020
Central Circle.					
Cuddapah	71	Palmyra, tamarind, margosa, mango, dirasenam, casuarina, maddi, tella tumma, babul, <i>Albizia eugenia</i> , tangeda, orange, coffee and other ornamental trees.	1,630	289	61,807
Nellore	112	Palmyra, tamarind, margosa, neredu	1,776	..	38,044
Chingleput	(c) 9	Mango, margosa, tamarind, jack, iluppai, casuarina, korakapili, cocoanut and wood-apple.	88	108	(d) 8,410
North Arcot	71	Mango, fig, palmyra, cocoanut, illuppai, wood-apple, tamarind, date, banyan, babul, teak, jack, gova, orange, lime, soapnut, casuarina, &c.	1,938	462	45,912
South Arcot	(e) 63	Tamarind, iluppai, palmyra, nagai, vembu, mango, kattuvagai, puvarasu, babul, red-sanders, ceara rubber, sissu, cashew, casuarina, nelli.	464	..	(f) 9,007
Salem	126	Vagai, mango, pungam, nagai, casuarina, seemai-avaram, illupai, tamarind, palmyra, thuringji, cocoanut, margosa.	1,598	..	93,036
Trichinopoly	19	Mango, cocoanut, bamboo, sissu, tamarind, palmyra and elandai.	573	156	2,100
Total	471	Total	8,067	1,016	2,58,316
Southern Circle.					
North Malabar	(g) 4	Eucalyptus, ceara rubber, mahoghany, <i>ficus elastica</i> , dendrocalamus, brandessee and other bamboos, orange, pepper vines and Liberian coffee plants.	56	415	5,478
South do.	1	Mango, <i>pongamia glabra</i> , tamarind, <i>terminalia paniculata</i> , and <i>eugenia jambolana</i> .	20	..	9
Coimbatore, North ..	5	Palmyra, sandalwood, <i>acacia arabica</i> , <i>albizzia amara lebeck</i> , <i>melia</i> , and satinwood.	317	(h) 214	(i) 317
Do. South	23	Tamarind, palmyra, cocoanut and pasturage ..	267	40	5,330
Madura	(k) ..	.. .. .	..	..	..
Tinnevely	9	Tamarind, mango, gooseberry, palmyra, bamboo, banyan, jack, iluppai, teak, vengai, casuarina, vagai and nim.	84	62	2,394
Total	42	....	744	731	13,528
Grand Total, Presidency.	690	....	12,424	2,660	2,99,864

(a) Excludes Rs. 22, the cost of one tope abandoned during the year.

(b) Two topes of 74 acres were added during the year.

(c) One tope excluded having been notified under section IV of the Forest Act.

(d) Excludes Rs. 1,073, the cost of the tope removed from this list.

(e) One tope of one acre was sold to Revd. J. H. Wyckoff for Rs. 200.

(f) Excludes Rs. 20, the cost of one tope sold.

(g) Rectification of error in previous year's return.

(h) Added to tally with the Accountant-General's audited figures under Act VIII (e).

(i) Represents cost for the years 1896-97 and 1897-98.

(k) The topes shown in the previous year's returns are now reported to have been disafforested so long ago as 1888.

ANNUAL FORM No. 55.
Forest Department, Madras Presidency.
OUTTURN (in cubic feet, solid) of Timber and Fuel during the year 1897-98, and Agency of Exploitation.

District.	1	Timber.				Fuel.				Total.
		Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	
		2	3	4	5	6	7	8	9	10
		C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.
<i>Northern Circle.</i>										
Ganjām	..	21,136	151,664	..	..	172,800	9	438,877	..	..
Vizagapatam	..	161	99,127	2,053	..	101,341	24,139	201,099	..	..
Gōdāvari	..	..	234,161	5,600	..	239,761	4,131	277,161	..	..
Kistna	..	..	200,544	6,277	..	206,821	810	414,117	..	..
Kurnool	..	..	180,265	8,300	1,311	198,576	17,413	389,771	..	257,510
Bellary	..	..	81,804	6,081	..	87,885	1,420	267,916	..	..
Anantapur	..	..	19,844	430	..	20,274	..	88,875	..	..
Total	Total ..	57,580	967,369	27,741	1,311	1,054,001	47,922	2,077,816	888	2,394,136
<i>Central Circle.</i>										
Cuddapah	..	17,046	123,101	3,940	..	144,087	643	609,368	..	..
Nellore	..	1,044	157,495	6,280	..	164,819	231,738	128,328	..	..
Chingleput	..	..	122,848	..	..	122,848	33,576	401,310	..	..
North Arcot	..	..	81,297	7,585	..	88,882	133,116	453,120	..	..
South Arcot	..	533	23,106	1,755	..	24,639	74,026	535,085	400	..
Salem	..	17,998	231,710	6,490	..	256,206	763,406	385,314	..	..
Trichinopoly	..	3,533	19,486	2,570	..	25,592	177,992	1,060,623	..	..
Tanjore	..	..	19,814	..	..	19,814	1,150	472,930	..	..
Total	Total ..	40,054	778,857	28,620	..	847,531	1,415,647	4,059,078	400	5,475,125
<i>Southern Circle.</i>										
South Canara	..	9,757	6,312	12	..	16,081	13,251	662,080	..	..
North Malabar	..	46,149	10,499	4,008	..	60,656	..	580	..	..
South Malabar	..	163,710	40,124	..	..	203,834	..	27,888	..	..
Nilgiris	..	..	14,260	445	500	45,360	349,237	32,177	..	75
North Coimbatore ..	..	6,591	20,803	17	..	27,410	..	241,272	..	..
South Coimbatore ..	..	52,919	14,653	..	..	67,572	170,689	802,446	..	..
Madura	..	81	219,795	909	..	220,785	20,607	75,631	..	..
Tinnevely	..	5,403	17,906	900	..	24,209	68,749	1,515,008	..	..
Total	Total ..	314,765	344,361	6,291	500	665,907	622,904	3,357,082	3,880	75
Grand Total	Grand Total ..	412,399	2,090,577	62,652	1,811	2,567,439	2,086,473	9,433,976	5,168	267,856

ANNUAL REPORT OF THE

ANNUAL FORM No. 56.
Forest Department, Madras Presidency.
OUTTURN of Minor Forest Produce during the year 1897-98.

Circle.	Description of produce.	Produce removed or utilized.									
		By Government Agency.		By purchasers.		By free grants.		By right-holders.		Total.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11	12
Northern Circle.	Bamboos	NO. 13,380	RS. 573	NO. 12,264,391	RS. 61,930	NO. 32,910	RS. 169	NO. 20,489	RS. 128	NO. 12,331,679	RS. 62,800
	Grass and grazing	..	..	..	..	..	..	..	..	..	..
	Stones, gravel and earth	..	..	..	..	..	..	..	..	..	..
	Tamarind, soapnuts, gallnuts	..	..	..	..	..	..	..	..	..	..
	Horns, honey, wax	..	..	..	..	..	..	..	..	..	..
Central Circle.	Miscellaneous	..	..	..	..	..	..	..	..	..	..
	Total	..	..	..	..	..	..	..	..	..	..
	Bamboos	NO. 8,715	RS. 2,316	NO. 12,303,461	RS. 98,693	NO. 155,071	RS. 486	..	..	NO. 12,467,237	RS. 1,01,495
	Grass and grazing	..	..	..	..	..	..	..	..	..	..
	Stones, gravel and earth	..	..	..	..	..	..	..	..	..	..
Southern Circle.	Tamarind, soapnuts, gallnuts	..	..	..	..	..	..	..	..	..	..
	Miscellaneous	..	..	..	..	..	..	..	..	..	..
	Total	..	..	..	..	..	..	..	..	..	..
	Bamboos	NO. 236,634	RS. 3,496	NO. 4,178,232	RS. 24,079	NO. 15,592	RS. 217	NO. 825	RS. 2	NO. 4,431,283	RS. 27,794
	Grass and grazing	..	..	..	..	..	..	..	..	..	..
Southern Circle.	Stones, gravel and earth	..	..	..	..	..	..	..	..	..	..
	Tamarind, soapnuts, gallnuts	..	..	..	..	..	..	..	..	..	..
	Horns, honey, wax	..	..	..	..	..	..	..	..	..	..
	Catechu	..	..	..	..	..	..	..	..	..	..
	Miscellaneous	..	..	..	..	..	..	..	..	..	..
Grand Total		..	..	..	..	..	..	..	..	..	..

FOREST DEPARTMENT.

ANNUAL FORM No. 57.

Forest Department, Madras Presidency.

ACCOUNT of Timber cut or collected by Government Agency and brought to depot, sold locally, &c., or otherwise disposed of during the year 1897-98.

Name of district.	Balance at commencement of the year in forests and sale depots.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at the close of the year in forests and sale depots.
1	2	3	4	5	6
TIMBER (CUBIC FEET).					
Northern Circle.					
Ganjām	8,123	21,136	29,259	26,813	2,446
Vizagapatam	..	161	161	161	..
Godāvari	..	..	..	..	..
Kistna	8,875	18,920	27,795	27,110	685
Kurnool	4,176	16,918	21,094	10,854	10,240
Bellary	24,759	445	25,204	18,253	6,951
Anantapur	..	..	..	..	..
Total	45,933	57,580	103,513	83,191	20,322
Central Circle.					
Cuddapah	4,136	17,046	21,182	8,376	12,806
Nellore	..	1,044	1,044	1,020	24
Chingleput	..	..	..	..	..
North Arcot	1,023	533	1,556	1,363	193
South Arcot	1,073	17,898	18,971	18,967	4
Salem	618	3,533	4,151	3,610	541
Trichinopoly	..	..	..	..	..
Tanjore	..	..	..	..	..
Total	6,850	40,054	46,904	33,336	13,568
Southern Circle.					
South Canara	24,865	9,757	34,622	11,501	23,121
Malabar (North)	62,331	46,149	108,480	63,663	44,817
Do. (South)	98,064	163,710	261,774	141,591	120,183
Nilgiris	2,987	30,155	33,142	27,693	5,449
Coimbatore (North)	2,965	6,591	9,556	7,155	2,401
Do. (South)	78,366	52,919	131,285	41,465	89,820
Madura	851	81	932	927	6
Tinnevely	2,134	5,403	7,537	7,385	152
Total	272,563	314,765	587,328	301,380	285,948
Grand Total	325,346	412,399	737,745	417,907	319,838
FUEL (CUBIC FEET).					
Northern Circle.					
Ganjām	..	9	9	3	6
Vizagapatam	..	24,139	24,139	24,139	..
Godāvari	..	4,131	4,131	4,131	..
Kistna	..	5,027	5,837	5,837	..
Kurnool	..	11,152	17,413	28,565	11,682
Bellary	..	68,602	1,420	70,022	24,918
Anantapur	..	..	..	..	..
Total	84,781	47,922	132,703	96,097	36,606
Central Circle.					
Cuddapah	..	643	643	43	600
Nellore	..	231,738	300,168	193,298	106,870
Chingleput	..	33,576	33,576	30,209	3,367
North Arcot	..	205,683	133,116	338,799	11,090
South Arcot	..	18,757	74,026	92,783	320
Salem	..	4,265	763,406	766,732	939
Trichinopoly	..	89,345	177,992	267,337	105,594
Tanjore	..	..	1,150	1,150	..
Total	386,480	1,415,647	1,802,127	1,573,347	228,780
Southern Circle.					
South Canara	..	765	13,251	13,195	821
Malabar (North)	..	..	..	..	..
Do. (South)	..	75	401	109	367
Nilgiris	..	329,161	349,237	398,650	279,748
Coimbatore (North)	..	..	..	..	..
Do. (South)	..	10,734	170,659	77,734	103,659
Madura	..	3,072	20,607	22,134	1,645
Tinnevely	..	20,752	68,749	89,501	4,800
Total	364,559	622,904	987,463	596,523	390,940
Grand Total	835,820	2,086,473	2,922,293	2,265,967	656,326

Account of Timber, &c., cut or collected by Government Agency and brought to depot, sold locally, or otherwise disposed of during the year 1897-98—*cont.*

Name of district.	Balance at commencement of the year in forests and sale depots.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at the close of the year in forests and sale depots.
1	2	3	4	5	6

MINOR FOREST PRODUCE (MAUNDS OF 25 lb.).

<i>Northern Circle.</i>					
Ganjām	66,564	4,256	70,820	58,972	11,848
Vizagapatam	..	167	167	..	167
Gódvári	55	347	402	13	389
Kistna	82	..	82	..	82
Karnool	..	..	..	..	..
Bellary	..	..	..	..	..
Anantapur	..	..	..	..	..
Total	66,701	4,770	71,471	58,985	12,486
<i>Central Circle.</i>					
Cuddapah	455	14	469	461	8
Nellore	5,788	7,584	13,372	38	13,334
Chingleput	..	..	..	..	..
North Arcot	..	..	..	..	..
South Arcot	..	..	..	..	..
Salem	..	246	246	246	..
Trichinopoly	..	..	..	..	..
Tanjore	..	..	..	..	..
Total	6,243	7,844	14,087	745	13,342
<i>Southern Circle.</i>					
South Canara	157	1,503	1,660	1,627	33
Malabar (North)	43	65	108	22	86
Do. (South)	261	116	377	266	111
Nilgiris	495	104	599	527	72
Coimbatore (North)	5,330	17,756	23,086	7,425	15,661
Do. (South)	278	1,527	1,805	1,721	84
Madura	..	263	263	263	..
Tinnevely	..	240	240	240	..
Total	6,564	21,574	28,138	12,091	16,047
Grand Total	79,508	34,188	113,696	71,821	41,875

BAMBOOS (NUMBER).

<i>Northern Circle.</i>					
Ganjām	30	70	100	100	..
Vizagapatam	..	..	..	..	..
Gódvári	..	..	..	..	..
Kistna	4,080	10,819	14,899	5,495	9,404
Karnool	1,391	2,500	3,891	618	3,273
Bellary	..	..	..	..	..
Anantapur	..	..	..	..	..
Total	5,501	13,389	18,890	6,213	12,677
<i>Central Circle.</i>					
Cuddapah	..	..	..	..	..
Nellore	..	..	..	..	..
Chingleput	1,847	4,415	6,262	4,193	2,069
North Arcot	2,344	..	2,344	2,344	..
South Arcot	..	4,300	4,300	4,300	..
Salem	..	..	..	..	..
Trichinopoly	..	..	..	..	..
Tanjore	..	..	..	..	..
Total	4,191	8,715	12,906	10,837	2,069
<i>Southern Circle.</i>					
South Canara	..	225	225	50	175
Malabar (North)	..	1,470	1,470	470	1,000
Do. (South)	65	27,533	27,598	27,598	..
Nilgiris	..	..	..	..	..
Coimbatore (North)	5,760	202,400	208,160	205,940	2,220
Do. (South)	4,200	5,000	9,200	9,200	..
Madura	..	6	6	6	..
Tinnevely	..	..	..	..	..
Total	10,025	236,634	246,659	243,264	3,395
Grand Total	19,717	258,738	278,455	260,314	18,141

ANNUAL FORM No. 58.

Forest Department, Madras Presidency.

ABSTRACT showing the Value of Timber and other Produce at sale depots for the year 1897-98.

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>								
Sal	..	7,136	2,676	..	901	336	..	..
Teak	..	1,742	2,174	..	3,041	3,801	..	..
Vengai	..	2,422	2,420	..	..	..	..	..
Miscellaneous	..	34,633	6,392	..	16,380	8,489	..	..
Total, Timber	..	45,933	13,662	..	20,322	12,626	..	1,036
Fuel	..	84,781	4,456	..	36,606	6,687	2,231	..
Bamboos	5,501	..	204	12,677	..	475	271	..
Minor produce	66,701	..	577	12,486	..	511	..	66
<i>Central Circle.</i>								
Teak	..	117	..	..	..	..	..	..
Vengai	..	48	1,838	..	..	..	..	..
Redwood	..	830	..	..	12,290	3,761	..	..
Miscellaneous	..	5,220	..	..	981	367	..	..
Sandalwood	..	635	6,330	..	297	2,970	..	..
Total, Timber	..	6,850	8,168	..	13,568	7,098	..	1,070
Fuel	..	386,480	18,623	..	228,780	24,532	5,909	..
Bamboos	4,191	..	317	2,069	..	487	170	..
Minor produce	6,243	..	3,641	13,342	..	7,019	3,378	..
<i>Southern Circle.</i>								
Teak	..	93,061	..	..	70,367	..	..	..
Rosewood	..	4,049	..	..	5,011	..	..	..
Vengai	..	8,416	1,49,916	..	5,077	1,59,842	..	..
Ironwood	..	648	..	..	487	..	..	..
Miscellaneous	..	164,069	..	..	204,899	..	..	..
Sandalwood	..	1,320	13,946	..	107	1,302	..	..
Total, Timber	..	272,563	1,63,862	..	285,948	1,61,144	..	2,718
Fuel	..	364,559	5,269	..	390,940	5,013	..	256
Bamboos	10,025	..	65	3,395	..	226	161	..
Minor produce	6,564	..	8,740	16,047	..	25,641	16,901	..
<i>Grand Total.</i>								
Timber	..	325,346	1,85,692	..	519,838	1,80,868	..	4,824
Fuel	..	835,820	28,348	..	656,326	36,232	7,884	..
Bamboos	19,717	..	586	18,141	..	1,188	602	..
Minor produce	79,508	..	12,958	41,875	..	33,171	20,213	..

ANNUAL FORM NO. 72-A (OLD CODE).
Forest Department, Madras Presidency.

District.	Timber.	Firewood and charcoal.	Bamboos.	MONEY VALUE OF SALES.										
				Timber.		Firewood and charcoal.		Bamboos.		Grazing and fodder grass.		Minor produce.		Total.
				Amount of sales.	Amount actually realized during the year.	Amount of sales.	Amount actually realized during the year.	Amount of sales.	Amount actually realized during the year.	Amount of sales.	Amount actually realized during the year.	Amount of sales.	Amount actually realized during the year.	
Northern Circle.														
Ganjam ..	C. PEET. 151,664	C. HEET. 438,877	NO. 1,236,601	RS. 19,454	RS. 19,455	RS. 6,456	RS. 5,492	RS. 5,492	RS. 6,774	RS. 6,774	RS. 5,103	RS. 5,103	RS. 43,279	RS. 43,280
Vizagapatam ..	99,127	201,099	638,797	5,639	6,457	4,735	5,929	5,929	2,987	2,986	4,986	4,986	24,124	24,124
Godavari ..	234,161	277,161	6,477,907	42,045	42,045	6,402	29,280	29,280	9,580	9,580	7,228	7,228	94,456	94,456
Kistna ..	200,544	414,117	1,74,470	13,599	13,599	9,777	1,679	1,679	55,224	56,254	14,007	14,007	93,858	93,858
Kurnool ..	180,225	360,771	4,666,360	18,114	18,114	12,937	18,129	18,129	16,817	16,817	28,056	28,056	93,746	93,746
Bellary ..	81,804	267,916	70,296	5,883	5,978	6,396	1,406	1,406	15,695	15,695	81,503	81,503	1,01,158	1,01,158
Anantapur ..	19,844	89,875	5,560	3,470	3,470	1,847	115	115	3,386	3,374	1,05,452	1,05,452	1,14,270	1,14,270
Total ..	967,369	2,077,816	12,264,891	1,08,203	1,07,775	47,746	61,930	61,924	1,10,463	1,10,480	2,46,345	2,46,345	5,74,687	5,30,826
Central Circle.														
Cuddapah ..	123,101	609,368	1,770,110	8,750	8,749	22,663	5,698	5,702	13,526	13,943	55,906	55,906	1,06,943	1,10,925
Nellore ..	157,485	128,328	2,722	11,250	11,344	4,954	125	130	25,026	25,026	17,209	17,209	58,564	58,979
Chingleput ..	122,848	404,310	19,980	8,445	7,692	14,891	77	77	9,293	9,293	26,904	26,904	59,604	43,758
North Arcot ..	31,297	453,120	3,778,343	6,445	6,569	33,404	48,738	28,546	21,215	21,226	35,562	35,562	1,97,304	1,97,931
South do. ..	23,106	535,085	37,875	2,888	2,888	33,443	27,755	2,110	49,590	49,590	19,883	19,883	1,07,915	1,02,883
Salem ..	231,710	395,214	6,361,137	51,675	48,452	16,998	38,664	39,228	46,753	46,861	40,469	40,469	1,94,558	1,96,053
Trichinopoly ..	19,486	1,060,623	328,876	1,898	1,700	18,963	2,550	2,429	10,667	10,590	12,625	12,625	46,733	50,757
Tanjore ..	19,814	473,630	4,408	1,238	1,238	9,618	737	737	498	492	5,180	5,180	17,271	16,306
Total ..	778,857	4,059,978	12,303,451	92,589	88,632	1,56,964	98,693	78,959	1,76,968	1,77,921	2,13,738	2,11,784	7,38,982	6,98,592
Southern Circle.														
South Canara ..	6,312	662,080	121,688	1,583	1,578	10,345	1,742	1,742	4,198	4,198	10,651	9,707	28,519	27,570
North Malabar ..	10,499	580	8,969	4,817	4,859	9	144	144	1,465	1,465	1,841	1,841	8,276	8,318
South do. ..	40,124	27,888	137,490	8,554	8,554	432	2,056	2,056	7,784	7,783	2,560	2,517	12,059	12,602
Nilgiris ..	14,260	32,177	316,643	2,767	2,767	978	3,580	3,580	4,373	4,373	5,309	5,309	17,659	17,615
North Coimbatore ..	20,802	281,272	2,057,280	1,866	1,852	15,719	6,432	6,429	7,037	7,037	6,894	6,894	73,083	72,560
South do. ..	14,653	802,446	1,466,580	8,075	5,984	13,471	7,549	6,204	6,553	6,553	33,130	33,130	42,242	37,336
Madura ..	219,795	75,631	29,582	17,062	17,061	2,906	2,150	2,150	7,355	7,364	33,130	33,130	62,618	62,618
Gunnorelly ..	17,906	1,515,008	40,000	3,659	4,228	29,901	426	479	5,495	5,983	21,168	19,794	59,649	65,095
Total ..	344,951	3,357,082	4,178,232	48,393	46,868	73,761	24,079	21,784	76,614	76,404	81,243	80,943	3,04,090	3,03,713
Grand Total ..	2,090,577	9,493,976	28,746,574	2,49,185	2,43,275	2,76,471	1,84,702	1,62,667	3,64,045	3,63,905	5,41,326	5,41,326	16,17,729	15,33,131
Add outstandings at the close of 1896-97 1,70,905														
Deduct written off, &c. 17,88,634														
Total 2,008														
Deduct amount realized as per Form No. 59 17,86,626														
Balance 15,33,131														
Balance outstanding on 30th June 1898 2,53,495														

ANNUAL FORM No. 72-B (OLD CODE).

Forest Department, Madras Presidency.

TIMBER and other Produce confiscated and sold during the year 1897-98.

[illegible]

ANNUAL FORM No. 59.
SUMMARY of Revenue of the different Districts, 1897-98 (Forest year).

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ANNUAL REPORT OF THE

FOREST DEPARTMENT.

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Budget heads.			Northern Circle.							Central Circle.						
			Direction.	Ganjam.	Vizagapatam.	Godavari.	Kistna.	Kurnool.	Bellary.	Anantapur.	Total.	Direction.	Nellore.	Cuddapah.	Chingleput.	North Arcot.
			2	3	4	5	6	7	8	9	10	11	12	13	14	15
Receipts.			RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Timber and other produce removed from the forests by Government Agency—			..	10,824	80	..	2,256	11,602	1,815	..	26,577	..	251	7,153	..	212
(a)	Timber	..	..	..	1,084	81	168	1,987	1,878	..	5,198	..	28,438	6	11,438	
(b)	Firewood and charcoal	..	..	..	..	..	..	219	21	..	240	..	..	..	1,506	
(c)	Bamboos	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
(d)	Sandalwood	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
(e)	Grass and other minor produce	..	..	311	..	2	31	..	..	..	344	..	53	269	16	
II. Timber and other produce removed from the forests by consumers or purchasers—			..	19,455	5,457	42,045	13,256	18,114	5,978	3,470	1,07,775	..	11,344	8,749	7,692	
(a)	Timber	..	..	6,456	4,735	6,391	9,953	12,037	5,866	1,848	47,286	..	4,977	22,663	13,507	
(b)	Firewood and charcoal	..	..	5,492	5,928	29,280	1,571	18,132	1,406	115	61,924	..	130	5,702	77	
(c)	Bamboos	..	..	6,774	2,956	9,580	56,254	16,817	15,695	3,374	1,10,480	..	25,026	18,943	9,293	
(d)	Grazing and fodder grass	..	..	5,103	5,018	7,229	13,819	28,646	72,213	71,338	2,03,361	..	17,502	59,868	13,189	
(e)	Other produce	..	..	167	121	3,394	160	1,091	107	18	6,058	..	219	2,792	242	
III. Confiscated drift and waifwood			..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. Revenue from forests not managed by Government			..	..	..	..	..	..	..	..	..	..	..	..	..	..
V. Miscellaneous—			..	21	..	10	..	20	20	907	978	..	171	586	227	645
(a)	Fines and forfeitures	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b)	Refunds	..	..	..	..	..	..	..	6,356	8,213	30,448	10	1,780	3,527	4,473	4,721
(c)	Other sources	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total, Receipts			112	55,274	28,576	1,02,174	1,04,280	1,13,621	1,11,355	84,278	5,99,670	10	89,891	1,25,258	51,641	1,37,611

Budget heads.	Southern Circle.										Central Circle—cont.				
	South Arcot.	Salem.	Trichinopoly.	Tanjore.	Total.	Direction.	Nilgiris.	North Arcot.	South Arcot.	Madura.	Timarvelly.	North Arcot.	South Arcot.	South Arcot.	Total.
I. Timber and other produce removed from the forests by Government Agency—	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(a) Timber	955	2,132	278	10,951	13,316	..	22,043	944	32,100	15	7,533	30,515	92,161	6,830	1,92,141
(b) Firewood and charcoal	6,853	82,278	9,205	1,41,216	1,41,216	..	19,896	4,585	1,079	1,341	3,119	..	4	1,566	27,005
(c) Bamboos	21	166	..	3,192	3,359	..	8,229	22,278	14	..	8	67	2,614	7	7,290
(d) Sandalwood	23	3,169	53	..	3,245	..	336	6,393	7,635	53	9	2,662	458	14,010	30,507
(e) Grass and other minor produce	..	..	..	..	..	..	2,757	1,852	5,994	17,061	4,223	4,859	8,554	1,578	31,556
II. Timber and other produce removed from the forests by consumers or purchasers—	..	..	..	..	..	..	2,757	1,852	5,994	17,061	4,223	4,859	8,554	1,578	46,868
(a) Timber	2,888	48,452	1,700	1,238	52,278	..	978	14,239	14,183	2,912	34,616	9	432	10,345	77,714
(b) Firewood and charcoal	27,755	15,590	20,061	9,082	72,488	..	3,550	6,429	5,204	2,150	479	144	2,056	1,742	21,784
(c) Bamboos	2,110	39,228	2,429	737	44,504	..	7,758	43,031	6,553	7,364	5,283	1,465	27	4,198	76,404
(d) Grazing and fodder grass	49,590	46,861	10,690	492	1,07,533	..	2,517	7,009	6,411	38,131	19,794	1,841	1,533	9,707	80,943
(e) Other produce	20,540	45,922	15,977	4,757	87,236	..	138	508	159	178	426	..	22	1,177	2,608
III. Confiscated drift and waifwood	239	398	167	14	818	..	..	..	..	..	..	..	..	..	..
IV. Revenue from forests not managed by Government	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
V. Miscellaneous—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(a) Fines and forfeitures	242	110	625	65	2,042	..	..	59	185	108	72	..	..	100	524
(b) Refunds	..	..	..	..	..	..	7,693	3,171	24,320	981	4,869	13,277	9,525	3,415	67,266
(c) Other sources	3,788	7,267	248	85	11,368	15	76,950	1,10,498	1,02,827	65,294	81,126	54,839	1,17,386	64,675	6,62,610
Total, Receipts	1,14,974	2,91,573	61,333	16,543	8,88,834	15	76,950	1,10,498	1,02,827	65,294	81,126	54,839	1,17,386	64,675	6,62,610

J. O. B. POWER, Chief Superintendent. (Signed)

MADRAS, 25th August 1898.

ANNUAL FORM No. 59—cont.

Forest Department, Madras Presidency, Northern Circle.

SUMMARY of Expenditure of the different Districts for the forest year 1897-98.

Budget heads.	Direction.	Ganjam.	Vizagapatam.	Godavari.	Kistna.	Kurnool.	Bellary.	Anantapur.	Total.
A.—Conservancy and Works.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I. Timber and other produce removed from the forests by Government Agency—	..	..	..	..	..	..	..	..	..
(a) Timber	..	3,622	47	24	— 72	8,676	330	6	12,633
(b) Firewood and charcoal	..	..	1,193	94	119	1,211	1,047	..	3,664
(c) Bamboos	..	..	..	..	..	224	48	..	272
(d) Sandalwood	..	..	..	..	..	..	..	..	..
(e) Grass and other minor produce	..	..	..	..	131	56	..	..	187
II. Timber and other produce removed from the forests by consumers or purchasers	..	5,347	4,155	10,282	5,693	13,114	3,369	916	42,876
III. Confiscated drift and waifwood	..	69	5	584	25	77	1	..	761
IV. Revenue from forests not managed by Government	..	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to share-holders in forests managed by Government	..	..	..	..	..	..	10,000	..	10,000
VI. Live-stock, stores, tools and plant—	..	..	..	..	..	..	..	..	..
(a) Purchase of cattle	..	..	..	..	..	..	..	..	..
(b) Feed and keep of cattle	427	..	139	1,149	..	780	..	..	2,495
(c) Stores, tools and plant	822	..	257	1,881	1,181	1,207	894	652	6,894
VII. Communications and buildings—	..	..	..	..	..	..	..	..	..
(a) Roads and bridges	418	770	523	1,920	6,315	1,644	59	..	11,649
(b) Buildings	85	1,934	2,461	2,762	3,885	4,430	32	619	15,708
(c) Other works	..	28	37	..	130	438	579	..	1,212
VIII. Demarcation, improvement and extension of forests—	..	..	..	..	..	..	..	..	..
(a) Demarcation	..	936	2,583	1,217	3,998	3,892	1,819	89	14,534
(b) Cost of forest settlement; compensation for land and rights	..	..	1,729	..	844	589	28	58	3,248
(c) Surveys. { (1) Local	..	1,708	1,367	1,140	1,859	1,406	410	358	8,248
{ (2) Survey of India charges	28,806	..	..	..	..	..	..	..	28,806
(d) Working plans	..	..	..	..	185	..	..	..	185
(e) Sowing and planting	272	2,722	255	764	4,497	210	1,006	262	9,988
(f) Protection from fire	..	1,041	456	2,169	301	2,456	1,843	1,379	9,645
(g) Other works	..	..	..	..	11,643	746	3,278	3,114	18,781
IX. Miscellaneous—	..	..	..	..	..	..	..	..	..
(a) Refunds	..	..	..	..	..	209	2,369	285	2,722
(b) Law charges	..	91	14	..	..	182	..	510	718
(c) Other charges	7	31	207	69	417	12	8	50	801
Total, A.—Conservancy and Works.	30,837	18,299	15,059	24,218	40,637	41,559	27,120	8,298	2,06,027

MADRAS,
25th August 1898.

(Signed) J. O. B. POWER,
Chief Superintendent.

SUMMARY of Expenditure of the different Districts for the forest year 1897-98—cont.

Budget heads.	Direction.	Nellore.	Cuddapah.	Chingleput.	North Arcot.	South Arcot.	Salem.	Trichinopoly.	Tanjore.	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 Government Agency—										
(a) Timber ..	..	69	2,499	..	71	722	1,629	..	..	4,990
(b) Firewood and charcoal ..	..	14,570	68	1,330	4,342	3,296	53,631	3,079	..	80,316
(c) Bamboos ..	..	..	..	..	782	..	53	..	..	835
(d) Sandalwood ..	..	..	..	..	..	..	202	..	..	202
(e) Grass and other minor produce ..	..	2,571	26	11	7	..	5	26	..	2,646
II. Timber and other produce removed from the forests by consumers or purchasers ..	..	1,559	8,746	2,057	242	2,963	11,042	2,121	467	29,197
III. Confiscated, drift and waifwood ..	..	2	307	3	2	5	20	..	2	341
IV. Revenue from forests not managed by Government ..	..	..	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government ..	..	..	..	..	..	..	10	..	..	10
VI. Live-stock, stores, tools and plant—										
(a) Purchase of cattle ..	..	..	..	..	..	..	..	..	..	..
(b) Feed and keep of cattle ..	..	..	1	..	..	3	..	..	..	4
(c) Stores, tools and plant ..	5,980	2,240	10	91	5	209	37	4	14	8,590
VII. Communications and buildings—										
(a) Roads and bridges ..	..	..	3,182	268	1,520	197	1,843	..	..	7,010
(b) Buildings ..	..	310	1,050	1,615	2,668	417	1,204	583	46	7,893
(c) Other works ..	..	..	..	50	80	..	110	4	..	144
VIII. Demarcation, improvement and extension of forests—										
(a) Demarcation ..	..	2,044	3,632	2,396	2,339	3,265	628	355	..	14,659
(b) Cost of forest settlement; compensation for land and rights ..	..	..	..	..	1,579	9	71	..	..	1,659
(c) Surveys { (1) Local ..	295	358	517	360	333	268	1,732	299	..	4,162
(2) Survey of India department charges ..	45,014	..	..	..	..	..	..	..	..	45,014
(d) Working plans ..	..	165	61	..	..	7	..	27	..	260
(e) Sowing and planting ..	..	1,887	1,362	556	4,667	3,863	34	1,199	2,040	15,608
(f) Protection from fire ..	..	668	4,641	394	5,048	661	1,918	105	..	13,335
(g) Other works ..	..	1,166	2,921	2,319	6,961	5,085	7,195	3,228	489	29,364
IX. Miscellaneous—										
(a) Refunds ..	..	420	417	56	305	81	386	407	91	2,168
(b) Law charges ..	..	24	..	..	8,883	..	74	..	..	8,981
(c) Other charges ..	24	13	66	144	93	37	409	37	..	823
Total A.—Conservancy and Works ..	51,313	28,666	29,506	11,550	39,927	21,088	82,133	11,474	3,149	2,78,206

MADRAS,
25th August 1898.(Signed) J. O. B. POWER,
Chief Superintendent.

SUMMARY of Expenditure of the different Districts for the forest year 1897-98—cont.

Budget heads.	Direction.	Nilgiris.	North Coimbatore.	South Coimbatore.	Madura.	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 Government Agency—										
(a) Timber ..	..	2,415	901	12,373	..	4,091	3,149	13,922	4,588	41,439
(b) Firewood and charcoal ..	..	13,117	52	797	688	2,119	..	..	365	17,138
(c) Bamboos ..	..	..	3,411	1	..	2	61	169	..	3,644
(d) Sandalwood ..	..	681	1,873	..	..	..	..	..	..	2,554
(e) Grass and other minor produce ..	..	57	6,998	2,830	11	..	361	179	3,294	13,730
II. Timber and other produce removed from the forests by consumers or purchasers ..	..	1,150	2,373	4,235	1,567	1,588	388	6	4,988	16,296
III. Confiscated, drift and waifwood ..	..	..	28	12	1	..	..	..	249	290
IV. Revenue from forests not managed by Government ..	..	..	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government ..	..	4,500	..	2,500	..	..	..	556	..	7,556
VI. Live-stock, stores, tools and plant—										
(a) Purchase of cattle ..	..	..	..	250	..	..	2,707	283	..	3,240
(b) Feed and keep of cattle ..	..	4,439	..	4,863	..	..	9,378	8,191	1,058	27,929
(c) Stores, tools and plant ..	648	722	1,325	3,544	489	262	417	805	708	8,920
VII. Communications and buildings—										
(a) Roads and bridges ..	..	1,346	4,494	1,259	52	5,795	898	343	843	16,030
(b) Buildings ..	..	2,941	2,831	5,544	2,344	2,818	1,384	2,513	229	20,604
(c) Other works ..	..	180	..	3,289	129	173	65	149	442	4,427
VIII. Demarcation, improvement and extension of forests—										
(a) Demarcation ..	..	1,270	3,042	284	326	390	434	558	1,536	8,540
(b) Cost of forest settlement; compensation for land and rights ..	..	..	..	..	375	4,934	1,000	..	85	6,452
(c) Surveys { (1) Local ..	125	637	393	120	305	357	702	84	2,488	5,211
(2) Survey of India department charges ..	26,687	..	..	..	..	..	..	..	..	26,687
(d) Working plans ..	..	..	..	..	..	915	..	..	..	915
(e) Sowing and planting ..	..	1,122	214	1,072	817	544	951	7,511	100	12,331
(f) Protection from fire ..	..	1,883	496	2,563	2,944	1,268	1,208	2,353	820	13,535
(g) Other works ..	..	1,028	5,474	1,031	4,604	4,388	1,082	1,293	1,076	19,976
IX. Miscellaneous—										
(a) Refunds ..	..	221	526	525	122	467	286	..	1,049	3,196
(b) Law charges ..	4	..	..	..	..	..	..	1	2	7
(c) Other charges ..	44	2,759	126	1,527	414	113	241	22	85	5,331
Total A.—Conservancy and works ..	27,508	41,168	34,557	48,619	15,188	30,284	24,712	38,938	24,003	2,84,977

MADRAS,
25th August 1898.(Signed) J. O. B. POWER,
Chief Superintendent.

ANNUAL FORM No. 59—cont.
SUMMARY of Expenditure of the different Districts for the forest year 1897-98.

Budget heads.	Northern Circle.										Central Circle.										Southern Circle.										Total.
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
Brought forward, Total A { "Conservancy Works" an	2,031	18,296	15,058	24,218	40,637	41,550	27,120	8,258	1,77,921	61,312	28,066	20,406	11,550	39,927	21,058	82,138	11,474	3,140	2,78,206	27,508	41,168	34,557	48,410	16,188	30,284	24,712	88,988	24,008	2,84,977		
	28,806	6,800	7,357	15,012	10,380	17,969	5,550	8,528	84,281	19,720	13,048	7,750	21,687	4,005	10,083	9,850	14,287	6,646	98,680	10,200	18,286	8,516	10,805	12,811	13,011	6,601	7,300	9,484	12,408		
I. Salaries— (a) Conservators (b) Superior officers (c) Subordinate officers and depot establishments (d) Office establishment (e) Deputation and Special allowances (f) Exchange compen- sation allowances.	783	2,428	4,881	10,050	9,600	9,885	2,884	6,676	29,857	35	10,722	3,117	3,915	1,866	3,653	2,752	19,750	71,545	516	9,821	8,526	9,763	8,412	8,113	6,314	6,499	6,752	63,676			
	11,657	2,428	1,890	3,861	3,572	3,689	2,426	2,817	32,946	10,722	3,117	3,915	1,866	3,653	2,752	2,752	19,750	32,442	32,442	10,324	3,653	3,597	3,453	3,453	3,106	2,229	3,356	26,176			
II. Travelling allowances— (a) Conservators (b) Subordinate officers (c) Subordinate officers and depot establishments (d) Office establish- ments	1,851	525	635	684	675	1,279	415	6,441	6,441	2,317	668	1,600	27	634	770	790	865	7,380	7,380	2,006	1,053	477	1,096	1,103	1,020	531	658	814	5,678		
	2,944	1,305	1,141	3,726	2,111	3,435	928	1,056	18,285	2,293	2,972	1,259	4,322	910	1,116	1,312	3,437	1,196	16,551	3,894	2,018	1,952	2,239	1,466	3,043	1,680	958	887	2,385		
III. Contingencies— (a) Stationery (b) Carriage and taxa (c) Remis. rates and taxes (d) Official postage (e) Service telegrams (f) Sundries	361	2,041	1,005	2,718	2,437	2,705	1,686	1,813	14,847	161	1,776	2,501	571	3,507	2,348	3,472	2,213	17,834	347	2,298	2,822	2,577	2,880	2,041	1,771	2,263	1,838	10,114			
	2,736	453	215	885	1,076	888	312	609	7,214	1,541	412	617	222	470	272	509	404	141	4,586	210	151	474	607	872	558	806	413	522	6,544		
Total A.—"Establish- ments"	58,635	23,448	18,711	41,846	34,507	42,712	21,226	22,004	2,61,990	55,312	24,412	49,407	15,107	36,746	30,690	42,734	20,426	9,351	2,78,751	49,188	38,298	38,612	52,218	32,646	32,661	22,108	21,417	25,178	2,78,690		
	58,698	41,747	39,770	66,064	75,144	84,371	46,356	31,202	4,39,280	1,06,626	53,478	78,915	26,747	76,676	51,748	1,24,607	31,866	6,530	5,66,467	73,691	75,393	63,134	80,987	48,134	62,375	46,629	49,537	49,151	5,03,776		
Grand Total of Expenditure	28,800																														

Summary of Receipts and Expenditure during 1897-98 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.	
				1897-98.	1896-97.
1	2	3	4	5	6
EXPENDITURE—cont.					
<i>A.—Conservancy and Works—cont.</i>					
	RS.	RS.	RS.	RS.	RS.
IX. Miscellaneous—					
(a) Refunds	2,722	2,163	3,196	8,081	40,473
(b) Law charges	718	8,981	7	9,706	750
(c) Other charges	801	823	5,331	6,955	11,313
Total, A-IX	4,241	11,967	8,534	24,742	52,536
Total, A.—Conservancy and Works	2,06,027	2,78,206	2,84,977	7,69,210	8,28,200
<i>B.—Establishments.</i>					
I. Salaries—					
(a) Conservators	16,267	19,730	12,908	48,905	48,600
(b) Superior officers	84,281	86,690	97,572	2,68,543	2,64,508
(c) Subordinate forest and depot establishments.	59,857	71,543	63,676	1,95,076	1,66,910
(d) Office establishments	32,046	32,442	36,176	1,00,664	95,416
(e) Deputation and Special allowances	705	705	100	805	..
(f) Exchange compensation allowances	6,441	7,380	8,678	22,499	29,634
Total, B-I	1,98,692	2,18,490	2,19,110	6,36,492	5,95,068
II. Travelling allowances—					
(a) Conservators	2,944	2,252	2,385	7,581	8,029
(b) Superior officers	18,285	16,951	18,230	53,466	50,522
(c) Subordinate forest and depot establishments.	14,847	17,334	19,144	51,325	44,236
(d) Office establishments	7,214	4,588	6,544	18,346	16,756
Total, B-II	43,290	41,125	46,303	1,30,718	1,19,543
III. Contingencies—					
(a) Stationery	250	277	63	590	9,394
(b) Carriage of tents and records	1,366	993	636	2,995	3,035
(c) Rents, rates and taxes	6,215	7,116	5,244	18,575	17,679
(d) Official postage and service telegrams	11,986	10,280	7,643	29,909	14,958
(f) Sundries	..	..	..	..	..
Total, B-III	19,817	18,666	13,586	52,069	45,066
Total, B.—Establishments	2,61,999	2,78,281	2,78,999	8,19,279	7,59,677
Grand Total of Expenditure	4,68,026	5,56,487	5,63,976	15,88,489	15,87,877
Surplus	1,31,644	3,32,347	98,634	5,62,625	6,01,040
Total	5,99,670	8,88,834	6,62,610	21,51,114	21,88,917

ANNUAL FORM No. 60.

Forest Department, Madras.

OUTSTANDINGS and Liabilities on account of Contractors and Disbursers for the forest year 1897-98.

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.	To department (outstandings).	By department (liabilities).
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Northern Circle.	Conservator, Northern Circle	3,607 8 7	3,607 8 7	33 5 3	4,008 15 8	4,042 4 11	434 12 4	..
	Forest Settlement-officer, Ganjam, &c., districts.	699 12 7	699 12 7	41 10 2	659 12 10	701 7 0	1 10 5	..
	Forest Settlement-officer, Nellore, &c., districts.	741 3 5	741 3 5	26 0 9	762 15 5	789 0 2	47 12 9	..
	Forest School, Dehra Dun	..	..	78 10 8	60 0 0	18 10 8	18 10 8	..
	Ganjam	30,638 7 0	30,638 7 0	606 15 10	31,407 15 4	32,014 15 2	1,376 8 2	..
	Vizagapatam	24,913 3 11	24,913 3 11	386 0 0	25,554 8 7	25,940 8 7	1,027 4 8	..
	Goddavari	50,751 1 10	50,751 1 10	2,784 5 1	50,639 8 0	53,423 13 1	2,672 11 3	..
	Kistna	69,008 7 1	69,008 7 1	2,722 7 0	68,176 1 10	70,898 8 10	1,890 1 9	..
	Kurnool	67,500 11 0	67,500 11 0	1,983 9 1	67,155 1 1	69,138 10 2	1,637 15 2	..
	Bellary	29,598 3 8	29,598 3 8	901 1 6	29,596 10 2	30,497 11 8	899 8 0	..
	Anantapur	23,306 10 2	23,306 10 2	422 8 10	23,916 7 1	24,338 15 11	1,032 5 9	..
	Total	3,00,765 5 3	3,00,765 5 3	9,986 10 2	3,01,818 0 0	3,11,804 16 2	11,039 4 11	..
Central Circle.	Conservator, Central Circle	808 0 5	808 0 5	62 7 9	791 3 10	853 11 7	45 11 2	..
	Forest Settlement-officer, North Arcot, &c., districts.	140 6 1	140 6 1	0 0 6	145 1 1	145 1 7	4 11 6	..
	Forest Settlement-officer, Trichinopoly, &c., districts.	2,343 10 9	2,343 10 9	9 3 1	2,338 10 10	2,347 13 11	4 3 2	..
	Nellore	38,274 11 11	38,274 11 11	1,433 7 8	38,683 14 7	40,117 6 3	1,842 10 4	..
	Cuddapah	67,754 9 5	67,754 9 5	2,309 5 9	66,276 8 1	68,585 13 10	831 4 5	..
	Chingleput	25,609 4 8	25,609 4 8	611 14 7	25,797 12 2	26,409 10 9	800 6 1	..
	North Arcot	61,409 3 2	61,409 3 2	3,857 3 2	59,194 13 4	62,062 0 6	1,642 13 4	..
	South do.	41,319 9 8	41,319 9 8	2,921 11 7	39,438 14 9	42,360 10 4	1,041 0 8	..
	Salem	1,19,788 13 0	1,19,788 13 0	6,226 12 2	1,17,340 12 10	1,23,567 9 0	3,778 12 0	..
	Trichinopoly	20,897 5 4	20,897 5 4	461 6 3	20,684 15 6	21,146 5 9	249 0 5	..
	Tanjore	9,065 11 2	9,065 11 2	500 3 3	8,696 11 4	9,196 14 7	131 3 5	..
	Total	3,87,411 5 7	3,87,411 5 7	18,393 11 9	3,79,389 6 4	3,97,783 2 1	10,371 12 6	..
Southern Circle.	Conservator, Southern Circle	11,638 6 2	11,638 6 2	40 5 1	11,623 0 11	11,663 6 0	24 15 10	..
	Forest Settlement-officer, Malabar, &c., districts.	682 12 1	682 12 1	8 3 9	740 7 1	732 3 4	49 7 3	..
	Forest Settlement-officer, Trichinopoly, &c., districts.	2,343 11 1	2,343 11 1	9 3 2	2,338 10 9	2,347 13 11	4 2 10	..
	Forest School, Dehra Dun	..	..	138 5 4	60 0 0	198 5 4	198 5 4	..
	The Nilgiris	53,162 13 9	53,162 13 9	1,086 1 1	53,348 0 10	54,434 1 11	1,271 4 2	..
	North Coimbatore	68,667 12 2	68,667 12 2	1,538 5 0	69,012 0 5	70,560 5 5	1,882 9 3	..
	South do.	46,680 4 0	46,680 4 0	1,597 10 0	46,917 0 10	48,514 10 10	1,834 6 10	..
	Madura	34,560 5 9	34,560 5 9	1,116 10 7	32,793 2 4	33,909 12 11	..	650 8 10
	Tinnevely	48,969 3 6	48,969 3 6	5,046 0 11	51,246 0 6	56,292 1 5	7,322 13 11	..
	North Malabar	30,607 11 5	30,607 11 5	1,159 2 2	31,454 7 4	32,613 9 6	2,005 14 1	..
	South do.	53,943 1 3	53,943 1 3	1,378 5 3	54,587 12 6	55,966 1 9	2,023 0 6	..
	South Canara	28,704 13 5	28,704 13 5	1,461 6 8	28,332 14 10	29,794 5 6	1,089 8 1	..
	Total	3,79,960 14 7	3,79,960 14 7	14,563 3 6	3,82,453 10 4	3,97,016 13 10	17,706 8 1	650 8 10

MADRAS,
30th August 1898.

(Signed) P. V. KRISHNASWAMI,
Offg. Chief Superintendent.

ANNUAL FORM No. 61.

Forest Department, Madras Presidency.

REVENUE received and Outstandings on account of Revenue during the forest year 1897-98.

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.
Northern Circle.	Direction ..	..	11 4 0	11 4 0	11 4 0	..
	Ganjám ..	0 2 3	4,962 13 4	44,962 15 7	44,962 15 7	..
	Vizagapatam ..	1,601 0 2	26,513 7 10	28,114 8 0	28,114 8 0	..
	Górávari ..	159 2 0	1,04,649 8 6	1,04,808 10 6	1,04,616 1 9	292 8 9
	Kistna ..	398 5 0	1,04,395 5 2	1,04,793 10 2	1,03,798 13 6	994 12 8
	Kurnool ..	3,179 9 0	1,11,499 11 9	1,14,679 4 9	1,12,241 14 2	2,437 6 7
	Bellary ..	35,881 15 0	1,00,758 14 11	1,36,640 13 11	1,01,391 4 11	35,249 9 0
Central Circle.	Anantapur ..	6,716 14 9	1,05,560 6 1	1,12,277 4 10	71,044 4 10	41,233 0 0
	Total ..	47,937 0 2	5,98,351 7 7	6,46,288 7 9	5,64,480 2 7	80,207 5 0
	Direction ..	..	41 11 6	41 11 6	41 11 6	..
	Nellore ..	15,075 4 10	85,754 15 8	1,00,830 4 6	96,900 4 6	3,930 0 0
	Cuddapah ..	19,393 4 9	1,06,268 14 5	1,25,662 3 2	1,20,325 4 10	5,336 14 4
	Chingleput ..	2,776 11 4	65,861 11 11	68,638 7 3	53,293 5 5	15,345 1 10
	North Arcot ..	35,544 10 10	1,71,455 2 11	2,06,999 13 9	1,43,149 12 5	63,768 6 2
Southern Circle.	South Arcot ..	2,201 15 3	1,34,669 10 1	1,36,871 9 4	1,09,660 0 4	27,211 9 0
	Salem ..	23,876 5 9	2,80,534 7 10	3,04,410 13 7	2,88,571 8 11	15,838 13 10
	Trichinopoly ..	22,702 6 5	54,019 9 9	76,722 0 2	57,877 8 9	18,819 9 6
	Tanjore ..	692 6 6	18,117 1 8	18,809 8 2	17,152 10 2	1,655 14 0
	Total ..	1,22,263 1 8	9,16,723 5 9	10,38,986 7 5	8,86,972 2 9	1,51,432 4 8
	Direction ..	..	18 10 4	18 10 4	18 10 4	..
	The Nilgiris ..	6,037 13 2	74,031 13 11	80,069 11 1	78,446 13 3	1,622 13 10
Grand Total.	North Coimbatore ..	1,884 7 3	98,324 8 1	1,00,208 15 4	99,680 3 4	528 12 0
	South do. ..	2,011 12 7	1,28,462 13 10	1,30,474 10 5	1,25,167 2 6	5,307 7 11
	Madura ..	2,768 13 4	1,23,980 5 8	1,26,749 3 0	64,546 11 2	69,418 11 9
	Tinnevely ..	11,397 14 7	78,905 3 2	90,303 1 9	84,778 0 9	5,525 1 0
	North Malabar ..	2,553 15 0	50,516 6 11	53,070 5 11	51,861 3 0	1,209 2 11
	South do. ..	1,482 0 0	1,25,338 13 1	1,26,820 13 1	1,19,342 1 1	7,478 12 0
	South Canara ..	1,204 7 0	61,014 2 9	62,218 9 9	61,199 9 2	1,019 0 7
Total ..		29,341 2 11	7,40,592 13 9	7,69,934 0 8	6,85,040 6 7	82,109 14 0

* Written off in Government Order, No. 1038, dated 10th December 1897.
† Written off in Government Order, No. 763, Revenue, dated 7th September 1897.
‡ Written off in Government Order, No. 503, Revenue, dated 29th June 1897.
§ As per Board's Proceedings, No. 736, Land Revenue, dated 7th September 1897.
|| Rupees 798-12-1 written off in Government Order, No. 763, dated 7th September 1897, and Rs. 1,985 written off in Government Order, No. 1038, dated 10th December 1897.

MADRAS,
30th August 1898.

(Signed) P. V. KRISHNASWAMI,
Offg. Chief Superintendent.

ANNUAL FORM No. 62.

Forest Department, Madras Presidency.

Financial Results of the year 1897-98.

District.	Timber and other produce removed from the forests by Government Agency.		Other revenue		Formation, protection and improvement of forests.	Total.	
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.
Northern Circle.							
	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Ganjám ..	10,991	6,722	44,294	21,146	19,745	55,285	47,613
Vizagapatam ..	1,475	2,671	27,109	17,105	17,905	28,584	37,681
Górávari ..	3,475	1,735	98,718	50,527	23,579	1,02,193	75,841
Kistna ..	2,426	1,221	1,01,876	38,158	47,499	1,04,302	86,878
Kurnool ..	13,839	12,507	99,804	49,338	62,966	1,13,643	1,24,811
Bellary ..	3,714	5,074	1,07,656	26,505	24,599	1,11,370	56,178
Anantapur ..	..	6	84,293	23,811	15,207	84,293	39,024
Total ..	35,920	29,936	5,63,750	2,26,590	2,11,500	6,99,670	4,68,026
Central Circle.							
Cuddapah ..	7,428	7,632	1,17,830	47,356	51,465	1,25,258	1,06,453
Nellore ..	28,742	24,696	61,149	15,607	18,452	89,891	58,755
Chingleput ..	2,941	3,405	48,700	14,004	12,846	51,641	30,255
North Arcot ..	13,156	8,955	1,24,455	37,245	39,300	1,37,611	85,500
South Arcot ..	7,822	7,470	1,07,152	24,633	48,442	1,14,974	75,545
Salem ..	87,745	67,842	2,03,838	38,533	47,511	2,91,583	1,53,886
Trichinopoly ..	9,536	5,464	61,797	17,902	14,812	61,333	38,178
Tanjore ..	78	398	16,470	3,783	3,734	16,543	7,915
Total ..	1,57,443	1,25,862	7,31,391	1,99,063	2,31,562	8,88,834	5,56,487
Southern Circle.							
South Canara ..	22,413	23,699	32,262	12,892	17,056	54,675	53,647
North Malabar ..	33,244	33,734	21,595	1,262	16,110	54,839	51,106
South Malabar ..	95,237	39,872	22,149	26	25,952	1,17,366	65,850
The Nilgiris ..	50,504	47,296	25,446	4,578	34,714	75,950	86,588
North Coimbatore ..	34,200	23,875	76,298	4,325	69,782	1,10,498	97,982
South Coimbatore ..	40,828	46,190	61,999	9,092	32,981	1,02,827	88,214
Madura ..	1,409	5,043	63,885	6,084	41,410	65,294	52,537
Tinnevely ..	10,664	15,288	70,477	4,169	48,595	81,141	68,052
Total ..	2,88,499	2,34,997	3,74,111	42,428	2,86,551	6,82,610	5,63,976
Grand Total ..	4,81,862	3,90,795	16,69,252	4,68,081	7,29,613	21,51,114	15,88,489

ABSTRACT showing the Value of Live-stock, Stores, Tools and Plant for 1897-98.

Districts.	Surveying, &c., instruments				Tools				Machinery				Furniture				Building materials, small stores, tents, boats, &c.				
	On hand at commencement of the year.		On hand at end of the year.		On hand at commencement of the year.		On hand at end of the year.		On hand at commencement of the year.		On hand at end of the year.		On hand at commencement of the year.		On hand at end of the year.		On hand at commencement of the year.		On hand at end of the year.		
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
Northern Circle	Direction	23	370	24	432	6	40	11	27	RS.	..	..	..	75	625	75	625	..	..	RS.	815
	Ganjam	46	539	45	535	270	183	301	154	..	..	..	83	355	95	1,423	..	..	..	5	
	Vizagapatam	42	811	42	811	320	290	299	269	..	..	..	136	1,330	136	1,330	..	..	..	6	
	Goddavari	90	467	111	517	573	1,135	573	1,308	1	102	..	299	1,353	435	2,186	14	2,356	21	3,756	
	Kistna	74	873	73	890	501	282	501	263	..	..	..	114	612	130	594	1	1,550	8	2,455	
	Kurnool	79	1,010	80	803	1,017	1,092	1,003	966	..	..	..	135	713	135	600	6	1,173	8	2,223	
	Bellary	97	278	97	263	468	615	547	603	..	..	..	61	408	64	450	..	..	6	857	
Anantapur	53	220	53	210	247	710	293	689	..	..	..	..	107	613	116	661	..	..	4	634	
	Total, Northern Circle	504	4,668	525	4,431	3,402	4,547	3,536	4,259	1	102	1	102	1,010	6,409	1,186	7,869	21	5,079	58	10,967
Central Circle	Direction	43	783	43	744	4	16	4	15	RS.	..	..	..	119	916	120	837	..	..	..	780
	Cuddapah	124	1,001	125	1,058	550	1,470	580	1,510	1	13,967	..	9,836	129	926	129	960	..	..	..	4
	Nellore	57	411	59	622	419	976	419	878	247	35,031	247	35,031	85	538	92	652	..	..	..	682
	Chingleput	20	197	19	153	420	643	414	550	..	..	..	78	495	117	566	..	..	..	4	
	North Arcot	41	614	44	898	898	664	837	593	15	73	14	63	265	730	285	850	4	176	6	579
	South Arcot	117	1,828	115	1,825	524	324	494	303	7	401	7	401	168	1,820	172	1,850	3	421	6	718
	Salem	137	1,470	135	1,450	1,658	3,085	1,604	2,823	2	21	2	21	381	1,872	349	1,776	..	..	..	618
Trichinopoly	64	485	57	510	1,056	613	1,029	542	2	10	2	6	125	701	129	726	..	217	..	2	
	Tanjore	20	90	20	90	67	41	69	52	..	..	..	29	270	34	298	..	..	..	2	
Total, Central Circle	613	6,879	631	7,036	5,506	7,822	5,450	7,296	274	49,508	273	45,157	1,379	8,268	1,427	8,505	9	814	31	4,276	
Southern Circle	Direction	42	504	41	444	1	30	2	45	RS.	..	..	..	102	769	108	827	5	764	5	764
	South Canara	115	1,141	116	1,140	592	1,423	542	788	..	..	..	160	1,329	166	1,343	2	225	6	725	
	North Malabar	70	1,355	72	1,462	626	1,739	681	1,379	..	..	..	87	692	108	906	..	..	..	4	
	South do.	33	875	33	875	739	845	681	770	17	145	20	161	95	709	95	706	..	..	..	412
	The Nilgiris	65	1,064	64	1,062	627	1,568	659	1,505	1	250	1	200	143	1,182	151	1,133	3	278	6	679
	North Coimbatore	71	1,344	70	1,236	567	1,144	532	923	..	..	..	..	174	1,372	168	1,244	81	272	97	1,418
	South do.	84	1,534	89	1,546	588	584	660	887	6,560	247	7,766	16,993	582	2,788	579	2,589	..	..	9	1,063
Madura	58	1,571	82	1,838	1,070	692	166	199	..	..	5	6	212	1,104	199	1,529	5	645	2,016	1,689	
	Tinnevely	102	1,592	105	1,611	541	1,316	606	1,421	15	289	15	289	460	2,848	468	3,114	1	428	1	428
Total, Southern Circle	640	10,980	672	11,220	5,351	8,401	4,434	7,917	6,593	931	7,807	17,649	2,015	12,793	2,042	13,451	97	2,612	2,144	7,178	
Total, Presidency	1,757	22,537	1,828	22,737	14,349	20,573	13,420	19,472	6,868	50,536	8,081	62,908	4,404	27,470	4,656	29,825	127	8,505	2,233	22,411	

* The cost of tramway materials has not been given.

N.B.—The difference between the closing balance of the previous year and the opening balance of the year under review is due to revised figures.

Abstract showing the value of Live-stock, Stores, Tools and Plant for 1897-98—cont.

Districts.	Buildings				Live-stock				Miscellaneous				Total.						
	On hand at commencement of the year.		On hand at end of the year.		On hand at commencement of the year.		On hand at end of the year.		On hand at commencement of the year.		On hand at end of the year.		On hand at commencement of the year.		On hand at end of the year.				
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.			
Northern Circle.	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
	..	15,799	29	15,866	1	1,600	..	..	..	1,103	1	1,103	106	2,788	116	2,022	..	..	
	..	18	1,035	(a) 18	1,035	..	..	..	..	..	..	..	425	16,976	470	17,998	1,022	..	
	..	49	28,832	60	29,656	..	..	1	1,600	..	..	..	715	3,873	701	4,069	1,906	..	
	..	71	11,740	69	11,081	..	..	2	1,600	..	..	..	1,254	35,080	1,480	37,867	2,787	..	
	..	58	32,549	60	33,593	..	..	1	1,600	..	..	..	776	15,318	796	16,620	3,02	..	
	..	22	3,862	22	3,729	..	..	..	..	..	..	..	1,316	38,302	1,317	39,950	1,648	..	
	..	16	15,619	16	15,619	..	..	..	..	..	..	..	681	5,305	769	6,030	725	..	
	..	260	1,09,436	274	1,10,599	3	3,200	4	1,600	495	1,513	547	1,482	5,696	1,34,754	6,181	1,41,349	6,395	..
	..	110	20,503	115	20,618	..	..	..	..	..	..	..	..	204	2,418	210	3,015	597	..
Central Circle.	..	10	3,685	10	3,537	..	..	..	..	..	..	..	916	37,923	962	38,868	2,467	4,055	
	..	18	5,004	20	5,970	..	..	..	..	..	..	..	1,119	45,554	1,158	47,821	1,606	..	
	..	42	8,414	46	9,450	..	..	..	..	..	..	..	570	6,372	617	7,977	1,606	..	
	..	20	19,803	20	19,803	..	..	..	..	..	..	..	1,265	10,661	1,282	12,119	1,458	..	
	..	19	15,489	21	15,900	..	..	..	..	..	..	..	1,348	26,144	1,322	26,446	302	..	
	..	8	2,092	8	2,670	..	..	..	..	..	..	..	2,213	22,539	2,133	23,482	543	..	
	..	7	586	7	631	..	..	..	..	..	..	..	2,263	4,903	2,520	5,993	1,090	..	
	..	234	75,576	247	78,579	2	56	2	56	1,958	8,884	2,264	11,209	10,066	1,57,802	10,321	1,62,114	4,312	..
	..	14	7,556	14	7,593	..	..	..	..	..	..	..	..	894	2,667	832	2,690	23	..
	..	28	36,295	32	39,678	21	35,245	14	26,400	649	2,052	635	1,894	1,532	13,115	1,481	13,489	374	..
Southern Circle.	..	65	6,767	63	9,354	7	7,900	16	26,700	210	1,382	222	1,437	75,496	1,103	70,799	..	10,548	
	..	51	16,188	57	18,339	..	..	..	..	..	..	..	198	19,227	974	22,031	2,804	4,697	
	..	53	31,483	53	29,909	9	22,500	8	18,300	148	528	107	253	20,848	1,031	23,413	2,565	..	
	..	43	21,925	52	25,211	..	..	..	..	..	..	..	8,024	59,978	8,061	72,274	12,296	..	
	..	115	27,443	118	28,763	..	..	..	..	..	..	..	1,388	25,937	3,061	31,030	5,993	..	
	..	369	1,47,557	389	1,58,847	59	1,02,870	47	79,300	2,044	5,632	2,346	5,937	33,916	1,313	33,626	1,710	..	
	..	863	3,32,669	910	3,48,095	64	1,06,126	53	80,356	4,497	16,029	5,157	18,628	32,929	5,84,435	36,333	6,04,962	20,527	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

(a) Figures for the year not having been reported on, those for the preceding year have been adopted.

N.B.—The difference between the closing balance of the previous year and the opening balance of the year under review is due to revised figures.

(b) Value not reported.

ANNUAL FORM No. 63.

Forest Department, Madras Presidency.

STATEMENT of Elephants during the year 1897-98.

District.	Names.	When purchased or otherwise obtained by Government.	Average cost of monthly keep including servants and food.
1	2	3	4
PART I. <i>Elephants in possession of the reporting Officers throughout the year.</i>			
Gódvári ..	Surat Pari ..	Purchased in November 1894 in Sonepur fair.	Per head .. Rs. A. P. 63 8 2
Kurnool ..	Byragi Piari ..	Do. do. ..	Do. .. 65 0 0
North Malabar ..	1. Phyllis ..	Purchased in January 1878 ..	Do. .. 47 15 7
	2. Peri ..	Captured in April 1889 ..	Do. .. 51 1 11
	3. Kalyani ..	Purchased in October 1889 ..	Do. .. 56 1 9
	4. Lallameah ..	Captured in March 1891 ..	Do. .. 53 13 6
	5. Cherry ..	Do. in May 1892 ..	Do. .. 48 5 10
	6. Krishna ..	Do. on 3rd March 1896 ..	Do. .. 45 13 8
	7. Kunjuni ..	Do. on 17th March 1897 ..	Do. .. 45 0 2
	8. Pyramus ..	Do. on 15th April 1897 ..	Do. .. 46 11 3
	9. Minnie ..	Do. on 8th June 1897 ..	Do. .. 59 12 10
South Malabar ..	1. Vixen ..	Transferred from Wynad in 1882 ..	Do. .. 37 0 2
	2. Peyru ..		
	3. Samson ..		
	4. Eva ..	Purchased from Mr. Morgan in 1885 ..	Do. .. 37 0 2
	5. Theebow ..		
	6. Juno ..		
	7. Jupiter ..	Captured on 3rd January 1886 ..	Do. .. 37 0 2
	8. Maharajah ..		
	9. Gordon ..		
	10. Eddy ..	Do. on 10th February 1890 ..	Do. .. 37 0 2
	11. Loo ..		
	12. Hercules ..		
	13. Tippu ..	Do. on 24th December 1890 ..	Do. .. 37 0 2
	14. May ..		
	15. Abdul ..		
The Nilgiris ..	1. Latchmi ..	Transferred from the Anamalais on the 30th January 1882 ..	Do. .. 52 13 10
	2. Chinna Latchmi ..		
	3. Akbar Baksh ..		
	4. Meenatchi ..	Born in 22nd February 1888 ..	Do. .. 52 13 10
	5. N. Latchmi ..		
	6. Seetha ..		
	7. Zahara ..	Captured on 14th March 1896 and transferred from North Malabar on the 12th November 1896.	Do. .. 52 13 10
South Coimbatore. †	1. Chloë ..		
	2. Karthiyayini ..		
	3. Sinna Rani ..	Do. do. on 19th August 1891 ..	Do. .. 41 4 6
	4. Phyllis, II ..		
	5. Jumbo, II ..		
	6. Ranger ..	Do. on 23rd July 1893 ..	Do. .. 41 4 6
	7. Dora ..		

* The general average per animal comes to Rs. 51-4-0 as per Accountant-General's audited figures but as per Collector's figures it comes to Rs. 50-8-6.

† The Collector's statement gives the total charges under A-VI (b) as Rs. 4,503 whereas according to the Accountant-General's audited figures the total charges were Rs. 4,863. No explanation has been given by the Collector for the variation.

Statement of Elephants during the year 1897-98—cont.

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

PART II.

Elephants received in the year.

Gódvári..	Captain Gunning ..	Purchased in July 1888 and transferred from direction Northern Circle on 19th November 1897.	Per head.	Rs. A. P. 55 3 6	....
Vizagapatam.	Ethel ..	Captured on 16th April 1895 and transferred from North Malabar on 3rd December 1897.*	Do.	39 11 5	....
South Canara.	Moideen Khan ..	Captured on 3rd January 1896 and transferred from North Malabar in September 1897.	Do.	52 14 4	....
	Padmini ..	Captured on 8th February 1896 and transferred from North Malabar in September 1897.	Do.	52 14 4	....
North Malabar.	1. Hyder Ali ..	Captured on 8th February 1898.	Do.	52 13 9	....
	2. Zelica ..	Do. on 17th " "	Do.	57 6 7	....
	3. Isabella ..	Do. Do. " "	Do.	50 12 10	....
	4. Paris ..	Do. Do. " "	Do.	† 34 0 10	....
	5. Helen ..	Do. Do. " "	Do.	† 32 5 8	....
	6. Nurmahal ..	Do. on 25th " "	Do.	45 4 0	....
	7. Chakravarthini ..	Do. on 10th March " "	Do.	42 3 6	....
South Malabar.	1. Rose ..	Do. on 8th February " "	Do.	12 13 8	....
South Coimbatore.	1. Bixa ..	Do. on 4th July 1897.	Do.	10 0 0	....
	2. Sirdar ..	Do. on 9th September " "	Do.	8 6 0	....
	3. Parvathi ..	Retransferred from South Malabar on 23rd June 1898.	Do.	13 0 11	....

PART III.

Elephants gone off the list during the year.

Conservator, Northern Circle.	Captain Gunning ..	Purchased in July 1888 ..	Per head.	85 6 5	Transferred to Gódvári on 19th November 1897.
North Malabar.	1. Ethel ..	Captured on 18th April 1895 ..	Do.	43 15 6	Transferred to Vizagapatam.
	2. Moideen Khan.	Do. on 3rd Jan. 1896 ..	Do.	53 3 11	Transferred to South Canara.
	3. Padmini ..	Do. on 8th Feb. 1896.	Do.	51 5 4	Transferred to Police Department.
	4. Mothy ..	Do. on 22nd " "	Do.	† 572 13 6	Died on 20th June 1898.
	5. Kadar Buksh ..	Do. on 29th " "	Do.	51 4 4	Sold on 10th December 1897.
	6. Thisbee ..	Do. on 15th April " "	Do.	47 3 0	Transferred to the Agent to the Governor, Gódvári.
	7. Ganapathy ..	Do. on 23rd Jan. 1897.	Do.	38 11 6	Sold on 10th July 1897.
	8. Josephine ..	Do. on 9th March " "	Do.	† 231 15 1	Sold on 10th December 1897.
	9. Sibil ..	Do. on 19th " "	Do.	† 182 15 9	Sold on 29th March 1898.
	10. Wilkie ..	Do. on 9th " "	Do.	23 3 6	Sold in December 1897.
	11. Arthur ..	Do. on 7th April " "	Do.	23 3 3	
	12. Darie ..	Do. on 8th June " "	Do.	23 3 6	
	13. Donald ..	Do. on 13th " "	Do.	36 6 2	
South Malabar.	14. Paris ..	Do. on 17th Feb. 1898.	Do.	† 34 0 10	
	15. Helen ..	Do. on 17th " "	Do.	† 32 5 3	
	1. Mars ..	Do. on 11th Jan. 1896 ..	Do.	29 6 5	
	2. Charlie ..	Do. in February 1893 and transferred from North Malabar in August 1894.	Do.	29 9 7	
	3. Venus ..	Captured on 1st April 1893.	Do.	32 9 7	
	4. Maharani ..	Do. on 2nd March " "	Do.	33 12 9	
South Coimbatore.	5. Jessie ..	Do. on 10th Dec. 1891 ..	Do.	32 6 5	Retransferred to South Coimbatore in June 1898.
	6. Parvathi ..	Transferred from South Coimbatore in August 1881.	Do.	43 14 7	Died on 1st February 1898.
	1. Sankara ..	Arrived from North Malabar on 28th June 1888.	Do.	48 15 2	Temporarily transferred to Public Works Department on 25th May 1898.
	2. Peria Rani ..	Arrived from South Malabar in May 1889.	Do.	44 12 9	Died on 20th June 1898 on its way to South Coimbatore on transfer.
	3. Bixa ..	Captured on 4th July 1897 ..	Do.	10 0 0	Died on 7th March 1898.
	4. Sirdar ..	Do. on 9th Sept " "	Do.	8 6 0	

* Arrived in the middle of March 1898.

† Represents cost of keep of the animals from the date of capture to the date of sale, viz., 29th March 1898.

‡ Represents cost of upkeep of the animal till the date of disposal. The average cannot be given as the date on which the animal was disposed of has not been reported.

§ Represents cost of keep of the animals from the date of capture to the date of sale.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—the following Proceedings of the Board of Revenue (Land Revenue), Forest No. 557, dated 8th December 1898 :—

Resolution—Forest No. 557, dated 8th December 1898.

The Board submits to Government, the progress report of Forest Administration in the Madras Presidency for the year ending 30th June 1898.

2. In accordance with the last clause of section 258 of the Forest Code the report was drawn up by Mr. J. W. Cherry, the Acting Senior Conservator of Forests.

3. Government Order, No. 585, Revenue, dated 10th October 1898, approving with certain modifications the proposals of the Board of Revenue for the curtailment of some of the returns appended to the annual report, was received too late to permit the adoption of the changes approved in the report now submitted. The Board doubts also whether it was not the intention of Government to await the final orders of the Government of India on the matter.

4. The Board regrets the delay in the submission of the report. Several statistical returns were not received from the districts in time and reminders had to be issued, and references made for further information. The districts most to blame are Ganjam, North Malabar and Vizagapatam from which some of the returns were received so late as 12th September, 17th September and 2nd October 1898, respectively, the due date being 15th August. The Conservator was consequently unable finally to pass the proofs submitted to the Forest Member until the 2nd December 1898.

(True Extract.)

(Signed) LIONEL DAVIDSON,
Acting Secretary.

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

ORDER—No. 222, Revenue, dated 31st March 1899.

Forest No. 60.

With its Proceedings read above, the Board submits its report on the administration of the Forest department, for the forest year 1897–98.

In order to secure a due notice of the technical operations of the department the preliminary compilation of the report has been as usual entrusted to the senior Conservator on duty. The report and its appended statements record in detail the progress made in every branch of forest administration during the year. His Excellency the Governor in Council will proceed to notice the more salient features of the year's work.

EXTENSION AND CONSTITUTION OF STATE FORESTS.

2. *Alteration of area.*—The following abstract 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 1897.	Area added during 1897-98.	Area excluded during 1897-98.	Net increase or decrease.	Area on 30th June 1898.
	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Reserved forest	13,138	681	44	+ 637	13,775
Do. lands	5,769	524	815	- 291	5,478
Total ..	18,907	1,205	859	+ 346	19,253

It will be seen that the net result is an addition of 637 square miles of reserved forests and a deduction of 291 square miles of reserved lands from the area under the control of the department. The corresponding figures for the preceding year were an addition of 750 square miles of reserved forests and a deduction of 921 square miles of reserved lands. The percentage on the 30th June 1898 of the reserved area to the total unoccupied area excluding zamindari and whole inam villages and minor inams in Government villages varied from 74.53 per cent. in the Nilgiris to 2.54 per cent. in Tanjore and averaged 37.21 per cent. for the whole Presidency.

3. *Forest Settlement.*—The work of forest settlement did not make quite as much progress as was to be desired. One hundred and thirty-two blocks with an extent of 652 square miles were finally constituted reserved forests during the year as against 136 blocks of 845 square miles in the previous year; and there remained at the end of the year 477 blocks comprising an area of 3,827 square miles finally to be constituted reserved forest. The following statement exhibits the areas finally constituted as reserved forest during the past five years :—

	1894-95.		1895-96.		1896-97.		1897-98.	
	Number of blocks.	Area in square miles.	Number of blocks.	Area in square miles.	Number of blocks.	Area in square miles.	Number of blocks.	Area in square miles.
Finally constituted reserved forests.	225	680	185	858	136	845	132	652

4. The causes delaying settlement are stated in appendix B to the report. Many are unavoidable; but the Government is constrained to agree with the Board that there is still room for improvement in the outturn of work by the Special Forest Settlement-officers. A reference to appendix B shows that no less than 180 blocks await settlement of claims, final report or inspection by the Forest Settlement-officer. A satisfactory feature of the year's work, however, was the final disposal of several long-pending blocks in Ganjam, Gódvári, Cuddapah, Nellore and South Canara.

5. Fair progress was made in notifying further selections for reservation. One hundred and twenty-eight blocks with an area of 515 square miles were initially notified as compared with 175 blocks with an area of 402 square miles so notified in the previous year. Final schemes for reservation have, however, now been approved for nearly all the districts and the Government is inclined to think that greater progress in the initial notification of blocks would render possible a more economical disposition of the Forest Settlement-officers' time.

6. From paragraph 12 of the report it appears that a good deal of survey work was done departmentally. It is noted that, as in the preceding year, the outturn of work in preparing and revising sketch-maps of proposed reserves was satisfactory. In the preliminary demarcation of boundaries, progress was not so rapid, only 1,456 miles having been demarcated as against 1,671 miles in the previous year. The cost per mile, however, fell from Rs. 3-9-10 to Rs. 3-7-10. As regards the value of this preliminary demarcation when the permanent demarcation is effected, the Board has not been able to supply detailed information in the report under review. But it is

observed that in some cases, as for example in Vizagapatam, the high cost of the preliminary demarcation is really due to the very complete nature of the work, comprising the erection of permanent cairns.

7. *Final demarcation and survey of settled reserves.*—The following statement exhibits the outturn under permanent demarcation during the past three years :—

	Permanent demarcation.			Re-clearing of old lines, &c.		
	1895-96.	1896-97.	1897-98.	1895-96.	1896-97.	1897-98.
	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.
Northern Circle	855	509	595	597	1,150	1,196
Central Circle	1,117	629	1,021	2,834	1,327	1,001
Southern Circle	217	238	348	193	549	697
Total ..	2,189	1,376	1,964	3,624	3,026	2,894
Average cost per mile	RS. A. P. 9 8 6	RS. A. P. 12 2 5	RS. A. P. 11 3 10	RS. A. P. 2 14 4	RS. A. P. 4 12 0	RS. A. P. 3 12 6

It is observed that a substantially larger mileage of boundaries was newly demarcated at a somewhat smaller cost than in the previous year. The average rate, however, is still high; and it is not satisfactory to note that in North Coimbatore and Vizagapatam, where high rates were paid, no adequate explanations have been furnished.

8. The area of reserved forests topographically surveyed by the combined Parties Nos. 9 and 19 of the Survey of India was 1,041 square miles against 811 square miles in the previous year. The average cost per square mile reached Rs. 119; but the work in Kurnool and Coimbatore was carried on under the most unfavourable conditions, the ground being difficult and the climate unhealthy. The Government agrees with the Board that in the circumstances the year's work may be considered satisfactory.

9. The preparation of final maps kept pace with the extension of reserved forests during the year. These maps were prepared for an additional area of 796 square miles, making a total of 7,509 square miles for which final maps are available.

MANAGEMENT OF STATE FORESTS.

10. *Working plans and plans of annual operations.*—From the report for the previous year it appeared that working plans for 317 square miles of reserves were ready at the end of the year. But it is now explained that this figure wrongly included an area of 99 square miles in South Arcot and 40 square miles in Nellore while an area of 5 square miles in Tinnevely and apparently one square mile in South Coimbatore were omitted; so that the correct area covered by working plans at the beginning of the year under review was 184 square miles. Plans for 17 square miles in addition in Tinnevely were completed during the year. Further the preparation of plans for 897 square miles was continued during the year and a fresh area of 204 square miles taken in hand. Thus at the end of the year out of a total area of 19,253 square miles of forests, working plans were either ready or in preparation for 1,302 square miles only. No explanation of this want of progress is offered in the report. The subject appears to have received insufficient attention in all districts except in Tinnevely where there are now twelve working circles in which fellings are systematically carried out. In South Malabar the working plan for the Nilambur teak plantations was reconsidered on certain points in the light of the suggestions of the Inspector-General of Forests.

The annual plans of operations for each district were on the whole adhered to except in so far as expenditure was curtailed in accordance with general orders of the Government issued under pressure of the financial exigencies of the year.

11. *Communications and buildings.*—Expenditure under both these heads was curtailed as compared with the previous year, but the greater portion of the retrenchment took place under "roads and bridges." This is hardly satisfactory as expenditure under the latter head, as a general rule, is more essential to the efficient

exploitation of the forests than expenditure on "buildings." The working of the tramways continues to be estimated by the same unsatisfactory standard as in previous reports, but the Board will probably be able to remedy this in its next report. It is noted that the tramway for Nellore was worked to a considerably larger extent than in the previous year while the tramways for Cuddapah and South Coimbatore were less used.

12. *Forest offences.*—The statement below exhibits the number and mode of disposal of cases relating to forest offences during the past three years :—

Years.	Number of cases for disposal.			Number of cases disposed of.				Number of acquittals.	Percentage of cases compounded to cases disposed of.	Percentage of acquittals to cases dealt with by the Magistracy.
	Cases pending.	New cases.	Total.	Withdrawn.	Compounded.	Dealt with by the Magistracy.	Total.			
1895-96	1,365	9,610	10,975	1,009	4,531	3,862	9,402	796	48.2	20.6
1896-97	1,580	11,638	13,218	1,624	5,793	4,025	11,442	672	50.6	16.7
1897-98	1,776	14,993	16,769	2,420	7,694	4,474	14,588	650	52.7	14.5

The number of cases prosecuted increased by about 11 per cent., but the percentage of acquittals fell from 16.7 per cent. to 14.5 per cent. which must be regarded as satisfactory. Only 30.7 per cent., however, of the total number of cases reported were prosecuted, the remaining cases being either withdrawn or compounded. The total amount of compensation realised increased from Rs. 45,279 to Rs. 61,883.* The great increase in the number of offences reported, while to some slight degree due to the larger area under control, has in general to be ascribed to the greater efficiency of the reorganised subordinate staff. The fall in the percentage of acquittals shows that cases were prosecuted with discretion; and the Board reports that only petty cases or clear cases or cases in which the offenders unmistakably confessed their guilt have been compounded. At the same time it appears that a considerable number of the reported offences were of illicit grazing and in particular, illicit goat browsing; it has also to be remembered that the power of reporting petty offences which may be ultimately withdrawn places undesirable opportunities in the hands of subordinates. The Government is glad to see that the subject of forest offences and the due supervision over their institution and prosecution, as well as the subject of the regulation of grazing is receiving the special attention of the Board. A copy of the instructions the Board has issued on the subject has been received and will be noticed separately.

13. The measures adopted for the protection of forests from fire were not attended with the same success as in the previous year. The area attempted to be protected was 5,321 square miles which was 42 square miles less than in the previous year. Protection was successful in 93.6 per cent. only of this area as compared with 98.6 per cent. of the area under protection the year before. In North Malabar no less than 56,862 acres comprising all areas of deciduous forest in the Begur and Chedaleth ranges were burnt, the cause ascribed being the dryness of the season. In Madura there were 71 fires burning 41,767 acres of specially protected blocks; 19 of these fires covering an area of 11,837 acres are ascribed to intentional firing. In Kurnool also a large area was burnt through intentional firing. The Government is glad to note that schemes are being formulated for the better protection of the forests. These remarks are based on the information given in the body of the report; but it is noted that the figures in statement No. III in paragraph 22 of the report do not tally with those in form 51 of the appendix, and that no explanation of this appears or is offered.

* This sum does not include the amount collected in Vizagapatam as no return was received in time from that district.

14. The appended statement shows the extent to which the forests were closed to grazing during the year :—

AREAS closed and open to grazing.

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.
1896-97	SQ. MLS. 18,907	SQ. MLS. 1,767	SQ. MLS. 226	SQ. MLS. 18,081	SQ. MLS. 96	SQ. MLS. 744
1897-98	19,253	1,792	233	13,029	4,851	1,373

Except in the Southern Circle more extensive provision for goat browsing has been made. The Government notes that the Board is issuing special instructions on the subject.

15. *Improvement of forest growth.*—Except in Cuddapah, Kurnool, Bellary and Anantapur where, owing to the drought, the reserves were largely thrown open to cattle, natural reproduction progressed satisfactorily. Much work was done in all districts in artificial reproduction, plantations and cultural operations. The area under regular plantations shows an apparent decrease of 3,500 acres during the year; but 3,457 acres of this area are excluded as having been included in reserved forests. The only considerable area abandoned on account of failure was an extent of 407 acres in North Malabar, but the report does not explain the nature of the plantations or the cause of the failure. There was a slight decrease in the area under cultural operations. Experiments received due attention. *Bamboo* planting was successful in Kistna and South Malabar and the experiments with *Mahogany* are not discouraging. *Date* planting, however, seems to have failed in all the places where it was tried as an experiment.

16. *Exploitation of major and minor produce.*—Considerable attention was paid to meeting the wants of other State departments and Railway Companies in the matter of timber and fuel. Since the close of the year it has been decided that the department should undertake to meet as fully as possible the demand of the Railway Companies for sleepers. Grazing revenue shows a slight decline as compared with the previous year and this is ascribed to the drought and consequent free grants. It is noted that the Board has not been able to meet the wishes of the Government of India in the present report as regards an estimate of the value of the grass removed on free grants owing to drought. The demand for leaf manure for the wet cultivation under the Periyar reservoir has drawn general attention to the importance of developing the yield of the forests in this respect. The Government notes with satisfaction that working plans for blocks supplying leaves for manure in Madura have been put in hand.

GROSS YIELD AND OUTTURN OF FOREST PRODUCE.

17. The following statement shows that the total yield of the forests during the year was somewhat less than in the previous year, except under the head of minor produce :—

Years.	Timber including sandalwood.	Fuel.	Bamboos.	Minor produce, gross value.
1896-97	C. FT. 2,642,276	C. FT. 12,182,192	NO. 30,846,684	RS. 9,42,739
1897-98	2,619,793	11,922,428	29,317,049	9,98,993
Increase or decrease in 1897-98 against 1896-97 ..	— 22,483	— 259,764	— 1,529,635	+ 56,254
Percentage of the increase or decrease above mentioned ..	— .85	— 2.13	— 4.96	+ 5.97

The decrease was chiefly due to restricted departmental operations in the collection of produce. The demand on the other hand as measured by the disposal of produce showed a substantial increase; the quantity removed by purchasers was more, except under bamboos, than in the previous year, the value being Rs. 16,17,729 against Rs. 15,53,365 last year; and the quantity disposed of by departmental agency was also greater, except under fuel, the value amounting to Rs. 4,78,301 as compared with Rs. 4,25,607 in the previous year.

FINANCIAL RESULTS.

18. The financial results are exhibited in the table below :—

	Receipts.	Charges.	Surplus.	Proportion of surplus to gross revenue.
1896-97.	RS.	RS.	RS.	PER CENTUM.
Northern Circle	5,97,422	4,65,280	+ 1,32,142	22
Central Circle	9,48,547	5,84,782	+ 3,63,765	38
Southern Circle	6,42,948	5,37,815	+ 1,05,133	16
Total ..	21,88,917	15,87,877	+ 6,01,040	27
1897-98.				
Northern Circle	5,99,670	4,68,026	+ 1,31,644	22
Central Circle	8,83,534	5,56,487	+ 3,27,047	37
Southern Circle	6,62,610	5,63,976	+ 98,634	15
Total ..	21,51,114	15,88,489	+ 5,62,625	26
Increase or decrease in 1897-98.				
Northern Circle	+ 2,248	+ 2,746	— 498	..
Central Circle	— 59,713	— 28,295	— 31,418	..
Southern Circle	+ 19,662	+ 26,161	— 6,499	..
Total ..	— 37,803	+ 612	— 38,415	..

It is observed that, though as pointed out above the quantity and value of the produce disposed of during the year was greater than in the previous year, the total revenue collected was less, the exact amount of the decrease being Rs. 37,803. This is partly due to the fact that receipts under *miscellaneous items* showed a decrease of Rs. 21,981 owing to a fall in the payments for clearing land on the Anamalais; but the balance appears to consist of the difference between the collections on account of arrears made during the year and the value of items not collected within the same period.

19. Under expenditure there was an increase of Rs. 59,602 under *establishment* due chiefly to the reorganization of the executive staff but this was counterbalanced by an almost equal decrease under *conservancy and works*.

The net result is a surplus of 5.62 lakhs of rupees being 26 per cent. of the gross revenue.

GENERAL FOREST ADMINISTRATION.

20. The steps taken to encourage the growth of manure-leaf-yielding trees and shrubs have already been noticed. Generally, great attention was paid towards making the forests a source of help and benefit to the ryot-population.

21. The Government is glad to observe that the working of the rules framed under section 26 of the Act for the regulation of forest produce on unreserved lands was generally satisfactory. The Board's instructions to Collectors to draw up for approval a selected list of reserved and classified forests for each locality which alone need be strictly reserved in that locality meet with the cordial approval of the Government.

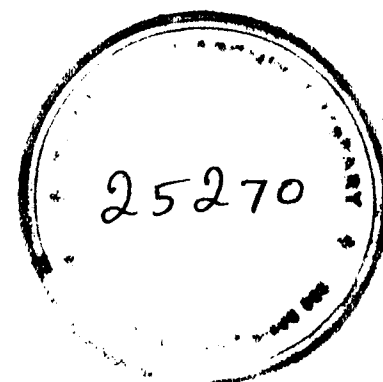
22. The conduct of the subordinate staff, the Government notices with regret, did not show any marked improvement. This can be attained only by the unremitted and watchful supervision of the superior officers, and the strict punishment of proved evildoers.

23. The indifferent health of the establishments reported from the majority of the districts is a matter for much regret. All the more praise is due to the department for the excellent work done under so many discouraging conditions.

24. *Conclusion.*—The progress of forest settlement work still calls for the close and constant supervision of the Board. The Government would have been glad to have seen farther advance also in the preparation of working plans. The report, however, records much useful work effected in respect both of the improvement of the forests and of their exploitation for the benefit of the people. The thanks of the Government are due to the Board and the officers of the department for the careful management of the year.

(True Extract.)

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



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