

ADMINISTRATION REPORTS

OF THE

FOREST DEPARTMENT

IN THE

BOMBAY PRESIDENCY,

INCLUDING

SIND,

FOR THE YEAR 1896-97.



Bombay:

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1898.

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**NORTHERN CIRCLE.**

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No. 2111 of 1897-98.

From

R. C. WROUGHTON, ESQUIRE,  
Conservator of Forests, Northern Circle;

To

THE CHIEF SECRETARY TO GOVERNMENT,  
Revenue Department.

*Bádra, 15th October 1897.*

SIR,

I have the honour to submit herewith the Administration Report of the Northern Circle for the forest year 1896-97, together with usual appendices.

I have the honour to be,

Sir,

Your most obedient Servant,

R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.

THROUGH THE COMMISSIONER, NORTHERN DIVISION.

## INDEX.

### FOREST ADMINISTRATION REPORT, NORTHERN CIRCLE, FOR 1896-97.

Chapter.	Subject.	Paras.
	INTRODUCTION ... ..	1-9
I.	EXTENSION AND CONSTITUTION OF STATE FORESTS—	
	(i).—Alteration of Area ... ..	1
	(ii).—Forest Settlements ... ..	2-10
	(iii).—Demarcation ... ..	11-16
	(iv).—Surveys... ..	17
II.	MANAGEMENT OF STATE FORESTS—	
	I.—Regulation of Management—	
	(a).—Working Plans and their control ... ..	18-32
	II.—Working of the year—	
	(a).—Communications and Buildings ... ..	33-34
	(b).—Protection of Forests from Injury ... ..	
	(1).—General Protection and Breaches of Forest Law ... ..	35-40
	(2).—Protection from Fire ... ..	41-46
	(3).—Regulation of Grazing and Protection from Cattle ... ..	47-51
	(c).—Improvement of Forest Growth—	
	(1).—Natural Reproduction ... ..	52
	(2).—Artificial Reproduction ... ..	53-54
	(3).—Early Thinnings... ..	55
	(4).—Other Operations for the Improvement of the growing Stock ... ..	56
	(5).—Experiments ... ..	57
	(d).—Extraction and Transport of Major Forest Produce by Land and Water ... ..	58
III.	GROSS YIELD AND OUTTURN OF FOREST PRODUCE .. ..	59-72(a)
IV.	FINANCIAL RESULTS ... ..	73-75
V.	FOREST ADMINISTRATION ... ..	76-80
	GENERAL REMARKS ... ..	81-82
	FORMS Nos. 46 to 65.	

# FOREST ADMINISTRATION REPORT

OF THE

## NORTHERN CIRCLE, BOMBAY PRESIDENCY,

FOR THE FOREST YEAR 1896-97.

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### INTRODUCTION:

The forest area during the year has been increased by 4,231 acres, due to forest settlement operations.

2. Forest settlement has been practically completed in the Circle during the year. At the date of this report the whole of Tháná, save the Sháhápúr Táluka, has been settled, and the report for that táluka is before Government. In Surat some modification of the demarcation having been found necessary it was undertaken, but under pressure of plague work, the report remains to be dealt with.

3. No change was made in the Protective Establishment during the year, but the Tháná District was formed into three divisions instead of two from 1st January.

4. Demarcation of forest boundaries has been pushed on as well as the exceptional conditions of the year have admitted.

5. Forest survey work has been carried on as usual.

6. Working Plans for the Máhim, Vádá and Bassein Ranges of the Tháná Divisions were sanctioned during the year. The proposals for the Working Plans of the Kálol Mahál and the Tulsi Forest belonging to the Bombay Municipality are before Government. The Working Plans of the Kalyán and Sálsette Range of the Tháná District and the Hálol Mahál of the Panch Maháls are under preparations.

7. The number of cases in which forest offences were prosecuted in criminal courts was 235 against 259 of the previous year, thus showing a slight falling off; but the percentage of failures was high as compared with last year's record, *viz.*, 19·3 to 32·3.

8. Some advance in fire protection may fairly be claimed, as in Surat and the Panch Maháls the results of protective measures have been reported as much more satisfactory than in previous years. In the Tháná District the area burnt over is reported as considerably less than usual; but as a set-off to this it should be remembered that grass was in great demand, and villagers consequently were able to see that their interests were concerned in the prevention of forest fires.

9. The financial results of the year have been eminently unsatisfactory, as the falling off in receipts amounted to some two lacs. The disastrous effects of famine and plague showed themselves only too clearly in the timber trade as in nearly every other form of trade.

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## CHAPTER I.

## EXTENSION AND CONSTITUTION OF STATE FORESTS.

## (i).—ALTERATION OF AREA.

During the year alterations in the area of the State forests were effected as shown in Form No. 46. The following abstract statement shows the result of these changes :—

Class of Forests.	Area on 1st July 1896.		Added during the year.		Excluded or transferred during the year.		Area on 30th June 1897.		REMARKS.
	Sq. m.	a.	Sq. m.	a.	Sq. m.	a.	Sq. m.	a.	
Reserved forests...	1,184	385	8	153	1	383	1,191	155	
Protected do. ...	434	48	.....		0	19	434	29	
Leased do. ...	678	320	.....		.....		678	320	
Total ...	2,297	113	8	153	1	402	2,303	504	

## (ii).—FOREST SETTLEMENT.

2. Mr. Orr, I.C.S., was virtually the Forest Settlement Officer in Tháná from 1st July 1896 to 28th February 1897. On the 7th July he fell ill and was compelled to take two months' privilege leave. Mr. MacIver, of the Survey Department, took over the office during this period. On his return from leave Mr. Orr was again in charge, and till about the end of October had no other work. At the end of October Mr. Orr was made Assistant Collector, Poona, but continued in charge of the Settlement Office, in addition to his own duties, till the end of February. On 1st March the charge of the Settlement Office was transferred to Mr. Hudson, I.C.S., First Assistant Collector, Bassein Sub-division, in addition to his own duties, who has held it to the end of the year.

3. The settlement and demarcation proposals of the Dáhanu, Umbargaon and Murbád Ranges, which were submitted to Government, were sanctioned by them during the year under Government Resolutions Nos. 4934 and 5052, dated 1st and 6th July 1897, of Revenue Department, respectively.

4. Areas, as detailed below, were obtained by purchase and exchange during the year :—

	A.	g.	Rs.	a.	p.
Acquired by payment of compensation ...	885	30	10,420	1	9
Do. by exchange ...	...	...	...	...	...

5. The following statement gives the details of cost of Forest Settlement Officer and his establishment during the year :—

Division.	FOREST SETTLEMENT OFFICER.		OFFICE ESTABLISHMENT.		Contingencies.	Total.						
	Pay.	Travelling Allowance.	Pay.	Travelling Allowance.								
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.						
Tháná ... ..	3,814	1 2	405	5 2	1,980	9 10	432	5 10	283	13 6	6,946	3 6

6. The following is the summary of outstanding work in the Tháná Divisions :—

Names of Ranges.	STAGES OF OUTSTANDING WORK.								REMARKS.
	Occupied Lands to be acquired.				Land to be notified under Section 4.	Land to be settled under Section 7.	Land to be notified under Section 19.	Total.	
	By exchange or Compensation.		Land to be notified under Acquisition Act.						
	Negotiation proceeding.	Negotiation completed.	Land notified but not acquired.	To be notified.					
1	2	3	4	5	6	7	8	9	10
<i>South Tháná.</i>									
Sálsette ... ..	...	...	...	...	...	...	...	...	...
Kalyán ... ..	...	0 8	44 19	15 39	...	62 19	...	123 5	...
Bhiwndi ... ..	16 8½	...	...	...	...	0 12½	...	16 21½	...
Murbád ... ..	...	...	...	...	...	...	...	...	...
Sháhápúr ... ..	...	...	...	...	...	...	...	...	...
Total ... ..	16 8½	0 8	44 19	15 39	...	62 31½	...	139 26½	...
<i>Central Tháná.</i>									
Khardi ... ..	...	...	...	...	...	...	2,382 0	2,382 0	...
Bassein ... ..	5 37½	...	1 28½	0 17½	...	4 21	...	12 24½	...
Vádá ... ..	...	...	...	...	...	...	...	...	...
Mokhádá ... ..	1 34	6 28	...	...	1 15	69 12	...	79 9	...
Total ... ..	7 31½	6 28	1 28½	0 17½	1 15	73 33	2,382 0	2,473 33½	...
<i>North Tháná.</i>									
Talaari No. I ... ..	...	...	...	...	...	...	...	...	...
Do. No. II ... ..	...	...	...	...	...	...	...	...	...
Máhim ... ..	28 17½	24 15½	2 33½	*38 6½	27 35½	33 25½	...	155 13½	...
Dáhanu ... ..	16 4	...	3 18½	...	†75 12½	53 17	...	148 12	...
Umbargaon ... ..	...	...	...	...	...	...	...	...	...
Total ... ..	44 21½	24 15½	6 11½	38 6½	103 8½	87 2½	...	303 25½	...
Grand Total ... ..	68 21½	31 11½	52 19½	54 23	104 23½	223 27½	2,382 0	2,917 5½	...

\*Notification for lands in column 5 submitted.  
†Notification for 68 acres and 1½ guntas submitted under Section 4.

7. As in previous year Mr. Orr was allowed this year also to make his monsoon head-quarters at Poona.

8. The following are the details of the work performed by the Forest Settlement Officer :—

(1). While on leave Mr. Orr worked at his Sháhápúr Demarcation Report, for which purpose he had taken the papers with him to England, from where he sent intimations of points that wanted clearing up, so that everything was worked out in the office and ready for him when he arrived.

(2). The rains were also devoted to the correction of the revision survey village maps of the Máhim and Bassein Tálukas, after comparing them with the office village maps.

(3). Decisions in Sháhápúr settlement proceedings, in which the enquiries had already been held, were written.

(4). The revision of the Mámlatdárs' forest registers of Bhiwndi and Mokhádá were also taken in hand and finished.

(5). Sháhápúr acquisition work was proceeding and was nearly completed.

9. As the settlement work of the Tháná District was almost completed, the office and field establishments were discharged except the Shirastedár and one peon.

10. In the Surat District during the year the revision settlement of the Mándvi Range was commenced by Mr. Wood, but the proposals made by him are still under consideration of the local Revenue officers.

## (iii).—DEMARCATIION.

11. The progress made in clearing boundaries and erecting boundary-marks with cost is given in the following statement :—

Division.	Length of Boundary in miles.	NUMBER OF CAIRNS ERECTED.		Amount spent.	Rate per mile.	REMARKS.
		Large.	Small.			
<i>Boundary marked with cairns.</i>						
				Rs. a. p.		
North Tháná ...	88	472	1,131	1,598 6 0	18·2	
Central Tháná ...	77	873	...	816 15 6	10·6	
South Tháná ...	38½	740	...	730 1 0	19·08	
Surat ...	20¾	643	11	480 12 0	22·9	
Total ...	224	2,728	1,142	3,626 2 6	16·01	
<i>Boundary cleared.</i>						
North Tháná ...	14½	...	...	328 11 0	22·7	
Surat ...	6	...	...	435 12 0	72·6	
Panch Maháls ...	15½	...	...	423 9 0	27·3	
Total ...	36	...	...	1,188 0 0	33·	
Grand Total ...	260	...	...	4,814 2 6	18·5	

**North Tha'na'.**

12. The high rate is reported to be due to wages in both the cairn-erecting and line-cutting operations having been paid at the rate of annas four instead of three owing to scarcity in the district. The demarcation was only carried on in the Máhim Range, and it is nearly half finished.

**Central Tha'na'.**

13. The lower rate in Central Tháná is due to the prescribed lower rate of wages paid to labourers in the Vádá Range, where the demarcation was carried on and completed. No line-cutting was done in this division.

**South Tha'na'.**

14. The very high rate in this division is due partly to high wages paid and partly to scarcity of stones in the localities where the demarcation was carried on, so that they had to be brought from long distances. The demarcation was carried on in the Sálsette, Bhiwndi and Kalyán Ranges. No line-cutting was done in this division.

**Surat.**

15. The rate paid for erecting cairns, 22·9, is high, but considering the scarcity of stones in the places where the work was done, viz., Bulsár and Chikhli, the rate is reasonable. For line-cutting, which was done in the Mándvi Range, the rate was 72·5; but the width of the line cut along the frontier of the Baroda State chiefly as a fire break, was 100 feet, or nearly 6 times wider than in North Tháná and 3 times wider than in the Panch Maháls Division. Much demarcation work in the interior of the Mándvi Range remains to be done, but it cannot be taken in hand until the revised settlement is completed and sanctioned.

**Panch Maha'ls.**

16. The rate in this division was higher than last year, but it was due to clearing the boundary line completely and permanently by removing stumps of the cut trees.



In addition to the above, an amount of Rs. 128-2-0 was spent in the divisions for repairing old boundary-marks.

(iv).—SURVEYS.

17. The following statement, received from the Forest Survey, gives the work and its cost during the forest year of 1896-97 with cost:—

Division.	BOUNDARY SURVEYS.		Total Cost.	REMARKS.
	Previous.	Of the year.		
	Sq. m.	Sq. m.	Rs. a. p.	
<i>Surat.</i>				
Triangulation 8" ... ..	...	141	} 979 13 11	{ Mándvi Táluka. Do. 44 linear miles.
Traversing ... ..	...	10		
<i>North Tháná.</i>				
Detail Survey 8" ... ..	...	51-71	9,635 6 8	Máhim Táluka.
Total cost ... ..	...	...	10,615 4 7	

## CHAPTER II.

### MANAGEMENT OF STATE FORESTS.

#### I.—REGULATION AND MANAGEMENT.

##### (a).—WORKING PLANS AND THEIR CONTROL.

18. The Working Plans Division was in charge of the following officers during the year:—

1st July 1896 to 12th November 1896	...	Mr. J. Dodgson.
13th November 1896 to 21st December 1896	...	Mr. T. R. D. Bell.
22nd December 1896 to 25th January 1897	...	Mr. R. C. Wroughton.
26th January 1897 to 30th June 1897	...	Mr. G. P. Millett.

Mr. Millett, the permanent Working Plans Officer, was on furlough from 1st July 1896, but he returned within the period of his leave and resumed charge of the division from the 25th January 1897.

19. During the year the Working Plans for the forests of the Godhra Mahál in the Panch Maháls Division and Máhim, Bassein and Vádá of the Tháná District were sanctioned by Government. The proposals for the Working Plan of the Kálol Mahál are before Government. The Working Plan of the Tulsi forests belonging to the Municipality of Bombay was prepared and submitted during the year and is also before Government.

20. The forests of the Hálol Mahál, Panch Maháls Division, were examined during the year with a view to the drawing up of a Working Plan for their management, but it was not completed before the close of the year.

21. A Working Plan also for the forests of the Sálsette and Kalyán Ranges of the Tháná District was under preparation, but was not completed.

22. In addition to this work the Working Plan Officer during the year supervised the working on the ground of the coupes in the Dáhánu, Máhim and Bassein Ranges. He also supervised the reserve marking in some of the Godhrá coupes in order that the Extra Assistant Mr. Ránade might obtain some idea of the work which he had to carry out throughout the Range under the Working Plan. Finally he supervised the marking on the ground by the Working Plan surveyors both of coupes of the year and in advance in the Tháná Divisions.

23. During the year 261 coupes containing 14,007 acres were marked out on the ground in the Tháná Divisions by 739 cairns and 23,362 subsidiary stones at a cost of Rs. 1,436, equivalent to Rs. 5-8-0 per coupe, or Re. 0-1-7 per acre.

24. In the Kálol Mahál of the Panch Maháls District, 60 compartments comprised in two blocks containing 9,407 acres were marked out on the ground by 137 cairns, 253 intermediate stones, mounds and 784 subsidiary stones at a cost of Rs. 364, equivalent to Rs. 6-1-0 per compartment, or 7 pies per acre.

25. In addition to this 677 coupes in advance were marked out in the Bhiwndy and Bassein Ranges by 2,359 cairns and 15,728 subsidiary stones at a cost of Rs. 1,749-14-9. And further 246 coupes were similarly marked out in the Máhim Range by the Forest Survey at a cost of Rs. 198-8-9.

*Area brought under the control of sanctioned Working Plans up to 30th June 1897 in the Northern Circle.*

Division.	Forest area in square miles.			Area for which Working Plans prepared and sanctioned up to 30th June 1897.	Proportion of Forest area under sanctioned Working Plans.	REMARKS.
	Reserved.	Protected.	Total.			
1	2	3	4	5	6	7
					Per cent.	
North Tháná ...	278	435	713	121	17	The whole forest area of these three Tháná Divisions is being exploited under a regular system of working, but sanctioned Working Plans have only been introduced for the areas shown in column 5.
Central Tháná ...	265	115	380	204	54	
South Tháná ...	210	211	421	62	15	
Tulsi belonging to the Bombay Municipality.	3	...	3	...	...	
Surat ...	70	...	70	...	...	
Dángs, leased forests.	678	...	678	...	...	
Panch Maháls ...	331	...	331	139	42	
Ahmedabad (Modása).	34	...	34	...	...	
Total ...	1,869	761	2,630	526	20	

*Progress made in Working Plans in the Northern Circle, Bombay Presidency, during the year 1896-97.*

Division.	Preliminary proposals submitted for Working Plans.		Plans submitted for opinion and remarks of the Conservator of Forests, Northern Circle.		Plans finally sanctioned by Local Government on recommendation of the Conservator of Forests, Northern Circle.		REMARKS.
	No.	Area for which prepared.	No.	Area for which prepared.	No.	Area for which prepared.	
				Square miles.		Square miles.	
North Tháná ...	...	...	...	...	1	121	
Central Tháná ...	...	...	...	...	2	204	
South Tháná ...	...	...	...	...	1	62	
Tulsi, belonging to the Bombay Municipality.	...	...	1	3	...	...	
Surat ...	...	...	...	...	...	...	
Dángs, leased forests ...	...	...	...	...	...	...	
Panch Maháls ...	...	...	1	34	1	139	
Ahmedabad (Modása) ...	...	...	...	...	...	...	
Total ...	...	...	2	37	5	526	

*Progress made in Working Plans in the Northern Circle during the year 1896-97.*

Division.	AREA FOR WHICH WORKING PLANS HAVE BEEN COMPLETED.		AREAS FOR WHICH WORKING PLANS ARE BEING COMPILED.		Areas for which Working-Plans have still to be compiled.	Total Forest area in Form No. 46.	REMARKS.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.			
North Tháná ...	121	...	...	...	592	713	Not shown in Form. No. 46.
Central Tháná ...	204	...	...	...	176	380	
South Tháná ...	62	...	...	74	285	421	
Tulsi, belonging to the Bombay Municipality.	...	3	...	...	...	3	
Surat ...	...	...	...	...	70	70	
Dángs, leased forests...	...	...	...	...	678	678	
Panch Maháls ...	139	34	...	...	158	331	
Ahmedabad (Modása) .	...	...	...	...	34	34	
Total ...	526	37	...	74	1,993	2,630	

26. The number of coupes still to be marked in the blocks in the Tháná Division is 699 so far as settlement has been completed.

27. The following statement will show the number of coupes and their area marked for exploitation during the current year in the Tháná Divisions:—

Division.				No. of coupes marked for exploitation.	Area.		No. of coupes sold
					A.	g.	
North Tháná ...	...	...	...	96	5,279	32	85
Central Tháná ...	...	...	...	93	5,396	30	72
South Tháná ...	...	...	...	86	4,638	20	70
Total ...				275	15,315	2	227

28. From this statement it will be seen that 275 coupes were put up for sale, out of which 227 were sold. The remaining 48 coupes being in out-of-the-way places could not find purchasers. In addition to these 227 coupes, however, 15 coupes belonging to previous years were sold.

The work of writing up the control books unfortunately has been found much more difficult than was expected.

29. The records have had to be searched for 10 or 12 years back, and in many cases much of the information required was not forthcoming, and even when found, owing to want of method in the record, it has been most difficult to deduce the required data with any accuracy.

30. In paragraph 97 of last year's report I wrote: "I am in hopes that in consequence of new arrangements next year's figures (*i.e.* of coupe yield) may be more reliable, and, moreover, that I shall be in a position to report not only the material exported but also that reserved." I regret that I must confess to failure, due largely to the heavy strain caused by the Famine grass operations. The arrangement was to divide all the material to be exported into a certain number of classes and insisting on these and only those classes being employed in describing the material in the export passes issued by the coupe depôt officer.

A co-efficient of cubic contents was calculated for each of these classes. In this way it was hoped that a very fairly accurate estimate of the material exported would be obtained. The contractors, however, opposed a most obstinate resistance to the innovation, which is most significant of the inaccuracy of the records of past years, and with a short-handed establishment further crippled by the withdrawal of two extra Assistant Conservators besides subordinates on Famine grass operations, the arrangement could not be efficiently enforced. One good result of the attempt, however, has been that desirable revisions in the classification have been indicated, and in the current year contractors have been made to understand at the time of purchasing the coupes that the arrangement is to be carried out. As the material is their own property and the record of the quantity has no effect on the sale price which is fixed beforehand by public tender, it is difficult to understand why the contractors should object to the arrangement. That they do so however most emphatically is shown by the fact that on the first date named not a single tender was received and a second call had to be made before any sales could be effected. The reason urged is, that the depôt officers are not sufficiently educated to be entrusted with measuring the material, but this has been met by so fixing the classes that a piece of string with 3 knots in it and a 10-foot bamboo are all that will be required for the efficient classification of the material. The similar record of material reserved has also not been a success, but as the arrangements were already fairly complete, though unnecessarily cumbersome, this failure has not been so marked.

31. The improved marking of reserves alluded to in paragraph 95 last year could not be introduced generally. Instead of an increased establishment there was only one crippled, as already stated, and for the most part the old system of reserve marking had to be resorted to. The Divisional Forest Officers, North and Central Tháná, however, marked personally a few coupes, stamping each reserve with a Government timber mark; but the Divisional Forest Officer, South Tháná, who for over two months was in direct charge of the grass operations, could of course not undertake anything of the sort. The present working season has now commenced and the extra establishment asked for has not been sanctioned, so that even next year's report will not, I fear, be able to record that this useful measure has been universally introduced, but it is earnestly hoped that this will be the end of the delay in its introduction.

32. The Godhra Working Plan, which comes into operation for the first time this season, will profit by the experience thus gained and its control record should be accurate from the very commencement.

## II.—WORKING OF THE YEAR.

### (a).—COMMUNICATION AND BUILDINGS.

33. The expenditure under this head incurred departmentally was Rs. 6,348-14-3 during the year. The details of the works for which this amount was spent are given in Form No. 51.

34. The following is the list of works carried out during the year by the agency of the Public Works Department:—

No.	Name of Work.	Amount expended.		
		Rs.	a.	p.
	ORIGINAL WORKS.			
	<i>North Tháná.</i>			
1	Putting up a window in the Wángáon Depôt House ... ..	15	1	2
	<i>Central Tháná.</i>			
2	Providing plank ceiling to the Record and Office-room of the Range Forest Officer's residence at Khardi ... ..	132	15	11
3	Additions and alterations to the Forest Depôt House at Kására ...	216	1	6

Number.	Name of Work.	Amount expended.		
		Rs.	a.	p.
<b>ORIGINAL WORKS—continued.</b>				
<i>South Tháná.</i>				
4	Providing plank ceiling to Range Forest Office in the Mámlatdár's Kacheri at Sháhápúr ... ..	145	10	3
5	Constructing a room for confiscated property for the Range Forest Officer in the compound of the Mámlatdar's Kacheri at Tháná ...	540	3	1
6	Additions and alterations to the Range Forest Officer's Office at Murbád ... ..	210	9	7
	Total ...	1,260	9	6
<b>REPAIRS.</b>				
<i>North Tháná.</i>				
1	Repairs to the Forest Office at Kelva-Máhim ... ..	30	5	0
2	Repairs to the Forest Depôt House at Manor ... ..	17	14	6
3	Do. do. at Sáwtá-bandar ... ..	17	13	4
4	Do. do. at Pálghar ... ..	17	7	10
5	Do. do. at Sanján ... ..	13	9	0
6	Do. do. at Wángaon ... ..	17	13	7
7	Do. do. at Gholvad ... ..	17	14	0
<i>Central Tháná.</i>				
8	Repairs to the Forest Office at Khardi ... ..	41	8	10
9	Do. do. at Vádá ... ..	22	15	9
10	Repairs to the Forest Depôt House at Kasará ... ..	17	15	10
11	Repairs to the Office at Bassein ... ..	26	0	3
<i>South Tháná.</i>				
12	Repairs to the Forest Office at Tháná ... ..	19	13	6
13	Do. do. at Bhiwndy ... ..	22	15	6
14	Repairs to the Forest Depôt House at Átgaon ... ..	17	10	6
15	Do. do. at Vássind ... ..	17	15	11
16	Repairs to the Forest and Sub-Registrar's Office at Kalyán ...	20	4	8
17	Do. do. at Murbád ... ..	24	7	5
18	Repairs to the Forest Depôt House at Wángni ... ..	18	4	11
<i>Panch Maháls.</i>				
1	Repairs to the Forest Office at Dohad ... ..	13	15	0
	Total ...	396	13	4
	Grand Total ...	1,657	6	10

## (b).—PROTECTION OF FORESTS FROM INJURY.

## (1).—General Protection and Breaches of Forest Law.

## (a).—General Protection.

35. There has been no change in the scale of Protective Establishment. Proposals for increase of protective establishment are now before Government.

## (b).—Breaches of Forest Law.

36. Cases tried by Magistrates as compared with the year 1895-96 were as follows:—

No.	Division.	1895-96.		1896-97.		PERCENTAGE OF FAILURES.	
		Conviction.	Acquittals.	Conviction.	Acquittals.	1895-96.	1896-97.
1	North Tháná ...	34	7	13	9	17·	40·9
2	South Tháná ...	78	28	56	44	26·4	44·
3	Central Tháná...	58	8	29	5	13·1	14·7
4	Surat ...	8	...	6	1	...	14·3
5	Panch Maháls...	31	7	55	17	18·4	23·6
	Total ...	209	50	159	76	19·3	32·3

There has been a little decrease in the number of offences. The high rate of percentage in failures is notably to be seen in the North and South Tháná Divisions.

37. The following statement gives a classification of the new cases of the year under various heads of offences :—

Division.	Cases taken into Court.				Cases compounded.				Cases undetected.				Total Cases.				Grand Total
	Injury to Forest by fire.	Unauthorized fellings or appropriation of wood and other minor produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Injury to Forest by fire.	Unauthorized fellings or appropriation of wood, &c.	Grazing without permission.	Other offences.	Injury to Forest by fire.	Unauthorized fellings or appropriation of wood, &c.	Grazing without permission.	Other offences.	Injury to Forest by fire.	Unauthorized fellings or appropriation of wood.	Grazing without permission.	Other offences.	
North Tháná ...	1	16	2	9	...	106	...	12	60	67	1	3	61	179	3	24	267
Central Tháná ...	7	53	1	...	...	68	...	4	160	96	...	1	167	217	1	6	390
South Tháná ...	6	60	8	1	8	137	1	5	149	263	2	...	163	460	11	6	640
Surat ...	3	4	...	...	1	10	...	8	20	2	...	...	24	16	...	8	48
Panch Maháls ...	6	34	21	21	...	98	3	19	184	28	80	...	190	160	104	40	404
Total ...	23	167	32	31	9	419	4	48	573	446	83	4	605	1,032	119	83	1,639

33. The offences committed in lands notified under Section 4 of the Indian Forest Act, but in which pending completion of settlement the offender could only be proceeded against under Section 43, Land Revenue Code, were 76 in number. The following statement gives the details and comparison with 1895-96 :—

No.	Division.	1895-96.					1896-97.											
		Number of cases.	Value of Forest produce.		Acquittals.	Convictions.	Amount of fines.	Number of cases.	Value of Forest produce.		Acquittals.	Convictions.	Amount of fines.					
			Rs. a. p.					Rs. a. p.					Rs. a. p.					
1	North Tháná...	25	382	1	0	...	25	450	13	0	21	253	11	0	21	291	10	0
2	Central Tháná ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	South Tháná...	17	15	3	4	...	17	30	10	6	47	150	12	3	47	195	14	6
4	Surat ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	Panch Maháls ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	42	397	14	4	...	42	481	7	6	76	429	10	6	76	498	1	9

39. The following statement contains the comparison between the number of cases compounded under Section 67 of the Forest Act during the past and this year; it also shows the amount of compensation received :—

No.	Division.	Year.		Amount.
		1895-96.	1896-97.	
				Rs. s. p.
1	North Tháná ...	105	118	648 15 9
2	South Tháná ...	86	155	398 12 6
3	Central Tháná ...	75	70	603 3 4
4	Surat ...	21	19	126 4 0
5	Panch Maháls ...	117	120	265 1 0
	Total ...	404	482	2,042 4 7

40. The details of cases compounded under Section 67, Indian Forest Act, required by Government Resolution No. 1899, dated 13th March 1891, are given in the following statement:—

No.	Division.	Number of cases in which compensation was fixed at Rupees																				Total.							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		21	22	23	24	25	30	45
1	North Tháná ...	36	28	12	9	7	4	2	2	2	3	2	1	1	...	...	...	...	3	2	...	1	...	2	1	...	118		
2	Central Tháná ...	28	11	5	3	3	3	1	...	1	3	...	2	...	...	1	...	1	1	...	...	...	...	...	1	...	70		
3	South Tháná ...	87	25	14	10	9	2	5	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	1	...	155		
4	Surat ...	8	2	2	1	1	...	...	1	...	...	...	...	...	...	...	1	...	...	...	1	...	...	1	...	19			
	Panch Maháls ...	89	21	3	2	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	120			
	Total ...	248	88	36	25	23	9	9	3	3	6	2	3	1	1	1	1	1	5	3	...	2	1	2	3	1	482		

(2).—Protection from Fire.

41. The following is the tabular statement showing offences by fire with results:—

Range.	DETAILS OF PROSECUTIONS FOR OFFENCES BY FIRE.					Amount of punishment.	REMARKS.
	Serial No. of Fire.	Areas burnt.	Character of offence (whether careless or intentional).	Whether acquitted or convicted.	Section of law under which convicted.		
North Tháná ...	...	...	.....	.....	.....	.....	
Central Tháná...	...	...	.....	.....	.....	.....	
South Tháná.	1	30	Carelessness...	Conviction...	Indian Forest Act 25 (b).	1 offender was fined one rupee and received 8 days' rigorous imprisonment.	
	1	10	Intentional ...	Do. ...	Do. ...	3 offenders were fined Re. 1 each and received 14 days' rigorous imprisonment each.	
	1	125	Do. ...	Do. ...	Do. ...	17 shikaries received 1 month's rigorous imprisonment each.	
	1	25	Do. ...	Do. ...	Do. ...	13 shikaries received 1 month's rigorous imprisonment each.	
	1	450	Carelessness...	Do. ...	Do. ...	1 offender was fined Rs. 30.	
Surat	2	50	Do. ...	Do. ...	Do. ...	1 offender received 15 days' imprisonment.	
	13	2	Do. ...	Do. ...	Do. ...	1 offender was fined Rs. 2.	
	18	60	Do. ...	Do. ...	Do. ...	1 offender received 1 month and 15 days' imprisonment.	
Panch Maháls	12	121/18	Do. ...	Do. ...	Do. ...	4 offenders were fined Rs. 200 and Rs. 100 were taken as compensation from them.	
	35	47	Do. ...	Do. ...	Do. ...	1 offender was fined Rs. 4.	
	93	8	Do. ...	Do. ...	Do. ...	Do. do. Rs. 10.	
	28	0/2	Do. ...	Do. ...	Do. ...	Do. do. Rs. 15.	





Division.	A		B		C												Causes unknown.	Total (A, B and C).				
	Fire caused by accident or through carelessness in burning fire-lines.		Fire entering the Forest by crossing exterior fire-traces.		FIRE BEGINNING THE INSIDE OF RESERVE OF FIRE-TRACED AREA.																	
					Owing to carelessness or accident.						By intentional firing.											
	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	By workmen employed in the Forest.	By villagers, travellers, &c., passing through the Forest.	By Railway engines.	By lightning or by fire-balloons.	In order to obtain new grass.	In order to turn out game or to reduce cover.	Maliciously fired.	Total.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.						
North Tháná ...	3	41	3	430	...	2	60	...	...	...	...	8	824	...	8	824	45	4,360	61	5,745		
Central Tháná ...	4	167	1	160	...	1	60	1	25	...	...	...	167	...	5	241	152	11,833	167	12,689		
South Tháná ...	3	78	31	3,089	...	8	84	...	...	...	...	2	167	...	4	528	114	16,242	163	20,945		
Surat ...	...	...	1	50	...	23	4,103	...	...	...	...	...	...	...	...	...	...	...	24	4,153		
Panch Maháls ...	6	174	37	11,419	...	65	8,890	7	1,912	...	...	...	12	560	...	12	560	62	7,679	190	30,641	
Total ...	16	460	73	16,048	7	201	99	13,187	8	1,937	...	...	13	1,352	16	801	29	2,153	373	40,194	605	74,180

(3).—*Regulation of Grazing and Protection from Cattle.*

47. The following statement gives details of cattle impounded during the year under report :—

Number.	Division.	FROM OPEN FORESTS.		FROM CLOSED FORESTS.		TOTAL.	
		1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
1	North Tháná ...	690	391	1,478	1,089	2,168	1,480
2	South Tháná ...	...	...	1,242	1,324	1,242	1,324
3	Central Tháná ...	51	37	1,517	2,076	1,568	2,113
4	Surat ...	839	757	628	718	1,467	1,475
5	Panch Maháls ...	1,330	1,805	771	2,328	2,101	4,133
	Total ...	2,910	2,990	5,636	7,535	8,546	10,525

48. The grazing rules, sanctioned under Government Resolution No. 4596, dated 7th July 1891, were modified a little in respect of the Panch Maháls Division under Government Resolution No. 1663, dated 2nd March 1897, under which Rule XVII has been cancelled. It was brought to the notice of Government that this rule could not be worked in the Panch Maháls in the circumstances in which the cattle of the district are herded.

In the Surat Division the grazing rules were in force, whereas in Tháná, except Bassein, Bhiwndí, Kalyán, they have not yet been introduced.

*Fencing.*

49. There were no fencing operations undertaken in the Tháná District, except that a coupe was enclosed with "Euphorbia" at a cost of Rs. 7-4-0 as an experiment in the South Tháná Division. In Surat the reserve forest of Goema was fenced in with wire at a cost of Rs. 207-12-0. In the Panch Maháls no fencing was done.

*Civil Suits.*

50. There have been two civil suits pending since last year. One is Raghunath Vithal Desai v. The Secretary of State for India, and the other Govind Atmárámshet of Bassein v. the Range Forest Officer, Bassein, and others. The former has sued for the recovery of Rs. 402-10-0 deducted from his deposit on account of breach of contract agreement, and the latter for the recovery of damages amounting to Rs. 4,999 suffered by the complainant on account of being criminally prosecuted for theft of forest produce.

*Criminal Cases.*

51. In North Tháná a forest guard was prosecuted for receiving bribes, convicted and sentenced to one month's imprisonment with hard labour.

In the South Tháná Division a writer guard was prosecuted for a similar offence, but the case was not decided before the end of the year.

In the Panch Maháls two guards were convicted and fined Rs. 20 each for assaulting their superior officer, the round guard.

A guard was also prosecuted, convicted and sentenced to three months' imprisonment for receiving a bribe from a Bhil in the Dohad Range.

Five persons were prosecuted for obstructing forest officers in connection with the building of a forest post at Rena in the Godhra Range, and two of them were mulcted in a fine of Rs. 50 each, one Rs. 30, and the fourth Rs. 20. The fifth was discharged.

*(e).—IMPROVEMENT OF FOREST GROWTH.**(1).—Natural Reproduction.*

52. Generally speaking natural reproduction by seed was not satisfactory during the year for want of rain at the close of the monsoon. However it is reported that in certain localities where the ground was moist, reproduction was fairly good. The reproduction by coppice shoots in coupes was also fairly good. It is observed that where the contractors started felling operations in coupes early in September and October, the teak shoots threw out very strong coppice shoots, but where the fellings were delayed until after December the coppice shoots were found to be poor and in many cases no shoots appeared at all.

*(2).—Artificial Reproduction.*

53. Transplanting of plants and broad-casting of seed were done by subordinates as usual, but the results were very poor owing to failure of rain.

54. The nursery started last year at Godhra in the Panch Maháls Division has been in full working order, several thousands of plants of teak and other species have been raised and are being prepared for transplantation. The fruit-tree plants, seed for which was purchased with the funds given by the Collector from local funds, are reported to be in a flourishing condition. This nursery has been provided with a Máli to look after the sowing operations, and it has been fitted up with watering apparatus.

The nursery at Vejalpur in the Surat Division is also doing well. Thousands of transplants raised in this nursery have been planted out in several reserves in the Bulsár Range.

*(3).—Early Thinnings.*

55. No such operations are carried out in this Circle and they are not necessary.

*(4).—Other operations for the improvement of the growing stock.*

56. In all the Divisions creeper-cutting was undertaken to improve the growing stock. In the Tháná Division it was done both by the guards and paid labour. The cost thus incurred in the three Tháná Divisions amounted to Rs. 633. With this creeper-cutting, a curious fact has been reported by the Divisional Forest Officer, South Tháná. He says that in the Murbád and Sháhápúr Ranges the wild tribes assisted materially in the destruction of creepers by digging up the roots for food. This particular climber is botanically termed *Dioscorca bulbifera*.

*(5).—Experiments.*

57. There were no experiments worth recording.

*(d).—EXTRACTION AND TRANSPORT OF MAJOR FOREST PRODUCE BY LAND OR WATER.*

58. There is nothing special to record under this head.

## CHAPTER III.

## GROSS YIELD AND OUTTURN OF FOREST PRODUCE.

## DEPARTMENTAL OPERATIONS.

59. A comparative statement of timber and firewood departmentally worked during the year is as follows:—

No.	Division.	Year.	IN CUBIC FEET.	
			Timber.	Firewood.
1	North Tháná ... ..	1895-96 ... ..	10,485	37,143
2	South Tháná ... ..	1896-97 ... ..	25,314	26,961
3	Central Tháná... ..			
4	Surat ... ..	1895-96 ... ..	46,109	826
		1896-97 ... ..	86,190	20,900
5	Panch Maháls ... ..	1895-96 ... ..	44,861	104,480
		1896-97 ... ..	6,423	69,715
Total ... ..		1895-96 ... ..	101,455	142,449
		1896-97 ... ..	117,927	117,576

60. It has been impossible to compare the figures by Divisions in the Tháná District owing to the change from two to three Divisions effected in the middle of the working season. The details by Divisions for the current season are given in tabular form to facilitate comparison next year:—

Division.	IN CUBIC FEET.	
	Timber.	Firewood.
North Tháná ... ..	9,375	17,714
Central Tháná ... ..	8,985	.....
South Tháná ... ..	6,954	9,247½
Total ... ..	25,314	26,961½

These figures represent the outturn of wind-falls and of line-cutting in North Tháná. Notwithstanding that some coupes remained unsold, it was not found necessary to work them departmentally.

61. In Surat the figures represent the outturn of the line-cutting on the Gáikwári border.

And in Panch Maháls they also represent line-cutting. The agricultural depôts having failed, as they were bound to fail as they have always failed whenever tried, no wood to stock them was cut; hence the large decrease in this Division.

62. The following is an abstract of the details given in Form No. 59 :—

Number.	Division.	BALANCE ON 1ST JULY 1896.			OUTTURN OF THE YEAR.			Total of columns 5 and 8.	DISPOSED OF DURING THE YEAR.			BALANCE ON THE 30TH JUNE 1897.			
		Timber.	Fire-wood.	Total.	Timber.	Fire-wood.	Total.		Timber.	Fire-wood.	Total.	Timber.	Fire-wood.	Total.	
		1	2	3	4	5	6		7	8	9	10	11	12	13
		C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
1	North Tháná ...	...	500	500	9,375	17,714	27,089	27,589	8,000	18,180	26,270	1,285	34	1,819	
2	Central Tháná ...	1,569	...	1,569	8,985	...	8,985	10,554	9,619	...	9,619	935	...	935	
3	South Tháná ...	...	...	...	6,954	9,247½	16,201½	16,201½	6,954	9,247½	16,201½	...	...	...	
4	Surat ...	6,604	...	6,604	86,190	20,900	107,090	113,694	71,847	4,000	76,447	20,947	16,300	37,247	
5	Panch Maháls ...	16,916	49,815	66,731	6,423	69,715	76,138	142,869	12,923	100,348	118,569	10,410	19,184	29,690	
	Total ...	25,089	50,315	75,404	117,927	117,570½	235,503½	310,907½	109,433	132,373½	241,806½	38,583	25,518	69,101	

### REMOVAL OF PRODUCE BY PURCHASERS.

63. As recorded in paragraph 28, 275 coupes were marked for felling in Tháná; of these 227 only found purchasers, but in a few cases offers having been received for old coupes left unsold, 15 such were sold for exploitation, making 242 coupes exploited in all.

The result of this exploitation as compared with the timber exploitation of last year were as follows :—

No.	Division.	COUPES EXPLOITED.							
		1896-96.				1896-97.			
		Number.	Area.	Receipts.	Average price per Acre.	Number.	Area.	Receipts.	Average price per Acre.
			Acres.	Rs.	Rs. a. p.		Acres.	Rs.	
1	North Tháná ...	90	5,147	2,25,045	43 8 0	87	4,639	1,80,271	38-9
2	South Tháná ...	75	4,024	1,14,245	27 8 0	75	4,113	87,134	21-1
3	Central Tháná...	75	3,781	1,32,369	35 0 0	80	4,615	1,17,395	25-4
	Total ...	240	12,952	4,71,659	36-4	242	13,367	3,84,800	28-5

64. It will be noted that there is a falling off of over 20 per cent. in the rate per acre realized. Besides the inevitable effects of the plague in Bombay and famine up-country—the former meaning difficulty in getting money owing to the money-lenders having fled from Bombay, and the latter that, as well as a reduced market there was an increase in the expense. Some of this decrease must undoubtedly be put down to increased efficiency of protection and number and quality of reserves. For the year's working an amended form of contract was adopted drawn under rules under the Forest Act. This gave summary power of fining to the Divisional Forest Officer and acted as a deterrent with those inclined to fraud. There were no serious cases of theft of reserved trees as last year.

65. The gross produce yield of the coupes worked is estimated by the Divisional Forest Officer as follows :—

No.	Division.	TIMBER IN CUBIC FEET.		Firewood, Cubic feet.
		Teak.	Junglewood.	
1	North Tháná ...	435,626	153,640	1,336,421
2	South Tháná ...	373,574	58,897	832,031
3	Central Tháná	277,809	97,039	657,781
	Total, 1896-97 ...	1,087,009	309,576	2,826,233
	Total, 1895-96 ...	2,224,186	533,690	8,771,765

The great difference of these figures as compared with those of last year will be noted. I recorded my opinion on the accuracy of the figures given in paragraph 97 of last year's report and have also referred to the subject *ante* paragraph 29. The figures given in past years were based on an imperfect registration of actual yield of material and, moreover, the system of conversion into cubic feet also varied in the several Divisions. As recorded a common system of classification for the three Tháná Divisions was adopted in the past season and to a certain extent was introduced, and at the same time co-efficients of conversion of these classes into cubic feet were discussed and adopted by all the Divisional Forest Officers. That these classes are the best possible or the co-efficients accurate cannot be claimed, but they represent a beginning and by means of experiments and by experience they can be corrected year by year. The classes and co-efficients actually adopted for this report may usefully be recorded here for further reference. They are as follows :—

- A. 10' long or under = "Kadis."
  - a. Below 20" girth = III reckoned as 1 cubic foot.
  - b. Between 20" and 30" girth = II reckoned as 3 cubic feet.
  - c. Between 30" and 40" girth = I reckoned as 5½ cubic feet.
- B. Over 10' long = Rafters or "Wásá."
  - a. Below 20" girth = III reckoned as 2 cubic feet.
  - b. Between 20" and 30" = II reckoned as 6 cubic feet.
  - c. Between 30" and 40" = I reckoned as 11 cubic feet.
- C. Logs over 40" in girth are actually measured and cubic contents calculated.
- D. Firewood is calculated at 17 solid cubic feet per cart-load.

66. It has been arranged to collect further data of comparative girth at base and centre of log, for as the former is that necessarily taken and recorded, it is necessary, in order to increase the accuracy of the co-efficient of cubic contents, to obtain a reliable co-efficient to reduce the recorded base girth to the probable centre girth.

67. There were no cuttings in Málki lands pending a reference which was before Government.

### Surat.

68. The timber and firewood removed by purchasers was as follows :—

Year.	Timber.	Firewood.
	Cubic ft.	Cubic ft.
1895-96 ... ..	106,466	76,085
1896-97 ... ..	30,714	39,460

In addition to the above 528 teak trees were sold at one rupee per tree growing on occupied lands in the Chikhli and Bulsár Ranges and in the Mándvi Range at a valuation.

### Panch Maha'ls.

69. The outturn in this Division was entirely from teak timber sold standing on Government waste and occupied lands outside forests. The quantity of the outturn was as follows :—

Year.	Timber.	Firewood.
	Cubic ft.	Cubic ft.
1895-96 ... ..	421,862	120,512
1896-97 ... ..	631,788	137,790

## BAMBOOS.

70. The following is a comparison of the out-turn in the years 1895-96 and 1896-97:—

No.	Division.	1895-96.				1896-97.			
		Cart-loads.	Head-loads.	Number.	Receipts.	Cart-loads.	Head-loads.	Number.	Receipts.
					Rs.				Rs.
1	North Tháná ...	497	1,190	10,664	687	3,727	3,018	227,050	10,277
2	South Tháná... ..	5,247	5,522	1,193,719	17,242	370	559	4,102	302
3	Central Tháná ...	...	...	.....	...	961	686	1,092,756	3,613
4	Surat ... ..	...	...	567,870	16,016	...	...	360,454	19,949
5	Panch Maháls ...	2	...	33,225	618	15	...	63,224	1,115
	Total ...	5,746	6,712	1,805,478	34,463	5,073	4,263	1,747,586	35,256

In the Surat Division nearly 2 lacs of bamboos sold from the Dáng forests were not exploited on account of the plague at Bulsár, which town is the centre where bamboos from the Dángs are taken for local sale as well as export. On the representation of the contractors I was obliged to extend the contracts to the current year. The work of the contractors was handicapped by the refusal of cart-men to remove the bamboos to the Bulsár bundar, where the plague was raging in consequence of which quarantine was imposed.

## MINOR PRODUCE.

71. The following statement shows the minor produce disposed of during the year compared with that of the last year:—

Number.	Division.	Year.	
		1895-96.	1896-97.
1	North Tháná ...	6,226	625
2	South Tháná ...		4,216
3	Central Tháná ...		1,690
4	Surat ... ..	2,759	2,852
5	Panch Maháls ...	475	172
	Total ...	9,460	9,555

## FREE GRANTS OF FOREST PRODUCE.

72. The following statement shows the free grants of timber made during the year compared with those of the last year:—

Number.	Division.	Year.	
		1895-96.	1896-97.
1	North Tháná... ..	24	40
2	South Tháná ... ..	207	1,072
3	Central Tháná ... ..	113	265
4	Surat ... ..	1,686	3,007
5	Panch Maháls ... ..	2,525	31
	Total ...	4,555	4,415

The total value varies but little from that of last year, the variation in distribution is caused by the greater or less prevalence of fires in particular districts.



prices. Much against my will, the contracts in this Division were made for two years, but as the Divisional Forest Officer expected thereby to obtain better prices and the Collector insisted so strongly that I was forced to yield. Unfortunately the better prices were not obtained and it is to be feared that further next year's prices will be prejudicially affected.

The increased expenditure includes about Rs. 5,000 for payment of share to contractors for the removal of wood from the Dángs on share system, Rs. 2,000 extra on account of forest survey, Rs. 3,000 on account of land compensation for purchase of land in Tháná, Rs. 2,000 on account of Working Plans and Rs. 2,000 on account of fire conservancy.

75. In the following statement the financial results of the Northern Circle for the past 10 years are given :—

Year.	Receipts.	EXPENDITURE.			Net Revenue.
		A.	B.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.
1886-87 ... ..	4,43,157	89,724	1,44,507	2,34,231	2,08,926
1887-88 ... ..	4,73,104	85,645	1,45,407	2,31,052	2,42,052
1888-89 ... ..	5,78,425	88,924	1,47,364	2,36,288	3,42,137
1889-90 ... ..	5,96,066	93,419	1,45,341	2,38,760	3,57,306
1890-91 ... ..	6,37,408	1,04,809	1,39,880	2,44,689	3,92,719
1891-92 ... ..	6,14,270	93,399	1,30,089	2,23,488	3,90,782
1892-93 ... ..	6,82,884	1,38,639	1,96,486	3,35,125	3,47,759
1893-94 ... ..	7,60,953	98,047	1,66,899	2,64,946	4,96,007
1894-95 ... ..	7,38,680	96,961	1,78,971	2,75,932	4,62,748
1895-96 ... ..	7,53,283	1,08,221	1,89,216	2,97,437	4,85,746
1896-97 ... ..	5,83,437	1,26,022	1,93,859	3,19,881	2,63,556

## CHAPTER V.

### FOREST ADMINISTRATION.

#### ESTABLISHMENT.

76. The Tháná District, which contained only two Divisions up to 31st December 1896, was split up and formed into 3 Divisions from the 1st of January 1897. They are North Tháná, Central Tháná, and South Tháná. This important change has been made with a view to better supervision over the working of the coupes. The Divisional Forest Officers now find more time to devote to some most important duties which have necessarily been hitherto either not at all or inefficiently performed, especially as regards the collection and record of data of yield and reservation, areas burnt, &c. These data, so important for control of the Working Plans and so necessary for the drawing up of permanent ones when the present preliminary Working Plans shall terminate, are even now after ten years of working practically unrecorded.

With this change in Divisions a Sub-Division Officer was moved to the Panch Maháls, where his services were urgently required for marking coupes in the Godhrá Range. Thus in this Circle now every Divisional Forest Officer has been provided with the assistance of a Sub-Division Officer.

77. In addition to this increase in the administrative strength, however, a large increase in the executive strength is called for. Such increase for the Surat District proper has been already sanctioned. For the leased forests of the Dángs, however, nothing can be done until the settlement has been placed on a satisfactory footing. This has been delayed by the demands on the officers of all departments in connection with plague and famine, but it is hoped will soon be taken in hand. In forwarding the divisional report the Political Agent writes :—



“The two most pressing forest matters in the Dáings at present are, I think, the strengthening of the staff and the enquiring into and deciding on the alterations which the Rájás wish to have made here and there in the boundaries of the reserved forests. And these two things should, I think, be pressed on Government.”

and I cordially agree. The Dáng forests are deteriorating and nothing can save them, but a final settlement, opening of communications, a resident magisterial officer, and a very largely increased forest protective establishment.

78. For the Panch Maháls proposals for an increased lower protective establishment have been provisionally accepted by Government and similar proposals for the Tháná Divisions are under consideration, but Government have decided to reserve action pending the receipt of proposals for the reorganization of the Range Forest Officers and office establishments. These proposals will be before Government as soon as this report, and an early settlement is hoped for.

79. It should be recorded under this chapter that the Forest Department in Tháná were called on to supply grass to the famine districts of the Dekhan. A system of retail purchase of grass at all the railway stations was organized, and this grass was subsequently pressed, loaded into railway wagons and exported. An Extra Assistant Conservator was employed whole time on supervising this work. A large departmental collection of grass amounting to 50 lakhs of lbs. was also made in the Tánzá reserve, carted to the Railway station and thence exported. On this work another Extra Assistant was employed whole time from 1st January to the end of the season, and for the last two months Mr. Ryan, Divisional Forest Officer, South Tháná, was also occupied in pushing through the pressing and despatch before the break of the rains. The whole was carried out under the administration of the Honourable Mr. Shuttleworth on special duty. Detailed results will have been reported to Government elsewhere and need not be given here.

80. The administration was conducted by me throughout the year.

The divisional charges were held as under:—

No.	Division.	Name of Officer.	Rank.	PERIOD.	
				From	To
East Tháná ...	South Tháná ...	R. C. Wroughton...	Conservator of Forests, N. C. ...	1st July 1896 ...	16th July 1896.
		T. R. D. Bell ...	Deputy Conservator, 2nd Grade ...	17th do. ...	2nd August 1896.
West Tháná ...	North Tháná ...	A. G. Edie ...	Assistant Conservator, 2nd Grade ...	3rd August 1896 ...	21st Dec. 1896.
		J. Dodgson ...	Do. do. ...	22nd Dec. 1896.	8th January 1897.
		G. M. Ryan ...	Deputy Conservator, 4th Grade ...	9th January 1897.	30th June 1897.
		C. M. Hodgson ...	Assistant Conservator, 1st Grade ...	1st July 1896 ...	2nd August 1896.
Central Tháná ...	Surat ...	T. R. D. Bell ...	Deputy Conservator, 4th Grade ...	3rd August 1896.	12th Nov. 1896.
		J. Dodgson ...	Assistant Conservator, 2nd Grade ...	13th Nov. 1896 ...	21st Dec. 1896.
Panch Maháls ...	Working Plans ...	A. G. Edie... ...	Do. do. ...	22nd Dec. 1896... ..	30th June 1897.
		J. Dodgson ...	Do. do. ...	1st January 1897.	Do.
Panch Maháls ...	Working Plans ...	A. Stewart... ...	Deputy Conservator, 3rd Grade ...	1st July 1896 ...	22nd June 1897.
		C. G. Dália ...	Extra Assistant, 3rd Grade ...	22nd June 1897 ...	30th June 1897.
Panch Maháls ...	Working Plans ...	W. A. Wallinger ...	Do. 1st Grade... ..	1st July 1896 ...	Do.
		J. Dodgson ...	Assistant Conservator, 2nd Grade ...	Do. ...	12th Nov. 1896.
		T. R. D. Bell ...	Deputy Conservator, 4th Grade ...	13th Nov. 1896 ...	21st Dec. 1896.
		R. C. Wroughton ...	Conservator of Forests, N. C. ...	22nd Dec. 1896... ..	25th Jan. 1897.
Panch Maháls ...	Working Plans ...	G. P. Millett ...	Deputy Conservator, 3rd Grade ...	26th Jan. 1897 ...	30th June 1897.

Sub-Divisional charges were held as under:—

No.	Division.	Name of Officer.	Rank.	Sub-Division.	PERIOD.	
					From	To
1	East Tháná ...	A. N. Máster ...	Extra Assistant Conservator, 3rd Grade.	Sháhápúr ...	1st July 1896 .	21st Dec. 1896.
2	South Tháná...	K. B. Phadke ...	Do. do. ...	Kalyán ...	Do. ...	Do.
	West Tháná ...	K. B. Phadke ...	Do. do. ...	South Tháná.	22nd Dec. 1896.	30th June 1897.
2	North Tháná ...	V. D. P. Ribeiro ...	Do. do. ...	Bassein ...	1st July 1896 ...	9th Jan. 1897.
	Central Tháná.	S. B. Ránade ...	Do. 4th Grade.	Dáhnú ...	Do. ...	3rd Jan. 1897.
2	Surat ...	D. M. Bijur ...	Do. 3rd do.	North Tháná.	4th Jan. 1897 .	30th June 1897.
	Panch Maháls.	A. N. Máster ...	Do. do. ...	Central Tháná.	22nd Dec. 1896.	Do.
2	Surat ...	C. G. Dália ...	Do. 4th Grade.	Surat ...	1st July 1896 .	Do.
	Panch Maháls.	S. B. Ránade ...	Do. do. ...	Panch Maháls.	13th Jan. 1897.	Do.

## GENERAL REMARKS.

81. All the Extra Assistant Conservators are reported to have worked well.

Of the Range Forest Officers the following are reported for special mention:—

*Rangers.*

Shaikh Ahmed Nur Mahomed.

Hari Anant Bhadbhade.

*Foresters.*

Esa Mahomed Viráji.

Shaikh Usman Shaikh Idrus.

The office establishments of the Divisional Forest Officers are reported to have worked well as has that of the Conservator of Forests under Mr. S. B. Ránglekar.

The subordinate protective establishment is reported to have worked fairly well. Eighteen forest guards were dismissed during the year as against 23 of last year for misconduct and neglect of duty. Four of these were dismissed in South Tháná in connection with the burning of grass collected on the Tánzá catchment for despatch to the famine districts. Nine men were degraded, all these in the South Tháná Division. Eleven men died of various diseases. Náráyan Rájárám, Ranger, Rs. 50, in charge of the Sálsette Range, and a round guard died of the plague in Tháná and Bhiwandi respectively.

## CONSERVATOR'S TOUR OF INSPECTION.

82. Camp was formed at Chinchoti in the Bassein Range on the 5th November, whence (as well as from Parol, the next camp) a large number of the Bassein blocks were inspected. With one or two exceptions the felling of the coupes of the year had either not been commenced or having been commenced had been almost at once stopped by the refusal of the villagers to work or to allow outsiders to work. Mr. DuBoulay, Assistant Collector, was in camp with the Collector, and possibly as a result of his presence among them shortly after the villagers changed their minds and felling work commenced everywhere. The forests in this neighbourhood showed everywhere signs of hacking and looting to provide dead wood under the concession to the wild tribes. The camp was moved to Bhiwandi on the 23rd, but the Honourable Mr. Shuttleworth who had been placed on special Famine Duty having asked that measures should be undertaken to purchase and press grass for despatch to the Dekhan at all the railway stations beyond Kalyán, the Conservator moved to Wássind on the Railway. Here he was joined by Mr. Edie, Divisional Forest Officer, East Tháná, and arrangements were made to purchase grass through the Forest Depôt Officers. With the Christmas holidays Mr. Edie left to take charge of the new North Tháná Division, but the Conservator remained until the end of January, by which time the purchase of the available grass was well advanced and the immediately available baling presses had been received, set up and were working smoothly. The operations were placed under the direct supervision of Mr. Phadke, Extra Assistant Conservator, South Tháná, under the immediate orders of the Honourable Mr. Shuttleworth. In the meanwhile it had been decided to collect grass departmentally in the Tánzá Forests. Mr. Máster, Extra Assistant Conservator, Central Tháná, had been placed in charge of this work early in the new year. After a short halt at Tánzá the Conservator closed office there on 11th February and moved to the Dáhánu Range, where office reopened on the 18th. From this date till the 17th March a number of blocks in the eastern portion of the Dáhánu and Umbargaon Ranges were inspected. In more than a dozen blocks visited no fire had occurred for the past ten years, thus presenting a marked contrast to the reserve on Mähuli Hill, which, while the Conservator was camped at Wássind, was fired five separate times. This shows that fires are preventible by the people if they think it worth while. Increased establishment will enable us to deal more efficiently with fires which

occur, but "public opinion" alone can prevent their occurrence, and this public opinion can only be formed by enforcing communal responsibility. The effect of immunity from fire on these Dábánu blocks is most striking. Some of the young coupes are so thick that it is difficult to force a way through them except along a few foot-paths. On the other hand, it was noted that far too few standards had been reserved in these forests, which must result in a short supply of the larger logs in the next exploitation.

Immediately after the Holi holidays the camp was moved by rail to Kim and on the 26th office was opened at Mándvi. Up to the Easter holidays the Conservator toured through the Mándvi Táluka, the office remaining at Mándvi owing to difficulty in obtaining carts. And during the Easter holiday a flying camp was made to visit the sleeper felling at Mheskátri in the Dángs. On the 19th April the camp was moved back to Kim and thence by rail to Pálghar and by road to Vádá, where office reopened on the 26th. A number of blocks of Vádá and Khardi Ranges were inspected, and in company with Mr. Dodgson, the Divisional Forest Officer, some experiments in marking reserves in the coupes with a stamp were carried out. About the 20th May the camp moved *via* the Shirghát Road to the Násik District and was enrailed at Igatpuri for headquarters, where office reopened for the monsoon on the 26th May.

R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.

*Bándrá, 15th October 1897.*

FORM No. 46.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Area of Reserved Forests, 1896-97.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1896.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1897.		No. and Date of Notification of addition or transfer.	REMARKS.
			Acres.	Equivalent in Square Miles.			Acres.	Acres.		
1	2	3	4	5	6	7	8	9	10	11
North Tháná ...	Tháná ...	...	175,021	Sq. m. a. 273 301	3,396	*213	178,204	278 284	Nos. $\frac{4540}{9-6-96}, \frac{5865B}{27-7-96}, \frac{8615A}{6092B}$ $\frac{2-11-96, 8615}{4-8-96, *4598}$ $\frac{2-11-96, 15-7-96}{5862A, 43-8}$	† Rectification of area by Forest Settlement Officer, Panch Maháls.
Central Tháná ...	Do. ...	...	168,457	263 137	1,741	...	170,198	265 598	Nos. $\frac{27-7-96, 5860}{4131A}$ $\frac{27-7-96, 4540}{25-5-96, 9-6-96, 4342}$	
South Tháná ...	Do. ...	...	134,865	210 455	78	*13	134,930	210 530	Nos. $\frac{2-6-96, 5861}{4-8-96, 27-7-96, *457}$ $\frac{21-1-97, 10189}{12-12-96}$	
Surat ...	Surat ...	...	44,623	69 463	33	...	44,656	69 406	Vide Commissioner, N. D.'s No. $\frac{1439}{9-4-97}$	
Panch Maháls ...	Panch Maháls ...	...	†213,530	333 410	25	*797	212,758	332 278	Nos. $\frac{1213}{12-2-97}, \frac{7256}{14-9-96}, \frac{439}{19-1-97}, \frac{1255}{1265A}$ $\frac{15-2-97, 4276}{15-2-97, 4276A}$ *Nos. $\frac{7-6-97, 3750}{7-6-97, 18-5-97}$	
Ahmedábád (Mo-dása.)	Ahmedábád ..	...	21,649	33 529	...	...	21,649	33 529		
Total ...			758,145	1,184 385	5,273	1,023	762,305	1,191 155		

24

Bádra, 15th October 1897.

R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.

## FORM No. 46A.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

## Area of Protected Forests, 1896-97.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1896.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1897.		No. and date of Notification of addition or transfer.	REMARKS.
			Acres.	Equivalent in square miles.			Acres.	Acres.		
1	2	3	4	5	6	7	8	9	10	11
				Sq. m. a.		A. g.		Sq. m. a.		
North Tháná ...	Tháná ... ..	...	70,149	109 389	...	. ...	70,149	109 389	.....	
Central Tháná ...	Do. ... ..	...	73,405	114 449	...	*19 0	73,386	114 426	.....	* Owing to corrections in Survey Registers.
South Tháná ...	Do. ... ..	...	134,254	209 490	...	0 29	134,254	209 494	Nos. $\frac{6022}{1-8-96}, \frac{6634}{24-8-96}.$	
		Total ...	2,77,808	434 48	...	19 29	2,77,789	434 29		

Bádra, 15th October 1897.

R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.

FORM No. 47.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Statement showing the Progress made in, and the Expenditure incurred on, Forest Settlement during 1896-97.

Name of Forest Division.	Name of Civil District or Territory.	Area already settled at commencement of the year.	AREAS FINALLY SETTLED DURING THE YEAR.						AREAS UNDERGOING SETTLEMENT.						REMARKS.
			Number and date of Government order according final sanction to the Settlement.	Name of Forest settled.	Area in Square Miles.	Expenditure incurred during the year on areas finally settled.		Entire Cost per Square Mile of Areas finally settled during the year.	At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on Areas undergoing Settlement.		
						In Forest accounts.	In other accounts.		Name of Tract.	Area in Square Miles.	Name of Tract.	Area in Square Miles.	In Forest accounts.	In other accounts.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
North Tháná ...	Tháná ...	Sq. m. 383	4540 9-6-96 5865B 27-7-96 8615H 2-11-96 6092B 4-8-96 8615 2-11-96	Talasri No. I, II. Máhim ... Dahánu ...	½ 4½ ½	Rs. a. p. ..... ..... 13,216 14 11	Rs. a. p. ..... ..... 4,249 6 4	Rs. ... ... ...	All other areas forming North-ern Division.	4½	All other areas forming North-ern Division.	...	Rs. ... ...	Rs. ... ...	
Central Tháná ...	Do. ...	378	5826A 27-7-96 4328 1-6-97 5800 27-7-96 4131A 25-5-96 4540 9-6-96 4342 2-6-96 5801 27-7-96	Bassein ... Vádá ... Mokháda ...	... 2½ ¼	..... ..... .....	..... ..... .....	... ... ...	All other areas forming Central Tháná Division.	1	All other areas forming Central Tháná Division.	1	... ... ...	... ... ...	
South Tháná ...	Do. ...	420½	9-6-96 4342 2-6-96 5801 27-7-96	Kalyán ... Bhiwndi ...	½ ...	..... .....	..... .....	... ...	Sháhápúr ... Khardi (Tánsa)... All other areas forming South Tháná Division.	600 4 ½	Sháhápúr ... Khardi (Tánsa)... All other areas forming South Tháná Division.	600 4 ½	... ... ...	... ... ...	
Panch Maháls ...	Panch Maháls ...	...	.....	Godhra ... Kálol ... Hálol ... Dohad ... Jhalod ...	139 34 44 72 41	71 7 6 for the carriage of office records, &c.	.....	...	.....	609½	...	605½	... ...	... ...	
	Total ...	1,181½	.....	.....	337	13,288 6 5	4,249 6 4	...	.....	609½	...	605½	... ...	... ...	

26

Bándrá, 15th October 1897.

R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.

## FORM No. 48.

## FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Record of Demarcation and Maintenance of Boundaries, 1896-97.*

Division.	Length of Boundaries artificially demarcated during the year.	Length of previously existing Boundaries repaired.	Length of previously existing Boundaries not repaired.	Total length of artificially marked Boundaries at the close of the year.	Length of Boundaries not demarcated at the close of the 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.		REMARKS.
								On new Work.	On Repairs.	
1	2	3	4	5	6	7	8	9	10	11
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.	
North Tháná ... ..	102½	...	67½	155½	643	19	817½	1,927 1 0	.....	
Central Tháná ... ..	77	323½	62½	463¼	187	114½	764¾	816 15 6	59 2 0	
South Tháná ... ..	38¼	403¼	129¼	560¾	454¼	55¼	1,100¼	730 1 0	132 10 6	
Surat ... ..	26¾	15	620¼	662	269½	8½	940	916 8 0	.....	
Panch Maháls ... ..	15½	2½	470½	488½	470½	101	1,060	423 9 0	65 5 0	
Total ... ..	260	744¼	1,350¼	2,330	2,024¼	328¼	4,682½	4,814 2 6	257 1 6	

*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.

*Bán rá, 15th October 1897.*

R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.





FORM No. 50.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Progress made in Working-Plans, 1896-97.*

B 1428-8 NC

Division.	AREAS FOR WHICH WORKING-PLANS HAVE BEEN COMPLETED.		AREAS FOR WHICH WORKING-PLANS ARE BEING COMPILED.		Areas for which Working-Plans have still to be taken in hand.	Total Forest area as in Form No. 46.	Entire cost, per square mile, of Working-Plans completed.	REMARKS.
	At commence- ment of the year.	During the year.	At commence- ment of the year.	Taken in hand during the year.				
1	2 <sup>1</sup>	3	4	5	6	7	8	9
	Sq. ms.	Sq. ms.	Sq. ms.	Sq. ms.	Sq. ms.	Sq. ms.	Rs.	
North Tháná ... ..	120	.....	.....	.....	265	385	As the charges are debited in lump separate figures for each division are not available.	These figures represent area of forests as scaled and, therefore, they will not compare with figures in Form No. 46.
Central Tháná ... ..	200	.....	.....	.....	172	372		
South Tháná ... ..	72	.....	.....	.....	342	414		
Surat ... ..	.....	.....	.....	.....	.....	.....		
Panch Maháls ... ..	174	.....	.....	45	.....	219		
Total ...	566	.....	.....	45	779	1,390	23	

*Bándrá, 15th October 1897.*

R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.

## FORM No. 51.

## FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

## Communications and Buildings during 1896-97.

Division.	NEW WORK UNDERTAKEN DURING THE YEAR.						REPAIRS EXECUTED DURING THE YEAR.					
	Buildings.		Roads and Paths.			Total Expenditure on new Work.	Buildings.		Roads and Paths.			Total Expenditure on Repairs.
	Description of Building.	Expenditure incurred.	Road or Path and object of the same.	Length of Road or Path.	Expenditure incurred.		Nature of Repairs.	Expenditure incurred.	Nature of Repairs.	Length repaired.	Expenditure incurred.	
1	2	3	4	5	6	7	8	9	10	11	12	13
		Rs. a. p.		Miles.	Rs. a. p.	Rs. a. p.		Rs. a. p.		Miles.	Rs. a. p.	Rs. a. p.
North Tháná.	Rest-house at Kogdá.	116 3 0	Road from A'krá to Sáwe.	8	957 5 0	.....	Repairs to 49 Forest Guards' Houses and Depôt Houses. Repair to 1 Cattle-pound.	172 0 6	.....	...	...	.....
	5 Houses for Subordinate Establishment. Sinking a well at Kándalpadá.	167 3 0 145 0 0	..... .....	... ...	... ...	..... .....	.....	10 0 0	.....	...	...	.....
	Total ...	428 6 0	.....	8	957 5 0	1,385 11 0	.....	182 0 6	.....	...	...	182 0 6
Central Tháná.	2 Cattle-pounds ...	47 0 0	.....	...	...	.....	One Rest-house at Párol.	16 12 0	.....	...	...	.....
	2 Houses for Subordinate Establishment.	30 8 0	.....	...	...	.....	4 Houses for Subordinate Establishment. Cattle-pounds ...	106 1 0 23 2 0	..... .....	... ...	... ...	..... .....
Total ...	77 8 0	.....	...	...	...	77 8 0	.....	145 15 0	.....	...	...	145 15 0
South Tháná.	6 Houses for Subordinate Establishment.	60 0 0	.....	...	...	.....	A Rest-house at Táná.	23 7 0	.....	...	...	.....
	1 Cattle-pound ...	25 0 0	.....	...	...	.....	2 Cattle-pounds ...	4 8 0	.....	...	...	.....
Total ...	85 0 0	.....	...	...	...	85 0 0	76 Houses for Subordinate Establishment.	282 12 0	.....	...	...	.....
Total ...	310 11 0	.....	...	...	...	310 11 0	.....	310 11 0	.....	...	...	310 11 0
Surat.	Rest-house at Ahwá...	24 14 0	Road from Kalibel to Sajakpáda.	7	120 1 5	.....	Repairs to Rest-houses in Dángs.	536 6 7	Repairs to fire existing cart-roads and bridges in Dángs.	126	688 10 6	.....
	3 Houses for Subordinate Establishment.	343 12 2	Road from Garvi to Donglamba.	6	182 10 0	.....	Houses for Subordinate Establishment.	314 10 1	.....	...	...	.....
	Total ...	368 10 2	.....	42	1,048 2 5	1,416 12 5	.....	851 0 8	.....	...	688 10 6	1,539 11 2
Panch Maháds.	Store-room in Godhrá Nursery.	312 5 8	.....	...	...	.....	Repairs to Godhrá Rest-house and out-houses.	285 7 0	.....	...	...	.....
	Forest Posts at Shehera, Sena and Satal.	573 12 6	.....	...	...	.....	6 Houses for Subordinate Establishment.	34 0 0	.....	...	...	.....
	Total ...	886 2 2	.....	...	...	886 2 2	.....	319 7 0	.....	...	...	319 7 0
Grand Total ...	1,797 13 2	.....	...	...	...	3,851 1 7	1,809 2 2	.....	...	...	...	2,407 12 8

R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.

Bándrá, 15th October 1897.

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FORM No. 52.

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FORM No. 52.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Prosecutions for Breaches of Forest Rules during 1896-97.

Forest Division and Civil District.	Cases pending from 1895-96.	NEW CASES OF THE YEAR.					Total cases.	DISPOSED OF DURING THE YEAR.						Cases pending at close of year.	
		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.		Convictions.		Acquittals.		Total.			
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
North Tháná ...	(A) ...	14	1	16	2	9	28	42	13	45	9	18	22	63	20
	(B) ...	...	...	106	...	12	118	118	118	290	...	...	118	290	...
	(C) ...	...	60	57	1	3	121	121	...	...	...	...	...	...	...
	Total ...	14	61	179	3	24	267	281	131	335	9	18	140	353	20
Central Tháná ...	(A) ...	7	7	53	1	...	61	68	29	78	5	11	34	89	34
	(B) ...	6	...	68	...	4	72	78	70	143	...	...	70	143	8
	(C) ...	4	160	96	...	1	257	261	...	...	...	...	...	...	...
	Total ...	17	167	217	1	5	390	407	99	221	5	11	104	232	42
South Tháná ...	(A) ...	38	6	60	8	1	75	113	56	159	44	135	100	294	13
	(B) ...	6	8	137	1	5	151	157	155	399	...	...	155	399	2
	(C) ...	...	149	263	2	...	414	414	...	...	...	...	...	...	...
	Total ...	44	163	460	11	6	640	684	211	558	44	135	255	693	15

Surat	...	...	(A) ...	2	3	4	...	...	7	9	6	8	1	1	7	9	2		
			(B) ...	...	1	10	...	...	8	19	19	19	21	...	...	...	...	...	
			(C) ...	...	20	2	...	...	22	22	...	...	...	...	...	...	...		
			Total ...	2	24	16	...	8	48	50	25	29	1	1	7	9	2		
Panch Maháls	...	...	(A) ...	8	6	34	21	21	82	90	55	119	17	37	72	156	18		
			(B) ...	...	...	98	3	19	120	120	120	120	197	...	...	120	197	...	
			(C) ...	...	184	28	80	...	292	292	...	...	...	...	...	...	...		
			Total ...	8	190	160	104	40	494	502	175	316	17	37	192	353	18		
								<i>Abstract of the above Totals.</i>											
			(A) ...	69	23	167	32	31	253	322	159	409	76	202	235	611	87		
			(B) ...	12	9	419	4	48	480	492	482	1,050	...	...	463	1,029	10		
			(C) ...	4	573	446	83	4	1,106	1,110	...	...	...	...	...	...	...		
			Total ...	85	605	1,032	119	83	1,839	1,924	681	1,459	76	202	698	1,640	97		

A means cases taken into court.

B means cases disposed of under Section 67 of the Indian Forest Act, 1878.

C means undetected cases.

R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.

Bándrá, 15th October 1897.

## FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

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

Division.	Forest Ranges.	Area pro- tected during 1896-97.	Area at- tempted to be protected.	Failures.	Area actually protected.	Cost.	REMARKS.
1	2	3	4	5	6	7	8
		Acres..	Acres.	Acres.	Acres.	Rs.	
North Tháná ...	Máhim ...	72,435	74,936	598	74,338	511	
	Dáhánu ...	133,320	134,504	3,244	131,259	984	
	Umbargaon ...	34,915	35,729	1,903	33,827	303	
	Total ...	240,670	245,169	5,745	239,424	1,798	
Central Tháná ...	Bassein ...	47,390	54,618	2,746	51,872	1,028	
	Vadá ...	70,926	78,736	5,954	72,782	416	
	Khardi ...	70,686	74,891	3,235	71,656	251	
	Mokháda ...	34,170	35,338	763	34,575	137	
Total ...	223,172	243,583	12,698	230,865	1,832		
South Tháná ...	Sálsette ...	14,796	15,568	314	15,254	384	
	Kalyán ...	32,387	35,075	2,655	32,420	394	
	Bhiwndi ...	43,139	47,934	3,321	44,613	351	
	Murbád ...	86,624	88,912	1,773	87,139	609	
	Sháhápúr ...	61,743	81,694	12,880	68,814	807	
Total ...	238,689	269,183	20,943	248,240	2,545		
Panch Maháls...	Godhra ...	71,684	89,344	8,228	81,116	2,223	
	Kálol ...	18,048	21,595	1,472	20,123	54	
	Hálol ...	18,265	28,509	9,198	19,311	791	
	Dohad ...	41,091	46,439	10,551	35,888	16	
	Jhálod ...	24,188	26,872	1,192	25,680	52	
Total ...	173,276	212,759	30,641	182,118	3,136		
Surat ...	Mándvi ...	20,680	41,846	4,100	37,746	1,233	
	Bulsár ...	1,199	1,507	23	1,479	41	
	Chikhli ...	1,234	1,284	25	1,259	42	
Total ...	32,413	44,637	4,153	40,484	1,316		
GRAND TOTAL ...	908,220	1,015,331	74,180	941,151	10,627		

Eándrá, 15th October 1897.

R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.

FORM No. 54.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Area closed and open to Grazing during 1896-97.*

Division.	AREA IN SQUARE MILES.						REMARKS.
	Closed to all animals.		Closed to browsers (camels, goats or sheep).		Open to all animals.	Total Area.	
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.		
1	2	3	4	5	6	7	8
	Square miles.	Square miles.					
North Tháná ... ..	76	3	387	.....	303	387	
Central Tháná ... ..	42½	.....	377½	.....	.....	377½	
South Tháná ... ..	61½	.....	359½	.....	.....	421	
Surat ... ..	31½	38½	69½	.....	678	747½	
Panch Maháls ... ..	108	225	332½	.....	.....	332½	
Total ... ..	319	266½	1,506½	.....	986	2,265½	

35

*Bándrá, 15th October 1897.*

R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.

FORM No. 55.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Return of Grazing in the State Forests during 1896-97.

Division.	GRAZING ON PAYMENT—NUMBER OF ANIMALS.												GRAZING FREE—NUMBER OF ANIMALS.										Grand Total of Value at full rates.				
	At full rates.						At privileged rates.						By right under Settlement.					During pleasure of Government, or otherwise than under Settlement.									
	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Fees received.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Fees received.		Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Value of Fees at full rates.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.		Camels.	Other Animals.	Value of Fees at full rates.	Total Value of Fees at full rates.
												Actual.	Value at full rates.														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
North Tháná ...	24	159	...	...	...	Rs. a. p. 129 6 0	76	186	...	...	...	Rs. a. p. 53 14 0	Rs. a. p. 211 14 0	...	...	...	...	...	Rs. a. p. .....	16,666	96,021	..	...	162	Rs. a. p. 80,916 14 0	Rs. 80,916 14 0	Rs. 81,238 2 0
Central Tháná ...	84	509	...	..	...	947 4 0	437	604	...	...	...	233 12 0	633 8 0	...	...	...	...	...	.....	16,515	56,045	...	...	...	43,510 10 0	43,510 10 0	45,091 6 0
South Tháná ...	106	1,675	...	...	...	1,179 6 0	252	1,621	...	...	...	538 15 0	1,465 10 0	2,971	3,657	...	...	...	4,999 6 0	12,561	52,681	3,174	...	103	48,698 8 0	53,685 14 0	56,330 14 0
Surat ...	878	4,621	...	...	...	1,650 8 0	...	...	...	...	...	...	.....	...	...	...	...	...	.....	57	215	...	...	...	165 8 0	165 8 0	1,825 0 0
Panch Maháls ...	836	1,923	...	...	...	1,787 8 0	578	2,908	...	...	...	376 0 0	2,062 0 0	...	...	...	...	...	.....	8,401	73,922	...	...	...	8,862 0 0	8,862 0 0	12,711 8 0
Total ...	1,928	8,917	...	...	...	5,703 0 0	1,343	5,639	...	...	...	1,202 9 0	4,373 0 0	2,971	3,687	...	...	...	4,999 6 0	54,200	278,884	3,174	...	265	1,82,171 8 0	1,87,170 14 0	1,97,246 14 0

Bándrá, 15th October 1897.

R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.



## FORM No. 56.

## FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

## Area of plantations, 1896-97.

Division.	Name of Plantation.	AREA IN ACRES.				RECEIPTS	CHARGES	REMARKS.
		On 1st July 1896.	Added during the year.	Excluded during the year.	Area of 30th June 1897.	of the year.		
1	2	3	4	5	6	7	8	9
	<i>Regular Plantations.</i>					Rs.	Rs.	
North Tháná ...	Máhim ... ..	22	...	...	22	...	...	
	Dáhánu ... ..	4	...	...	4	...	...	
	Umbergaon ... ..	133	...	...	133	215	88 3 0	
	Total ...	159	...	...	159	215	88 3 0	
Central Tháná ...	Bassein ... ..	2	...	...	2	...	...	
	Wádá ... ..	117	...	...	117	...	454 6 0	
	Khardi ... ..	80	...	...	80	...	...	
	Mokhádá ... ..	108	...	...	108	...	...	
	Total ...	307	...	...	307	...	454 6 0	
South Tháná ...	Sálsette ... ..	149	7 20	...	156 20	...	73 5 9	
	Kalyán ... ..	95	144 20	144 33	94 27	...	96 4 0	
	Bhiwndi ... ..	310	38 36	...	348 36	...	123 14 0	
	Murbád ... ..	97	102 0	...	199 0	...	87 8 0	
	Sháhápúr ... ..	131	45 0	44 26	131 14	...	125 8 0	
	Total ...	782	337 36	189 19	930 17	...	506 7 9	
Surat ...	Total ...	...	...	...	...	...	...	
Panch Maháls ...	Godhra ... ..	106	113	105	114 0	...	594 13 10	
	Hálol ... ..	28	14	28	14 0	...	20 3 3	
	Kálol... ..	30	44	30	44 0	...	1 15 0	
	Dohad ... ..	14	22	14	22 0	...	14 10 0	
	Jhálol ... ..	8	494	8	494 0	...	55 6 0	
	Total ...	186	687	185	688 0	...	693 0 1	
	Total Regular Plantations...	1,434	1,024 36	374 19	2,084 17	...	1,742 0 10	
	<i>Cultural Operations.</i>							
North Tháná ...	Máhim ... ..	9,965	46	...	10,011	...	208 10 9	
	Dáhánu ... ..	9,751	40	...	9,791	...	341 7 6	
	Umbergaon ... ..	4,104	141	...	4,245	...	231 6 9	
	Total ...	23,820	227	...	24,047	...	781 9 0	
Central Tháná ...	Bassein ... ..	7,655	1,200	...	8,855	...	...	
	Wádá ... ..	3,992	99	...	4,091	...	...	
	Khardi ... ..	878	40	...	918	...	...	
	Mokhádá ... ..	819	97	...	916	...	...	
	Total ...	13,344	1,436	...	14,780	...	...	
South Tháná ...	Sálsette ... ..	1,202	7 20	...	1,209 20	...	...	
	Kalyán ... ..	2,107	84 20	34 30	2,106 30	...	...	
	Bhiwndi ... ..	1,091	35 10	...	1,126 10	...	...	
	Murbád ... ..	1,065	31 0	...	1,096 0	...	...	
	Sháhápúr ... ..	1,243	20 20	...	1,263 20	...	...	
	Total ...	6,708	123 30	34 30	6,802 0	...	...	
Surat ...	Dángs ... ..	9	...	...	9	...	104 8 7	
	Mandvi ... ..	866	7	...	873	...	39 0 0	
	Bulsar ... ..	349	45	...	394	...	...	
	Chorashi ... ..	3	...	...	3	...	665 9 3	
	Párdi... ..	73	30	...	103	...	...	
	Chikhli ... ..	400	13	...	413	...	25 2 0	
	Total ...	1,700	100	...	1,800	...	834 3 10	
Panch Maháls ...	Godhra ... ..	47	...	...	47	...	...	
	Hálol ... ..	16	...	...	16	...	...	
	Kálol ... ..	20	...	...	20	...	...	
	Dohad ... ..	32	...	...	32	...	...	
	Jhálol ... ..	12	...	...	12	...	...	
	Total ...	127	...	...	127	...	...	
	Total, Cultural Operations...	45,600	1,891 30	34 30	47,556 0	...	1,615 12 10	
	Add—Total, Regular Operations ... ..	1,434	1,024 36	374 19	2,084 17	...	1,742 0 10	
	Grand Total ...	47,133	2,916 26	409 9	49,640 17	...	3,357 13 8	

R. C. WROUGHTON,

Conservator of Forests, Northern Circle.

Bándrá, 15th October 1897.

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FORM No. 57.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Outturn (in cubic feet, solid) of Timber and Fuel during the year 1896-97, and Agency of Exploitation.

Division.	TIMBER IN THE ROUGH ; LOGS.					TIMBER IN THE ROUGH ; POLES.					SAWS OR SQUARED TIMBER.					MISCELLANEOUS.					FUEL.					TOTAL. Outturn.
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
North Tháná ...	...	...	...	...	...	9,375	589,268	105	...	599,743	...	...	...	...	...	...	Bamboos 227,050 Bamboo cart-loads 3,727 Bamboo head-loads 3,018	...	Bamboos 52,040	Bamboos 270,090 Bamboo cart-loads 3,727 Bamboo head-loads 3,018	17,714	1,336,421	...	991,996	2,346,131	Timber and firewood 2,945,874 C. ft. Bamboos No. 279,090 Do. cart-loads 3,727 Bamboos head-loads 3,018
Central Tháná ...	8,995	9,010	1,575	...	19,560	...	374,848	...	...	374,848	...	...	...	...	...	Bamboo cart-loads 961 Bamboo head-loads 686 Bamboo 1,092,758	Bamboos 5,000	...	Bamboo cart-loads 961 Bamboo head-loads 686 Bamboos 1,092,758	...	692,537	500,000	...	1,192,537	Timber and firewood 1,586,945 C. ft. Bamboo cart-loads 961 Bamboo head-loads 686	
South Tháná ...	1,377	63,920	3,258	...	68,555	4,509	330,434	...	...	334,943	...	88,117	...	88,117	1,068	Cart loads 370 Head-loads 559 Bamboos 4,102	...	...	1,068 Cart-loads 370 Head-loads 559 Bamboos 4,102	9,247	832,031	...	22,550	863,829	Timber and firewood 1,306,612 C. ft. Cart-loads 370 Head-loads 559 Bamboos 4,102	
Surat ...	18,192	5,088	412	...	23,692	67,998	16,880	4,146	...	93,170	...	8,746	...	8,746	Bamboos 1,118 Paranas 859,336 Ganjas 16,725 Pipes 2,493 Pipes 662	Bamboos 6,675	...	Bamboos 867,199 Paranas 16,725 Ganjas 2,493 Pipes 662	20,900	39,460	...	...	15,000	75,360	Timber 121,562 C. ft. Firewood 75,360 C. ft. Bamboos 367,129 Paranas 16,725 Ganjas 2,493 Pipes 662	
Panch Maháls ...	1,451	613	218	...	2,282	4,972	631,175	16	...	636,168	...	...	...	...	Bamboos 464	Bamboos 62,760 Do. carts 16	Bamboos 160	...	Bamboos 62,384 Do. carts 15	697,115	137,790	...	...	207,505	Timber C. ft. 638,446 Bamboos No. 63,884 Do. carts 15 Firewood 207,505 C. ft.	
Total ...	30,095	78,631	5,453	...	114,089	86,854	1,942,600	4,267	...	2,038,867	...	46,863	...	46,863	Timber 1,068 Bamboos 1,582	Bamboos 1,746,004 Paranas 16,725 Ganjas 2,493 Pipes 662 Bamboo cart-loads 5,073 Bamboo head-loads 4,263	Bamboos 11,835	Bamboos 52,040	Bamboos 1,807,359 Paranas 16,725 Ganjas 2,493 Pipes 662 Timber 1,068 Cart-loads 5,073 Head-loads 4,263	117,570	3,038,239	500,000	1,029,546	4,685,861	Timber and firewood 6,886,249 C. ft. Bamboos No. 1,811,461 Do. cart-loads 5,073 Bamboo head-loads 4,263 Paranas 16,725 Ganjas 2,493 Pipes 662	

Charcoal should be shown by its equivalent in fuel, the quantity of wood consumed in producing it being entered in cubic feet solid.

R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.

Bándrá, 15th October 1897.

## FORM No 58.

## FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

## Outturn of Minor Forest Produce.

Division.	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.
North Tháná.	Palm leaves ... ..		Rs.		Rs. a. p.		Rs.				Rs. a. p.
	Karvi... ..Cart-loads ...			425	126 4 0				425		126 4 0
	Do. ... ..Head-loads ...			513	23 0 0				513		23 0 0
	Tahal for ráb... ..				40 15 6						40 15 6
	Total ... ..				625 3 6						625 3 6
Central Tháná.	Karvi... ..Cart-loads ...			2,274	481 8 0				2,274		481 8 0
	Do. ... ..Head-loads ...			164	7 0 9				164		7 0 9
	Apta and Temburni leaves and Beheda nuts ... ..				400 0 0						400 0 0
	Palm leaves ... ..				500 0 0						500 0 0
	Myrabolams ... ..				300 0 0						300 0 0
	Miscellaneous... ..				2 0 0						2 0 0
Total ... ..				1,690 8 9						1,690 8 9	
South Tháná.	Myrabolams ... ..				154 12 10						154 12 10
	Karvi... ..Cart-loads ...			942	636 10 0				942		636 10 0
	Do. ... ..Head-loads ...			5,941	576 8 6				5,941		576 8 6
	Thorns ... ..Cart-loads ...			20	25 0 0				20		25 0 0
	Do. ... ..Head-loads ...			4	0 10 6				4		0 10 6
	Tahal ... ..Do. ... ..			8	0 6 0				8		0 6 0
	Dead Palm trees ... ..			7	3 7 3				7		3 7 3
	Palm leaves ... ..				851 8 0						851 8 0
	Apta and Temburni leaves ...				1,964 12 0						1,964 12 0
	Miscellaneous... ..				2 3 6						2 3 6
Total ... ..				4,215 14 7						4,215 14 7	
Surat.	Grass and reeds... ..Carts. ...			1,663	415 12 0				1,663		415 12 0
	Palms and Date-palm trees ...			979	489 4 0				979		489 4 0
	Palm leaves ... ..			225	5 10 0				225		5 10 0
	Mowra flowers ... ..			Mds. seers. 7,099 10	118 9 7				Mds. seers. 7,099 10		118 9 7
	Do. do. from the Mándvi Forests ... ..				600 0 0						600 0 0
	Mowra fruits ... ..			Mds. seers. 57 20	3 9 6				Mds. seers. 57 20		3 9 6
	Ashindra leaves ... ..Bundles.			722,150	138 2 2				722,150		138 2 2
	Miscellaneous Hirda fruits ...			Mds. seers. 98 2	7 7 3				Mds. seers. 98 2		7 7 3
	Temburni leaves ... ..Carts...			8	20 0 0				8		20 0 0
	Bamboo Articles ... ..			24,100	629 8 1				24,100		629 8 1
	Chilari Bark from the forests of Surat Division ..				302 0 0						302 0 0
	Apta and Temburni leaves from the Forest of Surat Division except Dángs ...				102 0 0						102 0 0
	Bábul Thorns... ..Carts...			79	19 12 0				79		19 12 0
Total ... ..				2,851 10 7						2,851 10 7	
Panch Mahála.	Mowra flowers ... ..				144 7 0						144 7 0
	Thorns ... ..Carts...			43	10 12 0				43		10 12 0
	Salada wood ... ..Head-loads.			27	1 11 0				27		1 11 0
	Sili-wood ... ..Carts...			43	10 12 0				43		10 12 0
	Earth ... ..Cubic Yards.			9½	0 9 3				9½		0 9 3
	Stores ... ..Carts...			4	3 2 0				4		3 2 0
Total ... ..				171 5 3						171 5 3	
Grand Total ... ..				9,554 10 8						9,554 10 8	

R. C. WROUGHTON,

Conservator of Forests, Northern Circle.

Bándrá, 15th October 1937.

## FORM No. 59.

## FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1896-97.

Particulars.	Number or Quantity.	Cubic feet.	TOTAL OF EACH HEAD.		Particulars.	Number or Quantity.	Cubic feet.	TOTAL OF EACH HEAD.	
			Number or Quantity.	Cubic feet.				Number or Quantity.	Cubic feet.
<i>Balance at the commencement of the year.</i>					<i>Sold locally.</i>				
North Tháná ...	...	...	...	...	North Tháná—				
Central Tháná—					Teak pieces... ..	21	105		
Teak pieces... ..	443	1,329	...	...	Junglewood pieces... ..	1,597	7,985		
Junglewood pieces ... ..	80	240	523	1,569	Central Tháná—				
South Tháná ... ..	...	...	...	...	Teak pieces... ..	712	2,674		
Surat—					Junglewood pieces... ..	1,421	6,945		
Teak pieces... ..	285	6,604	285	6,604	South Tháná—				
Panch Maháls—					Teak pieces... ..	1,962	5,886		
Teak pieces, including beams	2,691	3,807			Junglewood pieces... ..	356	1,068		
Teak rafters and poles ...	15,384	12,826			Surat—				
Junglewood pieces, rafters.	367	283			Teak pieces... ..	28,739	66,351		
			18,392	16,916	Mixed Timber ... ..	1,832	5,496		
					Panch Maháls—				
Total Balance ...	...	...	19,200	25,059	Teak pieces, including beams ... ..	1,891	2,489		
					Teak rafters and poles ... ..	14,160	9,954		
<i>Received from Forests in Depôts.</i>					Junglewood pieces ... ..	630	450	53,321	109,433
North Tháná—					Total ...	...	...		
Teak pieces... ..	33	165			<i>Balance at the close of the year.</i>				
Junglewood pieces... ..	1,842	9,210			North Tháná—				
Central Tháná—					Teak pieces... ..	12	60		
Teak pieces... ..	432	2,160			Junglewood pieces ... ..	245	1,225		
Junglewood pieces... ..	1,365	6,825			Central Tháná—				
South Tháná—					Teak pieces... ..	163	815		
Teak pieces... ..	1,962	5,886			Junglewood pieces... ..	24	120		
Junglewood pieces... ..	356	1,068			South Tháná—				
Surat—					Junglewood pieces... ..	...	...		
Teak pieces... ..	30,584	77,532			Surat—				
Mixed pieces ... ..	2,886	8,658			Teak pieces... ..	2,130	17,885		
Panch Maháls—					Mixed pieces ... ..	1,054	3,062		
Teak pieces, including beams ... ..	1,737	2,079			Panch Maháls—				
Teak rafters and poles ... ..	7,658	4,116			Teak pieces, including beams	2,537	3,396		
Junglewood pieces ... ..	304	223			Rafters and poles ... ..	8,832	6,989		
			49,159	117,927	Junglewood pieces... ..	41	31		
					Total ...	...	...	15,088	33,583
Grand Total of Timber ...	...	...	63,359	143,016	Grand Total ...	...	...	63,359	1,43,016
<i>Balance at the commencement of the year.</i>					<i>Sold locally.</i>				
North Tháná—					North Tháná ... .. Khs.	1,070	18,180		
Firewood khandis ... ..	30	500			South do. ... ..	205½	9,247½		
Panch Maháls—					Surat ... .. Carts.	530	4,600		
Firewood khandis ... ..	1,107½	49,815	1,137½	50,315	Panch Maháls ... .. Khs.	2,551	100,346	3,826½	132,373½
								Carts 530	
<i>Received during the year.</i>					<i>Balance at the close of the year.</i>				
North Tháná ... .. Khs.	1,042	17,714			North Tháná ... .. Khs.	2	34		
South Tháná ... ..	205½	9,247½			Surat ... .. Carts.	515	16,300	515	
Surat ... .. Carts.	1,045	20,900			Panch Maháls ... .. Khs.	544½	19,049	544½	
Panch Maháls ... .. Khs.	1,988	69,580			Head loads ... ..	27	135	27	
Head loads ... ..	27	135	3,235½	117,576½					35,518
			1,045	167,891½	<i>Sold locally.</i>				
Total ...	...	...	...	...	Surat ... ..	482			
			27	BAMBOOS	Panch Maháls ... ..	1,477			1,959
Panch Maháls... ..	1,013		1,013						
<i>Received during the year.</i>					Balance at the close of the year... ..	656		Bundles.	656
Surat ... ..	1,118				Sold locally ... ..	9,200		Bundles.	9,200
Panch Maháls ... ..	464		1,582						
<i>Balance at the close of the year.</i>					Balance at the close of the year... ..	...			
Received during the year—					<i>Used up during the year.</i>				
Panch Maháls ... ..	9,200		9,200		Central Tháná ... ..	10	5 1½		
<i>Balance at the close of the year.</i>					South do. ... ..	59	6 2½		
Panch Maháls... ..			4 22 14		Panch Maháls ... ..	10	0 14		
									K. m. s. 79 11 18
<i>Received during the year.</i>					<i>Balance at the close of the year.</i>				
Central Tháná ... ..	44	7 2			Central Tháná ... ..	34	2 1		
South Tháná ... ..	59	6 2			Panch Maháls ... ..	11	0 21		
Panch Maháls ... ..	16	6 21							
			119 13 25½		Total ...	...	...		45 2 22
Total ...	...	...	124 14 0	...					

Bándrá, 15th October 1897,

R. C. WROUGHTON,  
Deputy Conservator of Forests, Northern Circle.

## FORM No 60.

## FOREST DEPARTMENT, BOMBAY, N. C.

Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1896-97.

Description of Timber and other produce.	ON HAND AT COMMENCEMENT OF THE YEAR.			ON HAND AT CLOSE OF THE YEAR.			DIFFERENCE IN VALUE.		Remarks.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.	
<i>North Tháná.</i>									
Teak pieces ... ..	...	...	Rs. ...	12	60	Rs. ...	...	...	...
Junglewood pieces ... ..	...	...	...	245	1,225	15	...	45	...
Firewood ... ..	30	500	60	2	34	...	...	...	...
Total ... ..	...	...	60	...	...	15	...	45	...
<i>Central Tháná.</i>									
Teak pieces ... ..	443	1,329	123	163	815	40	...	83	...
Junglewood pieces ... ..	80	240	35	24	120	4	...	31	...
Miscellaneous seeds ... ..	...	...	...	Kh. m. s. 34 2 1		...	...	...	...
Total ... ..	...	...	158	...	...	44	...	114	...
<i>Surat.</i>									
Teak pieces ... ..	285	6,604	4,500	2,130	17,885	} 18,375	13,875	...	...
Mixed timber ... ..	...	...	...	1,054	3,062				
Firewood carts ... ..	...	...	...	515	10,300				
Bamboos ... ..	...	...	...	636	...				
Total ... ..	...	...	4,500	...	...	18,375	13,875	...	...
<i>Panch Maháls.</i>									
Teak pieces including beams ... ..	2,691	3,807	} 2,000	2,537	3,396	} 1,105	...	895	...
Teak rafters and poles ... ..	15,334	12,826		8,832	6,989				
Junglewood trees, pieces and rafters ... ..	367	283		41	31				
Firewood ... ..	1,107 $\frac{1}{4}$	49,815	500	544 $\frac{1}{4}$	19,184	200	...	300	...
Bamboos ... ..	1,013	...	10	...	...	...	...	10	...
Miscellaneous seed ... ..	...	K. m. s. 4 22 14	...	K. m. s. 11 0 21	...	...	...	...	...
Total ... ..	...	...	2,510	...	...	1,305	...	1,205	...
Grand Total ... ..	...	...	7,228	...	...	19,739	13,875	1,364	...

Net difference in favour of the year Rs. 12,511.

R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.

Bándrá, 15th October 1897.

## FORM No. 60A.

## FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Abstract showing the Value of Live and Dead Stock for the year 1896-97.

Description of Live and Dead Stock.	ON HAND AT THE COMMENCEMENT OF THE YEAR.		ON HAND AT THE CLOSE OF THE YEAR.		DIFFERENCE IN VALUE.		REMARKS.
	No.	Value.	No.	Value.	In favour of the year.	Against the year.	
		Rs.		Rs.	Rs.	Rs.	
<i>Direction Office.</i>							
Office tent ... ..	1	420	1	420	...	...	
Tools, plant and office furniture ...	...	451	...	649	...	...	
Total ...	...	871	...	1,069	...	198	
<i>North Tháná.</i>							
Office tent ... ..	2	866	1	433	...	...	
Small routies ... ..	2	166	1	83	...	...	
Forest stations ... ..	38	570	38	570	...	...	
Forest posts ... ..	88	894	88	894	...	...	
Forest Depôt house at Pálghar ...	1	1,083	1	1,083	...	...	
Do. Mánor ... ..	1	1,083	1	1,083	...	...	
Do. Sáwta ... ..	1	1,083	1	1,083	...	...	
Do. Sanján ... ..	1	1,083	1	1,083	...	...	
Do. Wángaon ... ..	1	1,053	1	1,053	...	...	
Great coats ... ..	185	1,112	121	768	...	...	
Tools, plant and office furniture ...	...	2,593	...	1,721	...	...	
Total ...	...	11,586	...	9,844	1,742	...	
<i>Central Tháná.</i>							
Office tent ... ..	...	...	1	433	...	...	
Small routy ... ..	...	...	1	83	...	...	
Great coats ... ..	...	...	121	834	...	...	
Párol bungalow ... ..	1	1,200	1	1,200	...	...	
Forest Depôt house at Mándvi ...	1	250	1	250	...	...	
Do. Kasará ... ..	1	1,061	1	1,061	...	...	
Do. Mánikpur ... ..	1	603	1	603	...	...	
Tools, plant and office furniture ...	...	500	...	128	...	...	
Total ...	...	3,614	...	4,592	...	978	
<i>South Tháná.</i>							
Office tent ... ..	1	433	1	433	...	...	
Small routy ... ..	1	223	1	130	...	...	
Great coats ... ..	178	1,699	178	1,250	...	...	
Tánsa Forest bungalow ... ..	1	1,871	1	1,871	...	...	
Forest Depôt house at Vásind ...	1	1,173	1	1,173	...	...	
Do. A'tgaon ... ..	1	1,061	1	1,061	...	...	
Do. Vángni ... ..	1	1,173	1	1,173	...	...	
Tools, plant and office furniture ...	...	1,228	...	1,162	...	...	
Total ...	...	8,861	...	8,253	608	...	

## FORM No. 60A—continued.

Description of Live and Dead Stock,	ON HAND AT THE COMMENCEMENT OF THE YEAR.		ON HAND AT THE CLOSE OF THE YEAR.		DIFFERENCE IN VALUE.		REMARKS.
	No.	Value.	No.	Value.	In favour of the year.	Against the year.	
		Rs.		Rs.	Rs.	Rs.	
<i>Surat.</i>							
Office tent ... ..	1	433	1	433	...	...	
One pair of bullocks ... ..	...	...	2	100	...	...	
Great coats ... ..	65	455	65	455	...	...	
Mándvi bungalow ... ..	1	1,800	1	1,800	...	...	
Andhátri do. ... ..	1	291	1	291	...	...	
Dadhwádá do. ... ..	1	80	1	80	...	...	
Tárápur do. ... ..	1	100	1	100	...	...	
Large bungalow at Waghái ... ..	1	1,099	1	1,099	...	...	
Small do. do. ... ..	1		1		1	...	...
Large bungalow at Pimpri ... ..	1	499	1	499	...	...	
Do. at Gárvi ... ..	1	1,012	1	1,012	...	...	
Small do. at do. ... ..	1	288	1	288	...	...	
Gandevá post ... ..	1	61	1	61	...	...	
Sarovar bungalow ... ..	1	2,379	1	2,379	...	...	
Mheskátri do. ... ..	1	1,500	1	1,500	...	...	
Pipaldáhád do. ... ..	1	457	1	457	...	...	
Mahal do. ... ..	1	1,500	1	1,500	...	...	
Waghái Forest post ... ..	1	77	1	77	...	...	
Ahwa rest-house ... ..	1	2,000	1	2,000	...	...	
Wágrech Forest post... ..	...	...	1	195	...	...	
Ahwá do. ... ..	...	...	1	24	...	...	
Lakhákhám do. ... ..	...	...	1	15	...	...	
Tools, plant and office furniture ... ..	...	3,295	...	3,383	...	...	
Total ... ..	...	17,326	...	17,748	...	422	
<i>Panch Maháls.</i>							
Rest-houses and Depôts ... ..	19	468	21	1,254	...	...	
Bungalow at Godhrá ... ..	1	8,200	1	8,200	...	...	
Office tent ... ..	1	433	1	433	...	...	
Great coats ... ..	110	774	110	774	...	...	
Tools, plant and office furniture ... ..	...	1,721	...	2,720	...	...	
Total ... ..	...	11,746	...	13,531	1,785	...	
<i>Working Plans.</i>							
Office tent ... ..	1	35	1	433	...	...	
Tools, plant and office furniture ... ..	...	587	...	500	...	...	
Total ... ..	...	622	...	933	...	311	
Grand Total ... ..	...	54,626	...	55,970	4,135	1,909	

Bándrá, 15th October 1897.

R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.

FORM No. 61.

FOREST DEPARTMENT, BOMBAY—NORTHERN CIRCLE.

Summary of Revenue and Expenditure of the different Divisions for the Forest year 1896-97.

Budget Heads.	Direction.	North Tháná Division.	South Tháná Division.	Central Tháná Division.	Surat Division.	Panch Maháls Division.	Working Plans Division.	Bombay Forests Surveys.	Total for the Forest year 1896-97.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
<b>REVENUE.</b>									
<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>									
a. Timber	.....	1,325 0 0	388 4 3	880 1 0	21,172 6 6	844 0 0	.....	.....	24,609 11 9
b. Firewood and charcoal	.....	1,348 14 0	250 1 0	.....	305 8 0	871 7 0	.....	.....	2,775 14 0
c. Bamboos	.....	.....	.....	.....	1 8 0	6 3 9	.....	.....	7 11 9
d. Sandalwood	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, I	.....	2,673 14 0	638 5 3	880 1 0	21,479 6 6	1,721 10 9	.....	.....	27,393 5 6
<i>II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—</i>									
a. Timber	.....	1,94,475 8 6	1,38,884 6 10	56,864 2 7	17,770 14 11	53,309 2 6	.....	.....	4,61,254 3 4
b. Firewood and charcoal	.....	1,073 0 11	193 2 3	1,236 3 2	719 13 0	1,900 8 3	.....	.....	5,122 11 7
c. Bamboos	.....	10,650 6 10	556 9 0	4,327 7 0	19,949 3 1	1,115 4 3	.....	.....	36,598 14 2
d. Grazing and fodder grass	.....	11,789 5 0	2,746 8 0	162 11 0	2,065 6 0	5,907 10 0	.....	.....	22,671 8 0
e. Other minor produce...	.....	625 3 6	4,215 14 7	1,690 8 9	2,851 10 7	171 5 3	.....	.....	9,554 10 8
Total, II	.....	2,18,613 8 9	1,46,546 8 8	64,281 0 6	43,356 15 7	62,403 14 3	.....	.....	5,35,201 15 9
<i>III.—Drift and Waif Wood and confiscated Forest Produce</i>									
Total, III	.....	120 2 1	339 6 8	162 9 4	550 3 8	234 9 0	.....	.....	1,406 14 9
<i>IV.—Revenue from Forests not managed by Government—</i>									
a. Duty on foreign timber and other forest produce	.....	.....	.....	50 0 0	.....	.....	.....	.....	50 0 0
b. Revenue from shared and private forests	.....	128 8 0	29 10 4	300 0 3	35 13 9	.....	.....	.....	494 0 4
Total, IV	.....	128 8 0	29 10 4	350 0 3	35 13 9	.....	.....	.....	544 0 4
<i>V.—Miscellaneous—</i>									
a. Fines and forfeitures	.....	6,040 6 7	272 15 3	587 3 3	15 1 0	243 12 6	.....	.....	7,159 6 7
b. Refunds	18 12 0	438 2 11	7 7 0	12 0 0	42 15 10	5 1 3	0 15 10	.....	525 6 10
c. Other sources	16 6 0	3,064 7 8	4,115 10 0	2,034 12 10	768 9 10	1,187 4 4	19 0 3	.....	11,206 2 11
Total, V	35 2 0	9,543 1 2	4,396 0 3	2,634 0 1	826 10 8	1,436 2 1	20 0 1	.....	18,891 0 4
Grand Total, Revenue	35 2 0	2,31,079 2 0	1,51,949 15 2	68,307 11 2	66,249 2 2	65,796 4 1	20 0 1	.....	5,83,437 4 8



EXPENDITURE.

A.—CONSERVANCY AND WORKS.

I.—Timber and other Produce removed from the Forests by Government Agency—

a. Timber...	190 5 0	106 1 9	293 6 6	13,924 10 8	399 9 0	.....	.....	14,914 0 11
b. Firewood and charcoal	316 11 0	19 5 0	.....	31 11 0	.....	.....	.....	367 11 0
c. Bamboos	.....	.....	.....	.....	.....	.....	.....	.....
d. Sandalwood	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	.....	.....	.....	.....	.....	.....	.....

Total, A—I	507 0 0	125 6 9	293 6 6	13,956 5 8	399 9 0	.....	.....	15,281 11 11
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II.—Timber and other Produce removed from the Forests by Consumers or Purchasers...

.....	3,938 6 6	3,038 9 6	1,946 11 5	3,062 14 0	1,565 10 0	.....	.....	13,552 3 5
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Total, A—II	3,938 6 6	3,038 9 6	1,946 11 5	3,062 14 0	1,565 10 0	.....	.....	13,552 3 5
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III.—Drift and Waif Wood and confiscated Forest Produce

.....	69 0 3	8 10 0	7 7 0	27 12 8	2 6 0	.....	.....	115 3 11
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Total, A—III	69 0 3	8 10 0	7 7 0	27 12 8	2 6 0	.....	.....	115 3 11
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IV.—Revenue from forests not managed by Government—

a. Duty on foreign timber and other timber produce	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests	.....	.....	.....	.....	—25 9 6	.....	.....	—25 9 6

Total, A—IV	.....	.....	.....	.....	—25 9 6	.....	.....	—25 9 6
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V.—Rent of leased Forests and payments to Shareholders in Forests managed by Government

.....	.....	429 4 8	.....	18,248 14 4	.....	.....	.....	18,678 3 0
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Total, A—V	.....	429 4 8	.....	18,248 14 4	.....	.....	.....	18,678 3 0
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VI.—Live-Stock, Stores, Tools and Plant—

a. Purchase of cattle	.....	.....	.....	100 0 0	.....	.....	.....	100 0 0
b. Feed and keep of cattle	.....	.....	.....	220 12 4	230 14 2	.....	.....	451 10 6
c. Purchase of stores, tools and plant	228 8 0	236 7 6	151 1 0	547 8 9	1,879 3 4	283 0 0	490 0 6	3,815 13 1

Total, A—VI	228 8 0	236 7 6	151 1 0	547 8 9	2,199 15 8	513 14 2	490 0 6	4,367 7 7
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Carried over Total of Heads A—I to A—VI	228 8 0	4,750 14 3	3,752 15 11	2,795 1 8	37,470 4 10	2,431 7 2	490 0 6	51,969 4 4
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B 1428-12 N C

FORM No. 61—continued.

Budget Heads.	Direction.	North Thána Division.	South Thána Division.	Central Thána Division.	Surat Division.	Panch Mahals Division.	Working Plans Division.	Bombay Forest Survey Division.	Total for the Forest year 1896-97.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Brought over Total of Heads A I to A VI ...	228 8 0	4,750 14 3	3,752 15 11	2,795 1 8	37,470 4 10	2,481 7 2	490 0 6	.....	51,969 4 4
<b>EXPENDITURE—continued.</b>									
<b>A.—CONSERVANCY AND WORKS—continued.</b>									
<b>VII.—Communications and Buildings—</b>									
a. Roads and bridges ... ..	.....	957 5 0	.....	.....	1,736 12 9	.....	.....	.....	2,694 1 9
b. Buildings ... ..	.....	610 6 6	395 11 0	223 7 0	1,219 10 10	1,205 9 2	.....	.....	3,654 12 6
c. Other works ... ..	.....	.....	1 14 0	.....	241 10 0	254 12 0	.....	.....	498 4 0
Total, A VII ...	.....	1,567 11 6	397 9 0	223 7 0	3,198 1 7	1,460 5 2	.....	.....	6,847 2 3
<b>VIII.—Organization, Improvement, and Extension of Forest—</b>									
a. Demarcation ... ..	.....	2,022 12 0	1,222 12 0	818 15 8	916 8 0	488 14 0	.....	.....	5,469 13 8
b. Cost of settlements; compensation for land and rights ... ..	.....	124 14 0	13,191 4 7	.....	68 7 4	68 5 6	.....	.....	13,452 15 5
c. Surveys ... ..	.....	14 0 0	.....	.....	.....	.....	.....	10,627 9 2	10,641 9 2
d. Working-plans ... ..	.....	509 15 0	208 6 0	254 11 0	429 8 3	467 2 9	12,066 15 2	.....	13,936 10 2
e. Sowing and planting... ..	.....	929 1 9	768 3 2	49 11 6	846 6 11	1,953 4 1	.....	.....	4,546 11 5
f. Protection from fire ... ..	.....	1,951 14 0	2,610 0 5	1,613 10 11	1,316 5 3	3,135 13 7	.....	.....	10,627 12 2
g. Other works ... ..	.....	696 4 9	115 12 0	158 1 6	454 14 0	.....	.....	.....	1,425 0 3
Total, A VIII ...	.....	6,248 13 6	18,116 6 2	2,895 2 7	4,032 1 9	6,113 7 11	12,066 15 2	10,627 9 2	60,100 8 3
<b>IX.—Miscellaneous—</b>									
a. Law charges ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Other charges... ..	71 15 11	1,754 8 9	2,449 5 9	867 14 10	260 9 3	1,530 2 7	170 7 2	.....	7,105 0 3
Total, A IX ...	71 15 11	1,754 8 9	2,449 5 9	867 14 10	260 9 3	1,530 2 7	170 7 2	.....	7,105 0 3
Total, A—Conservancy and Works ...	300 7 11	14,322 0 0	24,716 4 10	6,781 10 1	44,961 1 5	11,585 6 10	12,727 6 10	10,627 9 2	1,26,021 15 1

B.—ESTABLISHMENTS.

I.—Salaries—

a. Conservators ... ..	16,000 4 4	10,700 0 0	9,270 15 6	3,850 0 0	10,645 2 7	6,220 12 1	4,980 7 11	.....	16,000 4 4
b. Superior officers ... ..	700 0 0	.....	.....	.....	.....	.....	.....	.....	46,367 6 1
c. Subordinate forest and depôt establishments ... ..	.....	18,431 1 7	23,279 8 6	8,029 9 11	9,741 12 0	12,320 8 10	.....	.....	71,802 8 10
d. Office establishments ... ..	4,086 10 10	2,775 15 11	2,912 8 1	1,267 1 4	2,499 7 4	2,061 15 10	1,262 1 5	.....	16,865 12 9
e. Deputation and special allowances... ..	.....	45 3 3	18 0 0	186 2 4	1,117 6 10	.....	.....	.....	1,366 12 5
f. Exchange compensation allowance—	.....	.....	.....	.....	.....	.....	.....	.....	.....
1. Conservators ... ..	1,858 7 11	.....	.....	.....	.....	.....	.....	.....	1,858 7 11
2. Deputy Conservators ... ..	.....	566 1 4	.....	.....	979 15 0	.....	347 5 6	.....	1,893 5 10
3. Assistant Conservators ... ..	97 0 2	210 3 9	191 1 1	210 3 9	.....	.....	240 8 6	.....	949 1 3
4. Extra Assistant Conservators ... ..	.....	.....	.....	.....	.....	630 13 11	.....	.....	630 13 11
<b>Total, B I ...</b>	<b>22,742 7 3</b>	<b>32,728 9 10</b>	<b>35,672 1 2</b>	<b>13,543 1 4</b>	<b>24,983 11 9</b>	<b>21,234 2 8</b>	<b>6,830 7 4</b>	.....	<b>1,57,734 9 4</b>

II.—Travelling Allowances—

a. Conservators ... ..	2,400 0 0	.....	.....	.....	.....	.....	.....	.....	2,400 0 0
b. Superior officers ... ..	.....	3,069 7 6	2,300 15 9	1,449 8 4	2,604 10 0	1,405 10 4	877 0 6	.....	11,707 4 5
c. Subordinate forest and depôt establishments ... ..	.....	733 9 10	865 14 5	350 11 10	985 3 6	1,054 14 5	.....	.....	3,990 6 0
d. Office establishments ... ..	1,156 1 4	904 11 9	873 13 0	399 6 9	922 12 6	706 1 9	356 9 0	.....	5,319 8 1
<b>Total, B II ...</b>	<b>3,556 1 4</b>	<b>4,707 13 1</b>	<b>4,040 11 2</b>	<b>2,199 10 11</b>	<b>4,512 10 0</b>	<b>3,166 10 6</b>	<b>1,233 9 6</b>	.....	<b>23,417 2 6</b>

III.—Contingencies—

a. Stationery ... ..	96 3 9	222 5 0	314 4 9	126 10 8	241 3 0	203 13 8	21 11 0	.....	1,226 3 10
b. Carriage of tents and records ... ..	295 0 0	438 6 9	235 12 9	202 14 0	197 3 1	196 3 0	245 7 6	.....	1,810 15 1
c. Rents, rates and taxes ... ..	480 0 0	232 8 0	125 8 0	69 9 7	80 13 5	.....	180 0 0	.....	1,168 7 0
d. Pay and police guards ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Official postage ... ..	343 0 0	632 10 0	938 13 6	312 6 0	433 3 6	366 10 3	221 5 0	.....	3,248 0 3
f. Sundries ... ..	405 13 10	341 3 9	261 5 5	117 1 4	367 7 8	501 10 10	94 12 9	.....	2,089 7 7
Payments to officers of other Provinces ... ..	3,163 15 7	.....	.....	.....	.....	.....	.....	.....	3,163 15 7
<b>Total, B III ...</b>	<b>4,784 1 2</b>	<b>1,867 1 6</b>	<b>1,875 12 5</b>	<b>828 9 7</b>	<b>1,319 14 8</b>	<b>1,268 5 9</b>	<b>763 4 3</b>	.....	<b>12,707 1 4</b>

**TOTAL B.—ESTABLISHMENTS ... 31,082 9 9    39,303 8 5    41,588 8 9    16,571 5 10    30,816 4 5    25,669 2 11    8,827 5 1    .....    1,93,858 13 2**

**GRAND TOTAL OF EXPENDITURE ... 31,383 1 8    53,625 8 5    66,304 13 7    23,352 15 11    75,777 5 10    37,254 9 9    21,554 11 11    10,627 9 2    3,19,880 12 3**

Office of the Accountant General,  
Bombay, Dated, 2nd September 1897.

E. LAWRENCE,  
Accountant General.

FORM No. 62.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Annual Account Current for the Forest year 1896-97.

	Rs.	a.	p.		Rs.	a.	p.		Rs.	a.	p.		Rs.	a.	p.
To Opening Balance ... ..	.....			3,142	1	1	By 1. Refunds and Drawbacks—Refunds— Divided Heaps, Forest ... ..	.....				1,587	2	10	
„ VIII. Assessed Taxes—Income Tax— Deductions by Government from Salaries and Pensions ... ..	.....			2,760	1	2	„ 11. Forest (as per Annual Summary Form No. 61) ... ..	.....				3,19,880	12	3	
„ IX. Forest (as per Annual Summary Form No. 61) ... ..	.....			5,83,437	4	8	„ 14. Interest on other Obligations— Savings Banks Deposit— Interest on Forest Officers' Provident Fund ... ..	.....				17	9	2	
„ XII. Interest— Interest on Arrears of Revenue ... ..	.....			.....			„ 32. Miscellaneous—Miscellaneous Refunds— Lapsed Deposits ... ..	.....				37	3	3	
„ XXV. Miscellaneous— Sale-proceeds of Stores and Materials (Provincial) . Unclaimed Deposits—Other Deposits ... ..	15 8 0 223 11 0			239	3	0	„ Revenue Deposits (Forests) ... ..	.....				36,534	5	10	
„ Bombay Uncovenanted Service Family Pension Fund— Widows' Branch ... ..	721 7 10			721	7	10	„ Advances Recoverable— Forest Advances ... ..	1,82,008	1	7					
Life Assurance Branch ... ..	.....			39,859	10	1	Tentage Advances... ..	.....							
„ Revenue Deposits (Forest) ... ..	.....			1,79,666	15	7	Objection Book Advances ... ..	83,907	14	0					
„ Advances Recoverable— Forest Advances ... ..	.....			4,370	13	6	„ Cash Recoveries ... ..	.....				4,370	13	6	
Tentage Advances ... ..	.....			4,31,570	6	0	„ Cheques and Bills (Forest Cheques cancelled) ... ..	.....				11,081	5	6	
Objection Book Advances ... ..	.....			1,94,134	11	0	„ Forest Remittances— Remittances to Treasuries ... ..	6,26,881	4	10					
„ Cash Recoveries ... ..	.....			4,370	13	6	Inter-departmental Transfers ... ..	799	3	11					
„ Cheques and Bills (Departmental Cheques) Forest ... ..	.....			5,748	5	1	„ Accounts Current— Account between India and Bombay— IV. Items adjustable by India ... ..	.....				446	7	1	
„ Forest Remittances— Remittances to Treasuries ... ..	618 1 11			170	8	0	Account between Bombay and Public Works Department, Bombay— Ordinary Branches— IV. Items adjusted by Public Works Department— Inter-departmental Transfers... ..	.....				.....			
Inter-departmental Transfers ... ..	5,130 3 2			13	0	0	Miscellaneous ... ..	.....				.....			
„ Accounts Current— Account between India and Bombay— III. Items adjustable by India— Miscellaneous— Bengal Uncovenanted Service Family Pension Fund.	.....			2,599	4	4	„ Account between Bombay and Public Works Department— (Railway Branch)—Railway— IV. Items Adjustable by Public Works Department ... ..	.....				1,214	8	0	
Account between Bombay and Public Works Department, Bombay— IV. Items adjustable by Public Works Department— Payments into Treasuries by Civil Officers on account of Public Works Department ... ..	.....			12,68,766	11	9	Closing Balance ... ..	.....				1,214	8	0	
Miscellaneous ... ..	.....						Grand Total ... ..	.....				12,68,766	11	9	
To Forest Officers' Provident Fund ... ..	.....														
Grand Total ... ..	.....														

48

No.  $\frac{F.}{16457}$

Forwarded to the Conservator of Forests, Northern Circle, under Section 267 of the Forest Department Code.

Accountant General's Office,  
Bombay, 2nd September 1897.

E. LAWRENCE.

## FORM No. 63—Prescribed.

## FOREST DEPARTMENT, BOMBAY, NORTHERN DIVISION.

## Revenue received and Outstandings on account of Revenue during 1896-97.

B 1428-13 NO

Division.	Particulars.	Outstanding at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	REMARKS.
North Tháná ...	<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>		Rs. a. p.	Rs. a. p.	Rs. a. p.		
	(a). Timber ... ..	.....	1,325 0 0	1,325 0 0	1,325 0 0	.....	
	(b). Firewood and charcoal ... ..	.....	1,348 14 0	1,348 14 0	1,348 14 0	.....	
	(c). Bamboos ... ..	.....	.....	.....	.....	.....	
	<i>II.—Timber and other Produce removed from the Forests by Consumers and Purchasers—</i>						
	(a). Timber ... ..	.....	1,94,475 8 6	1,94,475 8 6	1,94,475 8 6	.....	
	(b). Firewood ... ..	.....	1,073 0 11	1,073 0 11	1,073 0 11	.....	
	(c). Bamboos ... ..	.....	10,650 6 10	10,650 6 10	10,650 6 10	.....	
	(d). Grazing and fodder grass ... ..	.....	11,789 5 0	11,789 5 0	11,789 5 0	.....	
	(e). Other minor produce ... ..	.....	625 3 6	625 3 6	625 3 6	.....	
	<i>III.—Drift and Waif Wood and Confiscated Forest Produce ... ..</i>	.....	120 2 1	120 2 1	120 2 1	.....	
Total ... ..	.....	2,21,407 8 10	2,21,407 8 10	2,21,407 8 10	.....		
Central Tháná ...	<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>						
	(a). Timber ... ..	.....	880 1 0	880 1 0	880 1 0	.....	
	(b). Firewood and charcoal ... ..	.....	.....	.....	.....	.....	
	(c). Bamboos ... ..	.....	.....	.....	.....	.....	
	<i>II.—Timber and other Produce removed from the Forests by Consumers and Purchasers—</i>						
	(a). Timber ... ..	.....	56,864 2 7	56,864 2 7	56,864 2 7	.....	
	(b). Firewood ... ..	.....	1,236 3 2	1,236 3 2	1,236 3 2	.....	
	(c). Bamboos ... ..	.....	4,327 7 0	4,327 7 0	4,327 7 0	.....	
	(d). Grazing and fodder grass ... ..	.....	162 11 0	162 11 0	162 11 0	.....	
	(e). Other minor produce ... ..	.....	1,690 8 9	1,690 8 9	1,690 8 9	.....	
	<i>III.—Drift and Waif Wood and Confiscated Forest Produce ... ..</i>	.....	162 9 4	162 9 4	162 9 4	.....	
Total ... ..	.....	65,323 10 10	65,323 10 10	65,323 10 10	.....		

FORM No. 63—Prescribed—continued.

Division.	Particulars.	Outstanding at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	REMARKS.
			Rs. a. p.	Rs. a. p.	Rs. a. p.		
South Tháná ...	<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>						
	(a). Timber ... ..	.....	388 4 3	388 4 3	388 4 3	.....	
	(b). Firewood and charcoal ... ..	.....	250 1 0	250 1 0	250 1 0	.....	
	(c). Bamboos ... ..	.....	.....	.....	.....	.....	
	<i>II.—Timber and other Produce removed from the Forests by Consumers and Purchasers—</i>						
	(a). Timber ... ..	.....	1,38,834 6 10	1,38,834 6 10	1,38,834 6 10	.....	
	(b). Firewood ... ..	.....	193 2 3	193 2 3	193 2 3	.....	
	(c). Bamboos ... ..	.....	556 9 0	556 9 0	556 9 0	.....	
	(d). Grazing and fodder grass ... ..	.....	2,746 8 0	2,746 8 0	2,746 8 0	.....	
	(e). Other minor produce ... ..	.....	4,215 14 7	4,215 14 7	4,215 14 7	.....	
	<i>III.—Drift and Waif Wood and Confiscated Forest Produce ... ..</i>	.....	339 6 8	339 6 8	339 6 8	.....	
Total ... ..	.....	1,47,524 4 7	1,47,524 4 7	1,47,524 4 7	.....		
Surat ...	<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>						
	(a). Timber ... ..	.....	21,172 6 6	21,172 6 6	21,172 6 6	.....	
	(b). Firewood and charcoal ... ..	.....	305 8 0	305 8 0	305 8 0	.....	
	(c). Bamboos ... ..	.....	1 8 0	1 8 0		.....	
	<i>II.—Timber and other Produce removed from the Forests by Consumers and Purchasers—</i>				1 8 0	.....	
	(a). Timber ... ..	.....	17,770 14 11	17,770 14 11	17,770 14 11	.....	
	(b). Firewood ... ..	.....	719 13 0	719 13 0	719 13 0	.....	
	(c). Bamboos ... ..	.....	19,949 3 1	19,949 3 1	19,949 3 1	.....	
	(d). Grazing and fodder grass ... ..	.....	2,065 6 0	2,065 6 0	2,065 6 0	.....	
	(e). Other minor produce ... ..	.....	2,851 10 7	2,851 10 7	2,851 10 7	.....	
	<i>III.—Drift and Waif Wood and Confiscated Forest Produce ... ..</i>	.....	550 3 8	550 3 8	550 3 8	.....	
Total ... ..	.....	65,386 9 9	65,386 9 9	65,386 9 9	.....		

Panch Maháls...	I.— <i>Timber and other Produce removed from the Forests by Government Agency—</i>												
	(a). Timber ... ..	844	0	0	844	0	0	844	0	0	.....		
	(b). Firewood and charcoal ... ..	871	7	0	871	7	0	871	7	0	.....		
	(c). Bamboos ... ..	6	3	9	6	3	9	6	3	9	.....		
	II.— <i>Timber and other Produce removed from the Forests by Consumers and Purchasers—</i>												
	(a). Timber ... ..	53,309	2	6	53,309	2	6	53,309	2	6	.....		
	(b). Firewood ... ..	1,900	8	3	1,900	8	3	1,900	8	3	.....		
	(c). Bamboos ... ..	1,115	4	3	1,115	4	3	1,115	4	3	.....		
	(d). Grazing and fodder grass .. ..	5,907	10	0	5,907	10	0	5,907	10	0	.....		
	(e). Other minor produce ... ..	171	5	3	171	5	3	171	5	3	.....		
III.— <i>Drift and Waif Wood and Confiscated Forest Produce ... ..</i>				234	9	0	234	9	0	234	9	0	.....
Total ... ..				64,360	2	0	64,360	2	0	64,360	2	0	.....
Total, Northern Circle.	I.— <i>Timber and other Produce removed from the Forests by Government Agency—</i>												
	(a). Timber ... ..	24,609	11	9	24,609	11	9	24,609	11	9	.....		
	(b). Firewood and charcoal ... ..	2,775	14	0	2,775	14	0	2,775	14	0	.....		
	(c). Bamboos ... ..	7	11	9	7	11	9	7	11	9	.....		
	II.— <i>Timber and other Produce removed from the Forests by Consumers and Purchasers—</i>												
	(a). Timber ... ..	4,61,254	3	4	4,61,254	3	4	4,61,254	3	4	.....		
	(b). Firewood ... ..	5,122	11	7	5,122	11	7	5,122	11	7	.....		
	(c). Bamboos ... ..	36,598	14	2	36,598	14	2	36,598	14	2	.....		
	(d). Grazing and fodder grass ... ..	22,671	8	0	22,671	8	0	22,671	8	0	.....		
	(e). Other minor produce ... ..	9,554	10	8	9,554	10	8	9,554	10	8	.....		
III.— <i>Drift and Waif Wood and Confiscated Forest Produce ... ..</i>				1,406	14	9	1,406	14	9	1,406	14	9	.....
Total ... ..				5,64,002	4	0	5,64,002	4	0	5,64,002	4	0	.....

Bádrá, 15th October 1897.

R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.

## FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Outstandings and Liabilities on account of Contractors and Disbursers for the Forest year 1896-97.

Divisions.	DEPARTMENT DEBTOR.			DEPARTMENT CREDITOR.			BALANCE DUE		REMARKS.
	At commence- ment 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 Depart- ment (Liabilities).	
1	2	3	4	5	6	7	8	9	10
<i>Contractors.</i>	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
North Tháná ...	.....	.....	.....	.....	200 0 0	200 0 0	200 0 0	...	
Surat ...	.....	700 0 0	700 0 0	.....	700 0 0	700 0 0	.....	...	
Panch Maháls ...	.....	630 0 0	630 0 0	.....	630 0 0	630 0 0	.....	...	
Total, Contractors ...	.....	1,330 0 0	1,330 0 0	.....	1,530 0 0	1,530 0 0	200 0 0	...	
<i>Disbursers.</i>									
North Tháná ...	.....	35,801 3 11	35,801 3 11	1,563 5 4	35,698 8 3	37,261 13 7	1,460 9 8	...	
South Tháná ...	.....	51,252 0 6	51,252 0 6	1,241 5 1	50,976 9 1	52,217 14 2	965 13 8	...	
Central Tháná ...	.....	18,756 5 1	18,756 5 1	.....	20,673 9 10	20,673 9 10	1,917 4 9	...	
Surat ...	.....	39,697 11 9	39,697 11 9	209 12 0	39,611 8 11	39,821 4 11	123 9 2	...	
Panch Maháls ...	.....	22,451 14 11	22,451 14 11	671 2 7	22,355 11 10	23,026 14 5	574 15 6	...	
Working Plans ...	.....	4,250 6 11	4,250 6 11	.....	4,284 13 2	4,284 13 2	34 6 3	...	
Bombay Forest Surveys..	.....	6,127 4 6	6,127 4 6	30 0 0	6,877 4 6	6,907 4 6	780 0 0	...	
Total Disbursers ...	.....	1,78,336 15 7	1,78,336 15 7	3,715 9 0	1,80,478 1 7	1,84,193 10 7	5,856 11 0	...	
Grand Total ...	.....	1,79,666 15 7	1,79,666 15 7	3,715 9 0	1,82,008 1 7	1,85,723 10 7	6,056 11 0	...	

No. <sup>F.</sup>  
15458.

Forwarded to the Conservator of Forests, Northern Circle, under Section 267 of the Forest Department Code.

Accountant General's Office, }  
Bombay, 2nd September 1897. }E. LAWRENCE,  
Accountant General.



## FORM No. 65.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Financial Results of the year 1896-97.*

B 1428-14 NC

Division.	TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY.		OTHER REVENUE.		FORMATION, PROTECTION AND IMPROVEMENT OF FORESTS.	TOTAL.		REMARKS.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
North Thána ... ..	2,794	19,038	2,28,296	22,087	26,484	2,31,090	67,609	
South Thána ... ..	978	19,306	1,50,983	21,493	38,434	1,51,961	79,233	
Central Thána ... ..	1,043	13,104	67,276	11,178	16,395	68,319	40,677	
Surat ... ..	22,030	20,592	44,230	37,027	25,178	66,260	82,797	
Panch Maháls ... ..	1,956	12,435	63,851	14,444	22,686	65,807	49,565	
Total ... ..	28,801	84,475	5,54,636	1,06,229	1,29,177	5,83,437	3,19,881	

53

*Dated Bándra, the 15th October 1897.*R. C. WROUGHTON,  
Conservator of Forests, Northern Circle.

No. 721 OF 1898.

REVENUE DEPARTMENT.

*Ahmedabad, 25th February 1898.*

Forwarded to Government. It was received in this office on the 21st instant.

2. Famine and Plague have made their mark on this as on nearly every other department of public work.

3. Little settlement work remains uncompleted, except in the Mándvi Táluka of the Surat District, where the original work was done with so little judgment as to necessitate revision. It is understood that Mr. Wood submitted proposals some time ago, but the Collector has been unable to consider them finally as yet because of the engrossing demands of the Plague. Demarcation by cairns in the other parts of the Circle has made progress, but it is not shown how many miles remain undone.

4. A copy of the annual report of the Forest Survey, together with the Survey Commissioner's review of it, has been furnished to this office as directed in Government Resolution No. 5335 of 15th July 1895. There is nothing in it which calls for special comment by the Commissioner.

5. Working-plans have made due progress. 1,184 coupes have been marked out on the ground in Thána against 1,722 last year, but somewhat more than last year has been done in this way by the department, as only 246 are credited to the Forest Survey against 1,077. A beginning has been made in the Panch Maháls. The prevention of theft by the improved marking of reserved trees is one of the many objects for which an increased establishment is so much to be desired.

6. The percentage of abortive prosecutions is very large both absolutely and as compared with last year, and is not satisfactory. The tables given by Mr. Wroughton in his paragraphs 37 and 39 differ in form from those given in his report of last year and are in some points less instructive. At any rate the variation makes comparison at a glance less easy.

7. The tables in paragraphs 42 and 46 showing the facts about forest fires are also on new lines. It is much to be hoped that the success they show is real and will be maintained. The Commissioner lately visited the beautiful forest round Pávágadh hill and was much struck with the careful and energetic arrangements made by Mr. Wallinger. He is not surprised to hear that they have been followed by good results.

8. The Commissioner much regrets to see that year after year the Forest Report is practically a blank under the head of "Experiments." The introduction and improvement of fruit trees and of trees bearing some useful product is a marked feature of the progress of western countries, and there is great scope for and need of this kind of work in India. It is possible that the department may not recognise culture of fruit trees as within its sphere, but it is hoped for the sake of the country that such a narrow view is not accepted by Government. There ought to be an honourable rivalry between the Forest and the Agricultural Departments to show the way in this direction. A more serious obstacle is that the staff is too small for the demands of forest proper, and the Commissioner regretfully admits that on this account nothing on a large scale can be expected. But on visiting such a nursery as that at Bulsár under the charge of its enthusiastic Ranger, he cannot help wishing that the whole of its resources were not devoted to growing the ordinary trees of the country. They are most important and above all certain, but it would more accord with the spirit of the age to devote some portion of the ground and the zeal of the officer in charge to making some advance forward.

9. There is a heavy decrease in receipts of two lákhs owing to Plague and Famine, and also, it would appear, to the inferior produce of the Thána coupes

although anything like accurate comparison under this head will not be possible until Mr. Wroughton's formulæ for ascertainment of actual yield are perfected and applied for some years. In the Panch Maháls the cuttings show an increase, but they are not strictly speaking from forest at all, and are at best not a permanent source of income.

10. An important step in furtherance of stronger management has been the formation in the year under report of a third division in the Thána District. It is hoped that this will soon be followed up by an increase of lower establishment there and in the Panch Maháls.

F. S. P. LELY,  
Commissioner, N. D.

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**CENTRAL CIRCLE.**

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No. 6316 of 1897-98.

From

A. T. SHUTTLEWORTH, ESQUIRE,  
Conservator of Forests, Central Circle;

To

THE CHIEF SECRETARY TO GOVERNMENT,  
Revenue Department,  
Bombay.

*Camp Belvandi Kothár, Ahmednagar District,  
dated 4th March 1898.*

SIR,

I have the honour to submit herewith the Forest Administration Report of the Central Circle for the Forest year 1896-97, together with its prescribed subsidiary statements.

I have the honour to be,

Sir,

Your most obedient Servant,

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

THROUGH THE COMMISSIONER, CENTRAL DIVISION.

# INDEX.

FOREST ADMINISTRATION REPORT, CENTRAL CIRCLE, FOR 1896-97.

Chapter.	Subject.	Paras.
	INTRODUCTION ... ..	1 to 15
I.	EXTENSION AND CONSTITUTION OF STATE FORESTS—	
	(i).—Alteration of Areas ... ..	16—17
	(ii).—Forest Settlements ... ..	18—25
	(iii).—Demarcation ... ..	26
	(iv).—Surveys ... ..	27—31
II.	MANAGEMENT OF STATE FORESTS—	
	I.—Regulation of Management—	
	(a).—Working Plans and their control ... ..	32—37
	(b).—Annual Plans of Operations ... ..	38
	II.—Working of the year—	
	(a).—Communications and Buildings—	
	(1).—Roads ... ..	39—40
	(2).—Buildings ... ..	41
	(3).—Other Works ... ..	42—43
	(b).—Protection of Forests from Injury—	
	(1).—General Protection and Breaches of Forest Law... ..	44—62
	(2).—Protection from Fire ... ..	63—67
	(3).—Regulation of Grazing and Protection from Cattle ... ..	68—75
	(c).—Improvement of Forest Growth—	
	(1).—Natural Reproduction ... ..	76—83
	(2).—Artificial Reproduction ... ..	84—85
	(3).—Early Thinnings ... ..	86
	(4).—Other Operations for the Improvement of Growing Stock ... ..	87—88
	(5).—Experiments ... ..	89—94
	(d).—Exploitation of Major Forest Produce—	
	(1).—Clear or Regeneration Fellings ... ..	95—101
	(2).—Selection Fellings ... ..	102—104
	(3).—Improvement Fellings ... ..	105—110
	(4).—Coppice Fellings ... ..	105—110
	(5).—Unregulated Fellings ... ..	111—115
	(e).—Extraction and Transport of Major Forest Produce by Land and Water ... ..	116—117
	(f).—Exploitation of Minor Forest Produce—	
	(1).—Extraction of Fodder ... ..	118—124
	(2).—Grazing ... ..	125—130
	(3).—Miscellaneous Produce ... ..	131—138
I.	GROSS YIELD AND OUTTURN OF FOREST PRODUCE—	
	I.—Departmental Operations ... ..	139—160
	II.—Removal of Produce by Purchasers ... ..	161—178
	III.—Free Grants of Forest Produce... ..	179—180
	IV.—Produce removed by Right-holders and under Privileges. ... ..	181—185
IV.	FINANCIAL RESULTS ... ..	186—197
V.	FOREST ADMINISTRATION ... ..	198—212
	Forms Nos. 46 to 65.	

FOREST ADMINISTRATION REPORT OF THE CENTRAL CIRCLE,  
BOMBAY PRESIDENCY, FOR THE FOREST YEAR 1896-97.

INTRODUCTION.

Famine, which has covered the face of the Deccan during the greater portion of the forest year, has imprinted its depressing stamp upon the commercial transactions of the Central Circle, so that the financial results have been very unfavourable compared with those of preceding years. The early rains in July were unusually heavy, and caused great and disastrous floods in the rivers flowing through the Deccan, but the subsequent lengthened cessation of rains, and the consequent drought, withered up the crops in the eastern portion of the circle; and as the prices of food-grains became very high, trade in timber and other forest produce languished for the want of money and demand; and whatever grass had sprung up under the early rains in the country east of the moist forest belt bordering the Syhádri was quickly eaten up by cattle, and what escaped died away under an absence of rain and humidity, so that there was an absolute dearth of grass in the Sholápur and Ahmednagar divisions, and in the eastern ranges of the Poona and Sátára divisions, and the inland ranges of Násik, by the middle of November 1896. The timber and firewood and bámboo sales have not in consequence of these adverse conditions been as successful as was expected before any sign of the famine appeared, and the revenue from grass, grazing and other minor forest produce shows a considerable decline.

2. No territorial changes of divisions have occurred; but owing to the Sávda Táluka with the Ráver and Yával Petás having been transformed into two tálukas, *viz.*, Ráver and Yával, the three forest ranges of Ráver, Sávda and Yával have followed suite, and are now represented by two larger ranges, Ráver and Yával, the Sávda táluka and range having disappeared from the lists of revenue sub-divisions, and of forest minor executive charges.

3. *Forest Reservations* have expanded to a small extent through some waste and occupied lands situated within the sanctioned forest boundary lines having been acquired and constituted reserved forests; the nominal forest acreage has increased slightly under corrections in book entries of areas. The net increase from both causes amounts to 14 square miles and 243 acres at the close of the year: on 30th June 1897, the forest reservations included in reserved forest 14 square miles 257 acres, in protected forests—14 acres, total 14 square miles 243 acres.

4. *Forest Settlements*.—Forest Settlement Officers were engaged in completing the records of the forest settlements, and also upon the acquisition of occupied lands inside the sanctioned forest boundaries, either by giving waste lands in exchange or by payment of money compensation; during the year the settlement of 9 square miles and 634 acres of such acquired lands has been effected; and 11 square miles and 158 acres of acquired lands were still undergoing settlement which had not been finished at the close of the year.

5. *Forest Privileges* remain in *statu quo*, having undergone no change.

6. *Forest Surveys* were in progress in the divisions of Ahmednagar and Poona; the total cost charged to the Circle amounts to Rs. 31,356.

7. *Forest Demarcation* was undertaken on a large scale in order to afford relief work to the people in the famine-affected parts of the Circle. 2,746 linear miles of forest boundaries have been demarcated with 65,881 special forest boundary marks at an expenditure of Rs. 16,917.

8. *Forest Working Plans*.—The Working Plans Party has demarcated on the ground 134 compartments including an area of 14,539 acres for the exploitation of timber. Proposals for the systematic working of the forests of 10 ranges have been completed during the year.

9. *Forest Establishments*.—There has been no change in the numerical strength and constitution of superior officers; 2 Forest guards on Rs. 7 each

have been added to the Forest District Establishment, and 1 clerk on Rs. 60, 1 on Rs. 40, 1 on Rs. 20 and 2 peons on Rs. 8 each to the office establishment.

10. *Forest Offences*, in respect of which prosecutions were instituted, and those that were compounded under Section 67 of the Indian Forest Act, have diminished slightly in number compared with those of the year before. 1,610 cases of forest crimes were brought before the Magistrates of the Deccan for disposal according to the law, and 2,091 cases were compounded by Divisional Forest Officers under Section 67 of the Indian Forest Act.

11. *Forest Impoundings*.—The number of animals pounded during the year has been considerably less than that of the previous year: the score amounted to 101,192 in "open-forests" for grazing without permits having been taken and paid for; and 133,770 for trespassing in "closed-forests" in which no grazing is allowed: of the total number impounded 81,413 were sheep and 36,934 were goats.

12. *Forest Fires*.—The percentage of areas burnt in all the divisions has been less than that of the preceding year notwithstanding the fact of the extreme dryness of the year, and of its consequently being a more favourable year for forest fires.

13. *Forest Development*.—The results of both the natural and artificial reproduction were not satisfactory owing to unfavorable rainfall, heavy deluges at the beginning of the season followed by a lengthened break, and subsequent great drought.

14. *Forest Finances*.—The revenue of the year has diminished greatly, while the expenditure shows a considerable increase, thus reducing the surplus: the particulars are explained further on in the financial chapter.

15. *Forest Officers*.—From the opening of the year, *i.e.*, the 1st July to the 24th November 1896, and again from the 8th to 30th June 1897, the Circle was in charge of the Honourable Mr. A. T. Shuttleworth, Conservator of Forests, 1st Grade, and during the interim Mr W. G. Betham, Deputy Conservator of Forests, 1st Grade, held administrative charge of the Circle in consequence of the deputation on special famine duty of Mr. Shuttleworth, in connection with the supply of grass and grazing to the cattle in the famine-affected districts. The names of the superior Forest officers, who held charge of the several divisions, &c., are given in the statement below:—

No.	Division.	Name.	Rank.	Designation.	From	To	REMARKS.
1	East Khândesh ...	Mr. R. H. Mâdan ...	Extra Deputy Conservator of Forests.	Divisional Forest Officer.	1st July 1896 ...	30th June 1897.	
2	West Khândesh }	Mr. H. W. Keys ...	Deputy Conservator of Forests.	Do.	Do. ...	Do.	
		" V. G. Tunne ...	Extra Assistant Conservator of Forests.	Sub-division Forest Officer.	Do. ...	Do.	
3	Nâsik ...	Mr. C. Greatheed ...	Deputy Conservator of Forests.	Divisional Forest Officer.	Do. ...	18th Oct., 1896.	
		" C. M. Thate ...	Deputy Collector ...	Do. ...	19th October 1896.	20th do.	
		" G. R. Duxbury ...	Assistant Conservator of Forests.	Do. ...	21st do.	30th June 1897.	
4	Ahmednagar ...	" G. S. Hinge ...	Extra Assistant Conservator of Forests.	Sub-division Forest Officer.	1st July 1896 ...	Do.	
		Mr. S. Hornidge, A.M.I.C.E.	Deputy Conservator of Forests.	Divisional Forest Officer.	Do. ...	Do.	
5	Poona ...	Mr. R. S. Fagan ...	Do.	Do. ...	Do. ...	29th Nov. 1896.	
		" L. S. Osmaston.	Do.	Do. ...	30th Nov. 1896 ...	30th June 1897.	
		" E. M. Hodgson.	Assistant Conservator of Forests.	Supernumerary ...	19th do. ...	Do.	
6	Sâtâra ...	" V. M. Lilak ...	Extra Assistant Conservator of Forests.	Sub-division Forest Officer.	1st July 1896 ...	Do.	
		Mr. A. D. Wilknis.	Deputy Conservator of Forests.	Divisional Forest Officer.	Do. ...	Do.	
7	Sholâpur ...	" W. R. Govande.	Extra Assistant Conservator of Forests.	Sub-division Forest Officer.	Do. ...	Do.	
		Mr. W. F. D. Fisher.	Assistant Conservator of Forests.	Divisional Forest Officer.	Do. ...	Do.	
8	Working Plans, Central Circle	Mr. T. B. Fry ...	Deputy Conservator of Forests.	Do. ...	Do. ...	29th Nov. 1896.	
		" R. S. Fagan ...	Do.	Do. ...	30th Nov. 1896 ...	30th June 1897.	
		" L. S. Osmaston.	Do.	Assistant to the Divisional Forest Officer, Working Plans.	1st July 1896 ...	27th Aug. 1896.	



## CHAPTER I.

## EXTENSION AND CONSTITUTION OF STATE FORESTS.

## (i).—ALTERATION OF AREA.

16. The changes which the forest areas of the Central Circle, settled and constituted under the Forest Act, have undergone, are exhibited in the following statement :—

Divisions.	AREA ON 1ST JULY 1896.				ADDED DURING THE YEAR.				EXCLUDED DURING THE YEAR.				AREA ON 30TH JUNE 1897.			
	Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.	
	Square miles.		Acres.		Square miles.		Acres.		Square miles.		Acres.		Square miles.		Acres.	
	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.
East Khândesh ... ..	811	21	...	...	...	53	...	...	...	15	...	...	811	59	...	...
West Khândesh ... ..	1,734	433	...	...	4	330	...	...	...	...	...	...	1,739	123	...	...
Násik ... ..	1,279	241	...	...	...	...	...	...	...	...	...	...	1,279	241	...	...
Ahmednagar ... ..	836	579	11	100	...	76	...	...	25	...	...	...	836	630	11	100
Poona ... ..	710	530	...	...	...	33	...	...	14	...	...	...	710	549	...	...
Sátára ... ..	687	304	...	616	9	414	...	...	...	14	...	...	697	73	...	602
Sholápur ... ..	277	411	...	...	...	97	...	...	...	52	...	...	277	456	...	...
Total ... ..	6,337	709	12	76	14	363	...	...	...	106	...	14	6,352	216	12	62

Thus it will be seen that the reserved and protected forest area at close of the year amounted to 6,364 square miles and 278 acres ; the net increase in favour of the year being 14 square miles and 243 acres in the total forest area of the Circle.

17. Of the 14 square miles and 363 acres shown as added to reserved forests, 4 square miles and 369 acres denote book rectification of areas owing to errors discovered in original entries and to discrepancies in measurements and calculations between the old and recent surveys, and 9 square miles and 634 acres are additional areas which have been settled and declared reserved forests by notifications under Section 19 of the Indian Forest Act, during the year. Disforestation, both of reserved and protected forests, have been very trifling. Of the 106 acres excluded from reserved forests 39 acres represent rectifications of mistakes in book entries and only 14 acres of protected forests have been disforested to become building sites at Mahábaleshvar.

## (ii).—FOREST SETTLEMENTS.

18. All important settlement work has already been completed long ago, and there remains only the afforestation of certain occupied lands contained within the sanctioned forest boundary lines, which as they become vacant and available are settled under the provisions of the Forest Act ; this duty, together with the compilation of the records of the forest settlement, is engaging the time and attention of the Forest Settlement Officers.

19. Information as regards outstanding settlement work is given in the following statement as required by Government in paragraph 3 of their Resolution No. 5068, dated 29th June 1896, in the Revenue Department :—

No.	Division.	STAGES OF OUTSTANDING WORK.							Total.						
		Occupied lands to be acquired.			Land to be notified under Section 4.	Land to be notified under Section 7.	Land to be notified under Section 19.								
		By exchange or Compensation.		Land to be notified under the Land Acquisition Act.											
		Negotiations Proceeding.	Negotiations completed.		A. g.	A. g.	A. g.	A. g.		A. g.	A. g.				
1	East Khândesh ... ..	3,193	5	2,964	3	833	21	217	22	2,746	21	...	6,990	29	
2	West Khândesh ... ..	3,314	37	1,720	30	1,252	33	77	0	1,653	30	...	6,298	20	
3	Násik ... ..	...	...	...	...	...	...	...	...	...	...	22	0	22	0
4	Ahmednagar ... ..	376	16	76	38	...	...	76	1	166	38	166	38	860	11
5	Poona ... ..	677	29	102	6	12	8	199	34	51	30	51	30	941	31
6	Sátára ... ..	327	35	...	...	...	...	...	...	79	8	168	36	575	39
7	Sholápur ... ..	...	...	...	...	...	...	...	...	...	...	127	0	127	0
	Total ... ..	7,890	12	4,933	37	2,018	22	570	17	4,698	7	536	24	15,816	10

20. Settlement work in the Khándesh, Poona and Sátára districts is entrusted to one of the Assistant Collectors, and in the Ahmednagar district to the Huzúr Deputy Collector. These officers are provided with special office establishments, while in the Násik and Sholápur districts the Assistant and Deputy Collectors in charge of Revenue Sub-divisions are ex-officio Forest Settlement Officers for their respective revenue jurisdictions.

21. The following statement will show the occupied lands acquired for forests during the year and the mode of their acquisition:—

No.	Division.	AREA.		Compensation paid.	REMARKS.
		By exchange.	By payment.		
		A. g.	A. g.	Rs. a. p.	
1	East Khándesh ...	...	131 36	385 11 8	
2	West Khándesh ...	123 36	3 10	7 4 8	
3	Násik ...	...	...	.....	
4	Ahmednagar ...	76 1	0 37	5 0 0	
5	Poona ...	11 12	2 22	90 0 0	
6	Sátára ...	108 28	80 14	355 0 0	
7	Sholápur ...	30 26	29 0	252 0 0	Not charged in forest accounts.
	Total ...	350 23	247 39	1,095 0 4	

22. 9 square miles and 634 acres have been settled and constituted reserved forests by notifications issued under Section 19 of the Indian Forest Act and the work is distributed thus:—

No.	Division.	Area.	
		Sq. m.	Acres.
1	East Khándesh ...	...	18
2	West do. ...	...	...
3	Násik ...	...	...
4	Ahmednagar ...	...	72
5	Poona ...	...	33
6	Sátára ...	9	414
7	Sholápur ...	...	97
	Total ...	9	634

23. Of the lands notified under Section 4 during 1895-96, as well as during the year of the report, the following were still undergoing settlement when the year closed:—

No.	Division.	Area.	
		Sq. m.	Acres.
1	East Khándesh ...	4	228
2	West do. ...	4	356
3	Násik ...	...	22
4	Ahmednagar ...	...	37
5	Poona ...	1	508
6	Sátára ...	...	160
7	Sholápur ...	...	127
	Total ...	11	158

24. Of the amount of Rs. 8,359 charged in the Forest accounts against "cost of settlements, compensation for lands and rights," Rs. 843 were spent in the payment of compensation; and the remaining sum Rs. 7,516 exhibits the cost of establishments of Forest Settlement Officers, and is distributed thus :—

No.	Division.	SETTLEMENTS.				Cost.			
		Completed.		Progressing.		Salaries.	Travelling Allowances.	Contingencies.	Total.
		Sq. m.	Acres.	Sq. m.	Acres.				
1	East Khándesh	...	18	4	228	2,851	690	312	3,853
2	West do.	...	...	4	356				
3	Násik	...	...	...	22	...	...	...	...
4	Ahmednagar	...	72	...	37	266	40	25	331
5	Poona	...	33	1	508	1,220	323	297	1,840
6	Sátára	...	414	...	160	1,092	110	290	1,492
7	Sholápur	...	97	...	127	...	...	...	...
	Total	9	634	11	158	5,429	1,163	924	7,516

25. The Forest Settlement Officers were also engaged upon compiling forest registers giving the descriptions of boundaries of reserved and protected forests according to the Revision Survey, in English in Form No. 1 of the Forest Department Code, and in the Vernacular in Village Form No. I-A.

### (iii)—DEMARCATION.

26. The scarcity of, and high prices that ruled the supply of, food-grains in the Deccan, and the consequent great distress that prevailed among the lower classes, and particularly in the poorer villages neighbouring the Syhádris, suggested the desirability of pushing on vigorously the work of demarcating the boundaries of the forests with special forest boundary-marks to be the outward visible sign of forest reservation, as a quasi-relief measure; and on the proposals being approved, and funds sanctioned, by Government, work was started early in March 1897, and was carried on up to the 15th of June 1897. The quantity of work performed in demarcation during the year as compared with that of the year preceding can be seen in the following table :—

No.	Division.	1895-96.				Total Cost.	1896-97.				Total Cost.
		Length of Boundaries in miles.	Number of special Boundary-marks.				Length of Boundaries in miles.	Number of special Boundary-marks.			
			Large.	Small.	Total.			Large.	Small.	Total.	
					Rs.					Rs.	
1	East Khándesh	3	22	30	52	41	186	126	360	486	157
2	West do.	84	473	598	1,071	751	...	...	436	436	114
3	Násik	242	1,467	4,958	6,425	2,701	220	1,275	3,037	4,312	2,139
4	Ahmednagar	215	3,570	7	3,577	1,779	288	4,529	...	4,529	1,981
5	Poona	28	669	69	738	599	408	3,272	10,126	13,398	4,097
6	Sátára	27	...	405	465	179	1,623	809	41,556	42,365	8,327
7	Sholápur	70	4	761	765	370	21	33	322	355	102
	Total	669	6,205	6,888	13,093	6,420	2,746	10,044	55,537	65,881	16,917

### (iv)—FOREST SURVEYS.

27. The operations of the Forest Survey Branch Party No. 17 of the Government of India were confined to the Ahmednagar and Poona Divisions; and the following table exhibits the amount of work effected during the forest year :—

No.	Division.	Triangulation.	DETAIL SURVEY.			Total cost.	REMARKS.
			4"	8"	16"		
						Rs.	
1	Ahmednagar ...	161	117.77	96.14	32.90	29,478	
2	Poona ...	...	16.70	5.62	...	1,878	
	Total ...	161	134.47	101.76	32.90	31,356	

28. The cost rate per square mile of the different scales deduced from the total cost for the survey year compare with those of the preceding year as under:—

1895-96.			1896-97.		
Scale.	Cost rate.		Scale.	Cost rate.	
	Rs.	a. p.		Rs.	a. p.
Triangulation. 8"	3	7 0	.....	...	...
Do. ... 4"	.....	.....	4"	18	0 0
Topography... 4"	61	14 6	4"	91	9 11
Do. ... 8"	93	13 1	8"	112	4 10
Do. ... 16"	130	0 0	16"	156	1 7

29. The outturn and cost of the forest surveys undertaken during the survey year compare with that of the previous year as under:—

Year.	Triangulation.		TOPOGRAPHY.						Rate per square mile.		
			4"		8"		16"				
	Area.	Cost.	Area.	Cost.	Area.	Cost.	Area.	Cost.	4"	8"	16"
1895-96 ...	Sq.-miles.	Rs.	Sq.-miles.	Rs.	Sq.-miles.	Rs.	Sq.-miles.	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.
	225	774	218.7	18,539	66.2	6,212	14.7	1,911	61 14 6	93 13 1	130 0 0
1896-97 ...	161	2,899	134.47	12,340	101.76	11,429	32.90	5,135	91 9 11	112 4 10	156 1 7

30. From this it will be seen that the 4" work is less and the 8" and 16" works are greater than that of the year previous; while on the other hand the cost rate per square mile of the different scales greatly exceeds that of 1895-96.

31. The progress made in forest surveys in the Central Circle, up to and including the year of the present report, may be tabulated thus:—

No.	Division.		AREA SURVEYED.		Total.	
			Existing Reserved Forest.	Proposed Forest.		
1	Násik ...	...	...	234	...	234
2	Ahmednagar	...	...	422	15.43	437.43
3	Poona ...	...	...	523	209.55	732.55
4	Sátára ...	...	...	69	6.99	75.99
5	Sholápur ...	...	...	54	2.12	56.12
	Total ...			1,302	234.09	1,536.03

## CHAPTER II.

## MANAGEMENT OF STATE FORESTS.

## I.—REGULATION OF MANAGEMENT.

## (a).—WORKING PLANS AND THEIR CONTROL.

32. Mr. T. B. Fry, Deputy Conservator of Forests, 1st Grade, was in charge of the Working Plans Division from the commencement of the year till the 29th November 1896, when Mr. R. S. Fagan, Deputy Conservator of Forests, 2nd Grade, succeeded him and held it until the end of the year.

33. The operations of this officer were confined to the Divisions of East Khándesh, Násik, Ahmednagar, Poona and Sátára.

34. During the fair season 134 compartments were demarcated upon the ground, at a total cost of Rs. 1,001; of these compartments aggregating 704·025 acres are located in the bábul forests of the Poona Division, and 91 compartments with an area of 13,835·225 acres in the teak forests of the East Khándesh, Násik, Ahmednagar, Poona and Sátára Divisions. Six of the compartments were for exploitation during 1896-97, and 128 for exploitation in the ensuing year. 693 cairns and 806 mounds were erected, 14,052 intermediate stones were imbedded, and 483 ditches were dug to define the limits of these compartments: and 667 old cairns were also repaired. In addition to this the surveyors employed under the several Divisional Forest Officers demarcated on the ground 82 compartments with an area of 4,634 acres, at a total cost Rs. 299-7-7. The whole work of the year can be tabulated thus:—

No.	Divisions.	I.—By the Working Plans Division.					II.—By District Divisional Officers.						
		Number of Compartments.	Area of Compartment.		Cost of Demarcation.		Number of Cairns erected.	Number of Compartments.	Area of Compartment.		Cost of Demarcation.		Number of Cairns erected.
			Total.	Average.	Total.	Average.			Total.	Average.	Total.	Average.	
			Acres.	Acres.	Rs. s. p.	Rs. s. p.		Acres.	Acres.	Rs. s. p.	Rs. s. p.	Not known	
1	East Khándesh.	24	7,931·7	332·571			5	123	24	3 0 0	0 9 7		
2	West do. ...	...	...	...			10	2,474	247	31 0 0	3 1 2	143	
3	Násik ...	30	3,026·1	100·8			2	293	146	44 0 0	22 0 9	120	
4	Ahmednagar ...	16	1,543·7	96·6	1,000 9 5	10 2 6	23	213	8	1 0 0	0 0 7	64	
5	Poona ...	51	1,118·725	21·995			19	743	39	134 0 0	7 1 4	349	
6	Sátára ...	13	669·025	66·845			19	788	44	86 0 0	4 12 4	1,697	
7	Sholápur ...	...	...	...			...	...	...	...	...	...	
	Total ...	134	14,539·25	108·5	1,000 9 5	10 2 6	82	4,634	57	299 0 0	3 10 5	2,572	

34. Notwithstanding the fact that the number of compartments demarcated during the year by the staff of the Working Plans officer was less than that of the preceding year by 43, and the area by 248·46 acres, the cost of demarcation has been greater; the reasons for this excess, as explained by the Divisional Forest Officer, Working Plans, are—

(a). The compartments this year were more scattered than in the past year, especially in the case of the bábul forests.

(b). 1,022-16 acres in the Sátápuda forests of the Chopda Range of the East Khándesh Division were demarcated in a country more difficult to work over on account of the hilly broken ground and the dense jungle covering it, and on account of the absence of villages, and of labour not being obtainable on the spot, but having to be brought up from the plains.

(c). Labour has been very difficult to procure in remote forest areas owing to the famine, and to the disinclination of villagers to go long distances from their homes; in the Sátáputas at one time work was practically stopped for want of hands.

35. The Working Plan for the Purandhar Range in the Poona Division was made during the rains, and a scheme was drawn up for differentiating the blocks

of Kopergaon, Nevása and Shrigonda Ranges of the Ahmednagar Division, which had been submitted to the Conservator last year and was returned by him for revision. While during the working season Mr. Fagan visited forests in the Ahmednagar, Násik and East Khándesh Divisions, and discussed with the respective Divisional Forest Officers the schemes of Working Plans to be applied to the forests of those districts.

36. The proportion of forests in the several divisions which have been differentiated into "forest blocks" and are placed under systematic treatment, is exhibited in the following table:—

No.	Division.	Area of Forest.	Area differentiated up to the end of 1896-97.	Area still remaining.	Percentage of Forest under detailed treatment.
1	East Khándesh...	811	774	37	95.43
2	West do.	1,739	139	1,600	8.01
3	Násik ...	1,279	819	460	64.03
4	Ahmednagar ...	848	428	420	50.47
5	Poona ...	711	464	247	65.26
6	Sátára ...	698	85	613	12.35
7	Sholápur ...	278	8	270	2.87
	Total ...	6,364	2,717	3,647	42.68

37. From the above it will be seen that a total area 2,717 square miles has been brought provisionally under Working Plans arrangement up to the close of the year, but only a few of the 40 exploitable compartments, into which each forest block contained within this total area has been subdivided, have been laid out on the ground; and in so far as this state of incompleteness affects the Working Plans, it may justly be said that these Working Plans exist as yet mainly on paper. But the Conservator would, for the reasons explained in paragraph 41 of the Administration Report of the Central Circle for 1895-96, respectfully submit that this is not a serious defect, for to lay out all the 40 compartments on the ground in every forest block in the seven divisions of the Central Circle means to clear vegetation from and erect boundary-marks upon many thousands of linear miles of country, on the flat, as well as up mountain sides, down and across ravines and dales; and it would require the employment of an enormously large establishment of surveyors and measurers to complete this work within the space of the working seasons contained within a decade of years. As far as means will permit the demarcation of compartments on the ground is being pushed, and so long as this demarcation keeps well ahead of the coming year, and discovers no important errors in the large scales forest maps of the Forest Survey in boundaries and areas, as much is being done as is immediately necessary and is possible with the means at command.

#### (b).—ANNUAL PLANS OF OPERATIONS.

38. Each Divisional Forest Officer submitted as usual a general and detailed scheme of forest operations to be undertaken during the year regulated by the funds available for expenditure in the sanctioned Budget Estimates; and after approval by the Collector and the Conservator of Forests, the operations were started, and were carried out, with slight deviations,

## II.—WORKING OF THE YEAR.

### (a).—COMMUNICATIONS AND BUILDINGS.

#### (1).—Roads.

39. The Public Works Department being fully occupied upon the extensive famine relief works which had perforce to be undertaken in every division of the Circle, was not able to do anything towards the construction of any new roads that could serve the exploitation of produce from the forests.

40. From the forest budget funds an expenditure of Rs. 817 has been made in the construction of new cart tracks, and of repairs to an existing one, which penetrate reserved forests.

(1). In the East Khándesh Division Rs. 767 were spent in making cart tracks over a length of 22 miles in the Sávida and Yával Sátputa mountain forests in their northern profile, in order to open out a grass-producing region of about 70 square miles, which had hitherto been closed against wheeled transport, and from which grass had never been exploited before, for the purpose of extracting grass for supply to famine-affected districts outside Khándesh; this road enabled the grass of the left Aner Valley in the Sávida and Yával Sátputa hills to be carted to the Ráver railway station, G. I. P. Railway, where a steam press, and several hand-presses were employed in compressing and baling hay; and the road will be very useful in future years for the extraction of timber, bámbus and other forest produce on carts, which hitherto have been unable to get into this wild and difficult part of the country. The greater portion of the outlay has, however, been debited to famine grass operations.

(2). Rs. 50 have been spent on the annual repairs to the Kalambari forest road in the Pimpalner Range of the West Khándesh Division.

(2).—*Buildings.*

41. A Range Forest Office with a seed room was built in the Mámlatdár's kacheri at Nevása in the Ahmednagar Division, at a cost of Rs. 2,167. Additions and alterations to existing buildings were made, as detailed below, under the sanction given by the Conservator of Forests from the discretionary grant placed at his disposal by Government :—

No.	Executive Officer.	Nature and locality of work.	Amount sanctioned.
			Rs.
1	Executive Engineer, Khándesh...	Additions and alterations to the Range Forest Office at Bhadgaon.	97
2	Do. Sátára ...	Putting tiles over the corrugated iron roof of the Range Forest Office at Tásgaon.	54
3	Do. do. ...	Making additions and alterations to the Range Forest Office at Malcolmpeeth.	447
4	Do. Sholápur ...	Providing a weather board to the window of the Range Forest Office at Sholápur.	5
5	Do. Sátára ...	Additions and alterations to the Range Forest Office at Sátára.	21
6	Do. do. ...	Additions and alterations to the Range Forest Office at Shirála.	54
7	Do. do. ...	Do. do. at Tásgaon ...	42
8	Do. do. ...	Do. do. at Wái ...	55
9	Do. do. ...	Do. do. at Waduj ...	134
10	Do. do. ...	Do. do. at Dahivadi ...	17
11	Do. do. ...	Constructing a well with retaining wall for the Forest Bungalow at Lingmala.	473
12	Do. do. ...	Making a concrete floor to the Range Forest Office at Pátan.	43
		Total ...	1,442

(3).—*Other Works.*

42. Rs. 1,256 have been expended in the construction of wells of potable water in the wild forest tracks of the Sátputas.

43. Repairs to forest guards' huts, and the building of new huts also, for housing forest guards in their beats in five divisions of the Central Circle, account for a sum of Rs. 1,256-0-0, distributed thus:—

No.	Division.	Amount.
		Rs.
1	East Khándesh ... ..	657
2	West Khándesh ... ..	418
3	Násik ... ..	159
4	Ahmednagar ... ..	15
5	Poona ... ..	7
6	Sátára ... ..	...
7	Sholápur ... ..	...
	Total ... ..	1,256

(b).—PROTECTION OF FORESTS FROM INJURY.

(1).—General Protection and Breaches of Forest Law.

44. The year opened with 180 prosecutions in progress before Magistrates and 15 cases undergoing disposal by forest officers under Section 67 of the Forest Act. During the year 13,199 cases of breaches of Forest law were discovered, but in 2,312 of these cases the offender was not traced; 2,189 cases were treated under Section 67 of the Forest Act by forest officers; 1,610 cases were sent up for trial by Magistrates; and 7,088 cases were let off by forest officers, who warned the accused persons and relieved them of further proceedings under the forest law. The number of old and new cases under hearing amounted to 1,790 against 1,799 of the past year: of these 1,177 cases involving 3,101 persons were disposed of by conviction and punishment of the accused persons, while 321 cases involving 995 persons were dismissed, and 292 cases were left pending at the end of the last day of the forest-year, *viz.*, 30th June 1897. Of the 2,204 cases, including 15 of the preceding year treated under Section 67 of the Indian Forest Act by the Divisional Forest Officers, 2,091 implicating 4,851 persons were settled, and 113 remained unfinished when the year closed. A comparison of the prosecutions completed during 1895-96 and during the year of the report, with their results and relative percentages of failures, is given in the following statement:—

No.	Division.	1895-96.		1896-97.		Percentage of Failures.	
		Prosecu- tions.	Acquit- tals.	Prosecu- tions.	Acquit- tals.	1895-96.	1896-97.
1	East Khándesh ... ..	155	19	69	15	12·2	21·7
2	West Khándesh ... ..	76	8	112	13	10·5	11·6
3	Násik ... ..	157	19	107	9	12·1	8·4
4	Ahmednagar ... ..	405	74	422	107	18·2	25·3
5	Poona ... ..	458	110	487	104	24·0	21·3
6	Sátára ... ..	421	67	251	62	15·9	24·7
7	Sholápur ... ..	127	36	50	11	23·3	22·0
	Total ... ..	1,799	333	1,498	321	18·5	21·4

46. This table shows that during the year there were 301 or by 16·7 per cent. fewer prosecutions than during the previous year. Sholápur, East Khándesh, Sátára and Násik exhibit a decrease of 60·6, 55·4, 40·3 and 31·8 per cent. respectively, but on the other hand the percentage of failures in East Khándesh and Sátára is 9·5 and 8·8 greater than that of the previous year; Násik records a considerable improvement, the difference in percentage of failures being only 3·7; and Sholápur also has a better show than last year, the percentage of its failures being 6·3 less than of the previous year. In the West Khándesh and Poona Divisions



prosecutions were 60.5 and 6.3 per cent. greater, and acquittals were respectively 1.1 greater and 2.7 per cent. less. Ahmednagar shows an increase both in the number of prosecutions and in the percentage of failures, the results being 4.1 and 7.1 respectively.

47. As required by Government Resolution No. 5148, dated 9th July 1897, a classification of the cases taken into Court, those dealt by Forest officers under Section 67 of the Forest Act, and those that were not detected, during the year, is given in the subjoined table :—

Division.	CASES TAKEN INTO COURT.				CASES COMPOUNDED.				CASES UNDETECTED.				TOTAL CASES.				Grand Total of cases.		
	Injury to Forests by fire.	Unauthorized felling or appropriation of wood and other 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.			
East Khāndesh ...	9	14	37	14	3	169	...	129	17	22	...	12	39	197	37	155	418		
West Khāndesh ...	25	69	3	40	...	211	...	37	132	53	...	1	5	78	301	41	177	597	
Nāsik ...	8	111	12	7	5	210	...	8	3	49	...	3	1	62	378	23	11	474	
Ahmednagar ...	3	55	360	71	...	38	...	39	7	5	...	138	59	11	8	231	398	69	726
Poona ...	8	218	217	107	...	201	...	164	20	48	...	342	1,184	13	-56	769	1,568	139	2,519
Bātāra ...	8	47	150	43	1	196	...	471	...	37	...	180	19	7	46	423	640	50	1,169
Sholāpur ...	...	4	32	8	...	3	...	55	...	...	...	18	1	...	...	24	89	8	120
Total ...	61	563	751	299	9	1,017	774	291	399	788	1,267	48	279	2,313	2,792	629	6,018		

48. It will be perceived that though the number of cases relating to injury to forests from fire have gone down by 574, forest crime under other classes exhibits a considerable increase, and this may be attributed to two reasons, viz. : (1) a pinch for food caused by famine that prevailed during the year, which drove people to resort to illicit practices : (2) to better attempts on the part of forest subordinates to detect crime.

49. Undetected offences under the class "Grazing without Permission" or "Grazing in tracts in which it is prohibited" show a considerable rise, because owing to the extreme scarcity of fodder owners of cattle let their animals roam about the country untended in search of food, and the animals naturally trespassed when they were attracted by the presence of vegetation.

50. The system of reporting offences to and their treatment by forest officers prescribed in Government Resolutions Nos. 4516 and 6102, dated respectively the 15th June and 10th August 1895, has been in force and has worked fairly well.

51. The classification of the sums of money offered to and accepted by Divisional Forest Officers under Section 67 by way of compensation for the forest offence from the accused person, in amounts of rupee 1 and upwards to the maximum of Rs. 50, required by Government Resolution No. 1899, dated 13th March 1891, is as under :—

No.	Division.	Number of cases in which compensation was fixed at Rupees																								
		Rs. 1	Rs. 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	East Khāndesh...	149	44	24	21	15	6	7	...	2	3	1	1	4	1	...	1	...	1	1	5	...	1	1	...	...
2	West Khāndesh...	262	63	22	7	15	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	Nāsik ...	159	39	21	14	5	5	3	...	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	1
4	Ahmednagar ...	19	13	13	4	7	3	3	3	2	...	...	...	...	2	2	...	...	...	...	...	...	...	...	...	...
5	Poona ...	79	77	36	32	36	26	15	21	6	16	3	2	8	1	11	...	...	...	...	3	3	1	...	2	1
6	Bātāra ...	159	127	65	73	72	38	22	29	15	16	8	11	4	8	6	...	...	...	...	...	...	...	...	...	...
7	Sholāpur ...	8	15	7	11	5	2	2	2	2	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...		785	283	249	161	153	80	63	46	28	47	11	18	17	11	21	7	7	3	2	17	4	2	3	1	4

No.	Division.	Number of cases in which compensation was fixed at Rupees																												Total.
		Rs. 26	" 27	" 28	" 29	" 30	" 31	" 32	" 33	" 34	" 35	" 36	" 37	" 38	" 39	" 40	" 41	" 42	" 43	" 44	" 45	" 46	" 47	" 48	" 49	" 50				
1	East Khándesh...	1								1																		291		
2	West Khándesh...					1																					1	380		
3	Násik ...																										1	226		
4	Ahmednagar ...	1																									1	84		
5	Poona ...			1										1	1	1											1	345		
6	Sátára ...							1																			1	668		
7	Sholápur...																										1	57		
	Total ...	2		1	2	1	1			1		1	1	2		1		1								1	1	2,091		

52. The money collected by way of compensation under Section 67 of the Forest Act was credited in full to forests under *Vc.* and no deduction was made for making rewards to persons who were instrumental to the detection of the offences.

53. No Divisional Forest Officer except of Poona and Sátára exercised the power vested in him by Government Resolution No. 8563, dated 16th December 1887, Revenue Department, of giving rewards in Section 67 cases disposed of by him. The Divisional Forest Officers of Poona and Sátára distributed Rs. 70, and Rs. 504 in rewards in 33 and 410 cases out of the 385 and 668 cases compounded by them respectively. In this connection the Conservator would remark that the payment of reward in Section 67 cases should, he thinks, be the invariable as it is in cases tried by Magistrates, for the reason that a reward works not only towards improved efficiency in protection of forests and in the detection of crime, but also towards honesty by discouraging subordinates from yielding to the temptation of entering into a private settlement for a consideration given and received with the offender whom he has detected in the act of committing a forest offence, and for other reasons it does not appear to be a desirable distinction that a reward may be earned only by a case successfully prosecuted before a Magistrate and not in respect of a case which has been settled successfully by the Divisional Forest Officer and the accused person without the latter having been brought up a prisoner before the bar.

54. The following table illustrates the extent to which rewards were paid in cases tried by Magistrates during 1895-96 and 1896-97 :—

No.	Division.	Amount of reward paid in	
		1895-96.	1896-97.
		Rs.	Rs.
1	East Khándesh ...	203	214
2	West Khándesh ...	268	197
3	Násik ...	232	200
4	Ahmednagar ...	643	1,222
5	Poona ...	1,127	1,050
6	Sátára ...	1,673	472
7	Sholápur ...	326	140
	Total ...	4,472	3,495

55. Compensation to the extent of Rs. 7,647 was accepted in 2,091 cases disposed of under Section 67 against Rs. 6,602 in 2,056 of the previous year. The distribution of the figures among the several Divisions is as under :—

No.	Division.	1895-96.		1896-97.	
		Number of cases.	Compensation.	Number of cases.	Compensation.
			Rs.		Rs.
1	East Khándesh ...	217	536	291	916
2	West Khándesh ...	261	604	380	519
3	Násik ...	263	632	226	356
4	Amednagar ...	54	234	84	483
5	Poona ...	542	2,982	385	2,002
6	Sátára ...	103	467	668	3,173
7	Sholápur ...	616	1,147	57	198
	Total ...	2,056	6,602	2,091	7,647

56. There has been an increase both in the number of cases and in the amount of compensation of the East Khándesh Division in consequence of detected offences under the rules of Section 41 of the Forest Act having been compounded instead of sent before the Magistrates. The Divisional Forest Officers, West Khándesh and Ahmednagar, have not explained the reasons for the increases of compounded cases in their charges. The small decline in Násik is owing to the Divisional Forest Officer having let off with a warning some cases sent up to him for disposal under Section 67, and the incidence of the compensation received in this Division shows that a comparatively light assessment was imposed by the Divisional Forest Officer in the cases settled by him. Illicit grazing offences in Poona have diminished 50 per cent. in consequence of the opening of large areas of closed forests to grazing and in the dearth of grass under the effects of drought. A considerable increase, both in the number of offences and in the amount of compensation, has taken place in the Sátára District, because the Divisional Forest Officer, Sátára, preferred the system of dealing with the more common and less serious classes of forest offences under Section 67 to that of prosecuting them, for the reasons that it saves much of the time of the Protective Establishment from being spent in the Magistrate's Courts, and allows their more constant presence within their beats in the forest areas; it saves the self-respect of an offender who may not be a hardened or a willing criminal, and the witnesses for the defence and prosecution escape the trouble and vexation of undertaking journeys to and from the Magistrate's Courts, with the delays that inevitably occur before a case is tried and judgment given.

57. The orders contained in Government Resolution No. 4516, dated 15th June 1895, which direct that no order should be given to proceed under Section 67 in any case in which the Divisional Forest Officer would not be prepared to order magisterial proceedings to be taken as an alternative, have caused the great fall noticeable both in the number of cases compounded; and there is a proportional rise in the "warned" cases; as formerly compensation could be accepted, as is provided in Section 67, from any person against whom a reasonable suspicion exists that he has committed a forest offence, although there might not be such a complete chain of evidence as would lead to a conviction were the accused person to be prosecuted in a Magistrate's Court.

58. A number of detected trivial offences, which were not the outcome of deliberate intention, but were committed through ignorance of law, or were the acts of children or of minors, and several offences, each of which was the first offence registered against the accused person, were let off by the Divisional Forest Officers with a warning administered to the offenders. The statement below gives the classification of and comparison between the "warned cases" of 1895-96 and those of the year of this report :—

No.	Division.	1895-96.					1896-97.				
		CLASSIFICATION.					CLASSIFICATION.				
		Total.	Fires.	Timber.	Grazing.	Other offences.	Total.	Fires.	Timber.	Grazing.	Other offences.
1	East Khândesh ...	589	4	41	455	89	291	27	89	132	43
2	West Khândesh ...	122	...	6	70	46	291	...	7	265	19
3	Násik ...	725	83	28	650	14	861	5	180	643	33
4	Ahmednagar ...	2,664	1	32	2,630	1	2,420	...	39	2,381	...
5	Poona ...	2,330	10	131	2,188	1	844	...	83	743	18
6	Sátára ...	2,049	23	103	1,791	127	1,463	12	183	1,194	74
7	Sholapur ...	1,382	...	...	1,382	...	918	...	53	863	2
	Total ...	9,861	71	346	9,166	278	7,088	44	634	6,221	189

59. Offences under "Timber" have nearly doubled, while those under "other classes" and especially under "grazing" show a considerable falling off, owing to the fact that extensive portions of the closed forests were thrown open to free grazing in consequence of the prevailing scarcity of fodder supply.

60. An account of the total number of Police cases of the two years is given in the table below :—

No.	Division.	Prosecuted.		Compounded.		Warned.		Undetected.		Total.	
		1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
		1	East Khândesh ...	155	69	217	291	589	291	98	51
2	West Khândesh ...	78	112	261	389	122	291	147	90	606	873
3	Násik ...	157	107	263	226	725	861	179	110	1,924	1,304
4	Ahmednagar ...	405	422	54	84	2,664	2,420	107	213	3,230	3,159
5	Poona ...	458	487	542	385	2,330	844	613	1,586	3,943	3,302
6	Sátára ...	421	251	103	668	2,049	1,463	280	243	2,853	2,625
7	Sholapur ...	127	60	616	57	1,382	918	12	19	2,137	1,044
	Total ...	1,799	1,493	2,056	2,091	9,861	7,088	1,436	2,312	15,152	12,959

61. For the reasons explained in the foregoing paragraph the total number of police cases during the year has diminished by 2,163, and proportionate decrease is visible in the number of "prosecutions" and in the number of "warned cases". The percentage of prosecutions in respect of the detected cases is 14.03 against 11.8 of the preceding year.

62. These results show that forest crime is not so common or generally prevalent in the Central Circle as might be expected seeing that the table above represents an account of 12 months, and that it concerns 4,065,496 acres of reserved forests.

(2).—Protection from Fire.

63. The statement subjoined gives a comparison between the results of fire conservancy of the two years :—

No.	Division.	Forest area placed under protection against fire in acres.		Failures.		Percentage burnt.		Expenditure, incurred in Rupees.	
		1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
		1	East Khândesh ...	519,104	521,887	45,999	62,495	8.5	11.9
2	West Khândesh ...	1,111,451	1,115,999	211,721	110,780	12.5	9.9	568	1,704
3	Násik ...	818,805	818,823	18,279	4,383	2.2	0.5	198	533
4	Ahmednagar ...	512,997	542,847	3,172	28	0.5	0.005	17	—2
5	Poona ...	455,444	456,096	21,166	771	4.6	0.16	6	367
6	Sátára ...	446,691	446,920	1,653	657	0.3	0.12	40	82
7	Sholapur ...	177,752	177,863	853	4	0.4	0.002	1	...
8	Famine, Grass and Grazing.	.....	.....	.....	.....	...	...	...	1,425
	Total ...	4,072,244	4,080,435	302,843	179,018	7.4	4.3	974	4,165

64. The area placed under protection against fire corresponds with that of the preceding year, but the area traversed by fire during the year and the percentage of failures are, excepting those of East Khándesh, very much below those of 1895-96. The figures of West Khándesh are not very trustworthy, as it is said that a considerably large proportion of the forests was burnt than these figures represent.

65. The expenditure on fire conservancy during the year is more than 4 times greater than that of the past year, and this is due to special fire watchers having been entertained to protect edible grass for local supply and for transport to the famine-affected districts in the Deccan and Southern Mahrátta Country.

66. Two hundred and eighty-three fires occurred during the year. Of 148 of these the origin was discovered, but in respect of 135 fires it could not be ascertained how and by whom the fire had been caused. Prosecutions in regard of 68 fires, including 12 of the previous year, were instituted with the result shown in the following statement :—

Division.	DETAILS OF PROSECUTIONS FOR OFFENCES BY FIRE.						REMARKS.
	Serial Number of fire.	Areas burnt in acres.	Character of offence (whether careless or intentional).	Whether acquitted or convicted.	Section of law under which convicted.	Amount of punishment.	
East Khándesh	14	300	Carelessness smoking.	In Convicted	Indian Forest Act 25 (b).	Fine Rs. 3 and compensation Rs. 7.	
	18	8,698	Do.	Do.	Do.	3 days' imprisonment and compensation Rs. 10.	
	21	15	Do.	Do.	Do.	Fine Rs. 15 and compensation Rs. 20.	
	29	1,000	Do.	Do.	Do.	1 day's imprisonment and fine Rs. 25. Compensation Rs. 30.	
	18	2,000	Do.	Do.	Do.	Imprisonment for one month.	
	12	300	Do.	Do.	Do.	Ditto.	
	17	5,000	Do.	Do.	Do.	Do. 1½ month.	
	23	15,000	Do.	Do.	Do.	Do. 3 months.	
	28	42	Do.	Do.	Do.	Pending.	
	9	32,343	....	....	....	.....	
West Khándesh	4	500	Careless	Convicted	Indian Forest Act 25 (b).	Fine Rs. 10 and imprisonment for 5 days.	
	50	25	Do.	Do.	Do.	Fine Rs. 5.	
	57	4,218	Intentional	Do.	Do.	Do. " 10.	
	65	1,343	Careless	Do.	Do.	Do. " 2.	
	69	9,698	Do.	Do.	Do.	Do. " 2.	
	60	1,138	Do.	Do.	Do.	Do. " 2.	
	61	5,001	Intentional	Do.	Do.	Do. " 4.	
	63	1,153	Careless	Do.	Do.	Do. " 4.	
	68	6,475	Do.	Do.	Do.	Do. Re. 1.	
	69	1,875	Intentional	Do.	Do.	Do. Rs. 5.	
	72	770	Careless	Do.	Do.	Do. " 2.	
	74	2,709	Do.	Do.	Do.	Do. " 4.	
	16	40	Do.	Do.	Do.	Do. " 2.	
	18	60	Do.	Do.	Do.	Do. " 2.	
	29	214	Intentional	Do.	Do.	Do. " 5.	
	31	200	Careless	Do.	Do.	Do. " 8.	
	64	30	Do.	Do.	Do.	Do. " 5.	
	41	100	Intentional	Do.	Do.	Do. " 5.	
	71	250	Careless	Do.	Do.	Do. " 2.	
	5	1,000	Do.	Do.	Do.	Do. " 5.	
27	700	Do.	Do.	Do.	15 days' imprisonment.		
	62	1,300	Do.	One convicted and one acquitted.	Do.	Rs. 20. Ditto. and fine	
	62	100	Do.	Do.	Do.	1 month and fine Rs. 20.	
	36	15	Do.	Acquitted	Do.	.....	
	45	500	Do.	Convicted	Indian Forest Act 25 (b).	Fine Rs. 10.	
	25	39,143	....	....	....	.....	
Násik	1	220	Carelessness	Acquitted	....	.....	Pending. Do. Do.
	7	90	Do.	Do.	....	.....	
	8	10	Do.	Do.	....	.....	
	1	25	Do.	Do.	....	.....	
	9	125	Do.	Convicted	Indian Forest Act 25 (b).	Imprisonment for 15 days and damage Rs. 10.	
	10	11	Do.	Do.	....	.....	
	11	15	Do.	Convicted	Indian Forest Act 25 (b).	12 weeks' imprisonment and damages annas 3.	
	8	200	Do.	Do.	Do.	Fine Rs. 15 and damages Rs. 20.	
	8	695	....	....	....	.....	
Ahmednagar	1	1	Carelessness	Convicted	Indian Forest Act 25 (b).	Fine Re. 1.	
	1	1/40	Do.	Acquitted	....	.....	
	1	2	Do.	Do.	....	.....	
	2	3 1/40	....	....	....	.....	

Division.	DETAILS OF PROSECUTIONS FOR OFFENCES BY FIRE.						REMARKS.
	Serial Number of fire.	Areas burnt in acres.	Character of offence (whether careless or intentional).	Whether acquitted or convicted.	Section of law under which convicted.	Amount of punishment.	
Poona ..	256/28	25	Carelessness	Convicted	Indian Forest Act 25 (b).	Fine Rs. 10 and damages Re. 1..	Pertaining to 1895-96. Do. Do.
	258/30	26	Do.	Acquitted	Do.	Do.	
	857/38	4	Do.	Convicted	Indian Forest Act 25 (b).	Fine Rs. 41 and damages Rs. 6..	
	84/6	10	Do.	Do.	Do.	Fine Rs. 2 and damages Rs. 1-2-0.	Do. Do.
	833/73	1	Do.	Do.	Do.	Fine Re. 1 .. .. .	
	14/1	40	Intentional..	Do.	Do.	Imprisonment for 7 days	Do. Do.
	29/9	7	Carelessness	Do.	Do.	Fine Re. 1 and damages As. 8.	
	52/15	4	Do.	Acquitted	Do.	Do.	Do.
	19/1	Sq. ft. 9	Do.	Convicted	Indian Forest Act 25 (b).	Fine Rs. 20.	
	46/4	1	Do.	Do.	Do.	Fine Re. 1 and damages As. 4.	Do.
	49/6	24	Do.	Do.	Do.	Fine Rs. 8 and damages As. 12.	
	11	158	...	...	...	...	...
Sátára ..	11	81	Carelessness	Convicted	Indian Forest Act 25 (b).	Fine Rs. 15.. .. .	Pertaining to 1895-96. Do.
	10	9/40	Do.	Do.	Do.	Do. ,, 5 .. .. .	
	19	8	Intentional..	Acquitted	Do.	Do.	Do. Do.
	21	25	Do. ..	Convicted	Indian Forest Act 25 (b).	Fine Rs. 30 .. .. .	
	24	18	Carelessness	Do.	Do.	Do. As. 12 .. .. .	Do. Do.
	25	6	Do.	Acquitted	Do.	Do.	
	26	9	Do.	Convicted	Indian Forest Act 25 (b).	Fine Rs. 3.	Do. Do.
	23	1	Do.	Do.	Do.	Do. Re. 1.	
	11	11/40	Do.	Do.	Do.	Do. Rs. 2 .. .. .	Do. Do.
	9	1/2	Do.	Do.	Do.	Do. ,, 8 .. .. .	
	36	3	Do.	Acquitted	Do.	Do.	Do. Do.
	8	10	Do.	Convicted	Indian Forest Act 25 (b).	Fine Rs. 2 .. .. .	
12	162	...	...	...	...	...	

67. Statement below gives complete statistics of the fires that took place during the year as required by Government Resolution No. 5148, dated 9th July 1897, in the Revenue Department :—

Division.	C.—Fires beginning inside the reserve or fire-traced area.											
	A.—FIRES CAUSED BY ACCIDENTS OR THROUGH CARELESSNESS IN BURNING FIRE-LINES.		B.—FIRES ENTERING THE FORESTS BY CROSSING EXTERIOR FIRE-TRACES.		Owing to carelessness or accident.							
	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	By workmen employed in the Forests by purchasers of forest produce or by yahu-cutters.		By villagers, travellers, &c., passing through the Forest.		By railway engines.		By lightning or by fire balloons.	
East Khándesh...	1	700	5	20,659	9	31,319	1	1,000	...	...	...	...
West Khándesh	3	108	3	3,215	...	...	20	27,998	...	...	...	...
Násik ...	...	...	...	...	8	696	10	58	...	...	...	...
Ahmednagar ...	...	...	...	...	1	1	4	9	3	18	...	...
Poona ...	...	...	11	74	1	Sq. ft. 9	12	74	2	4	...	...
Sátára ...	7	147	1	3	1	14	31	316	...	...	1	8
Sholápur...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	11	955	20	23,951	20	32,030	78	29,455	5	22	1	8

Division.	C.—Fires beginning inside the reserve or fire-traced area.												
	By intentional firing.								Causes unknown.				Total A, B and C.
	In order to obtain new grass.		In order to turn out game or to reduce cover.		Maliciously fired.		Total.		Causes unknown.		Number of fires.	Area burnt in acres.	
East Khándesh ...	...	...	...	...	...	...	...	...	13	8,817			29
West Khándesh	...	...	5	11,145	...	...	5	11,145	47	68,314	78	110,780	
Násik ...	...	...	...	...	...	...	...	...	44	3,629	62	4,383	
Ahmednagar ...	...	...	...	...	...	...	...	...	...	...	8	28	
Poona ...	...	...	1	3	2	5	3	8	27	611	56	771	
Sátára ...	...	...	1	4	2	7	5	61	1	8	47	557	
Sholápur...	2	50	1	4	...	...	...	...	3	4	3	4	
Total ...	2	50	7	11,152	4	13	13	11,214	136	81,393	283	179,018	

(3).—*Regulation of Grazing and Protection from Cattle.*

68. No change has been made in the grazing rules sanctioned by Government in their Resolution No. 3595, dated 23rd May 1890. Owing to the dearth of grass after the rainy season, 1896, considerable areas of closed forest had to be opened to free grazing throughout the Deccan districts; and the following table shows the areas closed and open to grazing in the several divisions of the Central Circle, as compared with those of the year preceding:—

No.	Division.	1895-96.			1896-97.		
		Closed.	Open.	Total.	Closed.	Open.	Total.
		Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.
1	East Khándesh ... ..	72	739	811	53	758	811
2	West Khándesh ... ..	363	1,372	1,735	69	1,670	1,739
3	Násik ... ..	553	726	1,279	254	1,025	1,279
4	Ahmednagar ... ..	294	554	848	47	801	848
5	Poona ... ..	236	475	711	40	671	711
6	Sátára ... ..	180	558	688	103	595	698
7	Sholápur ... ..	137	141	278	135	143	278
	Total ... ..	1,785	4,565	6,350	701	5,663	6,364

69. Thus it will be perceived that the total area made available for grazing during the year is nearly 1,000 square miles greater than that of the preceding year.

70. The following table shows the number of cattle of different kinds impounded during the year for trespassing in closed forests and for grazing in open forests without permits:—

No.	Division.	Kind of Forest.	Cows and bullocks.	Buffaloes.	Camels.	Horses.	Asses.	Sheep.	Goats.	Total from	
										Closed.	Open.
1	East Khándesh ... ..	{ Closed ...	7,648	1,279	...	66	...	408	80	9,431	...
		{ Open ...	4,723	636	...	13	...	2,000	900	...	8,273
2	West Khándesh ... ..	{ Closed ...	7,746	1,422	...	267	...	4,217	1,747	15,389	...
		{ Open ...	2,909	419	...	936	...	3,946	2,037	...	10,297
3	Násik ... ..	{ Closed ...	7,900	1,002	...	124	...	13,632	4,131	26,789	...
		{ Open ...	7,331	1,370	...	166	8	11,507	8,450	...	28,627
4	Ahmednagar ... ..	{ Closed ...	22,424	1,422	...	356	65	6,929	4,331	36,057	...
		{ Open ...	8,660	2,627	1	57	34	6,903	4,312	...	22,611
5	Poona ... ..	{ Closed ...	12,573	607	...	180	97	9,750	3,463	26,865	...
		{ Open ...	4,815	472	...	140	42	7,029	2,513	...	15,011
6	Sátára ... ..	{ Closed ...	6,795	734	...	62	25	5,718	947	14,271	...
		{ Open ...	4,011	494	...	44	...	6,329	1,136	...	12,084
7	Sholápur ... ..	{ Closed ...	6,563	721	...	94	33	1,609	938	9,958	...
		{ Open ...	1,125	118	...	12	...	831	1,424	...	3,510
	Total ... ..	{ Closed ...	71,649	7,377	...	1,119	250	42,263	16,112	138,770	...
		{ Open ...	33,574	6,126	1	1,418	91	39,150	20,822	...	101,192
	Grand Total from closed and open ... ..	.....	105,223	13,513	1	2,537	341	81,413	36,934	239,962	.....
	Do. for 1895-96... ..	.....	148,313	16,293	163	1,835	367	79,303	75,700	321,994	.....

71. Impoundings from closed forests of the East Khándesh Division and from open forests of the West Khándesh and Násik Divisions are slightly greater in comparison with those of the previous year, but this is almost entirely owing to cattle of wandering graziers from foreign territory having been trespassed; while in the division of Ahmednagar, Poona, Sátára and Sholápur impoundings from "closed" as well as from "open" areas have been considerably less; and the total number impounded during the year is 82,032 below the figures of 1895-96. This decrease is owing to the impounding of cattle from open forests having been stopped subsequent to November 1896, seeing that there was no grass for cattle to eat, that the animals were starving and their owners did not in many cases consider it to be worth while to pay pound-fees to release their animals.

72. The following table will show the extent to which cattle impounded for trespassing in closed forests were covered by passes for open forests as

required by paragraph 5 of Government Resolution No. 8265, dated 21st October 1896, Revenue Department:—

No.	Division.	Number of Cattle.
1	East Khándesh ..	5,017
2	West Khándesh...	8,566
3	Násik ...	7,636
4	Ahmednagar ...	2,332
5	Poona ...	...
6	Sátára ...	...
7	Sholápur ...	...
	Total ...	23,551

73. To protect the forests from the inroads of cattle, fencing, with barbed wire, with the crown branches of bábul trees armed with sharp thorns, with *Euphorbia nerifolia*, is resorted to. Towards the close of the year a consignment of 15 linear miles of barbed wire fencing has been received on indent from the Secretary of State for India for each division; and besides there were in stock material for fencing 10 linear miles obtained from England during 1895-96; and in addition to the above some barbed wire for fencing was bought in the Bombay market which was attached to wooden posts from the forests:—

No.	Division.	Wire.	Staples.
		Cwts.	Lbs.
1	West Khándesh ...	100	392
2	Násik ...	142	580
3	Ahmednagar...	...	112
4	Sholápur ...	4	56
	Total ...	246	1,140

74. The following table exhibits the progress made in fencing and the cost incurred during the year:—

No.	Division.	LENGTH OF								Total cost. Rs.
		Wire fencing.		<i>Euphorbia nerifolia</i> fencing.		Prickly-pear fencing.		Thorn fencing.		
		Miles.	Yds.	Miles.	Yds.	Miles.	Yds.	Miles.	Yds.	
1	East Khándesh ...	22	1,320	...	...	...	...	...	...	4,076
2	West Khándesh ...	20	...	...	...	...	...	...	...	3,274
3	Násik ...	16	158	...	...	...	...	...	...	3,478
4	Ahmednagar ...	7	600	...	...	...	...	...	...	2,529
5	Poona ...	14	1,176	2	962	...	...	14	508	5,696
6	Sátára ...	15	...	...	...	...	...	...	...	3,555
7	Sholápur ...	9	...	...	...	2	1,540	...	...	3,776
	Total ...	104	1,494	2	962	2	1,540	14	508	26,384

75. Thorn fences were made round the stools of the departmentally felled anjan (*Hardwickia binata*) trees in the Dhulia and Pimpalner ranges of the West Khándesh Division to protect the very delicate re-shoots of this species from stray cattle and deer. In Ahmednagar Division bábul coupes exploited during the year were fenced round with bábul thorns; and 6,425 aloe bulbs were put along forest boundaries by Forest Guards without any cost being incurred on their account.

(c).—IMPROVEMENT OF FOREST GROWTH.

(1).—*Natural Reproduction.*

76. Owing to the peculiarly unfavourable character of the monsoon rainfall with heavy deluges at the commencement followed by a lengthened break,



and subsequent great drought, conditions were not favourable to the germination of self-sown seeds in the forests, nor to the general seeding of trees.

77. In East Khándesh coppice shoots in exploited coupes have made a fair start. The anjan (*Hardwickia binata*) seeded very sparsely during the year in this district. The unusual phenomenon was observed of a Nim (*Melia azadirachta*) tree seeding in the month of October.

78. Seedling reproduction of teak was generally fair throughout the better classes of forests of the West Khándesh Division and would ordinarily be excellent but for the effect of forest fires. Reproduction by stool shoots from the felled teak and anjan is uniformly good.

79. In the north of Málegaon in the Násik Division anjan was found to have seeded well, and the ground beneath some trees was covered with young seedlings as may be seen under beech trees in most years in Europe. But owing to the stripping of the leaves of the anjan for fodder seeds which had appeared on the trees in many directions had no chance to ripen. The tarwad, *Cassia auriculata*, seeded abundantly.

80. The rainfall in Ahmednagar Division, being 12·31 inches against 25·25 of the previous year, was not sufficient for the normal natural growth of plant life; but notwithstanding such unfavourable circumstances seedlings from self-sown seed were seen in many of the forests.

81. In the Poona Division owing to the failure of the latter rains a large proportion of the seedlings which had germinated from seeds naturally shed early in the season were unable to withstand the prolonged drought. Again in the drier portions of the district seeds which would have sprouted in ordinary years failed to do so entirely this year on account of the want of moisture.

82. In the Sátára Division the heavy torrential rains at the commencement of the season, and the subsequent lengthened drought, not only retarded the growth of seedlings, but to a great extent prevented the successful germination of seeds, which, where they were not washed out of the ground and carried away into the streams, rotted in the ground; while the unavoidable admission of large numbers of starving cattle into the closed reserves owing to the famine caused injury and destruction to many tender young seedlings which were either trodden down or browsed down.

83. Natural reproduction is never very prominent in the Sholápur Division, except in specially fertile localities; and this year even these, except where they are subject to the influence of river floods, have profitted little.

(2).—*Artificial Reproduction.*

84. Considerable attention was given as usual to artificial measures for growing trees. The ordinary methods such as ploughing and sowing in furrows sowing in pits, in seed-beds, dibbling under bushes and broad-casting have been followed both in the exploited coupes of the year and also in other selected localities, and the following table represents the work done during the year in the several divisions of the Central Circle :—

No.	Division.	Ploughing.		Sowing in pits.	Sowing in seed-beds and patches.	Dibbling under bushes, &c.	Broad-casting by Forest Guards.	Drill sowing.	Cost.
		Full.	Furrows.						
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Rs.
1	East Khándesh ...	223	...	310	.....	607	2,509	...	360
2	West Khándesh ...	...	...	142	.....	.....	...	...	1,691
3	Násik ...	35	...	3,589	.....	.....	...	...	1,554
4	Ahmednagar ...	167	...	61,100 No.	...	6,145	7,430	978	1,316
						148,050 No.			
5	Poona ...	416	...	3,312	.....	.....	818	...	4,501
6	Sátára ...	...	134	4,1309 No.	156,296 No.	.....	14,684	...	2,778
7	Sholápur ...	67	22	.....	.....	462	247	...	1,702
	Total ...	1,908	156	{ *7,353 Acres 195,400 Pits. }	{ 156,296 No. }	{ 7,214 Acres 148,050 No. }	{ 25,78 }	978	13,962

\* Of the 7,353 acres 2,114 acres represent the work done by Forest guards.

85. The localities where the different methods are applied are briefly :— Ploughing and sowing in furrows take place in the bábul coupes exploited during the year, the soil being black and soft. Sowing in pits is undertaken in hard and murum soil, and on hill slopes, seeds sown in pits on the shady side of Euphorbia cactus and other thorny bushes have been remarkably successful even in the more arid parts of the divisions. Sowing in seed-beds or patches is adopted in the Sátára Division in the exploited teak coupes of the year as well as in other forest areas : and broad-casting is spread as usual over hill slopes treated for reboisement. The results have not been satisfactory owing to the unfavourable circumstances of the year, but the Divisional Forest Officer, Sátára, reports about the dibbling in bushes and the sowings made in patches in the following words.

“From reports received from the Range Forest Officers and from what the Divisional Forest Officer has personally seen, the best results so far obtained are from ‘patches’ and ‘dibbling in bushes.’ The ‘patches’ are a treat to be seen and are written most enthusiastically by Range Forest Officers. The germination has been most successful and there is scarcely a patch that has not got its little cluster of 6 or 8 little teak seedlings, and as these patches have been made at intervals of 8 paces or about 20 feet apart, over the whole area of the coupes, the coupes are now well stocked with on the average 100 seedlings per acre.”

(3).—*Early Thinnings.*

86. The forests in the Deccan are not yet so thickly stocked with trees as to allow the cutting of young and immature trees for the purpose of improving the growth of trees by thinning. Thinnings are sometimes required to be made along cart tracks and foot-paths passing through forests, and this work is generally performed by Forest Guards.

(4).—*Other Operations for the improvement of Growing Stock.*

87. These operations consisted of eradicating the peerul creeper (*Combretum*) from the bábul reserves of the Bhusával Range of the East Khándesh Division, and the cutting of creepers generally in the forests of all other divisions.

88. Considerable activity has also been displayed in eradicating “prickly-pear”, *Opuntia dillenii*; and the table below will show the extent of the work during the year, by paid labour, as well as by Forest Guards :—

No.	Division.	By PAID LABOUR.		Cost.	By GUARDS.	
		Area in acres.			Area in acres.	
1	East Khándesh	...	...	...	.....	
2	West Khándesh	...	...	...	.....	
3	Násik	...	...	570	576	.....
4	Ahmednagar	...	...	4	574	963 Cart-loads.
5	Poona	...	...	...	...	.....
6	Sátára	...	...	17	540	.....
7	Sholápur	...	...	2	222	7
	Total	...	...	593	1,912	7 Acres. 963 Cart-loads.

(5).—*Experiments.*

89. In East Khándesh a few sucker plants of *Millingtonia hortensis* were obtained from Poona and were planted on the forest boundary lines, but they failed to survive the hot weather.

90. A small quantity of seeds of the *Lagerstroemia flos reginae* received from Assam was sown in the Dhulia and Dahiwel nurseries of the West Khándesh Division, and the young plants are reported to be thriving.

91. Cypress seed sown in the garden of the Divisional Forest Office at Násik did not germinate.

92. No new exotics were tried in the Poona Division; but of those planted or sown in the previous year, the date palm has all died; anjan (*Hardwickia binata*) seeds brought from Khándesh and sown in the Bhamburda closed forest germinated freely, and the plants are alive, but they grow very slowly.

93. In the Sátára Division large quantities of *Grevillia robusta* and *Casuarina* seedlings were raised in the Lingmalla Nursery for future transplantation. The *Grevillia* seedlings showed a most vigorous growth, and by the end of May they stood quite 3 feet high in the boxes in which they were raised. No other experiments were made during the year.

94. No experiments of exotics have been made in the Ahmednagar and Sholápur Divisions.

(d).—EXPLOITATION OF MAJOR FOREST PRODUCE.

(1).—Clear or Regeneration Fellings.

95. In the East Khándesh Division clear fellings of bábul were made in 5 coupes of the year in the Bhusával and Edlábád ranges, and in addition to this a clearing of over 520 acres of disforested land was made in the Chopdá Range. Further in the Jámner Range, the trees standing upon several occupied and revenue waste lands were felled yielding 15,000 teak pieces.

96. In West Khándesh clear fellings were made at Ubhand in the Nizámpur Range and 200,000 cubic feet of kheir (*Acacia catechu*) and inferior kind of firewood were cut and sold departmentally during the year under report.

97. In the Násik Division no clear fellings properly so called were undertaken during the year. In the river side bábul reserves many trees were levelled by floods and by high winds in the Niphád Range, and the wood yielded by them was given to the Mámlatdár for the use of famine relief kitchens.

98. In the Ahmednagar Division clear fellings were confined to bábul reserves, the material being exploited under the coupe system by the contractor or purchaser. Coupes thus exploited were sown with seeds during the following rains. The following statement gives the number of cubic feet of timber thus removed and the amount realized by sale :—

No.	Range.	Name of block.	No. of compartment.	Area.	No. of trees.	No. of cubic feet.	Amount realized in auction sale.	Remarks.
				A. g.			Rs. a. p.	
1	Nagar ...	Nalegaon ...	6	3 12	313	929	291 0 0	
		Kawthe ...	6, 7	8 9	1,249	5,823	335 0 0	
2	Shrigonda ...	Wangdari ...	6, 7	33 35	2,063	3,451	200 0 0	
		Ajanj... ..	4, 5	9 28	822	1,599	76 0 0	
3	Sheogaon ...	Zorapur ...	5	2 3	153	1,487	50 0 0	
		Ghewri ...	5, 6	10 34	654	1,630	84 0 0	
4	Báhuri ...	Deolali ...	6	8 18	1,442	2,295	110 0 0	
		Hanumantgaon ...	7	5 16	710	450	31 0 0	
		Sanwatsar ...	6	6 10	21	23	8 8 0	
		Malegaon Thadi ...	6	8 13	238	697	14 0 0	
		Singapur ...	6	6 18	99	225	21 0 0	
		Sangvibhusar ...	6	6 35	15	12	1 6 0	
		Mursatpur ...	6	3 8	22	23	4 0 0	
		Morwis ...	6	3 6	111	540	9 0 0	
		Velapur ...	6	5 22	110	540	9 4 0	
5	Kopargaoon ...	Sanwatsar ...	7	7 9	179	315	34 0 0	
		Kumbhari ...	7	7 33	225	585	15 0 0	
		Kokamthan ...	7	5 38	59	225	70 0 0	
		Suregaon ...	7	2 22	261	720	20 4 0	
		Dharangaon ...	7	4 22	206	900	27 0 0	
		Kumbhari ...	7	4 6	261	1,935	71 0 0	
		Sanwatsar ...	7	6 26	200	450	41 0 0	
		Kokamthan ...	6	5 1	219	360	48 0 0	
		Wari ...	7	6 13	236	1,485	136 0 0	
6	Sangamner ...	Jorwe... ..	6	4 12	368	3,500	609 0 0	
		Pimparne ...	5	9 33	231	1,121	40 0 0	
		Total ...	30	186 7	10,467	31,320	2,350 6 0	

99. In the Poona Division the bábul reserves were treated in the same way as in the Ahmednagar Division, and the statement given below shows a comparison between area of bábul coupes exploited in 1895-96 and 1896-97:—

Range.	Area clear-felled.		REMARKS.
	1895-96.	1896-97.	
	A. g.	A. g.	
Bhimthadi ... ..	34 17	64 3	
Dhond ... ..	54 13	194 1	
Haveli ... ..	17 31	12 6	
Indápur ... ..	4 4	72 0	
Sirur ... ..	39 21	63 38	
Total ... ..	150 6	406 8	

100. The subjoined statement gives the area of occupied lands outside forest boundaries cleared of royalty trees during the year in the Poona Division:—

Range.	Area.	REMARKS.
	A. g.	
Ambegaon ... ..	1,608 29½	
Haveli ... ..	466 11	
Junnar ... ..	1,447 22	
Khed ... ..	530 0	
Purandhar ... ..	1,554 16	
Total ... ..	5,706 38½	

101. Under this head the bábul forests in the Tásgaon Range of the Sátára Division were exploited under the provisions of a working plan prepared by Mr. Fagan; and in like manner in the Sholápur Division the bábul coupes only were subjected to this process of felling. During the year only 2 coupes were sold, viz., the Bale Kuran of Sholápur city and Mohol. The following statement gives the result of these two sales:—

Coupe.	Area.	Cubic contents.	Price.	REMARKS.
	Acres.		Rs.	
Bale Kuran ... ..	33	8,500	2,200	
Mohol... ..	12	1,500	100	
Total ... ..	45	10,000	2,300	

(2).—*Selection Fellings.*

102. In the Násik Division such fellings have now been abolished generally, but in order to make up the quantity of wood due to a contractor only 20 khandis of tiwas (*Ougeinia dalbergioides*) were felled by him, the trees having been selected and marked.

103. In the Poona Division 3,005 cubic feet of timber were given as free grants, the trees to be felled being selected and marked by the Range Forest Officer.

104. In the Sátára Division 367 poles in the Pátan and Mahábaleshvar ranges were felled by selection and, when sold, realized a sum of Rs. 196 only.

(3).—*Improvement Fellings and (4).—Coppice Fellings.*

105. In the East Khándesh Division one coupe in the Chálisgaon and two in the Edlabad Range were sold on foot and exploited under this system, the

trees for removal having been marked previously. Departmental working had to be resorted to in rest of the coupes where there was a chance of the felled material being sold, and in order to satisfy local demands. Thorns and a small quantity of firewood were permitted to be removed from some coupes by merchants.

106. In the Dhulia Range of the West Khándesh Division coppice fellings of anjan (*Hardwickia binata*) will be throughout the whole of the first revolution improvement fellings in the strictest sense of the term, for all young and promising trees are reserved for another revolution; crooked and unsound trees only being felled and removed after a fair number of seed-bearers have been reserved.

107. In the Násik Division coupes were laid out under the system of coppice with standards in Nándgaon, Igatpuri and Násik ranges, and in the Peint Range teak trees, 200,625 in number, standing upon occupied lands outside of sanctioned forest boundaries, were sold to purchasers to fell and remove.

108. In the Ahmednagar Division fellings of teak and jambul (*Eugenia*) were made in the Sangamner and Akola ranges for their improvement, only such trees being retained as are likely to become mature, and seeds are scattered over the compartments after it has been worked out:—

No.	Range.	No. of Trees.	YIELD.		Cost.	Receipts.	Cost per 100 trees.	Receipts per 100 trees.	REMARKS.
			Rafters.	Firewood.					
				C. ft.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
1	Teak.								
	Sangamner	3,760	6,933	3,510	113 3 9	1,242 12 6	3 0 0	33 0 0	310 pieces were kept for wire fence at Kolhewádi.
	Jambul.								
	Ditto ...	2,850	7,901	2,050	68 14 3	.....	2 7 0	...	Not sold.
2	Teak.								
	Akola...	10,231	8,032	3,510	412 3 0	219 14 0	4 0 0	28 6 0	9,456 teak trees or 7,483 pieces and 1 Fire-wood 3,105 cubic feet were not sold.
	Total ...	16,841	22,866	9,070	594 5 0	1,462 10 6	...	...	
	Total of Teak...	13,991	14,965	7,020	525 6 9	1,462 10 6	3 8 0	30 8 0	
	Total of Jambul ...	2,850	7,901	2,050	68 14 3	.....	2 7 0	...	

109. In the like manner in the Poona Division the teak forests were worked for their improvement, the areas exploited during the year are distributed thus:—

No.	Range.	Area.	REMARKS.
		A. g.	
1	A'mbegaon ...	276 35	
2	Háveli ...	288 38	
3	Junnar...	196 2	
4	Khed ...	168 25	
5	Purandhar ...	167 34	
	Total ...	1,098 14	

110. In the Sátára Division improvement fellings under the Working Plans prescriptions were carried out in the workable forests of the "Teak-region" and in the evergreen forests of the Mahábaleshvar Range.

(5).—*Unregulated Fellings.*

111. The exploitation of timber, firewood, bamboos and other forest produce from the Sátputa forests by Bhil and privilege-holders may be classed under this head.

112. At present in the West Khándesh Division the major portion of the fellings comes under this head: there are still a large number of royal trees, especially teak, standing on lands outside the boundaries of reserved forests.

113. In the Násik and other divisions the work of clearing of boundary lines, as also fellings for free grants of timber, wood supplied for relief kitchens, &c., come under this head. The Executive Engineers of Khándesh and Násik were supplied with timber and bamboos for building huts for famine labourers.

114. Unregulated fellings go on in the old gáirán areas of the Poona Division which extend over 12,576 acres.

115. In the Sátára Division cutting of royalty trees in Málki lands, clearing of boundary lines, &c., were undertaken under this method during the year under report.

(e).—EXTRACTION AND TRANSPORT OF MAJOR FOREST PRODUCE BY LAND AND WATER.

116. Cart tracks traverse the forests of this Circle which are below the gháts, in all directions, as also the forest areas in the Deccan, except on the very mountainous parts, and timber, firewood, bamboos, &c., are carried in bullock carts wherever carts can travel. In some parts of the Sátputa forests timber and bamboos are dragged by bullocks and ponies.

117. In mountainous tracts bordering the Syhádris, timber, &c., is moved on the backs of pack animals and in head-loads. The Forest Department does not undertake the carrying of timber or other forest produce, either by land or by water, but preferentially sells the trees on foot for the purchaser to fell and remove at his own cost. Timber, &c., cut by departmental labour is brought to temporary sale-depôts, either inside or outside forests, where it is stacked and sold by public auction, the material being removed subsequently by the purchasers. The Nárada, the Tápti, the Godávári, the Bhima, the Koyna and Wárna are the only water-ways which are sometimes used by purchasers, timber-dealers and private owners for floating timber.

(f).—EXPLOITATION OF MINOR FOREST PRODUCE.

(1).—*Extraction of Fodder.*

118. Grass is exploited by hand from certain valuable kurans of the Central Circle, and the right to cut grass is sold by public auction. The grass is also removed on permits issued on payment of fees. The means that are used for removing grass are the same which are used for the removal of timber.

119. The statement given below shows the area from which grass was removed by hand and the amount realized :—

No.	Division.	Area.	Amount.
		Acres.	Rs.
1	East Khandesh ...	20,324	14,615
2	West Khandesh ...	20,827	9,450
3	Násik ... ..	31,328	14,652
4	Ahmednagar ... ..	91,540	4,695
5	Poona ... ..	27,848	1,263
6	Sátára ... ..	18,853	4,612
7	Sholápur ... ..	9,645	1,303
	Total ...	220,365	50,590

120. In the East Khándesh Division 57,531 cart-loads of grass valued at Rs. 7,191 were removed from the forests on permits; while in the West Khándesh Division 66,560 cart-loads, 3,912 head-loads, 974 bullock loads and 73 donkey-loads valued at Rs. 13,329 were removed from forests on payment of fees. In the Násik Division 5,692 cart-loads of grass were removed and the amount realized was Rs. 2,840. In addition to this, owing to the scanty rainfall and want of fodder for cattle, 231,491 pounds of grass were cut in forests at Rs. 2-8-0 per 1,000 lbs., and sold for Rs. 814.

121. In the Ahmednagar Division an area of 4,935 acres, the grass on which is valued at Rs. 12,750, was handed over to the Commissariat Department,

Remount and Rearing Depôt and Civil Veterinary Departments, under the authority of Government Resolution No. 6047, dated 25th August 1890, for the supply of grass for troop horses and other cattle belonging to Government :—

No.	Name of Reserve.	Area.	Estimated value.
	(a).— <i>The Commissariat Department.</i>	A. g.	Rs. a. p.
1	Kapurwadi ... ..	512 15	618 0 0
2	Deogaon ... ..	126 20	1,250 0 0
3	Ratadgaon ... ..	270 31	2,738 0 0
4	Imampur ... ..	537 12	1,646 0 0
5	Sassewadi ... ..	347 0	1,245 0 0
6	Manjor Sumbha ... ..	535 17	1,500 0 0
7	Shendi ... ..	273 36	2,000 0 0
8	Ghospuri ... ..	580 4	1,411 0 0
	Total ...	3,183 15	12,408 0 0
	(b).— <i>The Remount Department.</i>		
1	Walunj ... ..	371 30	65 0 0
2	Ranjani ... ..	401 36	87 0 0
3	Padampur ... ..	13 27	66 0 0
4	Hamidpur ... ..	67 12	83 0 0
5	Pimpalgaon Malvi ... ..	777 16	31 0 0
	Total ...	1,632 1	332 0 0
	(c).— <i>Civil Veterinary Department.</i>		
1	Shendi ... ..	119 14	13 0 0
	Total ...	119 14	13 0 0
	Grand Total ...	4,934 30	12,753 0 0

122. In the Poona Division the undermentioned reserved forests were placed at the disposal of the Commissariat Department for the exploitation of grass by hand. In ordinary years the grass of these forests is assessed at Rs. 28,735, but seeing that the baled grass brought in the famine grass operations though of inferior quality to that produced in these forests sold by public auction in Poona at Rs. 16 per 1,000 lbs., it would not be too much if the estimate is doubled during the year of the report and the value of the grass were to be assessed at Rs. 57,000 :—

No.	Name of Forest.	Forest area.	Yield of grass in Tons.
	FOR CUTTING.		
	<i>Mulshi Range.</i>	A. g.	
1	Ghotawde ... ..	539 13	34·8
2	Darawli ... ..	169 13	35·7
	Total ...	708 26	70·5
	<i>Purandhar Range.</i>		
3	Bhiwari ... ..	197 15	56·8
4	Shivre ... ..	136 2	35·6
5	Pokhare ... ..	142 4	23·7
6	Bhongaoli ... ..	809 12	69·5
	Total ...	1,284 33	185·6

No.	Name of Forest.	Forest area.	Yield of grass in Tons.
<i>Mával Range.</i>			
		A. g.	
7	Umbre Naulac ... ..	760 35	119.2
8	Ambi ... ..	208 28	64.4
9	Akurdi ... ..	120 28	52.8
10	Nanoli ... ..	170 0	82.0
11	Induri ... ..	198 36	52.6
12	Wadgaon ... ..	151 0	31.4
13	Pachane ... ..	113 22	34.8
14	Pusane ... ..	135 5	35.0
15	Talegaon ... ..	295 28	24.1
	Total ...	2,154 22	496.3
<i>Khed Range.</i>			
16	Chakan ... ..	536 26	22.6
17	Chimbhali ... ..	263 20	38.9
18	Ambethan ... ..	259 24	49.5
19	Warale ... ..	141 38	14.1
20	Wasuli ... ..	96 12	24.8
21	Kohinde Budruk (Kundeshwar)...	681 7	66.7
22	Sinde ... ..	222 20	31.8
	Total ...	2,201 27	248.4
<i>Haveli Range.</i>			
23	Katraj ... ..	1,859 35	634.5
24	Undri ... ..	136 10	33.4
25	Pisoli ... ..	58 4	23.4
26	Kondhawe Budruk ... ..	327 39	39.2
27	Gogalvadi ... ..	252 18	26.1
28	Kopre ... ..	157 38	39.2
29	Agalambe ... ..	464 34	58.6
30	Dhairi ... ..	264 28	48.2
31	Arvi ... ..	354 27	17.6
32	Ambribowa ... ..	257 18	110.3
33	Dharjai ... ..	406 1	79.4
34	Bhawanichadara ... ..	85 7	17.3
35	Kalyan ... ..	149 7	48.6
36	Khadakwasle ... ..	90 24	22.9
37	Pashan ... ..	198 13	57.1
38	Bawadhan Khurd ... ..	241 24	35.9
39	Warje ... ..	128 0	13.6
40	Bhukum ... ..	28 23	17.8
41	Marunji ... ..	54 14	17.5
42	Kotharud ... ..	316 11	23.5
43	Parwati ... ..	592 10	118.7
44	Dighi ... ..	170 1	48.2
45	Dhanori ... ..	177 35	27.3
46	Kasarsai ... ..	103 20	50.6
	Total ...	6,876 1	1,608.9
	Grand Total ...	13,225 29	2,609.7

And the undermentioned reserved forests were placed at the disposal of the Commissariat Department for the grazing of slaughter cattle :—

	<i>For Grazing.</i>	A. g.
1	Wanawari ... ..	122 24
2	Hadpsar ... ..	27 11
3	Mahomedwari ... ..	47 39
4	Undri ... ..	19 38
5	Kondhawe Khurd ... ..	32 7
	Total ...	249 39



123. In addition to the above the reserved forest at Manjri Budruk in the Haveli Range, known as the Manjri Kuran, representing an area of 273 acres, the value of the grass of which in ordinary years is assessed at Rs. 692, was transferred permanently to the Agricultural Department.

124. In the Sâtára Division an area of 220 acres of reserved forests, assessed at Rs. 265, was placed at the disposal of the Commissariat Department for the purpose of exploiting grass.

(2).—Grazing.

125. The following statement shows the number of cattle of different kinds which grazed in the forests during the year 1895-96 and 1896-97 :—

No.	Division.	Buffaloes.		Cows and Bullocks.		Goats and Sheep.		Camels.		Other Animals.		Total.	
		1895-96.	1896-97.	1895-96	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
1	East Khândesh ...	25,863	24,062	151,448	155,775	71,467	24,920	...	...	1,328	903	250,106	205,660
2	West Khândesh ...	18,277	20,829	173,404	140,565	292,003	270,264	...	...	6,869	4,175	490,553	435,833
3	Násik ...	11,234	12,080	183,996	184,804	37,232	35,281	...	...	660	841	233,322	235,006
4	Ahmednagar ...	4,955	3,306	103,649	101,129	57,198	59,009	...	...	393	331	166,195	163,865
5	Poona ...	17,892	13,853	98,070	120,125	65,192	64,250	...	...	268	110	181,422	188,338
6	Sâtára ...	10,236	8,520	59,885	61,535	65,085	68,122	...	...	11	...	135,267	128,177
7	Sholápur ...	2,208	441	29,916	14,324	...	...	...	...	30	377	32,154	16,142
	Total ...	90,715	83,151	800,368	778,257	538,177	501,846	...	...	6,759	6,787	1,489,019	1,370,041

126. And the following of the above numbers respectively enjoyed free grazing compared with those of preceding year, under free grazing permits issued :—

No.	Division.	Buffaloes.		Cows and Bullocks.		Goats and Sheep.		Other Animals.		Total.	
		1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
1	East Khândesh ...	2,622	2,387	8,470	12,573	...	...	109	260	11,201	15,220
2	West Khândesh ...	2,054	3,305	23,561	18,129	194	240	376	189	26,185	22,363
3	Násik ...	2,305	1,895	76,772	74,946	300	300	502	502	79,879	77,643
4	Ahmednagar ...	385	385	5,423	4,237	...	...	...	...	5,808	4,622
5	Poona ...	13,352	12,347	78,365	108,410	...	...	24	3	91,741	120,760
6	Sâtára ...	6,104	5,736	37,335	46,764	...	...	...	...	43,439	52,500
7	Sholápur ...	716	211	5,414	8,871	...	...	...	374	6,130	9,456
	Total ...	27,538	26,766	235,340	273,930	494	540	1,011	1,328	264,383	302,564

127. But when forest areas, excepting those specially under re-forestry, such as compartments of forest blocks which have been worked recently, trees having been felled and timber exploited, and the coupe subsequently sown up, and regular plantations, were opened for the free grazing of cattle in the distressed tracts, which covered the whole area of the Central Circle, by order of the Commissioner, C. D., in communication with the Conservator of Forests, Central Circle, during the month of November 1896, the issue of free grazing permits was suspended and all and any cattle were permitted to enter and to graze without hindrance or interference, so that the figures in the foregoing table do not show anything like the total number of cattle that enjoyed free grazing in the forests during the year.

128. A comparison between the grass and grazing receipts of the year of this report and of 1895-96 is represented in the subjoined statement :—

No.	Division.	1895-96.		1896-97.		REMARKS.
		Rs.	Rs.	Rs.	Rs.	
1	East Khândesh ...	...	...	86,238	81,063	
2	West Khândesh ...	...	...	1,20,067	1,04,163	
3	Násik ...	...	...	54,050	59,333	
4	Ahmednagar ...	...	...	38,960	38,193	
5	Poona ...	...	...	46,818	40,127	
6	Sâtára ...	...	...	39,963	35,330	
7	Sholápur ...	...	...	21,304	20,047	
8	Famine grass and grazing	...	...	...	66,351	
	Total ...	...	...	4,07,400	4,44,607	

129. There is a decrease in the revenue from the sale of grass and grazing during the year under report in almost all the divisions of the Central Circle, which is seemingly owing to the fact that as the rainfall was unseasonable and deficient, the crop of grass was very uncertain and eventually proved to be comparatively scanty in the moist region bordering the Syhádris, while in the eastern parts of the Circle there was little or no grass. Another cause of the diminished revenue is that free grazing was conceded to all village cattle by the end of November 1896. But the decrease in fees and in sale receipts of fodder grass has been more than made up by famine grass operations undertaken by the orders of Government for the supply of hay to the starving cattle in the famine-affected areas.

130. The cattle census of the different Collectorates comprising the Central Circle is as under :—

No.	Collectorate.	Cows and Bullocks.	Buffaloes.	Horses and Ponies.	Asses and Mules.	Sheep.	Goats.	Camels.	Other Animals.	Total.
1	Khándesh ...	674,246	173,315	24,311	7,482	32,348	214,905	7	13	1,126,627
2	Násik ...	453,088	67,861	16,117	3,385	102,213	129,059	...	...	771,723
3	Ahmednagar ...	552,969	49,239	22,052	7,187	247,366	193,455	9	...	1,072,277
4	Poona ...	476,252	68,024	13,052	5,659	211,802	112,364	6	...	887,159
5	Sátára ...	488,548	150,256	13,235	3,048	336,934	119,243	...	...	1,111,284
6	Sholápur ...	293,519	24,987	8,610	3,015	170,290	119,657	42	...	620,120
	Total ...	2,938,622	533,682	97,377	29,776	1,100,973	888,683	64	13	5,589,100

(3).—*Miscellaneous Produce.*

131. Hirda, the fruit of *Terminalia chebula*, is the main item of miscellaneous products which are exploited for sale from the forests of the Central Circle, while shikakái, the pod of *Acacia concinna*, tarvad, the bark of *Cassia auriculata*, the leaves of apta, *Bauhinia racimosa*, and temburni, *Diospyros melanoxylon*, are exploited for sale, but to a lesser degree. In like manner flowers, fruits, honey, wax and other items of minor forest produce assist to swell the revenue under this head.

132. In the East Khándesh Division there was a great fall in the revenue derived from rosha grass oil manufacture during the year under report, Rs. 300 being realized against Rs. 555 in 1895-96.

133. In West Khándesh Rs. 11,349 were realized for the right to cut the rosha grass during the year as against Rs. 16,425 the year before. No revenue is derived from mhowra flowers, and there is no hirda in this division.

134. In the Násik Division there was no demand for rosha grass this year, consequently it was not sold. Rs. 2,040 were realized by the sale of apta and temburni leaves during 1896-97 as against Rs. 1,666 in 1895-96. About 26 deshi khandis of collected hirda nuts were sold for Rs. 1,353 as against Rs. 715 in 1895-96.

135. In the Ahmednagar Division produce exploited under this head consists of stones, earth, kárvi, tarvad, bábul pods, &c., the revenue being Rs. 2,092 against Rs. 1,911 of the previous year, and the hirda crop realized Rs. 1,413, the amount collected being 40 deshi khandis.

136. In the Poona Division the crop of myrobolans realized Rs. 2,333 during the year under report as against Rs. 2,914 in 1895-96, the decrease in question being chiefly due to the poorness of the crop.

137. In the Sátára Division the right to collect hirda in the Mahábaleshvar, Pátan and Shirála ranges was farmed out; and in the Jávli, Wái and Sátára ranges it was collected departmentally, and though the prices fell seriously low in the Bombay market, still the sale results of this crop were satisfactory. Owing to a very poor crop of shikakái the revenue realized from this source was very insignificant. All minor products as per Form No. 58 produced Rs. 20,401.

138. In the Sholápur Division a sum of Rs. 533 was realized by sale of other minor produce, of which Rs. 490 were from stones taken on permits,

## CHAPTER III.

## GROSS YIELD AND OUTTURN OF FOREST PRODUCE.

## I.—DEPARTMENTAL OPERATIONS.

## (a).—TIMBER.

139. A comparative statement of the timber exploited departmentally from the forests with the cost of the operations and the revenue realized therefrom is given below :—

Division.	1895-96.			1896-97.		
	Timber in Cubic feet.	Cost.	Receipts.	Timber in Cubic feet.	Cost.	Receipts.
		Rs.	Rs.		Rs.	Rs.
East Khándesh ...	22,985	1,186	7,654	20,960	2,163	4,752
West Khándesh ...	115,600	3,507	41,959	102,141	3,399	23,451
Násik ...	36,741	...	348	564	...	74
Ahmednagar ...	33,004	903	7,285	39,864	594	1,463
Poona ...	14,081	3,331	12,448	20,178	1,908	9,341
Sátára ...	21,325	2,541	15,219	81,123	3,220	10,487
Sholápur ...	...	...	...	...	10	...
Total ...	243,736	11,468	84,913	264,830	11,294	49,568

140. In East Khándesh Division the prices obtained from teak were very low. The teak exploited from the coupes in the Yával Sápudas had to be carried 36 miles on pack bullocks to the temporary sale depôt at Faizpur, a market town in the Tápti Valley, as purchasers and contractors would not buy the timber when stacked in the coupes.

141. In the West Khándesh Division a large portion of timber remained unsold.

142. In the Násik Division there are no departmental operations proper for the extraction of timber, but the wood cut on boundary lines during the demarcation of forest boundaries in the Peint Range realized Rs. 74.

143. In the Ahmednagar Division 13,991 teak trees were exploited from the coupes under working plans, the cost amounted to Rs. 525 and the sales realized Rs. 1,463. 2,850 jambul (*Eugenia*) trees were felled in river beds in the Sangamner Range at a cost of Rs. 69, but this material was not sold, for there were no bids for it.

144. In the Poona Division 20,176 cubic feet of timber were cut at a cost of Rs. 1,908, out of which 19,176 cubic feet were sold for Rs. 9,341 and 1,000 were used to form posts for wire fencing in the Haveli Range.

145. In the Sátára Division departmental operations were undertaken in 9 ranges out of 14. The timber exploited in 8 ranges was teak and that exploited from a reserved forest on the bank of the Krishna river in the Tásgaon Range was bábul.

146. There were no departmental operations in the Sholápur Division.

## (b).—FIREWOOD AND CHARCOAL.

147. The following statement furnishes the comparative transactions of two years :—

Division.	1895-96.			1896-97.		
	Firewood in Cubic feet.	Cost.	Receipts.	Firewood in Cubic feet.	Cost.	Receipts.
		Rs.	Rs.		Rs.	Rs.
East Khándesh ...	760,905	4,102	11,812	827,370	3,922	7,516
West Khándesh ...	457,119	2,494	13,421	467,991	2,537	6,062
Násik ...	2,212	10	111	3,847	68	95
Ahmednagar ...	23,407	...	358	9,070	...	37
Poona ...	93,839	503	1,625	568,160	3,390	7,316
Sátára ...	719,395	5,392	8,145	627,260	3,484	4,125
Sholápur ...	418	1	21	1,916	9	100
Total ...	2,057,295	12,502	35,493	2,503,614	13,410	25,251

148. In East Khándesh Division firewood cut in some of the coupes in Chálisgaon, as well as that at Nimkheda in Bhusával, and Therala in Edlabad, to meet trade demands, could not sell, owing to the slackness of business, and steam cotton mills not working and not consuming wood to the extent of ordinary years. The scope of departmental fellings of trees standing in disforested lands had also to be curtailed as wood was practically unsaleable.

149. The West Khándesh firewood fellings consisted of anjan (*Hardwickia*) in the Dhulia and Pimpalner ranges and of khair (*Acacia*) in Nizámpur; prices were good. 81,937 cubic feet of firewood remained unsold at the close of the year.

150. The firewood cut in the Násik forests was supplied to famine kitchens and only the charges which had been incurred in cutting and cartage were charged to Famine Fund; no profit was demanded.

151. In the Ahmednagar Division there are no departmental firewood fellings. All trees in the coupes are sold on foot in accordance with the provisions of the working plans of the bábul blocks. Loppings of teak and jambul trees exploited for timber are sold as firewood.

152. In the Poona Division dead fallen trees in the bábul forests are felled and removed for sale departmentally, and some coupes which could not find purchasers were worked by hired labour under departmental directions and supervision. Out of 568,190 cubic feet of firewood, 200,918 cubic feet remained unsold at the close of the year.

153. In the Sátára Division out of 627,260 cubic feet of firewood exploited by departmental agency, 116,420 cubic feet of firewood remained unsold at the close of the year.

154. In the Sholápur Division there are no departmental firewood fellings to speak of. All trees in the coupes are sold on foot in accordance with the provisions of the working plans of the bábul blocks.

(c).—BAMBOOS AND (d).—SANDALWOOD.

155. No departmental operations were undertaken under these heads.

(e).—GRASS AND OTHER MINOR PRODUCE.

156. As a famine relief measure, the collection of grass and its exportation to the famine-affected parts of the Deccan were undertaken during the year under the direction of the Honourable Mr. Shuttleworth, Conservator of Forests, 1st Grade, who was employed on special duty for the purpose. Enormous quantities of grass were collected, compressed into bales by steam-power as well as by bullock-power and by hand-presses, in the East Khándesh, Thána, Poona, Sátára, Belgaum, Kánara and Dhárwár districts, and the bales were sent by railway to stations in the Násik, Ahmednagar, Poona, Sholápur and Bijápur districts, where

they were distributed. In addition thereto quantities of loose grass collected in the Poona, Násik and Sátára districts in the ranges bordering the Syhádris were sold locally without undergoing baling. The revenue derived for the hirda, myrabolán, during the year of the report and the previous year shows as under :—

Year.			Yield.	Price.
			K. m. lbs.	Rs.
1895-96	...	...	1,775 1 25	5,344
1896-97	...	...	1,486 24 9½	20,396

157. In the Násik Division the hirda fruit was collected departmentally. The year was a bad one, and the crop poor, but notwithstanding the results were fair.

158. Forty khandis of hirdas represented the yield of the Akola Range of the Ahmednagar District and they were sold at the rate of Rs. 35 per deshi khandi.

159. In the Poona Division a balance of 35 Bombay khandis collected departmentally in 1895-96 was sold at Rs. 33 per khandi.

160. In the Sátára Division it was intended to farm out the right to collect hirda throughout the district, but owing to no adequate offers being made for several ranges, the right was only farmed out in the Mahábaleshvar, Pátan and Shirála ranges; while in the Jávli, Wái and Sátára ranges the hirda was collected departmentally. Difficulty was experienced in selling this hirda owing to the low prices ruling generally in the city of Bombay.

4,800 cubic feet of bábul bark stripped off the trees felled in the Burli coupe of the Tásgaon Range were sold for Rs. 110.

## II.—REMOVAL OF PRODUCE BY PURCHASERS.

### (α).—TIMBER.

161. The following table compares the results of the past two years :—

Division.	1895-96.		1896-97.	
	Cubic feet.	Revenue.	Cubic feet.	Revenue.
		Rs.		Rs.
East Khándesh ... ..	106,650	2,518	14,146	629
West Khándesh ... ..	174,938	12,725	183,531	13,437
Násik ... ..	1,590,549	92,070	529,670	52,139
Ahmednagar ... ..	12,080	371	.....	265
Poona ... ..	25,752	12,801	23,525	4,659
Sátára ... ..	2,580	1,456	2,233	1,688
Sholápur ... ..	8,400	2,275	.....	2,342
Total ... ..	1,920,949	1,24,216	753,105	75,159

162. In the East Khándesh Division the outturn under this head has dwindled down very much owing to an almost total absence of demand for wood in the market. The Bhils who subsist ordinarily on bartering and selling wood forsook their ordinary occupation and turned for their livelihood to grass-cutting and carrying it from the Sátápuda forests for sale in villages in the plains to the public, and they also employed themselves as labourers in cutting grass for Government.

163. On some disforested lands in West Khándesh trees were sold on foot to be cleared away by the purchasers at their own expense.

164. In the Násik Division prices ruled very low and two contracts were cancelled and not resold.

165. In the Ahmednagar Division trees in the evergreen forests were sold on fees to villagers in 44 villages along the gháts in Akola and 6,039 trees were thus exploited.

166. The heavy fall in receipts in the Poona Division is due to the fact that in 1895-96 the whole of the revenue under this head was due to the sale of teak trees on foot at 1 rupee per tree; whereas in 1896-97 only 2,338 royalty trees could be sold on foot at the prescribed rate, and the remaining half of the revenue was due to the price obtained for the sale of teak coupes (standing).

167. In the Sátára Division an attempt was made during the year to introduce the Thána system of selling the coupes on foot, but it proved a failure, with the exception of the Degaon Coupe No. 9, which was sold for Rs. 510 only; and some 939 teak and 358 sandalwood trees standing upon cultivation lands outside of forest boundaries were sold to survey occupants.

168. In the Sholápur Division only two coupes were exploited this year, but prices paid for them were good.

(b).—FIREWOOD.

169. A comparison between the two years is given below:—

Division.	Cubic feet.		Revenue.	
	1895-96.	1896-97.	1895-96.	1896-97.
			Rs.	Rs.
East Khándesh ... ..	661,770	385,898	5,515	3,908
West Khándesh ... ..	201,341	97,128	7,216	2,205
Násik ... ..	266,296	272,142	5,487	5,195
Ahmednagar ... ..	39,875	33,509	3,327	2,267
Poona ... ..	806,100	351,367	6,046	8,913
Sátára ... ..	7,209	9,007	194	217
Sholápur ... ..	20,238	12,200	192	682
<b>Total ...</b>	<b>2,002,829</b>	<b>1,161,251</b>	<b>27,977</b>	<b>23,387</b>

170. In the two Khándesh divisions no coupes of standing trees were sold during the year, and all the exploitations were made on permits by villagers for the needs of local supply. A sum of Rs. 18 was received on account of firewood sold on foot from disforested lands in West Khándesh.

171. In the Násik Division a great deal of firewood was disposed in coupes under the working plans.

172. In accordance with the provision of the working plans the bábul forests of the Ahmednagar Division were exploited. Forty-six coupes were put into the market, but only 30 found purchasers, and 16 remained unsold: 186 acres were worked under clear fellings and 10,467 trees, yielding according to rough estimate 31,320 cubic feet, were felled, realizing Rs. 2,350. The prices offered were poor.

173. In the Poona Division the coupe sales were satisfactory, but in the Sátára and Sholápur divisions there were practically no sales.

(c).—BAMBOOS.

174. All bamboos are removed on permits by payment of fees in the Khándesh District.

175. The contract for bamboos in the Peint Range of the Násik District was taken at Rs. 3-8-6 per 100, but only 39,850 were exploited instead of 100,000 as contracted for, the contractors stating that the absence of grass and drinking

water for cattle prevented their working up to the full of their agreements. In the other ranges of Násik, as well as in the other divisions, bamboos were removed on permits.

176. The following table shows the quantities exploited and their values :—

Division.	1895-96.		1896-97.	
	Number.	Revenue.	Number.	Revenue.
		Rs.		Rs.
East Khándesh ... ..	745,998	7,802	452,852	4,617
West Khándesh ... ..	205,166	1,834	462,234	2,684
Násik ... ..	88,822	4,247	69,288	3,062
Ahmednagar ... ..	32,567	327	25,912	283
Poona ... ..	94,490	971	31,492	344
Sátára ... ..	89,651	557	37,751	231
Total ... ..	1,256,694	15,738	1,079,529	11,221

N.B.—Revenue for 152 cart-loads and 386 head-loads sold in the Násik Division is included in the above figures.

(d).—GRAZING AND FODDER GRASS.

177. This has been dealt with earlier in the report.

(e).—OTHER MINOR PRODUCE.

178. This head includes hirda (the fruit of the Terminalia chebula), shikakai (the pod of Acacia concinna), rosha oil (Andropogon schœnanthus), tarwad (Cassia auriculata), leaves of temburni (Diospyros), of apta (Bauhinia), karvi (Strobilanthus), thorns, earth, stones, &c. : the comparative results are as follows in rupees :—

Division.	1895-96.	1896-97.
	Rs.	Rs.
East Khándesh ... ..	1,208	1,207
West Khándesh ... ..	14,975	12,030
Násik ... ..	2,789	2,619
Ahmednagar ... ..	1,911	1,988
Poona ... ..	998	2,226
Sátára ... ..	3,864	3,922
Sholápur ... ..	84	490
Total ... ..	25,829	24,482

III.—FREE GRANTS OF FOREST PRODUCE.

179. The following statement shows the value of such grants sanctioned during the past five years :—

Division.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.
	Rs.	Rs.	Rs.	Rs.	Rs.
East Khándesh ... ..	...	...	...	25	...
West Khándesh ... ..	458	1,518	671	2,270	1,414
Násik ... ..	274	369	510	1,477	...
Ahmednagar ... ..	...	20	41	12	78
Poona ... ..	628	684	694	392	464
Sátára ... ..	136	43	110	25	131
Sholápur ... ..	...	...	...	...	...
Total ... ..	1,496	2,634	2,026	4,201	2,087

180. In addition to the above, concession of taking anjan leaves free of charge for fodder was given in the Khándesh and Násik districts; and in West Khándesh the Sátputa Bhils were allowed to take grass in head-loads free for sale throughout the hot weather.

#### IV.—PRODUCE REMOVED BY RIGHT-HOLDERS.

181. It is impossible to classify or record all that is taken, but there is not the least doubt that a very large sum of money represents the loss to the State in the Forest Department, both in the capital value of the forests and in the commercial value of the timber and other forest produce appropriated, for there is wide evidence to show that forests are seriously injured by the proceedings in the enjoyment or exercise of forest rights and of forest privileges. The Divisional Forest Officer, West Khándesh, reports that he has nothing to add to the remarks made by him in the last year's report as to the disastrous effect of the live wood privileges under the North Tápti Code on the forests of the Sátputas. The Sátputa Bhils were allowed to remove dead and fallen teakwood at low rates towards the end of the hot weather: they promptly abused the privilege by manufacturing dead wood in considerable quantities and the Divisional Forest Officer was obliged to ask the Collector to revoke the concession in consequence.

182. The issue of free grazing permits for the last two years is compared below :—

Division.	Animals.		Value.	
	1895-96.	1896-97.	1895-96.	1896-97.
			Rs.	Rs.
East Khándesh ...	11,201	15,220	6,885	8,803
West Khándesh ...	26,185	22,363	14,065	12,994
Násik ...	79,879	77,643	41,015	38,893
Ahmednagar ...	5,808	4,622	3,036	2,503
Poona ...	91,741	120,760	53,140	66,554
Sátára ...	43,439	52,500	24,771	29,118
Sholápur ...	6,130	9,456	3,423	4,740
Total ...	264,383	302,564	1,46,395	1,63,605

183. Thus it will be seen that a larger number of animals has been free-grazed in the forests under issued permits than during the previous year, and that the value of this free grazing is greater. But the above figures do not, as has been explained already, show the whole value of the free grazing enjoyed by village cattle within the forests, for when the scarcity of fodder and the distress amongst cattle became pronounced and additional forest areas were opened to free grazing, cattle were admitted without permits being issued in respect of them, and practically all the able bodied cattle of the Deccan villages went into forest areas when within reach of the villages to pick up whatever they could find to eat.

184. The following statement gives an approximate estimate of the value of forest produce lost to the forest revenue by concessions in the several divisions :—

No.	Division.	Timber.	Firewood.	Bamboos.	Other minor produce.	Grazing and grass.	Total.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	East Khándesh ...	215	1,088	300	328	47,721	49,652
2	West Khándesh ..	1,414	...	...	...	12,994	14,408
3	Násik ...	601	1,450	...	7,650	68,889	78,590
4	Ahmednagar ...	129	...	...	600	43,632	44,361
5	Poona... ..	464	1,174	...	2,094	72,305	1,40,441
6	Sátára... ..	130	25,000	...	4,750	43,242	73,122
7	Sholápur ...	...	9,375	...	...	7,630	17,005
	Total ...	2,953	38,037	300	15,422	3,60,817	4,17,519



185. A statement showing the outturn of timber and forest produce is given in the form appearing in paragraph No. 10 of letter No. <sup>859 F.</sup> 126-3, dated 14th September 1896, from the Government of India, as directed in paragraph 9 of Government Resolution No. S265, dated 21st October 1896, in the Revenue Department:—

Division.	Agency by which material removed.	MATERIAL REMOVED.					AVERAGE OUTTURN PER SQUARE MILE OF ALL FORESTS.		
		Timber.	Fuel.	Total wood.	Bamboos.	Minor produce.	Timber and fuel.	Bamboos.	Minor produce.
		Cub. ft.	Cub. ft.	Cub. ft.	No.	Rs.	Cub. ft.	No.	Rs.
East Khandesh ...	Government ...	20,960	827,370	848,330	.....	.....	...	...	...
	Purchasers ...	14,146	385,893	400,044	452,852	82,269	...	...	...
	Free grants ...	.....	.....	.....	.....	.....	...	...	...
	Right-holders ...	2,687	96,345	99,032	20,000	48,049	...	...	...
	Total ...	37,793	1,309,613	1,347,406	472,852	1,30,318	1,661	583	161
West Khandesh ...	Government ...	103,141	467,991	570,132	.....	.....	...	...	...
	Purchasers ...	183,531	97,128	280,659	462,234	1,16,193	...	...	...
	Free grants ...	11,624	.....	11,624	2,600	.....	...	...	...
	Right-holders ...	.....	.....	.....	.....	12,994	...	...	...
	Total ...	297,296	565,119	862,415	464,834	1,29,187	496	268	67
Nasik ...	Government ...	564	3,947	4,411	.....	1,353	...	...	...
	Purchasers ...	529,670	272,142	801,812	69,288	61,952	...	...	...
	Free grants ...	8,359	39,365	47,724	.....	.....	...	...	...
	Right-holders ...	.....	126,150	126,150	.....	76,539	...	...	...
	Total ...	538,593	441,504	980,097	69,288	1,39,844	766	54	109
Ahmednagar ...	Government ...	39,564	9,070	48,634	.....	1,413	...	...	...
	Purchasers ...	.....	33,509	33,509	25,912	40,161	...	...	...
	Free grants ...	3,432	.....	3,432	.....	.....	...	...	...
	Right-holders ...	.....	.....	.....	.....	44,232	...	...	...
	Total ...	43,296	42,579	85,875	25,912	85,826	101	31	101
Poona ...	Government ...	20,179	566,160	586,338	.....	1,282	...	...	...
	Purchasers ...	23,545	351,367	374,892	31,492	42,354	...	...	...
	Free grants ...	3,005	.....	3,005	.....	.....	...	...	...
	Right-holders ...	.....	.....	.....	.....	74,399	...	...	...
	Total ...	46,708	917,527	964,235	31,492	1,18,035	1,356	44	166
Satara ...	Government ...	81,123	627,260	708,383	.....	16,479	...	...	...
	Purchasers ...	2,233	9,007	11,240	37,751	39,252	...	...	...
	Free grants ...	175	.....	175	.....	.....	...	...	...
	Right-holders ...	.....	4,000,000	4,000,000	.....	47,992	...	...	...
	Total ...	83,531	4,636,267	4,719,798	37,751	1,03,723	6,761	54	141
Sholapur ...	Government ...	.....	1,916	1,916	.....	43	...	...	...
	Purchasers ...	.....	12,200	12,200	.....	20,537	...	...	...
	Free grants ...	.....	1,500,000	1,500,000	.....	.....	...	...	...
	Right-holders ...	.....	.....	.....	.....	7,630	...	...	...
	Total ...	.....	1,514,116	1,514,116	.....	28,210	5,446	...	101
All divisions combined.	Government ...	264,830	2,503,614	2,768,444	.....	20,570	...	...	...
	Purchasers ...	753,105	1,161,251	1,914,356	1,079,529	4,02,738	...	...	...
	Free grants ...	26,595	39,365	65,960	.....	2,600	...	...	...
	Right-holders ...	2,687	4,222,495	4,225,182	20,000	3,11,835	...	...	...
	Total, 1896-97 ...	1,047,217	7,926,725	8,973,943	1,103,129	7,35,143	1,410	173	115

## CHAPTER IV. FINANCIAL RESULTS.

186. The receipts, expenditure and net revenue of this and the preceding year are compared below:—

Year.	Receipts.	EXPENDITURE.			Surplus.
		A.— Conservancy and Works.	B.— Establish- ments.	Total.	
		Rs.	Rs.	Rs.	
1895-96	7,59,605	1,63,449	3,63,753	5,27,207	2,32,398
1896-97	7,04,365	3,03,499	3,89,901	6,93,400	10,964
Increase	...	1,40,050	26,143	1,66,193	...
Decrease	55,240	...	...	...	2,21,434

187. Under receipts the falling off is due to the poor prices obtained for forest produce throughout the Circle owing to the famine and consequent depression in trade, &c. A considerable quantity of teak timber which had been felled and exploited departmentally remained unsold, while teak, &c., and other trees standing in coupes which were offered for sale for the purchaser to fell and remove failed in many cases to find buyers. The hirda crop was also poor and the prices ruling the market for myrobolans very low. Added to all this one of the largest contractors in the Násik Division failed to pay in instalments of his contract amounting to Rs. 42,000 and discontinued the felling and removal of the teak trees standing upon lands outside the forest boundaries in villages in Peint Range which he had undertaken to cut and remove. The decrease in revenue would have been still greater had not the sum of Rs. 65,361 realized by sale of grass imported into the famine-affected areas under the operations conducted by the Honourable Mr. Shuttleworth been credited to the Forest Department in the Central Circle. The increase in expenditure is mainly owing to the cost of these famine grass and grazing operations, but the special outlay incurred in demarcating the forest boundaries by erecting boundary-marks as a famine relief work, together with the payment of grain compensation to the establishments and of enhanced rate of permanent travelling allowance to foresters in the Central Circle, have also contributed materially to raise the total cost of conservancy and works and establishment to a higher figure than that of the year previous.

#### RECEIPTS I.—DEPARTMENTAL AGENCY.

Year.	Timber.	Firewood.	Bamboos.	Sandal-wood.	Grass and other minor produce.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1895-96 ... ..	84,913	35,493	...	...	5,407	1,25,813
1896-97 ... ..	49,569	25,251	3	11	86,921	1,61,755
Difference ...	-35,344	-10,242	+3	+11	+81,514	+35,942

188. The decrease under timber and firewood was owing to the general state of trade depression. Not only were the prices of food-grains very much enhanced, but there was a widespread scarcity of fodder for animals, grass and fodder crops failed absolutely over a large portion of the Deccan, and much more completely, and over a much larger extent of country in the Deccan, than during the famine of 1876-77; and in consequence cart traffic was interrupted considerably, so that timber and other forest produce could not be brought out of forest and moved over the country as in other years when grass and fodder are abundant and cheap. The increase under grass and other minor produce is especially due to the sum of Rs. 66,351 received by sale of grass imported into the famine-affected areas in the Poona, Sholápur, Ahmednagar, Násik and Sátára districts.

#### RECEIPTS II.—CONSUMERS AND PURCHASERS.

189. The financial results under each and every sub-head are very unsatisfactory, and this is due to no other reason but scarcity and famine, especially of fodder:—

Year.	Timber.	Firewood.	Bamboos.	Grazing and fodder grass.	Other minor produce.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1895-96 ... ..	1,24,216	27,977	15,738	4,07,400	25,829	6,01,160
1896-97 ... ..	75,159	23,387	11,222	3,78,256	24,483	5,12,507
Difference ...	-49,057	-4,590	-4,516	-29,144	-1,346	-88,653

190. One timber contractor in the Peint Range of the Násik Division failed to pay Rs. 42,000 of instalments required of him within the year; but at the same time he neglected to fell the trees and to remove the timber which would at his contract rate have balanced the amounts of these instalments. The fall in the receipts for firewood is comparatively small, and this is because firewood is a necessary of life and has to be provided, whereas timber and bamboos are not required when building operations come to a standstill owing to hard times with the difficulty and greatly enhanced cost of conveying these materials from the forests of their production to villages and towns for use. The receipts from grazing permits decreased also; this was due in great measure to the distress prevailing among the agricultural classes on whose behalf the closed forests with the exception, of course, of coupes recently exploited closed for natural recreation and of other special areas under treatment for reboisement were thrown open to free grazing.

191. Under A—Conservancy and Works and B—Establishments the expenditure incurred is greater than of the preceding year under several heads owing, as has been stated already, to

(i) the cost of famine grass and grazing operations,

(ii) to the cost incurred in demarcating forest boundaries as a special famine relief work,

(iii) on account of the salary and travelling allowances of the Honourable Mr. Shuttleworth while employed on special famine duty conducting grass operations and his establishment which has been charged to the Central Circle.

192. The financial results of the several divisions of the Central Circle can be read in the following table:—

No.	Division.	Receipts.		Charges.		Surplus.		Deficit.	
		1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	Direction... ..	16	9	33,941	31,537	...	...	33,925	31,528
2	Working Plans ...	21	7	14,925	21,080	...	...	14,904	21,073
3	East Khándesh ...	1,33,855	1,12,528	56,711	53,725	77,144	53,803	...	...
4	West Khándesh...	2,22,440	1,72,161	65,814	72,088	1,66,626	1,00,973	...	...
5	Násik ... ..	1,61,926	1,25,293	70,712	76,340	91,214	48,953	...	...
6	Ahmednagar ...	55,851	49,237	56,360	55,631	...	...	446	6,294
7	Poona ... ..	89,030	78,049	91,795	97,166	...	...	2,765	19,117
8	Sátára ... ..	70,928	76,359	84,435	89,537	...	...	13,507	13,178
9	Sholápur ... ..	25,535	24,361	27,975	33,298	...	...	2,440	8,937
10	Forest Surveys ...	...	...	21,599	31,393	...	...	24,599	31,393
11	Famine, Grass and Grazing... ..	...	66,361	...	1,26,705	...	...	...	60,344
	Total ... ..	7,59,605	7,04,365	5,27,207	6,93,400	3,24,934	2,02,829	92,586	1,91,864

193. All divisions except Sátára exhibit a decrease in gross receipts, the causes having been explained above.

194. The surplus revenue of the three divisions of East and West Khándesh and of Násik amounts to Rs. 2,02,829 and the deficit of the other divisions, including Direction, Working Plans, Forest Surveys and Famine Grass and Grazing, comes to Rs. 1,91,864, leaving Rs. 10,965 as the net surplus of the year. However if the Forest Accounts had received credit for the full value of the grass supplied from reserved forests to the Commissariat Department free of charge in the Ahmednagar and Poona districts at a time when grass was selling at over Rs. 20 per 1,000 lbs. and also for the full value of the grass which was supplied under the Famine Grass and Grazing operations to agricultural and other cattle in the famine-affected areas of the Poona, Ahmednagar, Sholápur, Sátára and Bijápur districts at reduced rates not below annas eight per maund of 80 lbs., a very substantial profit would have been apparent and the financial results of the year would, despite the failure of the timber trade, have been very satisfactory,

195. The actuals of the financial year compare with the sanctioned budget estimates thus :—

	Receipts.	EXPENDITURE.			Surplus.
		A.— Conservancy and Works.	B.— Establish- ments.	Total.	
		Rs.	Rs.	Rs.	
Budget estimates ... ..	8,50,000	1,79,743	3,64,097	5,43,840	3,06,160
Actuals ... ..	6,66,386	2,34,266	3,81,926	6,16,192	50,194
Increase of actuals ... ..	...	54,523	17,829	72,352	...
Decrease of actuals ... ..	1,83,614	...	...	...	2,55,966

196. As directed in Government Resolution No. 5385, dated 23rd June 1894, the revenue and expenditure for the past decade are given in the table below :—

Year.	Revenue.	Expenditure.	Surplus.	REMARKS.
	Rs.	Rs.	Rs.	
1887-88 ... ..	4,95,424	6,52,617	42,808	
1888-89 ... ..	5,82,238	4,56,619	1,25,619	
1889-90 ... ..	5,89,455	4,33,181	1,56,274	
1890-91 ... ..	6,20,092	4,55,908	1,64,184	
1891-92 ... ..	7,48,149	4,61,353	2,86,796	
1892-93 ... ..	7,51,787	4,82,479	2,69,308	
1893-94 ... ..	8,18,189	5,03,230	3,14,959	
1894-95 ... ..	7,93,848	5,39,773	2,54,075	
1895-96 ... ..	7,54,109	5,27,128	2,26,981	
1896-97 ... ..	6,66,386	6,16,192	50,194	

197. The value of stock and outstandings at the commencement and close of the forest year is compared below :—

		I.		Rs.
Value of Stock—				
On 1st July 1896	...	...	...	75,628
On 30th June 1897	...	...	...	56,936
Balance against the year		...	...	<u>18,692</u>

		II.	
		By Contractors.	On account of Revenue.
<i>Value of outstandings.</i>		Rs.	Rs.
On 1st July 1896 ... ..	...	12,455	17,107
On 30th June 1897 ... ..	...	29,404	49,068
		<u>+13,949</u>	<u>+31,961</u>

## CHAPTER V.

## FOREST ADMINISTRATION.

198. The lines on which the forest administration of the Circle is conducted have continued unchanged during the year.

## ESTABLISHMENTS AND THEIR RECRUITMENT.

199. The controlling staff on the last day of the forest year, *viz.*, the 30th June 1897, consisted of the following appointments :—

*Imperial.*

	Rs.
1 Conservator, 1st Grade, at	1,600
1 Deputy Conservator, 1st Grade, at	900
1 Do. 2nd Grade, at	800
3 Deputy Conservators, 3rd Grade, at	650
1 Deputy Conservator, 4th Grade, at	550
2 Assistant Conservators, 1st Grade, at	450
1 Assistant Conservator, 2nd Grade, at	350

Of these, one officer, *viz.*, the Deputy Conservator, 1st Grade, was lent to the Educational Department to work in the College of Science, Poona, as Professor of Forestry.

*Provincial.*

	Rs.
1 Extra Deputy Conservator, 4th Grade, at	450
1 Extra Assistant Conservator, 1st Grade, at	350
1 Do. do. 2nd Grade, at	300
1 Do. do. 3rd Grade, at	250
1 Do. do. 4th Grade, at	200

200. Two forest guards on Rs. 7 each have been added to the numerical strength and constitution of the permanent subordinate protective establishment.

201. The usual temporary establishment of 18 forest guards on Rs. 8 each and 33 on Rs. 7 each per mensem was entertained.

202. The strength of the office establishment of the Conservator of Forests has been increased by one clerk on Rs. 60, one clerk on Rs. 40 and two peons on Rs. 8 each per mensem, and that of the Poona Division by one clerk on Rs. 20 per month; all the remaining office establishments remain unchanged.

203. The Conservator has much pleasure in recording that all the Divisional Forest Officers and the Extra Assistant Conservators whose names have already been mentioned in paragraph 15 of this report have each and all without exception worked loyally, zealously and energetically throughout the year and have merited his acknowledgments.

204. The undermentioned members of the subordinate protective establishment are reported to have merited special mention :—

*Rangers.*

Abdul Rasul Khajbaksh, who was deputed on special duty in Khándesh in connection with the famine grass operations.

Keshao Pandurang Kavthekar.

Kashinath Narayan Joshi.

Dinkar Narayan Damle.

J. H. Irani.

*Foresters.*

Gopal Shrikrishna.

Maktumali Sarwarali.

Hushnodin Gulam Hussen.

Rahimatkha Maktumkha.

Gangadhar Gopal Umbralkar.

The two first-named performed excellent work in the Sápuda Forests in directing and supervising the cutting and exploitation of grass.

*Office Establishment.*

Mr. M. N. Gokhale,		Mr. M. D. Joshi,
„ H. J. Mehendale,		„ B. W. Joshi, and
„ D. T. Salshingikar,		„ W. T. Tilwankar.

205. The office establishment of the Divisional Forest Officer, West Khándesh, suffered much from sickness throughout the season; at one time in the cold weather there was only one clerk out of six fit to do any work at all, and this state of things lasted for some weeks. On the whole the health of the establishments was good. Thirty forest guards died during the year.

206. The following statement furnishes an account of the subordinates who retired, resigned or were dismissed for bad work, &c. :—

No.	Division.	NUMBER OF SUBORDINATES.		
		Retired.	Resigned.	Dismissed.
1	East Khándesh ...	3	...	6
2	West Khándesh ...	...	3	7
3	Násik ...	...	1	6
4	Ahmednagar ...	...	...	13
5	Poona ...	1	1	22
6	Sátára ...	2	1	3
7	Sholápur ...	...	...	4
	Total ...	6	6	61

**FOREST INSTRUCTION, &c.**

207. In June 1896 there were two classes which were during the summer term taken through the part of the curriculum assigned to that period, comprising Forestry for the junior, and Law and Forest Organization for the senior class. The junior class spent a portion of the autumn term in the Thána District and the senior class studied practical work in the Poona Division.

208. In December the senior class was finally examined and Ranger's certificates were awarded to 7 candidates.

The number of students in the several classes in January 1897 was

L. C. E. Class...	...	...	3
Senior Ranger Class	...	...	11
Junior do:	...	...	28

209. Owing to the outbreak of plague study was interrupted in February and lectures were not resumed until 14th June 1897, from which date the numbers in the classes have been slightly reduced as follows :—

L. C. E. Class...	...	...	2
Senior Ranger Class	...	...	10
Junior do.	...	...	22

to which must be added the recently formed Forester Class numbering 5. General progress has been as satisfactory as could be expected under the circumstances.

**GENERAL REMARKS.**

**IMPORTS AND EXPORTS OF FOREST PRODUCE.**

210. Hirda, the fruit of *Terminalia chebula*, and rosha oil (*Andropogon schoenanthus*) are the only articles of forest produce that are exported from this Circle to Bombay and Europe, the former for tanning or dyeing and the latter for medicinal purposes. Teak (*Tectona grandis*) is likewise exported from Khándesh

to Baroda markets and from one division to another. In the two divisions of Khándesh import duty is levied on timber and other forest produce coming from the surrounding Native States, and the collections of the year amount to Rs. 10,953 against Rs. 16,818 of the year preceding. The cause of this falling off has been already explained in Chapter III.

#### CIVIL SUITS.

211. A suit brought by one Shamatkhan Hasamkhan to recover Rs. 4,740 in connection with a grass contract was decided in favour of Government by the Assistant Judge, Sátára.

#### CONSERVATOR'S TOUR OF INSPECTION.

212. Mr. Betham held the administrative charge of the Circle throughout the touring season, *i.e.*, from November to the following June, and he travelled in all the divisions of the Circle, except Sholápur, which he was not able to visit on account of the famine and in consequence of the services of the Divisional Forest Officer Mr. Fisher having been lent to the Famine Department. Seven out of eight Divisional Offices and 15 Range Offices were inspected during the year. In the course of his tour Mr. Betham met Divisional Forest Officers and personally discussed with them forest business.

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

*Camp Belvandi Kothár, Ahmednagar District,  
dated 4th March 1898.*

FORM No. 46.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Area of Reserved Forests, 1896-97.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1896.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1897.		Number and date of Notification of addition or transfer.	REMARKS.
				Acres.	Equivalent in square miles.			Acres.	Acres.		
1	2	3	4	5	6	7	8	9	10	11	12
					Sq. m. acres.				Sq. m. acres.		
East Khándesh ...	...	} Khándesh ...	{ ...	519,061	811 21	(a) 53	15	519,099	811 59	(a) No. $\frac{1962}{12-3-97}$ .	35 acres added by rectification; excluded by rectification.
West Khándesh ...	...			...	1,110,193	1,734 433	2,890	.....	1,113,083	1,739 123	.....
Násik ...	...	Násik ...	...	818,801	1,279 241	.....	.....	818,801	1,279 241	.....	
Ahmednagar ...	...	Ahmednagar ...	...	535,619	836 579	(b) 76	(c) 25	535,670	836 630	(b) Nos. $\frac{6038}{10-8-96}$ $\frac{744}{28-1-97}$ .	4 acres added by rectification.
Poona ...	...	Poona ...	...	454,930	710 530	(d) 33	(e) 14	454,919	710 549	(c) No. $\frac{6493}{18-8-96}$ .	2½ acres out of exclusion are by rectification.
Sátára ...	...	Sátára ...	...	439,984	687 304	(f) 6,174	.....	446,158	697 78	(d) No. 6492 of 18-8-96. (e) No. 4202 of 4-6-97.	
Sholápur ...	...	Sholápur ...	...	177,691	277 411	(g) 97	(h) 52	177,736	277 456	(f) No. 778A of 29-1-97. (g) Nos. $\frac{5671}{21-7-96}$ $\frac{7608}{28-9-96}$ and $\frac{9404}{25-11-96}$ .	
			Total ...	4,056,279	6,337 599	9,323	106	4,065,496	6,352 216	(h) No. $\frac{7626}{29-9-96}$ .	

Camp Belvandi Kothár, Ahmednagar District, }  
dated 4th March 1898.

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.



FORM NO. 46A.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Area of Protected Forests, 1896-97.

Division.	Civil District or Territory.	Name of Forest.	AREA ON 1st JULY 1896.		ADDED DURING THE YEAR.	EXCLUDED OR TRANSFERRED TO OTHER HEADS.	AREA ON 30th JUNE 1897.		Number and date of Notification of addition or transfer.	REMARKS.
			Acres.	Equivalent in Square-miles.	Acres.	Acres.	Acres.	Equivalent in Square-miles.		
1	2	3	4	5	6	7	8	9	10	11
				Sq. m. acres.				Sq. m. acres.		
East Khándesh } West do. }	Khándesh ...	...	...	...	...	...	...	...		
Násik ...	Násik ...	...	...	...	...	...	...	...		
Ahmednagar ...	Ahmednagar ...	...	7,140	11 100	...	...	7,140	11 100		
Poona ...	Poona ...	...	...	...	...	...	...	...		
Sátára ...	Sátára ...	...	616	0 616	...	14	602	0 602	2673 of 5th April 1897.	
Sholápur ...	Sholápur...	...	...	...	...	...	...	...		
		Total ...	7,756	12 76	...	14	7,742	12 62		

43

Camp Belvandi Kothár, Ahmednagar District, }  
dated 4th March 1898.

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

FORM No. 47.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Statement showing the Progress made in and the Expenditure incurred on Forest Settlements during 1896-97.

Name of Forest Division.	Name of Civil District or Territory.	Area already settled at commencement of the year.	AREAS FINALLY SETTLED DURING THE YEAR.						AREA UNDERGOING SETTLEMENT.						REMARKS.
			Number and date of Government order according final sanction to the settlement.	Name of Forest settled.	Area in square miles.	Expenditure incurred during the year on areas finally settled.		Entire cost per square mile of areas finally settled during the year.	At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing settlement.		
						In Forest Accounts.	In other Accounts.		Name of tract.	Area in square miles.	Name of tract.	Area in square miles.	In Forest Accounts.	In other Accounts.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<i>Reserved Forests.</i>		Sq. Ms.				Rs.	Rs.	Rs.					Rs.	Rs.	
East Khándesh ...	Khándesh ...	811	Nos. 1962 12-3-97.	...	18 640	...	...	...	...	4 <sup>25</sup> 640	...	4 <sup>203</sup> 640	} 4,246	...	Expenditure on areas actually settled and those undergoing settlement cannot be given separately and has therefore been given in lump in column 14.
West Khándesh...		1,735	.....	...	...	...	...	...	...	1 <sup>602</sup> 640	...	2 <sup>394</sup> 640			
Násik ...	Násik...	1,279	.....	...	...	...	...	...	...	20 640	...	2 640	...	...	
Ahmednagar ...	Ahmednagar...	837	Nos. 6038 & 744 10-8-96, 28-1-97.	...	72 640	...	...	...	...	1 610	...	36 640	335	...	
Poona ...	Poona...	711	Nos. 6492 18-8-96.	...	83 640	...	...	...	...	1 <sup>456</sup> 640	...	52 640	1,930	...	
Sátára ...	Sátára ...	687	No. 778A 23-1-97.	...	9 <sup>414</sup> 640	...	...	...	...	...	...	160 640	1,848	...	
Eholápur...	Sholápur ...	278	Nos. 5671 7608 9404 21-7-96. 28-9-96. 25-11-96.	...	97 640	...	...	...	...	81 640	...	46 640	...	...	
<i>Protected Forests.</i>															
Total Reserved ...		6,338	.....	...	10	...	...	...	...	3 <sup>545</sup> 640	...	7 <sup>253</sup> 640	8,359	...	
Ahmednagar ...	Ahmednagar...	11	.....	...	...	...	...	...	...	...	...	...	...	...	
Sátára ...	Sátára ...	1	.....	...	...	...	...	...	...	...	...	...	...	...	
Total Protected ...		12	.....	...	...	...	...	...	...	...	...	...	...	...	

41

Camp Belvandi Kothár, Ahmednagar District, }  
dated 4th March 1898.

A. T. SHUTTLEWORTH,

FORM No. 48.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Record of Demarcation and Maintenance of Boundaries, 1896-97.

B 1428-12 CO

DIVISION.	Length of Boundaries artificially demarcated during the year.	Length of previously existing Boundaries repaired.	Length of previously existing Boundaries not repaired.	Total length of artificially marked Boundaries at the close of the year.	Length of Boundaries not demarcated at the close of the year.	Length of natural Boundaries not requiring artificial marks.	Total length of Boundaries at the close of the year.	EXPENDITURE ON DEMARCA-TION DURING THE YEAR		REMARKS.
								On new work.	On repairs.	
1	2	3	4	5	6	7	8	9	10	11
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.	
East Khándesh ... ..	186	185	1,775	2,146	...	107	2,253	157	1,110	
West Khándesh ... ..	...	436	1,045	1,481	65	106	1,652	114	1,015	
Násik ... ..	220	321	2,671	3,212	...	321	3,533	2,139	1,628	
Ahmednagar ... ..	288	...	1,247	1,535	2,369	...	3,904	1,981	24	
Poona ... ..	408	...	1,963	2,371	1,152	186'	3,709	4,097	580	
Sátára ... ..	1,623	...	1,255	2,878	2,907	100	5,885	8,327	238	
Sholápur ... ..	21	3	967	991	680	40	1,711	102	96	
Total ...	2,746	945	10,923	14,614	7,173	860	22,647	16,917	4,691	

45

Camp Belvandi Kothár, Ahmednagar District, }  
dated 7th March 1898.

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

FORM No. 49.

FOREST DEPARTMENT, BOMBAY—CENTRAL CIRCLE.

Statement of Forest Areas Surveyed and under Survey during the year 1896-97.

Division.	Areas surveyed and under survey during the year.																									Areas remaining to be taken under Survey.	Total Forest area at end of the year as per Form No. 46.	COST.			REMARKS.
	Special surveys—Maps on 4' scale or over, by Survey of India Department or Forest Survey Branch.						Ordinary, included in District Surveys.									Chain and Compass or other Surveys by local officers.												Previous.	Of the year.	Entire cost of all Surveys to end of the year.	
	WITH INTERIOR DETAILS.			BOUNDARY SURVEYS.			WITH INTERIOR DETAILS.			BOUNDARY SURVEYS.			WITH INTERIOR DETAILS.			BOUNDARY SURVEYS.															
	WITH DETAILS OF GROWING STOCK.		WITHOUT DETAILS OF GROWING STOCK.	Total cost.	Previ. ous.	Of the year.	Total cost.	WITH DETAILS OF GROWING STOCK.		WITHOUT DETAILS OF GROWING STOCK.	Total cost.	Previ. ous.	Of the year.	Total cost.	Previ. ous.	Of the year.	Total cost.	4-INCH OR OVER.		UNDER 4-INCH.		Total cost.	Previ. ous.	Of the year.	Total cost.						
	Previ. ous.	Of the year.	Previ. ous.					Of the year.	Previ. ous.	Of the year.								Previ. ous.	Of the year.	Previ. ous.	Of the year.										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Reserved Forests.</i>			Sq. m.	Sq. m.	Rs.																										
	East Khândesh ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	811	811	...	...	...	N. B.—Proposed Forests surveyed but not included in columns 4 and 5.  Sq. m. 15.46 209.56 6.99 2.12	
	West Khândesh ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,739	1,739	...	...	...		
	Nâsik ...	...	...	234	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,045	1,279	11,714	...	11,714		
	Ahmednagar ...	...	...	185	237	29,478	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	415	837	21,318	29,478	50,796		
	Poona ...	...	...	501	22	1,678	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	188	711	1,09,269	1,878	1,11,147		
Sâtâra ...	...	...	69	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	628	697	5,504	...	5,504			
Sholâpur ...	...	...	51	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	224	278	8,370	...	8,370			
Total ...	...	...	1,043	259	31,356	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5,050	6,352	1,56,175	31,356	1,87,531		
<i>Protected Forests.</i>	Ahmednagar ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	Sâtâra ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	Total ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		

Camp Balvandi Kothâr, Ahmednagar District, dated 4th March 1898.

N.B.—Rs. 264.10 on account of the cost of medicines have been omitted by the Superintendent of Forest Surveys from the above figures.

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

FORM No. 50.

FOREST DEPARTMENT, BOMBAY—CENTRAL CIRCLE.

*Progress made in Working-Plans, 1896-97.*

Division.	AREAS FOR WHICH WORKING PLANS HAVE BEEN COMPLETED.		AREAS FOR WHICH WORKING-PLANS ARE BEING COMPILED.		Areas for which Working-Plans have still to be taken in hand.	Total Forest area, as in Form No. 46.	Entire cost, per square mile, of Working-Plans completed.	REMARKS.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.				
1	2	3	4	5	6	7	8	9
<i>Reserved Forests.</i>	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.		
East Khándesh ... ..	141	.....	436	196	38	811	.....	
West Khándesh ... ..	89	.....	50	.....	1,600	1,739	.....	
Násik ... ..	187	.....	695	.....	397	1,279	.....	
Ahmednagar ... ..	183	.....	108	125	421	837	.....	
Poona ... ..	196	.....	263	5	247	711	.....	
Sátára ... ..	84	.....	.....	.....	613	697	.....	
Sholápur ... ..	7	.....	.....	.....	271	278	.....	
Total ... ..	887	.....	1,552	326	3,587	6,352	.....	
<i>Protected Forests.</i>								
Ahmednagar ... ..	.....	.....	.....	.....	11	11	.....	
Sátára ... ..	1	.....	.....	.....	.....	1	.....	
Total ... ..	1	.....	.....	.....	11	12	.....	

*Camp Belvandi Kothár, Ahmednagar District, }  
dated 4th March 1898.*

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

## FORM No. 51.

## FOREST DEPARTMENT, BOMBAY—CENTRAL CIRCLE.

Communications and Buildings during 1896-97.

Division.	NEW WORKS UNDERTAKEN DURING THE YEAR.						REPAIRS EXECUTED DURING THE YEAR.						
	Buildings.		Roads and Paths.			Total Expenditure on new work.	Buildings.		Roads and Paths.			Total Expenditure on repairs.	
	Description of Building.	Expenditure incurred.	Road or Path and object of the same.	Length of Road or Path.	Expenditure incurred.		Nature of Repairs.	Expenditure incurred.	Nature of Repairs.	Length repaired.	Expenditure incurred.		
1	2	3	4	5	6	7	8	9	10	11	12	13	
		Rs.		Miles.	Rs.	Rs.		Rs.		Miles.	Rs.	Rs.	
East Khândesh.	Erection of Forest guards' huts in the following villages— Rs. Ghadasaon ... 40 Murumghat. } 23 Talegaon ... } Dohari ... 20 Dhanwad ... 20 Kusumba ... 20	123					Repairs to Forest guards' huts Repairs to depôts in the following villages:— Rs. Chinchala ... 15 Yâwal ... } Lohara ... } 90 Faizpur ... } Sâwda ... } Adawad ... } Virwada ... } 78 Dhanora ... } Chopda ... } Repairs to a Bungalow at Pal, &c. ... 32 Repairs to a Rest-house at Vaizapur Oiling and making compounds, &c. } 19	42	183	20	8	594	173
	Building a well at Tinshamali ... 198 Balance paid for building a well at Khalkot ... 60	258											
	Total ...	381				381		276		28	767	1,043	
West Khândesh.	...						Repairs to 72 Forest guards' huts. Repairs to 13 depôts. Repairs to Laling Bungalow.	216 162 40				50	
	Total ...							418			50	463	
Nâsik ...	10 huts for Forest guards. Sub-Range Forest Officer's House at Peint.	50 50					Repairs to 23 huts for Forest guards. Repair to a compound of the Range Forest Officer's Kacheri at Peint.	36 23					
	Total ...					100		59				59	
Ahmednagar ...	.....						Rain tattis to Hirda depôts. Bamboo tattis to Vita Bungalow.	9 6					
	Total ...	100						15				15	
Poona ...	.....						Repairs to Forest guards' huts at Ghatghar in Junnar Range.	7				7	
	Total ...							7				7	
Sâtârâ ...	.....												
	Total ...												
Sholâpur ...	.....												
	Total ...												
	GRAND TOTAL ...	481				481		775		28	817	1,532	

Camp Belvandi Kothâr, Ahmednagar District, }  
dated 4th March 1898.

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

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ANNUAL FORM No. 52.

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ANNUAL FORM No. 52.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Prosecutions for Breaches of Forest Rules during 1896-97.

Forest Division and Civil District.	Cases pending from 1895-96.	NEW CASES OF THE YEAR.					Total Cases.	DISPOSED OF DURING THE YEAR.						Cases pending at close of year.	
		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.		Convictions.		Acquittals.		Total.			
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
East Khândesh ...	A ...	5	9	16	37	14	76	81	54	139	15	44	69	183	12
	B ...	...	3	159	...	129	291	291	291	682	...	...	291	682	...
	C ...	...	17	22	...	12	51	...	...	...	...	...	...	...	...
	Total ...	5	29	197	37	155	418	372	345	821	15	44	360	865	12
West Khândesh ...	A ...	6	25	59	3	40	127	133	99	284	13	25	112	309	21
	B ...	...	...	211	37	132	380	380	380	828	...	...	380	828	...
	C ...	...	53	31	1	5	90	...	...	...	...	...	...	...	...
	Total ...	6	78	301	41	177	597	513	479	1,112	13	25	492	1,137	21
Násik ...	A ...	7	8	111	12	7	138	145	98	284	9	17	107	301	38
	B ...	...	5	248	8	3	264	264	226	620	...	...	226	620	38
	C ...	...	49	57	3	1	110	...	...	...	...	...	...	...	...
	Total ...	7	62	416	23	11	512	409	324	904	9	17	333	921	76
Ahmednagar ...	A ...	79	3	55	300	71	429	508	315	875	107	400	422	1,275	86
	B ...	5	...	31	61	8	100	105	84	134	...	...	84	134	21
	C ...	...	5	138	59	11	213	...	...	...	...	...	...	...	...
	Total ...	84	8	224	420	90	742	613	399	1,009	107	400	506	1,409	107



Poona	...	...	A	42	8	216	217	107	548	590	383	830	104	335	487	1,165	103	
			B	10	...	215	171	21	407	417	385	724	...	...	...	385	724	32
			C	...	48	342	1,184	12	1,586	...	...	...	...	...	...	...	...	...
			Total	...	52	56	773	1,572	140	2,541	1,007	768	1,554	104	335	872	1,889	185
Sátára	...	...	A	35	8	47	150	43	248	283	189	605	62	145	251	750	32	
			B	...	1	151	488	50	690	690	668	1,717	...	...	668	1,717	22	
			C	...	37	180	19	7	243	...	...	...	...	...	...	...	...	
			Total	...	35	46	378	657	100	1,181	973	857	2,322	62	145	919	2,467	54
Sholápur	...	...	A	6	...	4	32	8	44	50	39	84	11	29	50	113	...	
			B	...	...	2	55	...	57	57	57	146	...	...	57	146	...	
			C	...	...	18	1	...	19	...	...	...	...	...	...	...	...	
			Total	...	6	...	24	88	8	120	107	96	230	11	29	107	259	...
Grand Total	...	...	A	180	61	508	751	290	1,610	1,790	1,177	3,101	321	995	1,498	4,096	292	
			B	15	9	1,017	820	343	2,189	2,204	2,091	4,851	...	...	2,091	4,851	113	
			C	...	209	788	1,267	48	2,312	...	...	...	...	...	...	...	...	

*N.B.*—A means taken into Court.

B means cases disposed of under Section 67 of the Indian Forest Act, 1878.

C means undetected cases.

*Camp Belvandi Kothár, Ahmednagar District,*  
*dated 4th March 1898.*

A. T. SHUTTLEWORTH,  
 Conservator of Forests, Central Circle.

## FORM No. 53.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

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

Division.	Range.	Area protected during 1895-96.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	REMARKS.
1	2	3	4	5	6	7	8
		Acres.	Acres.	Acres.	Acres.	Rs.	
East Khán-desh.	Amalner ... ..	20,122	20,373	...	20,373	10	
	Páchora ... ..	28,132	29,515	134	29,381	...	
	Bhadgaon ... ..						
	Bhusaval ... ..	64,462	65,883	612	65,271	7	
	Edlabad ... ..						
	Chálisgaon ... ..	58,964	61,130	694	60,436	...	
	Chopda ... ..	99,581	107,686	12,985	94,701	...	
	Erاندol ... ..	17,300	17,407	...	17,407	14	
	Jalgaon ... ..	20,230	23,053	...	23,053	...	
	Jámner ... ..	40,630	42,576	...	42,576	...	
	Ráver... ..	123,684	154,264	48,070	106,194	26	
Sávida ... ..							
Yával ... ..							
	Total ... ..	473,105	521,887	62,495	459,392	57	
West Khán-desh.	Dhulia ... ..	119,247	126,003	260	125,743	19	
	Nandurbár ... ..	84,099	137,643	69,592	68,051	255	
	Navápur ... ..						
	Pimpalner ... ..	241,565	268,735	5,544	263,191	383	
	Nizámpur ... ..						
	Sháháda ... ..	78,436	83,199	6,559	76,640	197	
	Shirpur ... ..	185,190	206,341	8,225	198,116	455	
	Sindkheda ... ..	22,490	22,648	65	22,583	2	
	Taloda ... ..	168,703	271,430	20,535	250,895	393	
Akráni ... ..							
	Total ... ..	899,730	1,115,999	110,780	1,005,219	1,704	
Násik	Násik ... ..	41,974	43,992	469	43,523	63	
	Igatpuri ... ..	53,637	53,976	254	53,722	61	
	Sinnar ... ..	34,269	35,370	260	35,110	2	
	Dindori ... ..	50,133	55,575	1,215	54,360	126	
	Niphád ... ..	3,405	3,446	...	3,446	...	
	Chándor ... ..	23,619	24,888	8	24,880	...	
	Yeola ... ..	31,498	31,541	...	31,541	5	
	Báglán ... ..	122,972	124,167	1,576	122,591	147	
	Kalvan ... ..	104,678	109,242	305	108,937	112	
	Peint... ..	105,810	107,218	290	106,928	...	
	Málegaon ... ..	121,530	122,095	...	122,095	16	
	Nándgaon ... ..	107,001	107,313	6	107,307	...	
	Total ... ..	800,526	818,823	4,383	814,440	532	
Ahmednagar	Nagar ... ..	40,453	40,556	1	40,555	...	
	Párner ... ..	64,070	64,248	7	64,241	...	
	Shrigonda ... ..	44,398	44,645	18	44,627	—2	
	Karjat ... ..	49,557	49,756	...	49,756	...	
	Jámkhed ... ..	40,192	40,630	...	40,630	...	
	Shevgaon ... ..	26,509	26,687	...	26,687	...	
	Nevása ... ..	19,619	19,828	...	19,828	...	
	Ráhuri ... ..	48,882	48,914	...	48,914	...	
	Kopargaon ... ..	9,112	9,116	...	9,116	...	
	Sangamner ... ..	86,078	86,688	2	86,686	...	
Akola ... ..	110,955	111,779	...	111,779	...		
	Total ... ..	539,825	542,847	28	542,819	—2	

## FORM No. 53—continued.

Division.	Range.	Area protected during 1895-96.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	REMARKS.
1	2	3	4	5	6	7	8
		Acres.	Acres.	Acres.	Acres.	Rs.	
Poona	Junnar ... ..	59,675	61,469	112	61,357	42	
	Indápur ... ..	59,526	59,839	150	59,689	...	
	Khed ... ..	52,227	54,961	27	54,934	35	
	Ambegaon ... ..	39,194	41,072	32	41,040	4	
	Sirur ... ..	19,763	20,938	...	20,938	...	
	Purandhar ... ..	18,139	24,367	6	24,361	86	
	Bhimthadi ... ..	35,946	35,999	...	35,999	...	
	Dhond ... ..	35,705	36,552	...	36,552	...	
	Haveli ... ..	36,199	40,321	10	40,311	169	
	Mulshi ... ..	25,695	25,912	46	25,866	8	
Mával ... ..	52,209	54,666	388	54,278	23		
	Total ...	434,278	456,096	771	455,325	367	
Sátára	Mahábleshvar ...	42,902	43,152	199	42,953	30	
	Mán ... ..	43,531	43,611	8	43,603	...	
	Khatáv ... ..	20,875	20,982	2	20,980	...	
	Karád ... ..	32,444	32,504	1	32,503	10	
	Wái ... ..	22,898	23,261	165	23,096	15	
	Koregaon ... ..	26,649	26,793	61	26,732	12	
	Sátára ... ..	21,573	21,663	2	21,661	...	
	Tásgaon ... ..	18,554	18,605	...	18,605	...	
	Khandála ... ..	13,153	13,299	3	13,296	...	
	Jávli ... ..	54,527	54,741	8	54,733	...	
	Khánápur ... ..	32,030	32,043	...	32,043	...	
	Válra ... ..	40,994	41,087	18	41,069	...	
Shirála ... ..	...	...	...	...	...		
Pátan... ..	74,908	75,179	90	75,089	15		
	Total ...	445,038	446,920	557	446,363	52	
Sholápur	Sholápur ... ..	38,194	38,524	1	38,523	...	
	Bársi ... ..	8,480	8,572	...	8,572	...	
	Mádha ... ..	31,170	31,473	1	31,472	...	
	Karmála ... ..	50,885	51,144	...	51,144	...	
	Pandharpur ... ..	6,210	6,234	...	6,234	...	
	Sángola ... ..	20,533	20,509	...	20,509	...	
	Málsiras ... ..	21,427	21,407	2	21,405	...	
	Total ...	176,899	177,863	4	177,859	...	
	Famine Grass and Grazing ... ..	...	...	...	...	1,425	
	GRAND TOTAL ...	3,769,401	4,080,435	179,018	3,901,417	4,165	

Camp Belvandi Kothár, Ahmednagar District, }  
dated 4th March 1898.

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

FORM No. 54.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Area closed and open to Grazing during 1896-97.

Division.	AREA IN SQUARE MILES.						REMARKS.
	Closed to all Animals.		Closed to browsers (camels, goats or sheep).		Open to all animals.	Total Area.	
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.		
1	2	3	4	5	6	7	8
<i>Reserved Forests.</i>							
East Khándesh ... ..	53	19	739	...	...	811	
West Khándesh ... ..	69	294	...	...	1,376	1,739	
Násik ... ..	254	...	1,025	...	...	1,279	
Ahmednagar ... ..	47	124	666	...	...	837	
Poona ... ..	40	207	464	...	...	711	
Sátára ... ..	103	172	422	...	...	697	
Sholápur ... ..	135	...	143	...	...	278	
Total ...	701	816	3,459	...	1,376	6,352	
<i>Protected Forests.</i>							
Ahmednagar ... ..	...	11	...	...	...	11	
Sátára ... ..	...	1	...	...	...	1	
Total ...	...	12	...	...	...	12	

Camp Belvandi Kothár, Ahmedabad District, }  
dated 4th March 1898.

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

FORM No. 55.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Return of Grazing in the State Forests during 1896-97.

Division.	GRAZING ON PAYMENT—NUMBER OF ANIMALS.												GRAZING FREE—NUMBER OF ANIMALS.										Grand total of value at full rates.					
	AT FULL RATES.						AT PRIVILEGED RATES.						BY RIGHT UNDER SETTLEMENT.					DURING PLEASURE OF GOVERNMENT, OR OTHERWISE THAN UNDER SETTLEMENT.						Total value of Fees at full rates.				
	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Fees received.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Fees received.		Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Value of Fees at full rates.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.			Camels.	Other Animals.	Value of Fees at full rates.	Rs.
												Actual.	Value at full rates.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
					Rs.							Rs.	Rs.						Rs.						Rs.	Rs.	Rs.	
East Khândesh ...	2,584	30,360	24,020	...	643	21,440	10,001	1,12,842	...	...	...	37,766	75,512	...	...	...	...	...	...	2,387	12,573	...	...	200	8,803	8,803	1,05,704	
West Khândesh ...	5,132	35,674	2,08,334	...	3,854	50,820	11,802	80,762	1,000	...	192	21,555	55,550	...	...	...	...	...	...	3,805	18,120	240	...	180	12,004	12,004	1,28,373	
Nasik... ..	2,145	14,215	18,835	...	233	11,788	8,040	95,643	10,146	...	106	30,008	60,016	...	...	...	...	...	...	1,805	74,046	300	...	502	38,803	38,803	1,10,607	
Ahmednagar ...	200	3,010	4,201	...	50	2,270	2,772	93,876	54,808	...	331	28,370	56,768	...	...	...	...	...	...	385	4,237	...	...	...	2,503	2,503	61,540	
Poona... ..	379	1,450	5,573	...	14	1,814	1,127	10,205	48,077	...	93	6,184	12,309	...	...	...	...	...	...	12,347	108,410	...	...	3	60,554	60,554	80,737	
Satâra ... ..	952	1,248	4,850	...	...	2,185	1,832	13,523	53,272	...	...	7,600	15,300	...	...	...	...	...	...	5,736	46,704	...	...	...	20,118	20,118	46,702	
Sholâpur ... ..	5	123	...	...	3	92	225	5,330	...	...	...	1,445	2,800	...	...	...	...	...	...	211	8,871	...	...	374	4,740	4,740	7,722	
Total ... ..	11,406	86,086	328,713	...	4,797	90,436	44,070	418,241	174,593	...	662	1,33,026	2,78,494	...	...	...	...	...	...	26,766	273,030	540	...	1,328	1,63,605	1,63,605	5,41,535	

Camp Belvandi Kothâr, Ahmednagar District, }  
dated 4th March 1898.

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

## FORM No. 56.

## FOREST DEPARTMENT, BOMBAY—CENTRAL CIRCLE.

## Area of Plantations, 1896-97.

Division.	Kind of Plantation.	AREA IN ACRES.				RECEIPTS.	CHARGES.	REMARKS.
		On 1st July 1896.	Added during the year.	Excluded during the year.	Area on 30th June 1897.	Of the year.		
1	2	3	4	5	6	7	8	9
						Rs.	Rs.	
East Khándesh ...	Regular Plantation ...	.....	.....	.....	.....	.....	.....	
West Khándesh...	Do. ...	28	.....	.....	28	.....	151	
Násik ...	Do. ...	380	35	220	195	311	422	
Ahmednagar ...	Do. ...	142	.....	.....	142	.....	.....	
Poona ...	Do. ...	3,871	416	.....	4,287	.....	2,937	
Sátára ...	Do. ...	3,393	.....	.....	3,393	.....	325	
Sholápur ...	Do. ...	1	.....	.....	1	.....	.....	
	Total Regular Plantations ...	7,815	451	220	8,046	311	3,835	
East Khándesh ...	Cultural Operations ...	31,635	3,749	4,343	31,041	.....	359	
West Khándesh ...	Do. ...	21,023	142	315	20,850	.....	1,540	
Násik ...	Do. ...	12,752	3,589	5,441	10,900	100	1,162	
Ahmednagar ...	Do. ...	61,316	9,415	.....	70,731	.....	1,346	
Poona ...	Do. ...	66,705	4,130	.....	70,835	.....	1,565	
Sátára ...	Do. ...	145,676	2,610	.....	148,286	.....	2,453	
Sholápur ...	Do. ...	110,882	798	.....	111,680	.....	1,702	
	Total Cultural Operations ...	449,989	24,433	10,099	464,323	100	10,127	
	Add—Regular Plantations ...	7,815	451	220	8,046	311	3,835	
	Grand Total ...	457,804	24,884	10,319	472,369	411	13,962	

Camp Belvandi Kothár, Ahmednagar District, }  
dated 4th March 1898.

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

FORM No. 57.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Outturn (in cubic feet, solid) of Timber and Fuel during the year 1896-97, and Agency of Exploitation.

Division.	TIMBER IN THE ROUGH ; LOGS.					TIMBER IN THE ROUGH ; POLES.					SAWN OR SQUARED TIMBER.					MISCELLANEOUS.					FUEL.					TOTAL Outturn.
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
East Khándesh	...	...	...	...	...	C. ft 20,960	C. ft. 14,146	...	...	C. ft. 35,106	...	...	...	...	...	Bamboos 452,852	...	2,687 Bam. 20,000	2,687 Bamboos 472,852	827,370	385,898	...	96,345	1,309,613	1,347,406 Bamboos 472,852	
West Khándesh	...	...	...	...	...	102,141	183,531	...	...	285,672	...	...	...	...	...	Bamboos 462,234	Bamboos 11,624 2,600	...	11,624 Bamboos 464,834	467,991	97,128	...	...	565,119	862,415 Bamboos 464,834	
Násik	...	...	...	...	...	564	529,670	8,359	...	538,593	...	...	...	...	...	Bamboos Nos. 69,288, do. Hd.- loads 386, do. cart- loads 152.	...	...	Bamboos 69,288, do. Hd.- loads 386, do. cart- loads 152.	3,847	272,142	39,365	126,150	441,504	980,097 Bamboos No. 69,288, do. Hd.- loads 386, do. cart- loads 152 85,875 Bamboos 25,912	
Ahmednagar	...	...	...	...	...	39,861	...	3,432	...	43,296	...	...	...	...	...	Bamboos 25,912	...	...	Bamboos 25,912	9,070	33,509	...	...	42,579	85,875 Bamboos 25,912	
Poona	...	...	...	...	...	20,176	23,525	...	...	43,701	...	...	...	...	2	Bamboos 31,492	3,005	...	3,007 Bamboos 31,492	566,160	351,367	...	...	917,527	964,235 Bamboos 31,492	
Satára	...	...	...	...	...	81,123	2,233	175	...	83,531	...	...	...	...	...	Bamboos 37,751	...	...	Bamboos 37,751	627,260	9,007	...	40,000	4,686,267	4,719,798 Bamboos 37,751	
Sholápur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,916	12,200	...	...	14,116	14,116	
Total	...	...	...	...	...	264,828	753,105	11,066	...	1,029,899	...	...	...	...	2	Bamboos 1,079,529 Bamboos, Hd.- loads 386, do. cart- loads 152.	14,629 Bamboos 2,600	2,687 Bam. 20,000	17,318 Bamboos 1,102,129, do. Hd.- loads 386, do. cart- loads 152.	2,503,614	1,161,251	39,365	422,495	7,926,725	8,973,942 Bamboos 1,102,129, do. Hd.- loads 386, do. cart- loads 152.	

Charcoal should be shown by its equivalent in fuel, the quantity of wood consumed in producing it being entered in 50 cubic feet solid.

Camp Belvandi Kothar, Ahmednagar District,  
dated 4th March 1898.

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Outturn of Minor Forest Produce for the year 1896-97.

Division.	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.
East Khandesh.	Stones ... ..	Cart-loads	2,926	576	...	...	...	...	2,926	576	
	Manure ... ..	Do.	202	245	...	...	...	...	202	245	
	Green stones ... ..	Do.	3	27	...	...	...	...	3	27	
	Rosha oil stills ... ..	By contract	...	300	...	...	...	...	...	300	
	Kankar ... ..	Head-loads	322	5	...	...	...	...	322	5	
	Miscellaneous ... ..	...	...	53	...	...	...	328	...	381	
	Grass and Grazing, &c. ... ..	...	...	81,063	...	...	...	47,721	...	1,28,784	
	Total ... ..	...	...	52,269	...	...	48,049	...	1,30,318		
West Khandesh.	Stones ... ..	Cart-loads	2,104	223	...	...	...	...	2,104	223	
	Thorns ... ..	Do.	860	81	...	...	...	...	860	81	
	Earth ... ..	Do.	1,252	157	...	...	...	...	1,252	157	
	Lime stones ... ..	Do.	83	10	...	...	...	...	83	10	
	Manure ... ..	Do.	1,714	872	...	...	...	...	1,714	872	
	Reeds ... ..	Do.	420	91	...	...	...	...	420	91	
	Mango fruits ... ..	...	...	89	...	...	...	...	...	89	
	Rosha oil stills ... ..	By contract	...	10,504	...	...	...	...	...	10,504	
	Teak leaves ... ..	Cart-loads	10	3	...	...	...	...	10	3	
	Grass and Grazing, &c. ... ..	...	...	1,04,163	...	...	...	12,994	...	1,17,157	
	Total ... ..	...	...	1,16,193	...	...	12,994	...	1,29,187		
Nasik.	Hirda nuts ... ..	K. m. lbs.	75 19 5 $\frac{1}{2}$	1,353	...	...	...	...	K. m. lbs.	75 19 5 $\frac{1}{2}$	1,353
	Apta and Tembhurul Leaves. ... ..	By contract	...	...	2,040	...	...	...	...	...	2,040
	Karvi ... ..	Head-loads	...	42	...	...	...	...	...	...	42
	Stones ... ..	Cubic feet	54,050	227	...	...	...	...	54,050	227	
	Earth ... ..	Cart-loads	30	2	...	...	...	...	30	2	
	Thorns ... ..	Do.	93	23	...	...	...	...	93	23	
	Thorns ... ..	Cubic feet	20,790	64	...	...	...	...	20,790	64	
	Oman ... ..	Head-loads	314	12	...	...	...	...	314	12	
	Tarward bark ... ..	By contract	...	147	...	...	...	...	...	147	
	Sabar ... ..	Cart-loads	112	23	...	...	...	...	112	23	
	Rab ... ..	Do.	62	31	...	...	...	...	62	31	
	Anjan leaves ... ..	Do.	6	2	...	...	...	...	6	2	
	Grass and Grazing, &c. ... ..	...	...	59,334	...	...	...	76,539	...	1,35,873	
	Total ... ..	...	1,353	...	61,952	...	76,539	...	1,39,844		
Ahmednagar.	Hirda nuts ... ..	K. m. lbs.	98 10 0	1,413	...	...	...	...	K. m. lbs.	98 10 0	1,413
	Earth ... ..	Cart-loads	...	5	...	...	...	...	...	5	
	Stones ... ..	Do.	17,543	1,463	...	...	...	...	17,543	1,463	
	Karvi ... ..	Head-loads	42	1	...	...	...	...	42	1	
	Tarwad ... ..	By contract	...	367	...	...	...	...	...	367	
	Babul pods ... ..	Do.	...	142	...	...	...	...	...	142	
	Miscellaneous ... ..	...	...	15	...	...	...	...	...	15	
	Grass and Grazing, &c. ... ..	...	...	33,199	...	...	...	44,232	...	82,425	
	Total ... ..	...	1,413	...	40,181	...	44,232	...	85,828		
Pooná.	Hirda nuts ... ..	By contract	...	1,051	...	...	...	...	...	1,051	
	Do. ... ..	...	K. m. lbs.	85 20 0	1,232	...	...	...	K. m. lbs.	85 20 0	1,232
	Tarwad bark ... ..	Cubic feet	...	742	...	...	...	...	...	742	
	Shikekai ... ..	By contract	...	132	...	...	...	...	...	132	
	Stones and earth ... ..	Cubic feet	32,250	161	...	...	...	...	32,250	161	
	Tapping of Palm trees ... ..	Number	457	29	...	...	...	...	457	29	
	Wild plantain bulbs ... ..	Do.	400	3	...	...	...	...	400	3	
	Date branches ... ..	Head-loads	693	43	...	...	...	...	693	43	
	Miscellaneous ... ..	By contract	...	65	...	...	...	...	...	65	
	Grass and Grazing, &c. ... ..	...	...	40,128	...	...	...	74,399	...	1,14,527	
	Total ... ..	...	1,232	...	42,354	...	74,399	...	1,18,035		
Sátára.	Hirda nuts ... ..	Khandies	1,227 3 4	16,348	By contrac'	3,050	...	...	K. m. lbs.	1,227 3 4	19,398
	Bábul bark ... ..	Cubic feet	4,800	131	...	...	...	...	4,800	131	
	Stones ... ..	Cart-loads	...	9,350	...	609	...	...	...	9,350	
	Thorn Bundles ... ..	No.	...	745	...	42	...	...	...	745	
	Ale ... ..	Do.	...	28	...	1	...	...	...	28	
	Shikekai ... ..	By contract	...	...	...	142	...	...	...	142	
	Tarwad ... ..	...	...	...	...	56	...	...	...	56	
	Sheori ... ..	...	...	...	...	10	...	...	...	10	
	Shindi ... ..	...	...	...	...	1	...	...	...	1	
	Miscellaneous ... ..	...	...	...	...	11	...	...	...	11	
	Grass and Grazing, &c. ... ..	...	...	...	35,330	...	...	47,993	...	83,322	
	Total ... ..	...	16,478	...	39,252	...	47,992	...	1,13,723		
Sholá-pur.	Grass ... ..	Bundles	4,995	43	...	...	...	...	4,995	43	
	Stones ... ..	Cart-loads	...	4,658	...	459	...	...	...	4,658	
	Thorns ... ..	Head-loads	...	10	...	1	...	7,630	...	10	
	Grass and Grazing, &c. ... ..	...	...	...	20,047	...	...	...	...	27,677	
	Total ... ..	...	43	...	20,537	...	...	...	28,210		
Famne Grass and Grazing.	Grass ... ..	...	66,351	...	...	...	...	...	66,351		
	Total ... ..	...	66,351	...	...	...	...	...	66,351		
	Grand Total ... ..	...	86,921	...	4,02,738	...	3,11,835	...	8,01,494		

Camp Belvandi Kothar, Ahmednagar District, }  
dated 4th March 1898.

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.



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FORM No. 59.

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FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Account of Timber and other Produce cut or collected by Government Agency and brought to sale Depôts or sold locally during the year 1896-97.

Particulars.	Number or Quantity.	Cubic feet.	TOTAL OF EACH HEAD.		Particulars.	Number or Quantity.	Cubic feet.	TOTAL OF EACH HEAD.			
			Number or Quantity.	Cubic feet.				Number or Quantity.	Cubic feet.		
<i>Balance at the commencement of the year.</i>			<b>TIMBER.</b>								
			<i>Sold locally.</i>								
East Khândesh ... Teak rafter ...	6,885	3,442			Teak posts ... ..	27,715	13,857				
Do. ... Do. posts ...	1,500	750			Do. pieces ... ..	216,634	1,69,228				
West Khândesh ... Do. pieces ...	36,072	37,122			Do. rafters ... ..	7,172	12,965	251,521	196,050		
Ahmednagar ... Do. rafters ...	1,543	2,995			<i>Used by the Department.</i>						
Do. ... Jámbul rafters ...	465	1,199			Teak posts ... ..	2,539	1,270				
Poona ... Teak pieces ...	7	4	46,472	45,512	Do. pieces ... ..	2,227	1,517				
					Do. rafters ... ..	310	692	5,076	3,479		
<i>Received from the Forests in Depôts.</i>					<i>Balance at the close of the year.</i>						
Teak posts ... ..	41,919	20,960			East Khândesh ... Teak posts ...	20,050	10,025				
Do pieces ... ..	251,922	203,440			West Khândesh ... Do. pieces ...	66,197	68,111				
Do. rafters ... ..	14,965	26,752			Ahmednagar ... Do. rafters ...	9,026	16,090				
Jámbul rafters ... ..	7,901	13,678			Do. ... Jámbul rafters ...	8,366	14,875				
Total ... ..			316,707	264,830	Poona ... .. Do. ...		2				
					Do. ... Teak pieces ...	516	280				
					Sátára ... .. Do. ...	2,427	1,430	106,582	110,813		
					<b>Total ... ..</b>						
			363,179	310,342							
<i>Balance at the commencement of the year.</i>			<b>FIREWOOD.</b>								
East Khândesh ... .. Kh.	56	2,520			<i>Sold locally ... .. Kh.</i>						
West Khândesh ... .. "		6,201			13,225	1,970,015					
Ahmednagar ... .. "		100			<i>Used by the Department ... .. "</i>						
Poona ... .. "		2,030			192	8,790					
Sátára ... .. "		95,130									
			56	1,05,981							

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*Received from the Forests in Depôts*

Firewood ... .. Kh.	18,386	2,503,614		
			18,386	2,503,614
Total ...	...	.....	18,442	2,609,595

*Balance at the close of the year.*

East Khândesh... ..	5,025	226,125		
West Khândesh ... ..	...	81,937		
Násik ... ..	...	135		
Ahmednagar ... ..	...	5,255		
Poona ... ..	...	200,918		
Sátára ... ..	...	116,420		
Total ...	...	.....	5,025	630,790
			18,442	2,609,595

*Balance at the commencement of the year.*

		K. m. lbs.
West Khândesh... Seed ... ..	...	82 14 22
Ahmednagar ... Hirda ... ..	...	40 5 16
Do. ... Seed ... ..	...	18 19 22
Poona ... Hirda ... ..	...	35 0 0
Do. ... Seed ... ..	...	4 6 25
Sátára ... Hirda ... ..	...	1,352 19 8
Do. ... Seed ... ..	...	74 14 17
Sholápur ... Do. ... ..	...	73 16 10

**OTHER MINOR PRODUCE.**

Sold locally ... .. Hirda.	...	Kh. m. lbs. 1,436 4 9 <sup>2</sup> / <sub>3</sub>	...	1,436 4 9 <sup>2</sup> / <sub>3</sub>
<i>Used by the Department.</i>				
Hirda ... ..	...	3 5 2	...	
Seed ... ..	...	533 8 24 <sup>1</sup> / <sub>2</sub>	...	536 13 26 <sup>1</sup> / <sub>2</sub>
<i>Written off.</i>				
Hirda ... ..	...	40 5 16	...	40 5 16

*Received from the Forests in Depôts.*

Hirda ... ..	...	293 7 5 <sup>2</sup> / <sub>3</sub>		
Seed ... ..	...	605 21 6		
Total ...	...	.....	899 0 11 <sup>2</sup> / <sub>3</sub>	2,580 13 19 <sup>2</sup> / <sub>3</sub>

*Balance at the close of the year.*

West Khândesh... .. Seed	...	Kh. m. lbs. 93 13 17		
Násik ... .. Hirda:	...	3 13 20		
Do. ... .. Seed.	...	9 6 16		
Ahmednagar ... .. Seed.	...	46 13 19		
Poona ... .. Seed.	...	88 19 10		
Sátára ... .. Hirda.	...	238 3 10		
Do. ... .. Seed.	...	60 5 2		
Sholápur ... .. Seed.	...	27 26 13 <sup>1</sup> / <sub>2</sub>		
Total ...	...	.....	...	Kh. m. lbs. 567 17 23 <sup>1</sup> / <sub>2</sub>
				Kh. m. lbs. 2,580 13 19 <sup>2</sup> / <sub>3</sub>

Camp Belvandi Kothár, Ahmednagar District, )  
dated 4th March 1898.

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

## FORM No. 60.

## FOREST DEPARTMENT, BOMBAY—CENTRAL CIRCLE.

Abstract showing the value of Timber and other Produce at Sale Depôts for the year 1896-97.

Description of Timber and other produce.	ON HAND AT COMMENCEMENT OF THE YEAR.			ON HAND AT CLOSE OF THE YEAR.			DIFFERENCE IN VALUE.		REMARKS.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.	
<i>East Khandesh.</i>									
Teak rafters ... ..	6,885	3,442	700	...	...	...	...	...	...
" posts ... ..	1,500	750	300	20,050	10,025	2,500	...	...	...
Firewood Khandis ... ..	56	2,520	15	5,025	226,125	1,250	...	...	...
Total ... ..	.....	.....	1,015	...	.....	3,756	2,741	...	...
<i>West Khandesh.</i>									
Teak pieces ... ..	36,072	37,122	3,500	66,197	68,111	6,600	...	...	...
Firewood ... ..	.....	6,201	150	...	81,937	1,981	...	...	...
Seed ... ..	.....	Kh. m. lbs. 82 14 22	...	...	Kh. m. lbs. 93 13 17	...	...	...	...
Total ... ..	.....	.....	3,650	...	.....	8,581	4,931	...	...
<i>Nasik.</i>									
Firewood .. ...	.....	.....	...	...	135	...	...	...	...
Seed ... ..	.....	.....	...	...	Kh. m. lbs. 9 6 16	53	...	...	...
Hirda for seed ... ..	.....	.....	...	...	3 13 20	25	...	...	...
Total ... ..	.....	.....	...	...	.....	78	78	...	...
<i>Ahmednagar.</i>									
Teak rafters ... ..	1,543	2,995	860	9,026	16,090	7,949	...	...	...
Jambul rafters ... ..	465	1,199							
Firewood... ..	.....	100	4	...	5,255	...	...	...	...
Hirda ... ..	.....	Kh. m. lbs. 40 5 16	...	...	.....	...	...	...	...
Seed ... ..	.....	18 19 22	...	...	Kh. m. lbs. 46 13 19	...	...	...	...
Total ... ..	.....	.....	864	...	.....	7,559	6,695	...	...
<i>Poona.</i>									
Teak pieces ... ..	7	4	...	516	282	20	...	...	...
Firewood... ..	.....	2,030	100	...	200,918	2,089	...	...	...
Hirda ... ..	.....	Kh. m. lbs. 35 0 0	700	...	.....	...	...	...	...
Seed ... ..	.....	Kh. m. lbs. 4 6 25	...	...	Kh. m. lbs. 83 19 10	...	...	...	...
Total ... ..	.....	.....	800	...	.....	2,109	1,309	...	...
<i>Satdra.</i>									
Teak pieces ... ..	.....	.....	...	2,427	1,430	290	...	...	...
Firewood... ..	.....	95,130	827	...	116,420	580	...	...	...
Hirda ... ..	.....	Kh. m. lbs. 1,352 19 8	23,220	...	Kh. m. lbs. 238 3 10	...	...	...	...
Seed ... ..	.....	74 14 17	...	...	60 5 2	...	...	...	...
Total ... ..	.....	.....	24,047	...	.....	870	...	23,177	...
<i>Sholapur.</i>									
Seed ... ..	.....	Kh. m. lbs. 73 16 10	...	...	Kh. m. lbs. 27 26 13½	...	...	...	...
Grand Total ... ..	.....	.....	30,376	...	.....	22,953	15,754	23,177	...

Net difference against the year Rs. 7,428.

Camp Belvandi Kolhâr, Ahmednagar District, }  
dated 4th March 1898.A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

## FORM No. 60A.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Abstract showing the Value of Live and Dead-stock for the year 1895-97.

Description of Timber and other produce.	ON HAND AT COMMENCEMENT OF THE YEAR.		ON HAND AT CLOSE OF THE YEAR.		DIFFERENCE IN VALUE.		REMARKS.
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
<i>Direction.</i>		Rs.		Rs.	Rs.	Rs.	
Office tent ... ..	1	541	1	541	...	...	
Ráhuti ... ..	1	95	1	95	...	...	
Tools, plant and office furniture ...	...	1,230	...	1,230	...	...	
Total ...	...	1,866	...	1,866	...	...	
<i>East Khándesh.</i>							
Office tent ... ..	1	248	1	248	...	...	
Great coats... ..	a192	1,505	...	...	...	...	a Not being the articles of dead-stock are struck off.
Tools, plant and office furniture ...	...	1,633	...	1,985	...	...	
Rest-house at Vaizápur ... ..	1	2,486	1	2,486	...	...	
Total ...	...	5,877	...	4,719	...	1,158	
<i>West Khándesh.</i>							
Office tent ... ..	1	387	1	387	...	...	
Cabul pal ... ..	1	126	1	126	...	...	
Great coats ... ..	b219	1,718	...	...	...	...	b Do.
Tools, plant and office furniture ...	...	5,434	...	5,434	...	...	
Bungalow at Laling ... ..	1	2,000	1	2,000	...	...	
Office in Dhulia Depôt ... ..	1	457	1	457	...	...	
Total ...	...	10,122	...	8,513	...	1,609	
<i>Násik.</i>							
Office tents ... ..	2	544	2	544	...	...	
Great coats ... ..	c309	2,423	...	...	...	...	c Do.
Tools, plant and office furniture ...	...	623	...	703	...	...	
Total ...	...	3,590	...	1,247	...	2,343	
<i>Ahmednagar.</i>							
Office tent ... ..	1	387	1	387	...	...	
Office room, Range Forest Office, Karjat.	d1	214	...	...	...	...	d Not on the forest list and therefore struck off.
Hirda Depôt at Shinganwádi ...	e1	25	...	...	...	...	e Not in existence and therefore struck off.
Forest rest-house ... ..	f3	90	...	...	...	...	f Do.
Great coats ... ..	g208	1,631	...	...	...	...	g Not being the articles of dead-stock are struck off.
Tools, plant and office furniture ...	...	1,133	...	1,133	...	...	
Forest Bungalow at Vitha, Akola Range.	1	800	1	800	...	...	
Total ...	...	4,280	...	2,320	...	1,960	

## FORM No. 60A.

Description of Timber and other produce.	ON HAND AT COMMENCEMENT OF THE YEAR.		ON HAND AT CLOSE OF THE YEAR.		DIFFERENCE IN VALUE.		REMARKS.
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
<i>Poona.</i>							
Office tent ... ..	1	433	1	433	...	...	a Not being the articles of dead-stock are struck off.
Ráhuti ... ..	1	80	1	80	...	...	
Great coats ... ..	313	2,455	...	...	...	...	
Tools, plant and office furniture ... ..	...	2,010	...	2,691	...	...	
<b>Total ... ..</b>	...	4,978	...	3,204	...	1,774	
<i>Sátára.</i>							
Office tent ... ..	1	433	1	433	...	...	b Do.
Cabul pal ... ..	1	111	1	111	...	...	
Great coats ... ..	246	1,929	...	...	...	...	
Tools, plant and office furniture ... ..	...	1,596	...	1,698	...	...	
<b>Total ... ..</b>	...	4,069	...	2,242	...	1,827	
<i>Sholápur.</i>							
Office tent ... ..	1	387	1	387	...	...	c Do.
Great coats ... ..	119	933	...	...	...	...	
Tools, plant and office furniture ... ..	...	8,035	...	8,289	...	...	
<b>Total ... ..</b>	...	9,355	...	8,676	...	679	
<i>Working Plans.</i>							
Office tent ... ..	1	433	1	433	...	...	
Tools, plant and office furniture ... ..	125	682	130	763	...	...	
<b>Total ... ..</b>	...	1,115	...	1,196	81	...	
<b>GRAND TOTAL ... ..</b>	...	45,252	...	33,983	81	11,350	

Net difference against the year Rs. 11,269.

Camp Belvandi Kothár, Ahmednagar District, }  
dated 4th March 1898. }

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

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FORM No. 61.

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В 1428—17 сс

## FOREST DEPARTMENT

## Summary of Revenue and Expenditure of the different Divisions for the

Budget Heads.	Direction.	East Khândesh Division.	West Khândesh Division.	Nâsik Division.	Ahmednagar Division.	Poona Division.
REVENUE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
<b>I.—Timber and other Produce removed from the Forests by Government Agency—</b>						
a. Timber ... ..	.....	4,751 11 10	23,451 8 10	74 8 0	1,462 10 6	9,341 1 7
b. Firewood and charcoal .....	.....	7,515 15 6	6,062 4 0	95 4 6	36 11 0	7,316 9 9
c. Bamboos ... ..	.....	.....	.....	.....	3 5 0	.....
d. Sandalwood ... ..	.....	.....	.....	0 13 0	5 14 9	3 13 0
e. Grass and other minor produce ... ..	.....	.....	.....	1,352 10 2	1,413 3 6	1,252 1 9
Total I. ... ..	.....	12,267 11 4	29,513 12 10	1,523 3 8	2,921 12 9	17,943 10 1
<b>II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—</b>						
a. Timber .. ... ..	.....	629 6 0	13,437 0 0	52,133 7 0	265 4 4	4,659 3 3
b. Firewood and charcoal .....	.....	3,907 9 9	2,204 14 6	5,195 2 0	2,266 10 6	8,912 15 6
c. Bamboos ... ..	.....	4,616 10 11	2,683 13 4	3,062 8 5	282 14 1	344 6 2
d. Grazing and fodder grass ... ..	.....	81,062 11 0	1,04,162 15 9	59,333 7 8	38,192 8 3	40,127 7 9
e. Other minor produce ... ..	.....	1,206 9 6	12,029 11 0	2,618 11 6	1,988 6 6	2,226 8 6
f. Forest stamps ... ..	.....	.....	.....	.....	.....	.....
g. Other items ... ..	.....	.....	.....	.....	.....	.....
h. Commutation fees ... ..	.....	.....	.....	.....	.....	.....
Total II. ... ..	.....	91,422 15 2	1,34,518 6 7	1,22,348 4 7	42,995 11 8	56,270 9 2
<b>III.—Drift and Waif Wood and Confiscated Forest Produce.</b>						
.....	.....	501 5 0	465 12 3	439 4 3	163 15 1	380 7 1
Total III. ... ..	.....	501 5 0	465 12 3	439 4 3	163 15 1	380 7 1
<b>IV.—Revenue from Forest not managed by Government—</b>						
a. Duty on foreign timber and other forest produce ... ..	.....	6,610 14 0	4,303 10 0	.....	.....	.....
b. Revenue from shared and private forests ... ..	.....	.....	.....	15 11 4	.....	22 5 7
Total IV. ... ..	.....	6,610 14 0	4,303 10 0	15 11 4	.....	22 5 7
<b>V.—Miscellaneous—</b>						
a. Fines and forfeitures ... ..	.....	45 0 0	.....	137 0 0	494 13 3	348 4 10
b. Refunds... ..	1 14 0	12 7 10	22 11 0	12 2 0	1,217 8 1	370 1 8
c. Other sources ... ..	6 11 4	1,667 10 5	3,337 1 5	816 15 5	1,443 10 0	2,713 2 0
Total V. ... ..	8 9 4	1,725 2 3	3,359 12 5	966 1 5	3,155 15 4	3,431 8 6
Grand Total, Revenue ... ..	8 9 4	1,12,527 15 9	1,72,161 6 1	1,25,292 9 3	49,237 6 10	78,048 8 5
<b>EXPENDITURE.</b>						
<b>A.—CONVEYANCE AND WORKS.</b>						
<b>I.—Timber and other Produce removed from the Forests by Government Agency—</b>						
a. Timber... ..	.....	2,162 12 9	3,399 9 1	.....	694 5 0	1,907 11 3
b. Firewood and charcoal .....	.....	3,922 0 9	2,537 2 0	66 12 0	0 9 9	3,300 6 3
c. Bamboos ... ..	.....	.....	.....	.....	.....	.....
d. Sandalwood ... ..	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce ... ..	.....	.....	-345 11 9	514 14 0	777 14 9	126 12 1
Total A I. ... ..	.....	6,084 13 6	5,590 15 4	581 10 0	1,372 13 6	5,424 13 7

\* The account has been omitted from the consolidated accounts



No. 61.

BOMBAY, CENTRAL CIRCLE.

Forest year 1896-97 (from 1st July 1896 to 30th June 1897).

Sátara Division.	Sholapur Division.	Working Plans Division.	Famine Grass and Grazing	Forest Survey Division.	Total for the Forest year 1896-97.	Famine Grass and Grazing for June 1897.*	Total.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
10,487 1 9	.....	.....	.....	.....	49,568 10 6	.....	49,568 10 6
4,124 6 5	100 4 0	.....	.....	.....	25,251 7 2	.....	25,251 7 2
.....	.....	.....	.....	.....	3 5 0	.....	3 5 0
.....	.....	.....	.....	.....	10 8 9	.....	10 8 9
16,479 7 6	42 7 0	.....	49,540 1 11	.....	70,109 15 10	16,811 6 1	86,921 5 11
31,090 15 8	142 11 0	.....	49,540 1 11	.....	1,44,943 15 3	16,811 6 1	1,61,755 5 4
1,698 4 6	2,342 0 0	.....	.....	.....	75,159 9 1	.....	75,159 9 1
217 9 6	682 6 3	.....	.....	.....	23,387 4 0	.....	23,387 4 0
231 5 3	.....	.....	.....	.....	11,221 10 2	.....	11,221 10 2
35,330 6 9	20,046 9 0	.....	.....	.....	3,78,256 2 2	.....	3,78,256 2 2
3,921 15 10	490 10 3	.....	.....	.....	24,482 9 1	.....	24,482 9 1
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
41,389 9 10	23,561 9 6	.....	.....	.....	5,12,507 2 6	.....	5,12,507 2 6
182 0 6	290 10 3	.....	.....	.....	2,423 6 5	.....	2,423 6 5
182 0 6	290 10 3	.....	.....	.....	2,423 6 5	.....	2,423 6 5
.....	.....	.....	.....	.....	10,914 8 0	.....	10,914 8 0
.....	.....	.....	.....	.....	38 0 11	.....	38 0 11
.....	.....	.....	.....	.....	10,952 8 11	.....	10,952 8 11
.....	.....	.....	.....	.....	1,025 2 1	.....	1,025 2 1
10 12 10	1 12 0	7 1 0	9 0 0	.....	1,665 6 5	0 0 2	1,665 6 7
3,635 15 5	363 13 7	.....	0 11 4	.....	14,035 10 11	.....	14,035 10 11
3,696 12 3	365 9 7	7 1 0	9 11 4	.....	16,726 3 5	0 0 2	16,726 3 7
76,359 6 3	24,360 8 4	7 1 0	49,549 13 3	.....	6,87,553 4 6	16,811 6 3	7,04,364 10 9
3,219 13 9	10 6 0	.....	.....	.....	11,294 9 10	.....	11,294 9 10
3,484 7 9	9 7 6	.....	.....	.....	13,410 14 0	.....	13,410 14 0
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
1,909 7 2	5 15 0	.....	85,262 0 7	.....	88,251 3 10	4,533 9 7	92,784 13 5
8,613 12 8	25 12 6	.....	85,262 0 7	.....	1,12,956 11 8	4,533 9 7	1,17,490 5 3

for June 1897 but now taken here for administration purposes.

Budget Heads.	Direction.	East Khândesh Division.	West Khândesh Division.	Nâsik Division.	Ahmednagar Division.	Poona Division.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
<b>EXPENDITURE—continued.</b>						
<b>A.—CONSERVANCY AND WORKS—continued.</b>						
<b>II.—Timber and other Produce removed from the Forests by Consumers or Purchasers ... ..</b>						
	.....	5,817 14 2	5,840 10 7	3,401 2 11	2,339 6 6	590 3 9
Total A II. ...	.....	5,817 14 2	5,840 10 7	3,401 2 11	2,339 6 6	590 3 9
<b>III.—Drift and Waif Wood and confiscated Forest Produce ... ..</b>						
	.....	7 5 0	.....	13 8 0	4 4 0	8 5 0
Total A III. ...	.....	7 5 0	.....	13 8 0	4 4 0	8 5 0
<b>IV.—Revenue from Forests not managed by Government—</b>						
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests...	.....	.....	.....	.....	.....	.....
Total A IV. ...	.....	.....	.....	.....	.....	.....
<b>V.—Rent of leased Forests and payments to Share-holders in Forests managed by Government ... ..</b>						
	.....	.....	.....	.....	.....	1,005 5 1
Total A V. ...	.....	.....	.....	.....	.....	1,005 5 1
<b>VI.—Live Stock, Stores, Tools and Plant—</b>						
a. Purchase of cattle ...	.....	.....	.....	.....	.....	.....
b. Feed and keep of cattle ...	.....	.....	.....	.....	.....	.....
c. Purchase of stores, tools and plant ...	14 12 0	355 3 3	76 7 0	11 14 0	292 11 0	681 7 7
Total A VI. ...	14 12 0	355 3 3	76 7 0	11 14 0	292 11 0	681 7 7
<b>VII.—Communications and Buildings—</b>						
a. Roads and Bridges ...	.....	173 2 6	50 0 0	.....	.....	.....
b. Buildings ...	.....	399 0 5	418 5 6	159 2 3	14 15 6	7 0 0
c. Other works ...	.....	268 1 3	.....	.....	.....	.....
Total A VII ...	.....	630 4 2	468 5 6	159 2 3	14 15 6	7 0 0
<b>VIII.—Organization, Improvement and Extension of Forest—</b>						
a. Demarcation... ..	.....	1,287 0 0	1,128 11 9	3,766 9 11	2,004 11 6	4,677 7 2
b. Cost of settlements; compensation for land and rights ...	.....	.....	4,246 0 0	.....	335 12 7	1,929 13 9
c. Surveys ...	.....	.....	.....	.....	—30 0 0	.....
d. Working-Plans ...	.....	1,143 12 4	477 10 0	443 13 9	432 0 6	613 0 1
e. Sowing and Planting ...	.....	359 7 9	1,691 4 11	1,584 0 9	1,345 10 9	4,501 3 10
f. Protection from fire ...	.....	57 4 3	1,703 15 1	531 12 0	—1 10 0	366 11 0
g. Other works... ..	.....	4,076 6 3	3,273 13 9	3,478 1 10	2,528 13 7	5,695 8 5
Total A VIII, ...	.....	6,906 14 7	12,521 7 6	9,804 6 3	6,615 6 11	17,783 12 3
<b>IX.—Miscellaneous—</b>						
a. Law charges ...	.....	.....	.....	.....	.....	79 9 2
b. Other charges ...	56 8 9	3,176 2 6	3,659 2 11	5,234 3 2	4,655 3 6	5,905 6 11
Total A IX. ...	56 8 9	3,176 2 6	3,659 2 11	5,234 3 2	4,655 3 6	5,985 0 1
<b>TOTAL A—CONSERVANCY AND WORKS ...</b>	<b>71 4 9</b>	<b>23,178 9 2</b>	<b>28,157 0 10</b>	<b>19,205 14 7</b>	<b>15,294 12 11</b>	<b>31,435 15 4</b>

No. 61—continued.

Sátara Division.	Sholapur Division.	Working Plans Division.	Famine Grass and Grazing.	Forest Survey Division.	Total for the Forest year 1896-97.	Famine Grass and Grazing for June 1897.	Total.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
914 8 5	112 9 9	.....	.....	.....	19,016 8 1	.....	19,016 8 1
914 8 5	112 9 9	.....	.....	.....	19,016 8 1	.....	19,016 8 1
6 14 1	1 0 0	.....	.....	.....	41 4 1	.....	41 4 1
6 14 1	1 0 0	.....	.....	.....	41 4 1	.....	41 4 1
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
3,825 0 8	.....	.....	.....	.....	4,830 5 9	.....	4,830 5 9
3,825 0 8	.....	.....	.....	.....	4,830 5 9	.....	4,830 5 9
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
27 3 0	94 14 0	60 12 0	11,971 0 1	.....	13,586 3 11	1,459 7 3	15,045 11 2
27 3 0	94 14 0	60 12 0	11,971 0 1	.....	13,586 3 11	1,459 7 3	15,045 11 2
.....	0 1 6	.....	593 12 6	.....	817 0 6	.....	817 0 6
.....	.....	.....	.....	.....	998 7 8	.....	998 7 8
.....	.....	.....	.....	.....	258 1 3	.....	258 1 3
.....	0 1 6	.....	593 12 6	.....	2,073 9 5	.....	2,073 9 5
8,565 0 6	198 11 6	.....	.....	.....	21,608 4 4	.....	21,608 4 4
1,847 11 6	.....	.....	.....	.....	8,359 5 10	.....	8,359 5 10
.....	.....	.....	.....	31,392 3 10	31,362 3 10	.....	31,362 3 10
562 13 0	254 14 5	3,394 6 2	.....	.....	7,325 6 3	.....	7,325 6 3
2,778 3 4	1,701 10 9	.....	.....	.....	13,961 10 1	.....	13,961 10 1
81 12 3	.....	.....	1,238 9 0	.....	3,978 5 7	186 5 0	4,164 10 7
3,554 9 5	3,776 8 10	.....	.....	.....	26,383 14 1	.....	26,383 14 1
17,390 2 0	5,931 13 6	3,394 6 2	1,238 9 0	31,392 3 10	1,12,979 2 0	186 5 0	1,13,165 7 0
.....	.....	.....	.....	.....	79 9 2	.....	79 9 2
5,260 9 9	1,779 14 9	92 5 9	1,925 2 7	.....	31,744 12 7	11 6 0	31,756 2 7
5,260 9 9	1,779 14 9	92 5 9	1,925 2 7	.....	31,824 5 9	11 6 0	31,835 11 9
36,038 2 7	7,946 2 0	3,547 7 11	1,00,990 8 9	31,392 3 10	2,97,303 2 8	6,190 11 10	3,03,498 14 6

Budget Heads.	Direction.	East Khândesh Division.	West Khândesh Division.	Nask Division.	Ahmednagar Division.	Poona Division.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
<b>EXPENDITURE—concluded.</b>						
<b>B—ESTABLISHMENTS.</b>						
<b>I.—Salaries—</b>						
a. Conservators ...	11,673 8 9	.....	.....	.....	.....	.....
b. Superior Officers ...	4,600 0 0	5,185 13 2	10,190 6 10	11,532 10 5	7,488 13 1	17,856 10 8
c. Subordinate Forest and Depôt Establishments ...	216 0 0	22,178 13 0	23,548 12 10	34,432 6 7	23,895 0 1	34,199 0 9
d. Office Establishments.	6,136 1 7	2,199 13 9	2,462 15 4	2,555 8 11	1,912 3 5	2,845 9 0
e. Deputation and Special Allowances ...	960 0 0	.....	.....	.....	.....	192 0 0
f. Exchange Compensation Allowance—						
1. Conservators ...	1,492 0 3	.....	.....	.....	.....	.....
2. Deputy Conservators ...	498 6 3	.....	927 1 7	514 12 7	882 10 7	1,326 15 0
3. Assistant Conservators ...	...	.....	.....	484 10 7	.....	482 2 4
4. Extra Assistant Conservators ...	.....	.....	.....	.....	.....	.....
Total B I ...	25,476 0 10	29,564 7 11	37,129 4 7	49,520 1 1	31,178 11 2	56,902 5 9
<b>II.—Travelling Allowances—</b>						
a. Conservators ...	1,560 0 0	.....	.....	.....	.....	.....
b. Superior Officers ...	1,006 2 0	1,196 5 11	2,520 0 0	2,670 10 2	1,800 0 0	3,241 11 6
c. Subordinate Forest and Depôt Establishments ...	.....	1,928 15 0	1,401 14 11	2,113 2 6	1,670 2 10	1,799 9 7
d. Office Establishments.	1,705 4 0	774 3 0	529 15 6	879 9 4	790 2 2	925 7 6
Total B II. ...	4,271 6 0	3,899 7 11	4,741 14 5	5,663 6 0	4,260 5 0	5,966 12 7
<b>III.—Contingencies—</b>						
a. Stationery ...	14 12 0	394 11 0	414 15 10	506 6 11	355 10 3	463 7 11
b. Carriage of Tents and Records ...	569 8 0	202 1 0	376 15 6	251 4 0	222 7 0	366 5 0
c. Rents, Rates and Taxes ...	4 0 0 0	277 9 7	329 0 0	85 4 0	340 8 0	264 0 0
d. Pay of Police Guards	.....	.....	.....	.....	.....	.....
e. Official Postage ...	346 2 6	894 5 0	664 9 0	944 0 0	778 9 0	1,317 9 6
f. Sundries ...	307 15 3	314 2 2	273 14 3	163 7 0	100 5 0	399 12 4
Payments to Officers of other Provinces...	.....	.....	.....	.....	.....	.....
Total B III ...	1,718 5 9	2,032 12 9	2,059 6 7	1,950 5 11	1,797 7 3	2,811 2 9
TOTAL B—ESTABLISHMENTS ...	31,465 12 7	35,546 12 7	43,930 9 7	57,133 13 0	40,236 7 5	65,680 5 1
GRAND TOTAL OF EXPENDITURE ...	31,537 1 4	58,725 5 9	72,087 10 5	76,339 11 7	55,531 4 4	97,166 4 5

Office of the Accountant General, Bombay, }  
dated 2nd September 1897. }

No. 61—continued.

Sátara Division.	Sholapur Division.	Working Plans Division.	Famine Grass and Grazing	Forest Survey Division.	Total for the Forest year 1896-97.	Famine Grass and Grazing for June 1897.	Total.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
..... 12,000 0 0	..... 6,090 0 0	..... 11,584 15 8	8,320 0 0 .....	..... .....	19,993 8 9 86,429 5 10	1,600 0 0 .....	21,593 8 9 86,429 5 10
30,001 14 10 2,554 11 1	12,388 1 7 1,798 5 0	..... 1,047 11 3	533 5 4 1,626 8 1	..... .....	1,81,393 7 0 25,139 7 5	100 0 0 342 6 5	1,81,493 7 0 25,481 13 10
.....	.....	.....	1,730 0 0	.....	2,882 0 0	310 0 0	3,192 0 0
.....	.....	.....	858 4 5	.....	2,350 4 8	146 2 8	2,496 7 4
925 7 3	195 10 3	1,414 15 4	.....	.....	6,685 14 10	.....	6,685 14 10
.....	517 5 3	.....	.....	.....	1,484 2 2	.....	1,484 2 2
.....	.....	.....	.....	.....	.....	.....	.....
45,482 1 2	20,989 6 1	14,047 10 3	13,068 1 10	.....	3,26,358 2 8	2,498 9 1	3,28,856 11 9
..... 2,440 10 4	..... 1,800 0 0	..... 2,215 10 4	1,878 1 0 .....	..... .....	3,438 1 0 18,891 2 3	747 2 0 .....	4,185 3 0 18,891 2 3
2,220 6 4 880 0 2	1,046 15 5 682 4 9	..... 292 13 7	150 6 0 42 4 3	..... .....	12,331 8 7 7,792 0 3	164 14 0 18 1 6	12,496 6 7 7,810 1 9
5,541 0 10	3,529 4 2	2,508 7 11	2,070 11 3	.....	42,452 12 1	930 1 6	43,382 13 7
503 1 8 437 10 0 61 8 0 ..... 1,220 12 0 253 0 2 .....	162 14 10 77 0 6 18 0 0 ..... 370 4 0 205 0 1 .....	15 6 0 238 0 0 240 0 0 ..... 69 5 0 414 0 0 .....	153 11 0 ..... ..... ..... 256 7 0 382 7 3 .....	..... ..... ..... ..... ..... ..... .....	2,985 1 5 2,741 3 0 2,095 13 7 ..... 6,861 15 0 2,813 15 6 .....	7 13 9 ..... ..... 73 5 6 82 10 9 .....	2,992 15 2 2,741 3 0 2,095 13 7 ..... 6,935 4 6 2,896 10 3 .....
2,475 15 10	833 3 5	976 11 0	792 9 3	.....	17,498 0 6	163 14 0	17,661 14 6
53,499 1 10	25,351 13 8	17,532 13 2	15,931 6 4	.....	3,86,808 15 3	3,592 8 7	3,89,901 7 10
89,537 4 5	33,297 15 8	21,080 5 1	1,16,921 15 1	31,392 3 10	6,83,617 1 11	9,733 4 5	6,93,400 6 4

W. BLAKEMAN,  
For Accountant General.





## FORM No. 63.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

## Revenue received and Outstandings on account of Revenue during 1896-97.

Division.	Particulars.	Outstandings at commence- ment of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	REMARKS.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
East Khándesh.	<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>						
	a. Timber ... ..	.....	4,751 11 10	4,751 11 10	4,751 11 10	.....	
	b. Firewood and charcoal ... ..	95 5 0	7,420 10 6	7,515 15 6	7,515 15 6	.....	
	c. Bamboos ... ..	.....	.....	.....	.....	.....	
	d. Sandalwood... ..	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ... ..	.....	.....	.....	.....	.....	
	<i>II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—</i>						
	a. Timber ... ..	.....	629 6 0	629 6 0	629 6 0	.....	
	b. Firewood and charcoal ... ..	.....	3,907 9 9	3,907 9 9	3,907 9 9	.....	
	c. Bamboos ... ..	.....	4,616 10 11	4,616 10 11	4,616 10 11	.....	
	d. Grazing and fodder grass ... ..	.....	81,062 11 0	81,062 11 0	81,062 11 0	.....	
	e. Other minor produce ... ..	.....	1,206 9 6	1,206 9 6	1,206 9 6	.....	
	<i>III.—Drift and Waif Wood and Confiscated Forest Produce ... ..</i>	.....	501 5 0	501 5 0	501 5 0	.....	
	Total ... ..	95 5 0	1,04,096 10 6	1,04,191 15 6	1,04,191 15 6	.....	
	West Khándesh.	<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>					
a. Timber ... ..		1,937 11 6	24,073 8 10	26,011 4 4	23,451 8 10	2,559 11 6	
b. Firewood and charcoal ... ..		.....	6,062 4 0	6,062 4 0	6,062 4 0	.....	
c. Bamboos ... ..		.....	.....	.....	.....	.....	
d. Sandalwood... ..		.....	.....	.....	.....	.....	
e. Grass and other minor produce ... ..		.....	.....	.....	.....	.....	
<i>II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—</i>							
a. Timber ... ..		.....	13,437 0 0	13,437 0 0	13,437 0 0	.....	
b. Firewood and charcoal ... ..		.....	2,204 14 6	2,204 14 6	2,204 14 6	.....	
c. Bamboos ... ..		.....	2,683 13 4	2,683 13 4	2,683 13 4	.....	
d. Grazing and fodder grass ... ..	.....	1,04,162 15 9	1,04,162 15 9	1,04,162 15 9	.....		



	<i>e.</i> Other minor produce ... ..	2,550 12 0	9,478 15 0	12,029 11 0	12,029 11 0	.....
	<i>III.—Drift and Waif Wood and Confiscated Forest Produce</i> ... ..	.....	465 12 3	465 12 3	465 12 3	.....
	Total ...	4,488 7 6	1,62,569 3 8	1,67,057 11 2	1,64,497 15 8	2,559 11 6
	<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>					
	<i>a.</i> Timber ... ..	.....	74 8 0	74 8 0	74 8 0	.....
	<i>b.</i> Firewood and charcoal ... ..	.....	95 4 6	95 4 6	95 4 6	.....
	<i>c.</i> Bamboos ... ..	.....	.....	.....	.....	.....
	<i>d.</i> Sandalwood... ..	.....	0 13 0	0 13 0	0 13 0	.....
	<i>e.</i> Grass and other minor produce ... ..	.....	1,352 10 2	1,352 10 2	1,352 10 2	.....
	<i>II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—</i>					
Násik ...	<i>a.</i> Timber ... ..	12,000 0 0	85,706 15 0	97,706 15 0	52,138 7 0	45,568 8 0
	<i>b.</i> Firewood and charcoal ... ..	.....	5,195 2 0	5,195 2 0	5,195 2 0	.....
	<i>c.</i> Bamboos ... ..	.....	3,062 8 5	3,062 8 5	3,062 8 5	.....
	<i>d.</i> Grazing and fodder grass ... ..	.....	59,333 7 8	59,333 7 8	59,333 7 8	.....
	<i>e.</i> Other minor produce ... ..	.....	2,618 11 6	2,618 11 6	2,618 11 6	.....
	<i>III.—Drift and Waif Wood and Confiscated Forest Produce</i> ... ..	.....	439 4 3	439 4 3	439 4 3	.....
	Total ...	12,000 0 0	1,57,879 4 6	1,69,879 4 6	1,24,310 12 6	45,568 8 0
	<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>					
	<i>a.</i> Timber ... ..	.....	1,462 10 6	1,462 10 6	1,462 10 6	.....
	<i>b.</i> Firewood and charcoal ... ..	.....	36 11 0	36 11 0	36 11 0	.....
	<i>c.</i> Bamboos ... ..	.....	3 5 0	3 5 0	3 5 0	.....
	<i>d.</i> Sandalwood... ..	.....	5 14 9	5 14 9	5 14 9	.....
	<i>e.</i> Grass and other minor produce ... ..	.....	1,413 3 6	1,413 3 6	1,413 3 6	.....
	<i>II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—</i>					
Ahmednagar ...	<i>a.</i> Timber ... ..	.....	265 4 4	265 4 4	265 4 4	.....
	<i>b.</i> Firewood and charcoal ... ..	.....	2,266 10 6	2,266 10 6	2,266 10 6	.....
	<i>c.</i> Bamboos ... ..	.....	282 14 1	282 14 1	282 14 1	.....
	<i>d.</i> Grazing and fodder grass ... ..	.....	38,192 8 3	38,192 8 3	38,192 8 3	.....
	<i>e.</i> Other minor produce ... ..	.....	1,988 6 6	1,988 6 6	1,988 6 6	.....
	<i>III.—Drift and Waif Wood and Confiscated Forest Produce</i> ... ..	.....	163 15 1	163 15 1	163 15 1	.....
	Total ...	.....	46,081 5 6	46,081 5 6	46,081 5 6	.....

FORM No. 63—concluded.

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	REMARKS.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Poona ...	<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>						
	a. Timber ...	.....	9,341 1 7	9,341 1 7	9,341 1 7	.....	
	b. Firewood and charcoal ...	.....	7,316 9 9	7,316 9 9	7,316 9 9	.....	
	c. Bamboos ...	.....	.....	.....	.....	.....	
	d. Sandalwood ...	.....	3 13 0	3 13 0	3 13 0	.....	
	e. Grass and other minor produce ...	.....	1,282 1 9	1,282 1 9	1,282 1 9	.....	
	<i>II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—</i>						
	a. Timber ...	.....	4,659 3 3	4,659 3 3	4,659 3 3	.....	
	b. Firewood and charcoal ...	.....	8,912 15 6	8,912 15 6	8,912 15 6	.....	
	c. Bamboos ...	.....	344 6 2	344 6 2	344 6 2	.....	
	d. Grazing and fodder grass ...	523 4 0	40,278 3 9	40,801 7 9	*40,342 7 9	459 0 0	
	e. Other minor produce ...	.....	2,414 0 6	2,414 0 6	2,226 8 6	187 8 0	
	<i>III.—Drift and Waif Wood and Confiscated Forest Produce ...</i>	.....	380 7 1	380 7 1	380 7 1	.....	
	Total ...	523 4 0	74,932 14 4	75,456 2 4	74,809 10 4	646 8 0	
Nátára ...	<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>						
	a. Timber ...	.....	10,487 1 9	10,487 1 9	10,487 1 9	.....	
	b. Firewood and charcoal ...	.....	4,124 6 5	4,124 6 5	4,124 6 5	.....	
	c. Bamboos ...	.....	.....	.....	.....	.....	
	d. Sandalwood ...	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	16,479 7 6	16,479 7 6	16,479 7 6	.....	
	<i>II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—</i>						
	a. Timber ...	.....	1,718 4 6	1,718 4 6	1,688 4 6	30 0 0	
	b. Firewood and charcoal ...	.....	217 9 6	217 9 6	217 9 6	.....	
	c. Bamboos ...	.....	231 5 3	231 5 3	231 5 3	.....	
	d. Grazing and fodder grass ...	.....	35,542 6 9	35,542 6 9	35,330 6 9	212 0 0	
	e. Other minor produce ...	.....	3,921 15 10	3,921 15 10	3,921 15 10	.....	
	<i>III.—Drift and Waif Wood and Confiscated Forest Produce ...</i>	.....	182 0 6	182 0 6	182 0 6	.....	
	Total ...	.....	72,904 10 0	72,904 10 0	72,662 10 0	242 0 0	

\*Rs. 215 being erroneously shown in column 7 of last year's return have been written off.

Sholápur	I.— <i>Timber and other Produce removed from the Forests by Government Agency—</i>								
	a. Timber	...	.....	.....	100 4 0	100 4 0	100 4 0	.....	
	b. Firewood and charcoal	...	.....	.....	.....	.....	.....	.....	
	c. Bamboos	...	.....	.....	.....	.....	.....	.....	
	d. Sandalwood...	...	.....	.....	.....	.....	.....	.....	
	e. Grass and other minor produce	...	.....	.....	42 7 0	42 7 0	42 7 0	.....	
	II.— <i>Timber and other Produce removed from the Forests by Consumers or Purchasers—</i>								
	a. Timber	...	.....	.....	2,342 0 0	2,342 0 0	2,342 0 0	.....	
	b. Firewood and charcoal	...	.....	.....	682 6 3	682 6 3	682 6 3	.....	
	c. Bamboos	...	.....	.....	.....	.....	.....	.....	
d. Grazing and fodder grass	...	.....	.....	20,097 9 0	20,097 9 0	20,046 9 0	51 0 0		
e. Other minor produce	...	.....	.....	490 10 3	490 10 3	490 10 3	.....		
III.— <i>Drift and Waif Wood and Confiscated Forest Produce</i>									
			.....	290 10 3	290 10 3	290 10 3	.....		
			Total	.....	24,045 14 9	24,045 14 9	23,994 14 9	51 0 0	
Famine grass and grazing.	I.— <i>Timber and other Produce removed from the Forests by Government Agency—</i>								
	e. Grass and other minor produce	...	.....	.....	66,351 8 0	66,351 8 0	66,351 8 0	.....	
Total, Central Circle.	I.— <i>Timber and other Produce removed from the Forests by Government Agency—</i>								
	a. Timber	...	1,937 11 6	50,190 10 6	52,128 6 0	49,568 10 6	2,559 11 6		
	b. Firewood and charcoal	...	95 5 0	25,156 2 2	25,251 7 2	25,251 7 2	.....		
	c. Bamboos	...	.....	3 5 0	3 5 0	3 5 0	.....		
	d. Sandalwood...	...	.....	10 8 9	10 8 9	10 8 9	.....		
	e. Grass and other minor produce	...	.....	86,921 5 11	86,921 5 11	86,921 5 11	.....		
	II.— <i>Timber and other Produce removed from the Forests by Consumers or Purchasers—</i>								
	a. Timber	...	12,000 0 0	1,08,758 1 1	1,20,758 1 1	75,159 9 1	45,598 8 0		
	b. Firewood and charcoal	...	.....	23,387 4 0	23,387 4 0	23,387 4 0	.....		
	c. Bamboos	...	.....	11,221 10 2	11,221 10 2	11,221 10 2	.....		
	d. Grazing and fodder grass	...	523 4 0	3,78,669 14 2	3,79,193 2 2	3,78,471 2 2	722 0 0		
	e. Other minor produce	...	2,550 12 0	22,119 5 1	24,670 1 1	24,482 9 1	187 8 0		
	III.— <i>Drift and Waif Wood and Confiscated Forest Produce</i>								
				.....	2,423 6 5	2,423 6 5	2,423 6 5	.....	
				Total	17,107 0 6	7,08,861 9 3	7,25,968 9 9	6,76,900 14 3	49,067 11 6

† Rs. 215 being erroneously shown in column 7 of last year's return have been written off.

The revenue under Budget heads IV and V is Rs. 10,952-8-11 and Rs. 16,726-3-7. This has not been shown in the statement in detail as there are no outstandings against these heads. The total amount realized during the year is Rs. 7,04,364-10-9.

Camp Belvandi Kothár, Ahmednagar District,  
dated 4th March 1898.

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

ANNUAL FORM No. 64.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Outstandings and Liabilities on account of Contractors and Disbursers for the Forest year 1896-97 (July 1896 to June 1897).*

Divison.	DEPARTMENT DEBTOR.			DEPARTMENT CREDITOR.			BALANCE DUE		REMARKS.
	At commence- ment of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commence- ment of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).	
		Rs. a. p.	Rs. a. p.	Rs. . p.	Rs. a. p.	Rs. a. p.	Rs. a. p.		
<i>Contractors.</i>									
Násik ... ..	.....	1 4 0	1 4 0	.....	15 0 0	15 0 0	13 12 0	...	
Total, Contractors ...	.....	1 4 0	1 4 0	.....	15 0 0	15 0 0	13 12 0	...	
<i>Disbursers.</i>									
East Khandesh ... ..	.....	44,337 3 8	44,337 3 8	2,469 13 8	45,180 3 6	47,650 1 2	3,312 13 6	...	
West Khandesh... ..	.....	54,137 1 3	54,137 1 3	898 6 3	54,683 12 11	55,582 3 2	1,445 1 11	...	
Násik ... ..	.....	57,692 11 5	57,692 11 5	807 1 11	58,376 15 8	59,184 1 7	1,491 6 2	...	
Ahmednagar ... ..	.....	37,545 6 6	37,545 6 6	1,681 11 8	37,454 12 7	39,136 8 3	1,591 1 9	...	
Poona ... ..	.....	74,817 10 9	74,817 10 9	2,444 2 10	75,738 15 6	78,183 2 4	3,365 7 7	...	
Sátára ... ..	.....	71,198 1 0	71,198 1 0	3,235 13 1	71,472 1 4	74,707 14 5	3,509 13 5	...	
Sholápur ... ..	.....	20,837 1 2	20,837 1 2	817 2 3	20,936 5 0	21,753 7 3	916 6 1	...	
Working plans ... ..	.....	1,214 7 10	1,214 7 10	100 15 10	1,114 8 0	1,215 7 10	1 0 0	...	
Famine grass and grazing.	.....	77,653 1 1	77,653 1 1	.....	91,409 11 7	91,409 11 7	13,756 10 6	...	
Total Disbursers ...	.....	4,39,432 12 8	4,39,432 12 8	12,455 3 6	4,56,367 6 1	4,68,822 9 7	20,389 12 11	...	
Grand Total ...	.....	4,39,434 0 8	4,39,434 0 8	12,455 3 6	4,56,382 6 1	4,68,837 9 7	29,403 8 11	...	

Accountant General's Office, }  
2nd September 1897.

E. LAWRENCE,  
Accountant General.

## FORM No. 65.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Financial results of the year 1896-97.*

Division.	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.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
East Khándesh ...	12,268	8,083	1,00,260	7,823	52,009	1,12,528	67,915
West Khándesh ...	29,514	8,587	1,42,647	8,837	67,191	1,72,161	84,615
Násik ...	1,523	2,080	1,23,770	4,912	76,863	1,25,293	83,855
Ahmednagar ...	2,922	2,372	46,315	3,342	85,141	49,237	90,855
Poona ...	17,944	7,426	60,121	2,598	96,571	78,065	1,06,595
Sátára ...	31,091	11,526	45,268	3,832	80,027	76,359	95,385
Sholápur ...	143	526	24,218	613	36,336	24,361	37,475
Famine Grass and Grazing ...	66,351	89,796	10	...	36,909	66,361	1,26,705
Total ...	1,61,756	1,30,396	5,42,609	31,957	5,31,047	7,04,365	6,93,400

A. T. SHUTTLEWORTH,  
Conservator of Forests, Central Circle.

*Camp Belvandi Kothár, Ahmednagar District, }  
dated 4th March 1898. }*

No. R—866 of 1898.

REVENUE DEPARTMENT.

*Poona, 10th March 1898.*

Submitted to Government.

2. Demarcation has made considerable progress, the work having been carried on as a relief measure in the famine. The Forest Survey was more expensive than in the previous year. The extra cost has been explained in the Superintendent's report forwarded to Government by the Survey Commissioner.

3. There has been some increase in Forest crime, and prosecutions were to a small extent less successful than in the previous year. The number of compensation cases under Section 67 of the Forest Act were about the same, while the number of cases dealt with by warning only shows a large increase.

4. A larger expenditure was incurred on protection from fire, and the area protected was larger.

5. From November 1896 all forest areas except those specially under re-forestry were thrown open to free grazing. The extra area thus opened to grazing was about 1,000 square miles. This naturally resulted in a large decrease in impoundings of cattle. Apparently even in closed blocks impounding had to be stopped as the cattle had become so reduced in condition that it was not worth while for owners to pay the fines. Considerable progress was made in fencing reserves.

6. The year was very unfavourable to both natural and artificial reproduction.

7. There was a large fall off in receipts, and this would have been more marked but for the sums realised from grass extracted from the Reserves by the Honourable Mr. Shuttleworth and sent for sale in the Famine districts. There was a large increase of expenditure due principally to the grass operations, the special expenditure on demarcation as a relief work and payment of grain compensation. In only three divisions was there a surplus and it was much less than in the previous year.

A. F. WOODBURN,  
Acting Commissioner, C. D.

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**SOUTHERN CIRCLE.**

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No. 7359 OF 1897-98.

From

W. G. BETHAM, Esquire,  
Deputy Conservator of Forests, Southern Circle;

To

THE CHIEF SECRETARY TO GOVERNMENT,  
Revenue Department,  
Bombay.  
*Camp Kalghatgi, Dhárwār Districts,*  
*January 31st, 1898.*

SIR,

I have the honour to submit the Forest Administration Report of my Circle for the year 1896-97, together with its subsidiary statements.

I have the honour to be,

Sir,

Your most obedient Servant,

W. G. BETHAM,  
Deputy Conservator of Forests, Southern Circle.

THROUGH THE COMMISSIONER, SOUTHERN DIVISION.



# INDEX.

FOREST ADMINISTRATION REPORT, SOUTHERN CIRCLE, FOR 1896-97.

Chapter.	Subject.	Paras.
I.	EXTENSION AND CONSTITUTION OF STATE FORESTS—	
	(i) Alteration of Area ... ..	} 1—16 17—25 26 and 27
	(ii) Forest Settlements ... ..	
	(iii) Demarcation ... ..	
	(iv) Surveys ... ..	
II.	MANAGEMENT OF STATE FORESTS—	
	I.—Regulation of Management—	
	(a). Working-Plans and their control ... ..	28—27
	II.—Working of the year—	
	(a). Communications and Buildings ... ..	38—44
	(b). Protection of Forests from Injury—	
	(1). General Protection and Breaches of Forest Law...	45—64
	(2). Protection from Fire ... ..	65—86
	(3). Regulation of Grazing and Protection from Cattle	87—101
	(c). Improvement of Forest-growth—	
	(1). Natural Reproduction (1) by Seed and (2) by Coppice ... ..	102—105
	(2). Artificial Regeneration ... ..	106—124
	(3). Early Thinnings ... ..	125—129
	(4). Other Operations for the Improvement of the Forest ... ..	130—133
	(5). Experiments... ..	134—136
	(d). Exploitation of Major Forest Produce, and	
	(e). Extraction and Transport of Major Forest Produce by Land and Water ... ..	} 137
	(f). Exploitation of Minor Forest Produce—	
	(1). Extraction of Fodder and (2) Grazing	.. 138 and 139
	(3). Miscellaneous Produce .. ..	.. 140 and 141
III.	GROSS YIELD AND OUTTURN OF FOREST PRODUCE ... ..	142—174
IV.	FINANCIAL RESULTS ... ..	175—193
V.	FOREST ADMINISTRATION ... ..	194 and 195
	Establishments and their Recruitment ... ..	196—205
	Tour of the Conservator ... ..	205—213
	General Remarks ... ..	214—225

# CHAPTER I.

## EXTENSION AND CONSTITUTION OF STATE FORESTS.

### (i).—ALTERATION OF AREA,

AND

### (ii).—FOREST SETTLEMENTS.

The following table shews the changes that have taken place during the past year in the area of the State forests of the Southern Circle:—

Names of Districts.	Area on 1st July 1896.		Added during the year.		Excluded or transferred to other heads.		Area on 30th June 1897.		Total Forest Area.
	Reserved.	Protected.	Reserved.	Protected.	Reserved.	Protected.	Reserved.	Protected.	
1	2	3	4	5	6	7	8	9	10
	Sq. m. a.	Sq. m. a.	Sq. m. a.	Sq. m. a.	Sq. m. a.	Sq. m. a.	Sq. m. a.	Sq. m. a.	Sq. m. a.
Kánara ... ..	1,204 346	2,227 561	665 596	...	0 35	664 377	1,930 287	1,563 184	3,493 451
Belgaum ... ..	665 179	11 57	0 402	...	0 91	...	665 490	11 57	676 547
Dhárwár ... ..	364 544	.....	1 508	...	3 356	...	363 56	.....	363 56
Bijápur ... ..	155 56	89 409	116 200	...	1 309	89 409	269 587	.....	269 587
Kolába ... ..	439 15	5 582	10 81	...	0 1	2 89	449 95	8 493	452 588
Batnógiri ... ..	22 93	.....	0 7	...	0 4	...	21 736	.....	21 736
<b>Total ...</b>	<b>2,910 593</b>	<b>2,334 329</b>	<b>794 514</b>	<b>...</b>	<b>5 156</b>	<b>756 235</b>	<b>3,700 311</b>	<b>1,578 94</b>	<b>5,278 405</b>

2. The territorial changes sanctioned in Government Resolution No. 10330, dated 17th December 1896, were given effect to from 1st January 1897, under which Kánara was divided into the Northern, Southern and Western Divisions, instead of the Northern, Central and Southern as formerly. The Northern and Southern Divisions, as at present constituted, comprise all the ghát ranges of Kánara, while the several coast ranges now form the Western Division. The redistribution of these ranges, as transferred from the old to the new three divisions, is as shown below:—

<i>Old.</i>		<i>New.</i>			
Kárwár ... ..	}	Northern Division,	Haliyál ... ..	}	Northern Division,
Haliyál ... ..		Kánara.	Supa ... ..		Kánara.
Supa ... ..					
Ankola ... ..	}	Central Division, Kánara.	Yellápur ... ..	}	Southern Division, Kánara.
Yellápur ... ..			Mundgod ... ..		
Mundgod ... ..			Sirsi ... ..		
	Siddápur ... ..				
Kumpta ... ..	}	Southern Division, Kánara.	Kárwár ... ..	}	Western Division, Kánara.
Honávar ... ..			Ankola ... ..		
Sirsi ... ..			Kumpta ... ..		
Siddápur... ..			Honávar ... ..		

3. The alteration in the reserved area of Kánara is owing to the transfer of 1 square mile 230 acres, from Dhárwár, and to 664 square miles 365 acres of Supa having been made 'Reserved.' One acre was also found in excess of the original figures owing to rectification of areas previously notified. The area in Supa was originally entered as "Protected," and is, therefore, deducted from the figures in column 7 of the above table, along with 12 acres which were found less than the original acreage according to corrections made in the previous notifications. Of the 35 acres shewn in column 6, 5 are on account of disafforestation, and 30 are due to errors in the original notifications, which were rectified during the year under report.

4. In Belgaum, 391 acres were added to the reserved area of Gokák, and 62 acres were disafforested from the Sampgaon forest reserves. The other changes in the division are due to errors in the notifications of past years.

5. The changes in Dhárwár are due to 1 square mile 508 acres newly added to "Reserved." Of the 3 square miles 356 acres shewn in column 6, 1 square mile 488 acres of Ron and 1 square mile 230 acres of Kalghatgi were transferred to Bijápur and Kánara, respectively, and 278 acres were disafforested in Navalgund.

6. In Bijápur, the "Protected" forests (89 square miles 409 acres) were converted into, and 23 square miles 588 acres were newly added to, "Reserved." Two square miles 503 acres were also found in excess of the original acreage, owing to corrections in survey papers. The area (1 square mile 309 acres) entered in column 6, was disafforested from the reserved forests of the division on final settlement.

7. In Kolába, 2 square miles 89 acres were converted from "Protected" into, and 7 square miles 632 acres were added to, "Reserved". One acre was disafforested from the "Reserved" area.

8. In Ratnágiri, 7 acres were added to, and 4 deducted from, the reserved area. The latter was owing to errors in past years' notifications rectified during the year under report.

9. Mr. Sheppard, who was by Government Resolution No. 8798, dated 7th November 1896, appointed Personal Assistant to the Collector of Bijápur, continued to hold charge of the Forest Settlement Office, Kánara, in addition to his own duties, and consequently, the field-work remaining to be done in the Southern Division, Kánara, was not taken in hand during the year.

10. Government orders on the Forest Settlement Report on the forests of the 73 villages of Honávar, referred to in paragraph 8 of last year's administration report, were not received until after the close of the year.

11. Settlement-proposals on the forests, of which the field-work was completed during the past year, are under preparation, except in regard to the 65 villages of Bhatkal, for which a report has been sent in.

12. The following area was notified under Section 4 of the Forest Act:—

	A.	g.
Kánara	352	17
Belgaum	1,092	5
Dhárwár	1,556	2
Bijápur	1,408	23
Ratnágiri	6	33
	<hr/> 4,416	<hr/> ...

13. The expenditure incurred on account of settlement during the year under report, was as detailed below:—

*Not charged to Forests.*

Salaries and allowances of the Forest Settlement Officer,	Rs.
Kanára	12,062

*Charged to Forests.*

Salaries and allowances of the Establishment employed under the Forest Settlement Officer, Kánara	3,947
Contingencies	1,791
Salaries, &c., of the Establishment of the late Dhárwár-Belgaum Settlement Office	123
Compensation	5,480
Total	<hr/> 23,403

14. The following statement in the form prescribed in paragraph 3 of Government Resolution No. 5068 of 29th June 1896, shows the settlement-work which actually remains to be done.

Names of Divisions.	STAGES OF OUTSTANDING WORK.							REMARKS.
	Occupied lands to be acquired			Land to be notified under Section 4.	Land to be settled under Section 7.	Land to be notified under Section 19.	Total.	
	By exchange or compensation.		Land to be notified under Land Acquisition Act.					
	Negotiations proceeding.	Negotiations completed.						
1	2	3	4	5	6	7	8	9
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	
Northern Division, Kánara.	...	...	...	...	9	...	9	
Southern do.	09	01	...	12	1393	663396	677546	
Western do.	...	003	...	1	11704	335846	347653	
Belgaum ... ..	396	003	...	315	1706	6404	8324	
Dhárwár ... ..	...	027	...	204	3425	3172	6328	
Bijápur ... ..	...	...	...	...	056	...	056	
Kolaba ... ..	...	...	...	...	...	11551	11551	
Ratnágiri ... ..	...	...	...	...	019	...	019	
Total ...	0486	0043	..	0739	31740	1,020369	1,053377	

15. Of the area shown in column 7, against the three divisions of Kánara, settlement-proposals on 543 square miles have been sanctioned by Government and notifications for part of the area have also been published since the close of the year under report. The only forests for which reports have to be sent to Government, are those of the Bhatkal Petha and the Siddápur Táluka, and report for the former has just been received from the Forest Settlement Officer and is under review in this office. In Belgaum and Dhárwár, the areas shown are distributed over several tálukas and need no further explanation than that final notifications will, it is hoped, be shortly sent in by the respective ex-officio-Forest-Settlement-Officers. The Collector's report on the Mádrái villages in Kolábá has not yet been received.

16. Appendix 47 shows that the settlement of 4,160 square miles of forests was completed by the end of 1896-97, and that 976 square miles were undergoing settlement at the commencement of 1897-93; and, if the total 5,136 is deducted from the whole forest area of the Circle (5,278), it would seem that 142 square miles have still to be dealt with. The 976 square miles (undergoing settlement) together with the 142 square miles (remaining to be dealt with) or 1,118 square miles in all, do not, however, correspond with the total figures of outstanding work which amount to 1,053 square miles as shown in the table in paragraph 14 above. The difference of 65 square miles may be ascribed to the fact that the 'Protected area' in which are included the 142 square miles referred to, and which was originally gazetted under section 34 of the Forest Act, in Kánara, in the year 1879 (when the Revenue Survey operations of the forests were not completed) does not represent accurate figures, but we have to accept these figures until the survey shows their inaccuracy or otherwise and consequently they appear in Form No. 46A, pending final settlement of the Kánara forests.

(iii).—DEMARCATIION.

Ka'nara.

17. In the three divisions of Kánara, 409 miles of boundary-lines were cleared of after-growth, &c., by the Forest Department at a cost of Rs. 5,740, as detailed in the margin, and 15 miles of new demarcation-lines were also opened in the Western Division at a cost of Rs. 448.			
	No. of Miles.	Cost. Rs.	
Northern Division, Kánara	... 333	3,996	
Southern do.	... 30	896	
Western do.	... 46	848	
	<u>409</u>	<u>5,740</u>	

18. The work done by the Demarcation party under the Forest-Settlement-Officer, Kánara, is as shewn below:—

Name of Táluka.	Number of villages.	Line marked out.		NUMBER OF PLATES FIXED.			Cost of fixing the plates.	REMARKS.
				Reserved.	Protected.	Total.		
		Miles.	Furlongs.				Rs.	
Yellápur (Southern Division, Kánara).	13	116	7	1,721	832	2,553	505	

19. The work done in Kánara, as detailed above, represents internal demarcation, such as lines separating one block from another and is, therefore, omitted from Form No. 48.

### Belgaum.

20. Eleven miles of boundary lines (10 in Belgaum and 1 in Khánápur) separating forest from non-forest lands were demarcated by the setting up of 973 stone-pillars with "R. F." letters carved on them, and the erection of 190 cairns, at a cost of Rs. 647. More work would have been done, but owing to famine funds allotted to this work were diverted to other purposes.

### Dharwar.

21. Nothing was done in this Division owing to the grant made for the work having been suspended on account of famine.

### Bijápur.

22. The work of preparing stone-pillars to demarcate boundaries was undertaken during the year, with a view to provide suitable work for Waddárs, who, owing to the prevailing famine, were in great distress; and the result was that 10,805 stone-pillars, similar to those made in Belgaum, were prepared at a cost of Rs. 3,210. The Divisional Forest Officer reports that this work afforded means of livelihood to about 2,000 souls.

### Kola'ba.

23. A sum of Rs. 1,420 was sanctioned to demarcate forest boundaries with stone-cairns, but the money was subsequently transferred to Bijápur, where it was urgently needed for expenditure connected with the departmental collection of cassia bark and the preparation of stone-pillars.

24. The marks put up by the Revenue Survey between forest and non-forest lands being small cairns at irregular distances, do not serve their purpose effectively. It seems from the Divisional Forest Officer's report, that, on a reference made by him on the subject, to the Superintendent, Revenue Survey, the latter officer has directed that in future stone-cairns 5' square at the base, 3' square at the top and 4' high should be set up, to demarcate such boundary lines. This is a step in the right direction.

### Ratna'giri.

25. The Collector reports that Rs. 39 were spent on the erection of 62 boundary cairns and on repairs to 49 existing boundary-marks in the Kbed and Málván Ranges.

### (iv).—SURVEYS.

26. The following statement shows the work done by the topographical survey party and its cost, for the last two years, according to returns received from the Superintendent:—

Year.	TRIANGULATION.				TRAVERSING.				DETAIL SURVEY.				Total cost.	
	8"		4"		8"		4"		8"		4"			
	Area.	Cost.	Area.	Cost.	Area.	Cost.	Area.	Cost.	Area.	Cost.	Area.	Cost.		
	Sq. m.	Rs.	Sq. m.	Rs.	Sq. m.	Rs.	Sq. m.	Rs.	Sq. m.	Rs.	Sq. m.	Rs.	Rs.	
1895-96	...	...	230	1,984	...	...	344	4,205	...	...	609	41,779	47,968	
1896-97	...	194	816	880	6,859	...	...	234	2,613	15	1,633	3485	27,763	39,634

27. The operations of the Survey Party were confined to the Kánara and Kolába Divisions of the Southern Circle. The detail work done in Kánara on the 4" scale during the year was 348 square miles at an average cost of Rs. 80 per square mile as against Rs. 69 in the preceding year. In Kolába, 15 square miles were completed on the 8" scale at a cost of Rs. 1,633 or Rs. 109 per square mile. There was thus a reduction of expenditure in the latter Division by Rs. 45 per square mile as compared with 1894-95 (no detail survey was done in the Division during 1895-96) and an increase by Rs. 11 per square mile in the former.

## CHAPTER II.

### MANAGEMENT OF STATE FORESTS.

#### I.—REGULATION OF MANAGEMENT.

##### (a).—WORKING-PLANS AND THEIR CONTROL.

28. The Working-Plans Division of the Southern Circle was in the administrative charge of Mr. Copleston from 1st to 31st July 1896, and of Mr. Talbot from 1st August 1896 until 4th April 1897, and on the transfer of the latter officer to the Belgaum Division, the former was again put in charge.

29. Party I, under Mr. H. Mitra, Extra Assistant Conservator of Forests, was engaged in the organization of teak coppice in Dhárwár, and the following table shows the work done by the Party during the season of 1896-97 :—

Area estimated.	Linear miles surveyed.	Stone cairns and earthen mounds erected.	Test trees felled.	Number of compartments formed.	Test area enumerated.	Area for which data have been collected for the preparation of working-plans.	Number of tracings prepared.	Total cost incurred.	Cost per acre.
								Rs.	Pies.
99,335	...	55	1,305	30	327	23,997	99,335	7	6,063 11-7

30. It is not possible to compare the work done last season in Dhárwár by Party I, with that done by it in 1895-96 in Kánara, the forests of Dhárwár being so much easier than the heavy timber-forest of Kánara to work in.

31. The field work in Dhárwár consisted mainly in the counting of all the mature exploitable teak trees above 4" in diameter at breast-height in the compartments of the forests of Dhárwár, Kalghatgi and Bankápur. Mr. Mitra, who was in charge of the plan, reports that the plan is on the same lines on which the Kolába schemes were prepared, with the additions that (1) all the coupes have been permanently laid on the ground, (2) that the mature teak trees in the first 10 years' coupes have been counted wholesale, and (3) that the standing stock in the remaining 30 years' coupes has been estimated by the 'test area' and 'eye-estimate' methods. The proposed plan does not, however, commend itself, but the *data* collected by Mr. Mitra will be availed of, as far as possible, for a suitable plan which is now being prepared by Mr. Woodrow, Divisional Forest Officer, Dhárwár.

32. The work done during the year by Party II, under Mr. Sátáráwála, consists of 41,962 acres of Yellápur, for which full *data* for the preparation of working-plans were collected, at a cost of Rs. 25,077 or 9 annas 7 pies per acre. This is most satisfactory as compared with the work done during 1895-96 which was fully 1,700 acres less than that in the year under report, and yet the cost per acre was higher by Re. 0-6-10. But the year 1895-96 cannot fairly be compared with the year 1896-97, as in the former, half of the work lay on the Arbail gháts, excessively difficult country to work in, and this accounts for the increased cost and rate per acre for that year.

33. The decrease in cost and the increase in the quantity of work done in 1896-97, are ascribed by the Divisional Officer to the following four causes, *viz.* :—

*Firstly.*—The area gone over was flat and gently undulating and, therefore, easily accessible from all sides.

*Secondly.*—The area was already cut up by roads and náls and this lessened the work of demarcation.

*Thirdly.*—Labour-supply was plentiful and sustained, and

*Fourthly.*—Topographical survey maps were all available so that not much time was lost in surveying.

34. The details of work done by the Party during the year, as compared with the year previous, are given below:—

Name of Party.	Jungle cut and cleared.	Linear miles surveyed.	Posts fixed.	Test trees felled.	Number of compartments formed.	Test area enumerated.	Area for which full data for the preparation of plans have been collected.	Total cost.	Cost per acre.	REMARKS.
								Rs. a. p.	Rs. a. p.	
Party II ...	Yellápur Range in Southern Division, Kánara.	93.9	1,315	52	62	8,251.0	41,962.4	25,076 10 7	0 9 6.7	
		66	1,622	54	40	1,636	25,007	25,684 0 0	1 0 5.1	1895-96.
		+27.9	-207	-2	+22	+1,615	+16,955.4	-607 5 5	-0 6 8.4	Difference.

35. The average cost per acre for field work proper, *i. e.*, from 1st November 1896 to 31st May 1897, was 6 annas 7 pies as against 8 annas 7 pies for the same period in 1895-96; and, as stated above, the cost for the whole year was also less—9 annas 7 pies as compared with Rs. 1-0-5.1.

36. Government orders on the working-plan of the Gund series in the Northern Division of Kánara were received during the year and contracts were given out in those forests for the supply of teak and blackwood logs to the Coast-Timber-Depôt at Kódibág as prescribed in that plan.

37. As required by paragraph 3 of Government Resolution No. 9450, dated 26th November 1896, the Divisional Forest Officer reports that he worked in the forests of the Gund Circle on 21st, 22nd and 23rd of November 1896 and again on 28th to 31st May and 1st June 1897.

## II.—WORKING OF THE YEAR.

### (a).—COMMUNICATIONS AND BUILDINGS.

38. Form No. 51, appended, gives details of works executed during the year under report:—

39. "Roads and Bridges" cost Rs. 8,546, and Buildings, &c., Rs. 16,018.

40. In the Northern Division of Kánara, the construction of 9 buildings for forest subordinates was undertaken and partly done at a cost of Rs. 7,487, and additions and alterations were effected to the Range Office building at Haliyál, the cost incurred being Rs. 93. A road from Barchi to Nána-Kesrodga was also constructed at a cost of Rs. 2,620. Repairs to the existing buildings and roads, &c., cost Rs. 246 and 361, respectively.

41. In the Southern Division of Kánara, a range office was built at Siddápur at a cost of Rs. 1,096, and 1 saw-mill shed and 24 huts for saw-mill workmen were built at Ittanbail in the Yellápur Range, for Rs. 1,067 and 503 respectively. Five wells were newly built (Rs. 1,800) and the one that had been partly built at Baswankop in the previous year was completed (Rs. 186). Two roads, one from Bilki to Siddalgundi and the other from the Yellápur-Dhárwár main road to the saw-mills at Ittanbail, were also constructed, the cost incurred being Rs. 2,343 and 103, respectively. Repairs to buildings cost Rs. 1,511 and to roads and paths Rs. 1,191.

42. In the Western Division of Kánara, the well at Hattikeri was completed (Rs. 210), a temporary náka was built at Manaki (Rs. 5) and the existing buildings and roads were repaired (Rs. 1,080 and 167, respectively).

43. In Belgaum, Rs. 200 were spent on the extension of the timber cart-road from Nágargáli to Barchi and Rs. 150 on the construction of a road from the rest-house at Nágargáli to the Barchi-Nágargáli road. Repairs to existing buildings and roads were made and the cost incurred was Rs. 142 and 1,381, respectively.

44. In Dhárwár, Kolába and Ratnágiri, Rs. 347 were spent on minor original works and Rs. 275 on repairs to existing buildings, &c.

## (b).—PROTECTION OF FORESTS FROM INJURY.

## (1).—General Protection and Breaches of Forest Laws.

## (a).—General Protection.

45. The establishment sanctioned for the Supá and Gund Working-Circles in the Northern Division of Kánara, was not entertained (with the exception of guards) during the year, owing to the orders of Government on the question as to whether the old or the new programme-students were to be given preference in the appointments to the Rangers' grade, not having been received until after the close of the year.

46. The orders contained in Government Resolutions Nos. 4028 and 2645, dated respectively 29th May 1895 and 26th March 1896, were given effect to in selected portions of the Sirsi and Yellápur ranges. In Sirsi, 8 depôts were established, but as no demand for *soppu* arose, they were closed in October 1896. It is reported that owing to the hostile attitude of the garden-holders towards the introduction of the depôt system, one of the depôt-huts was burnt by incendiaries, but the offenders could not be traced. Four *soppu* depôts were also established in Yellápur and the special establishment sanctioned for the operations was entertained for 9 months, but the garden-holders remained hostile to the system and did not purchase any *soppu* from forests outside their *betta* limits. The system, however, seems to have had one effect, and that is the protection of certain portions of forests from illegal loppings. Rs. 3,326 were spent on the special *soppu*-depôt establishment, without any return in revenue.

## (b).—Breaches of Forest Rules.

47. The cases taken into Court and disposed of by Magistrates during the year as compared with 1895-96, are detailed in the following statement:—

Division.	CASES OF THE YEAR 1895-96.							CASES OF THE YEAR 1896-97.							PERCENTAGE OF FAILURE.	
	Pending in Court on 1st July 1895.	Taken into Court during the year.	Total.	Disposed of by Magistrates during the year.			Pending in Court on 30th June 1896.	Pending in Court on 1st July 1896.	Taken into Court during the year.	Total.	Disposed of by Magistrates during the year.			Pending in Court on 30th June 1897.	1895-96.	1896-97.
				Convictions.	Acquittals.	Total.					Convictions.	Acquittals.	Total.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Northern Division, Kánara	15	12	27	20	4	24	3	3	10	13	5	4	9	4	16.6	44.4
Southern Division, Kánara	1	52	53	30	13	43	10	10	51	61	43	12	55	6	30.2	21.8
Western Division, Kánara.	4	60	64	33	29	62	2	2	47	49	34	15	49	...	46.7	30.8
Belgaum ... ..	3	11	14	7	3	10	4	4	24	28	18	5	23	5	30	21.7
Dharwar ... ..	...	20	20	13	3	16	4	4	8	12	7	4	11	1	18.7	36.3
Bijápur ... ..	...	23	23	18	5	23	...	...	23	23	18	2	20	3	21.7	10
Kolába ... ..	15	375	390	272	40	313	72	72	219	291	110	57	16	124	14.4	34.1
Ratnágiri ... ..	1	7	8	7	1	8	...	...	8	8	7	1	8	...	12.5	12.5
Total ..	39	500	539	400	104	504	95	95	390	435	242	100	342	143	20.6	29.2

48. The figures, in the above statement, for 1895-96 for the three divisions of Kánara have been arranged according to the redistribution of ranges sanctioned in Government Resolution No. 10330 of 17th December 1896.

49. It will be seen from the above that there was a decrease in the number of prosecutions in the whole Circle of 170 as compared with 1895-96, and



that it is chiefly due to 156 less cases having been taken into Court in Kolába than in the previous year.

50. *Northern Division of Kánara*.—Of the 10 cases instituted during the year, 6 were for misappropriation of timber and other produce, 1 for setting fire to forests, 2 for digging trenches in reserved forests and 1 for illegal cultivation in reserved forests. The 3 cases pending in Court at commencement of the year, were for setting fire to forests. Of these 13 cases, 9 were disposed of by Magistrates and 4 (consisting of 1 for incendiarism and 3 for misappropriation of timber) were pending trial at close of the year. The percentage of failures was very high, 44·4 against 16·6, but the number of cases is so small that the percentage of failures, as compared with other years, is not a fair criterion of the degree of care exercised in bringing cases before the courts.

51. *Southern Division of Kánara*.—The percentage of failures was 21·8 against 30·2, although the number of prosecutions was about the same as in the previous year, *viz.*, 51 against 52. From this result it is evident that more care was exercised in taking cases before Magistrates. Of the 51 cases referred to above, 33 (9 in Sirsi, 23 in Siddápur and 1 in Yellápur) were for the illicit cutting of *soppu* or green leaves for manure, of which only 5 were let off by Magistrates for want of sufficient evidence. The other cases call for no remarks.

52. *Western Division of Kánara*.—The number of cases taken into court fell from 60 to 47. In the Kárwár Range, there were 18 cases of illegal cutting of firewood within the 5-mile-limit of the town, in 10 of which conviction was obtained. Of the 15 cases in which conviction failed in the division, 8 were for the illicit cutting of firewood within 5 miles of Kárwár, 2 for theft of wood, 2 for removal of timber without passes, 1 for cutting *soppu*, 1 for extracting bark of green mati-trees and 1 for opening a drain in reserved forest without permission. The *soppu* and firewood cases were let off as being trivial and the others for want of sufficient evidence.

53. The percentage of failures was 30·6 against 46·7 in 1895-96.

54. In *Belgaum*, 24 cases were taken into court during the year against 11 in 1895-96 with the result that convictions were obtained in 18 cases as against 7, the delinquents in most of the cases being old offenders. The increase in the number of cases is reported to have been due to the scarcity that prevailed in the district. There were no important cases to call for any remarks.

55. In *Dhárwár*, there were 8 cases against 20 in 1895-96, and the decrease is attributed by the Divisional Forest Officer to offenders, except in important cases, having been let off with a warning, owing to the great distress prevailing during the year. The percentage of failures (36·3 against 18·7) as compared with the previous year has doubled, but the total number of cases is very small to take percentages on.

56. In *Bijápur*, the number of prosecutions remained the same as in 1895-96. The Divisional Forest Officer reports that there was an "abnormal increase in forest offences in general, on account of famine," but that "prosecutions were only resorted to in cases when the offenders had committed similar offences before or when the gravity and frequency of the offences called for deterrent punishment." In only 2 cases, were the offenders acquitted, a fact which goes far to shew that the Divisional Forest Officer exercised good judgment in selecting cases for trial.

57. In *Kolába*, the number of prosecutions fell from 375 to 219, but both the percentage of failures (34·1 against 14·4) and the total number of cases pending at close of the year (124 against 72) do not compare favourably with the results of the preceding year.

58. In *Ratndgiri*, the prosecutions were chiefly in connection with the thefts of trees in the reserved forests in Málvan. Of the 8 cases taken into Court, the prosecutions failed in only 1, as the Magistrate held that the offence, *viz.*, theft of wood in the reserved forest, was of a trivial nature. The number of prosecutions as well as the percentage of failures remained the same as in the previous year.

59. The following table shows the number of cases compounded by the Divisional Forest Officers during the last two years :—

Division.	1895-96.				1896-97.			
	Total number of cases disposed of.	Number of cases commuted.	Number of cases discharged.	Amount of compensation re-covered.	Total number of cases disposed of.	Number of cases commuted.	Number of cases discharged.	Amount of compensation re-covered.
1	2	3	4	5	6	7	8	9
				Rs.				Rs.
Northern Division, Kánara ...	69	69	...	425	10	10	...	26
Southern do. ...	46	46	...	446	57	57	...	234
Western do. ...	36	36	...	74	50	50	...	226
Belgaum ...	110	110	...	79	167	167	...	216
Dhárwár ...	13	13	...	22	14	14	...	17
Bijápur ...	4	4	...	5	33	33	...	55
Kolába ...	76	76	...	345	116	116	...	275
Ratnágiri ...	6	6	...	10	16	16	...	13
Total ...	360	360	...	1,406	463	463	...	1,062

60. It will be seen that there was an increase of 103 in the total number of cases commuted during the year under report, and that the major portion of this increase was contributed by Kolába, Bijápur, Belgaum and Ratnágiri; while in the Northern Division of Kánara, the number fell from 69 to 10. In Kolába, although there were 40 cases more than in 1895-96, the amount of fines recovered was about Rs. 70 less, and the Divisional Forest Officer ascribes this result to the fact that there were not many offences of the sort that demanded heavy punishment, most of the cases commuted being for stealing green firewood and for breaches of forest rules. The increase in cases commuted in Bijápur, would have been still greater but for the leniency shown by the Divisional Officer owing to the great distress caused by the prevailing famine which induced people, otherwise law-abiding, to commit petty thefts of firewood, and 30 of such cases were let off with mere warning and this leniency was not misplaced under the peculiar circumstances of the year.

61. A large number of cases were let off with simple warning. There were 161 such cases in Belgaum, 110 in Kolába, and altogether 335 have been reported.

62. Appendix 52 shows the number of cases compounded and taken into court during the year under report. The following table gives the figures for the past two years :—

Division.	Taken into Court.		Compounded under Section 67.		Total number of cases.	
	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
Northern Division, Kánara ...	12	10	69	10	81	20
Southern do. ...	52	51	46	57	98	108
Western do. ...	60	47	36	50	96	97
Belgaum ...	11	24	110	167	121	191
Dhárwár ...	20	8	13	14	33	22
Bijápur ...	23	23	4	33	27	56
Kolába ...	375	219	76	116	451	335
Ratnágiri ...	7	8	6	16	13	24
Total ...	560	390	360	463	920	853

63. The total number of cases detected in the Circle decreased by 67, while the number compounded increased by 103, facts which appear to indicate that on the whole greater leniency was displayed towards offenders.

64. Arranged in Form I prescribed by Government Resolution No. 5148 of 9th July 1897, the cases fall under the different categories as follows:—

Division.	CASES TAKEN INTO COURT.				CASES COMPOUNDED.				CASES UNDETECTED.				TOTAL CASES.				Grand Total of 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.		
Northern Division, Kánara...	1	6	...	3	...	10	...	...	60	4	...	...	61	20	...	3	84	
Southern do.	...	49	...	3	...	57	...	...	61	7	...	...	61	113	...	3	196	
Western do.	...	40	...	7	...	48	...	3	72	16	...	3	72	104	...	13	189	
Belgaum ...	...	21	3	...	...	155	...	13	125	67	...	...	123	243	3	12	386	
Dhárwár ...	...	7	1	...	...	14	...	...	66	19	...	...	86	40	1	...	127	
Bijápur ...	...	17	2	4	...	31	2	...	...	1	...	...	...	49	4	4	67	
Kolába ...	...	7	159	9	44	9	94	5	8	114	202	...	...	130	555	14	52	751
Ratnágiri ...	...	6	...	2	...	15	...	1	3	23	...	3	3	49	...	6	58	
Total ...	8	304	15	63	9	424	7	23	544	444	...	6	561	1,172	23	92	1,847	

(2).—Protection from Fire.

65. The following table shows the results of fire-protection-measures reported for each division:—

Division.	AREA IN SQUARE MILES.			Percentage of failures to area attempted.	COST.		Proportion of area under fire-protection to total area of reserves.
	Attempted.	Failures.	Protected.		Per square mile protected.	Per acre protected.	
Northern Division of					Rs.	Pies.	
Kánara ...	* 364.60	78.17	286.43	21.43	17.56	5.27	*144.7
Southern do. ...	174.06	22.51	151.55	12.93	28.26	8.47	31.2
Western do. ...	265.29	0.43	264.86	.16	11.54	3.46	52.6
Belgaum ...	185.12	7.40	177.72	3.99	15.64	4.63	27.82
Dhárwár ...	55.57	3.72	51.85	6.69	19.13	5.74	15.23
Bijápur ...	114.67	...	114.67	...	1.50	.45	73.94
Kolába... ..	130.49	2.05	128.44	1.57	5.38	1.61	29.72
Ratnágiri ...	18.82	0.02	18.80	.10	.90	.27	.85
Total in 1896-97 ...	1,308.62	114.30	1,194.32	8.73	14.25	4.23	44.96
Total in 1895-96 ...	1,441.67	29.49	1,412.18	2.04	17.31	5.19	51.12
Increase or decrease in 1896-97 ...	-133.05	+84.81	-217.86	+6.69	-3.06	-0.91	-6.16

\* Includes part of the area of Sapa gazetted under Section 19 of the Forest Act during the year.

66. A smaller area was fire-traced in all divisions (excepting Bijápur, Kolába and Ratnágiri) owing to the limited funds sanctioned for the work. The cost per square mile decreased from Rs. 17.31 to Rs. 14.25. The failures reported were, however, a good deal larger.

67. The comparatively large failures of the operations is partly ascribed to an abnormally dry year which increased the danger of accidental fire, and partly to the fact that the burnt areas are now given more accurately than they formerly were.

68. The percentage of failures was greatest in Northern Division of Kánara (21.43) and least in Ratnágiri (.10).

69. The apparent decrease in the percentage of area protected from fire to the total area of reserves, is owing to about 760 square miles of "Protected" forests having been converted into "Reserved" during the year under report.

70. As regards the want of success which attended attempts at fire-protection in the Northern Division of Kánara, the Divisional Officer reports that the causes of fires in most of the cases are not known with certainty, but are attributed to dacoits and way-farers; and to villagers in Supa who deliberately set fire with a view to induce an early and good crop of grass. The same causes apply equally to the forests of Yellápur and Mundgod in the Southern Division of Kánara, where fire-protection, though not much more successful, is not as bad as in the Northern Division of Kánara.

71. The number of fires that occurred during the year in the Northern Division of Kánara, was 61 against 37 in the preceding year, and the number of cases in which offenders were discovered was only 1.

72. The area attempted in Yellápur and Mundgod of the Southern Division of Kánara, amounted to 174.06 square miles against 223.67 in 1895-96. Failures were very few in the most valuable forests of Yellápur; the percentage of failure was 4.3 for 96.60 square miles of area attempted in Yellápur, while that for 77.46 square miles attempted in the less valuable forests of Mundgod amounted to 23.5. The fires in most cases in Mundgod, are attributed to carelessness on the part of the people from the famine-affected area, who were admitted into the forests to graze large herds of cattle in the latter part of September when there was practically no rain. The cause of increase in cost is reported to have been due to operations which were carried out in the Mundgod Range earlier than usual on account of the early ending of the rains. Owing to want of funds, no special measures were adopted in the Sirsi and Siddápur ranges.

73. The number of fires reported from this division amounts to 81, but in none were the offenders detected.

74. In the Western Division of Kánara, operations were carried out only in the Kárwár and Ankola ranges, no attempts having been made to specially protect the forests of the Kumta and Honávar ranges. A larger area was fire-traced in the Kárwár Range, while the area attempted in the Ankola Range remained the same as in the previous year. The year under report was a most unfavourable one in Kánara owing to the long drought, but, nevertheless, the protection afforded in this division was very satisfactory. Seventy-two fires were reported, but no offenders were detected.

75. The area under protection in Belgaum was decreased by 102.5 square miles. A larger area of valuable forests was, however, attempted in the Khánápur Range, with better results. The cost per square mile was Rs. 15.64 against Rs. 11.26 of 1895-96.

76. The number of fires reported from this division amounted to 128 against 246 in the previous year, but in no case were the offenders detected.

77. The area attempted in Dhárwár shows a decrease (10.58 square miles) and the results reported compare favourably with those of the previous year, except in regard to the cost which increased from Rs. 8.92 to Rs. 19.13 per square mile. There were 86 reported fires in the division.

78. In Bijápur, the area attempted was about the same as in the previous year and the protection afforded is most satisfactory. There were no forest-fires during the year, which is quite an unusual event in this district. It is reported that no fire-traces were burnt as there was no grass in the specially protected area owing to the absence of rains.

79. In Kolába, the area attempted was increased by 18.55 square miles, and the results reported compare favourably with those of the preceding year. The number of fires reported was 130 as against 179 in 1895-96. The causes of fires in most of the cases, are attributed to *ráb*-burning in private fields. Such cases can be dealt with under Rule 2 of the rules under Section 25 (b) of the Forest-Act, but it is not always possible to obtain conviction under this rule, unless the *ráb*-material is burnt in a field adjoining reserved forests, and the precautions required to be taken are neglected.

80. In Ratnágiri, the protection afforded was quite as good as usual. There were three fires reported during the year.

81. The following areas are reported to have escaped fire without the adoption of special measures:—

				Acres.
Northern Division, Kánara	...	...	...	353,159
Southern do.	...	...	...	819,910
Western do.	...	...	...	523,174
Belgaum	...	...	...	312,866
Dhárwár	...	...	...	182,466
Bijápur	...	...	...	83,234
Kolába	...	...	...	199,347
Total				2,474,156

82. The following table shows the number of fires which were reported and the number of cases in which the offenders were detected:—

Division.	Number of fires reported.	NUMBER OF CASES IN WHICH OFFENDERS WERE DETECTED.					
		Taken into Court.			Let off with warning.	Compounded with.	Total.
		Convictions.	Acquittals.	Undergoing trial at close of the year.			
Northern Division, Kánara	61	1	2	1	...	...	4
Southern do.	81	...	...	...	...	...	...
Western do.	72	...	...	...	...	...	...
Belgaum	128	...	...	...	...	...	...
Dhárwár	86	...	...	...	...	...	...
Bijápur	...	...	...	...	...	...	...
Kolába	130	...	...	7	...	9	16
Ratnágiri	3	...	...	...	2	...	2
Total	561	1	2	8	2	9	22

83. Of the 22 cases in which offenders were discovered, 2 were dismissed with a warning, as they were not wilful acts, 9 cases were compounded and 11 were brought up for trial. Three cases, out of the four taken into Court in the Northern Division of Kánara, were pending trial from the previous year. Conviction was obtained in only 1 of them, the remaining 2 having ended in acquittals.

84. The details of prosecutions for offences by fire, are given in the following statement in Form II prescribed by Government Resolution No. 5148 of 9th July 1897:—

Division.	DETAILS OF PROSECUTIONS FOR OFFENCES BY FIRE.						REMARKS.
	Serial number of fire.	Acres burnt.	Character of offences (whether careless or intentional.)	Whether acquitted or convicted.	Section of law under which convicted.	Amount of punishment.	
Northern Division, Kánara	1 (35)*	3	Intentional.	...	...	...	Pending trial at close of the year.
Southern do.	...	...	...	...	...	...	
Western do.	...	...	...	...	...	...	
Belgaum	...	...	...	...	...	...	
Dhárwár	...	...	...	...	...	...	
Bijápúr	...	...	...	...	...	...	
Kolába	7 (3, 7-9, 11-13)*	55	Careless.	...	...	...	Do. do. * Serial numbers in the registers.
Ratnágiri	...	...	...	...	...	...	
Total	8	58	...	...	...	...	

85. The origins of fires and the acreage burnt are as given below in Form III prescribed by the same Resolution :—

Division.	(A).		(B)		(C) FIRES BEGINNING INSIDE THE RESERVE OR FIRE-TRACED AREA.													Total (A), (B) and (C).						
	Fires caused by accident or through carelessness in burning fire-lines.		Fires entering the Forests by crossing exterior fire-traces.		OWING TO CARELESSNESS OR ACCIDENT.						BY INTENTIONAL FIRING.													
	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	By workmen employed in the Forests by purchasers of Forest produce and by Van-cutters.		By villagers, travellers, &c., passing through the Forests.		By railway engines.		By lightning or by fire-balloons.		In order to obtain new grass.		In order to turn out game or to reduce cover.		Maliciously fired.		Total.	Causes unknown.				
					Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.				Area burnt in acres.			
Northern Division, Kánara	...	...	4	865	...	...	...	...	...	...	...	1	3	...	...	...	...	1	3	56	49,163	61	50,031	
Southern do.	...	...	...	...	...	...	...	...	...	...	...	...	...	1	165	11	9,605	12	9,770	69	28,304	81	38,074	
Western do.	1	3	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	70	978	72	993	
Belgaum	...	...	68	4,735	...	...	60	1,530	...	...	...	...	...	...	...	...	...	...	...	...	...	128	6,265	
Dhárwár	...	...	1	94	17	2,668	...	53	5,189	3	102	...	...	7	1,045	...	...	7	1,045	5	8,754	80	17,852	
Bijápúr	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Kolába	...	...	2	8	22	264	1	42	539	2	37	...	...	...	...	...	...	...	...	61	2,361	130	3,213	
Ratnágiri	...	...	...	...	2	12	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	3	13	
Total	4	105	113	8,644	2	6	156	7,259	5	139	...	...	1	3	8	1,210	11	9,605	20	10,815	261	89,560	561	116,431

86. It will be seen from the above table that causes as to the origin of fires were not known in nearly 50 per cent. of the number of fires; and that more than 25 per cent. of the fires were due to carelessness on the part of villagers or travellers passing through the forest, fires that are difficult to guard against owing to rights of way and to water accorded to villagers.

(3).—*Regulation of Grazing and Protection from Cattle.*

87. The area closed to all animals amounts to 659 square miles, to browsers 1,266, and that open to all animals to 3,321. Details of the areas closed and left open, respectively, in each of the several divisions, are given in Appendix 54,

88. The area closed to browsers during the year, shows an increase of 364 square miles. The total area closed to all animals, in the Circle, also increased by 64 square miles, but there was a decrease of 12 and 3 square miles in Dhárwár and Bijápur, respectively.

89. In Kánara, the grazing regulations remained unchanged.

90. The rules published by Government in their Resolution No. 3595, dated 23rd May 1890, were in operation in all the other Divisions of the Circle, except Bijápur, where the Kánara grazing system was introduced during the year by Government Resolution No. 9534, dated 28th November 1896.

91. Except plantations and cuttings, the whole of the forests in Kánara, Belgaum, Dhárwár and Bijápur were thrown open for free-grazing to the cattle from the famine-affected-districts in accordance with the orders contained in Government Resolution No. 8939, dated 11th November 1896, and the Kánara forests all along the Dhárwár frontier were resorted to by large herds of such cattle.

92. The number of cattle impounded during the year under report and the year before, is given below:—

Division.	NUMBER OF ANIMALS IMPOUNDED DURING 1895-96.			NUMBER OF ANIMALS IMPOUNDED DURING 1896-97.		
	From open Forests.	From closed Forests.	Total.	From open Forests.	From closed Forests.	Total.
Northern Division, Kánara ...	...	122	122	...	160	160
Southern do. ...	18	932	950	...	911	941
Western do. ...	4	100	104	32	93	125
Belgaum ...	1,235	3,257	4,492	5,166	3,106	8,272
Dhárwár ...	3,144	2,043	5,187	2,682	1,793	4,475
Bijápur ...	578	944	1,522	149	454	603
Kolába ...	1,204	846	2,050	650	855	1,505
Ratnágiri ...	...	84	84	...	93	93
Total ...	6,183	8,328	14,511	8,679	7,495	16,174

93. For the whole Circle, the result is an increase of 1,663 head of cattle, as compared with the number impounded in 1895-96.

94. The large number of impoundings in Southern Kánara, is ascribed by the Divisional Forest Officer to the cattle of professional graziers (*Dhangar Gowlies*) found grazing in the closed areas of Mundgod.

95. In the Belgaum Division, there has been a considerable increase in the number of animals impounded from open forest (5,166 against 1,235 of 1895-96) owing, it is reported, to the orders under which the forests were to be thrown open for free-grazing to outside cattle from the famine-affected area, not having been received by the Divisional Forest Officer until late in November 1896.

96. In Dhárwár and Bijápur, the number of cattle impounded has decreased by 712 and 919, respectively, owing to the general relaxation of rules consequent on famine. The 149 animals found grazing without permits in the open forests of Bijápur are reported to have been impounded before orders for free-grazing were issued. The decrease in the number of impoundings is also ascribed to the fact that a large number of cattle was sold by the owners, many died and some were removed to other districts on account of the scarcity of fodder.

97. The comparatively small increase or decrease in other divisions appears to call for no remarks.

98. The number of cattle covered by passes for open area that was found grazing in, and impounded from, closed forests, is as given below :—

Northern Division, Kánara	...	...	...	...
Southern do.	...	...	...	...
Western do.	...	...	...	93
Belgaum	...	...	...	1,755
Dhárwár	...	...	...	289
Bijápur	...	...	...	...
Kolába	...	...	...	69
Ratnágiri	...	...	...	...
Total	...	...	...	<u>2,206</u>

99. The fact must, however, be noted that a much larger number of cattle than are impounded enter the closures. Even when they are caught, it is impossible for one or two guards to drive all of them to the pound and a good many consequently escape.

100. Wire-fencing is a good means of protection against cattle. A start was made in this direction during the year, in Kolába, and 511 reels of galvanized barbed-wire were obtained on indent from England, for fencing in some of the exploited *coupes* of 1896-97.

101. To make the closures effective, measures are being taken to introduce wire-fencing in Dhárwár and Bijápur and an indent for the required quantity of barbed wire will be submitted to Government in due course.

(c).—IMPROVEMENT OF FOREST GROWTH.

(1).—*Natural Reproduction.*

(1).—*By Seed.*

102. *Kánara*.—Owing to the early cessation, and in some parts to the bad distribution of the rains, natural reproduction by seed was not as successful as could be expected, although other conditions were naturally favourable in the district. But notwithstanding these disadvantages to combat with, continued measures taken during the past years to prevent fires and cattle from doing any appreciable amount of damage to the pick of the forests, had their own result and the Divisional Officer, Northern Division, Kánara, reports that natural reproduction was on the whole “very fairly successful,” and that it “bids fair to be much more successful in future.” In the Southern Division it was “fair” and in the Western Division “not unsatisfactory.”

103. In the teak-bearing tracts in the Belgaum Division, conditions were favourable for reproduction by seed.

104. Owing to the failure of rain during the latter part of the monsoon natural reproduction by seed did not fare well in Dhárwár; and in Bijápur, the season was almost entirely rainless, and, therefore, reproduction was very unsatisfactory. In Kolába, it has been very slow on account of fires and trespass by cattle. In Ratnágiri, seedlings from fallen seeds have come up in places where the soil is suitable for them to germinate, and the slopes are slowly but steadily becoming covered with vegetation, but on the whole, reproduction by seed there is far from satisfactory.

(2).—*By Coppice.*

105. Coppice-growth is reported to have been satisfactory throughout the Circle except in a comparatively few cases in which the soil, or the stools, have become exhausted.

(2).—*Artificial Regeneration.*

106. The following areas are reported to have been treated under artificial regeneration in the *Northern Division of Kánara* :—

*Supa Working-Circle*.—Girdling No. II Compartments in Series IV and VIII (9,020 acres).

*Gund Working-Circle*.—Girdling No. II Compartments in Series X and XI (4,220 acres).



107. The practice hitherto followed of raising seedlings in nurseries and then transplanting them into forests is being gradually abandoned, as it does not give good results and the cost is comparatively large. The forest guards stationed at every forest *náka* are, however, made to raise some seedlings in the compounds of their respective *nákas* and to transplant them in suitable places in forests during the rains at no cost whatever to Government.

108. A piece of ground measuring about 5 acres was prepared for a plantation in Series XI, Compartment V, in view to a mixture of seeds being sown broad-cast during the rains of 1897.

109. *Southern Division of Kánara.*—The operations connected with the dibbling in of teak seed by the side of the felled trees, were not carried out to an appreciable extent during the year, as teak seed was very scarce and the result of the operations in the previous year was not satisfactory owing to the early cessation of the rains.

110. In Yellápur, 2 nurseries were formed; and 1,390 teak seedlings out of 3,315 that were put out in the forests are reported to have survived.

111. From nurseries prepared in several selected places of the Mundgod Range, 9,090 teak seedlings were transplanted in the forests. Of this number, about 5,720 are reported to be doing well.

112. Six bags of teak seed were sown broad-cast in the forests of Yellápur and Mundgod, with no satisfactory results.

113. The Divisional Forest Officer reports that “no satisfactory results from artificial reproduction can be expected either from dibbling in of seeds or from raising seedlings in nurseries for transplanting until a sufficiently large establishment is sanctioned to allow of such operations being carried out systematically under proper supervision.”

114. *Western Division of Kánara.*—In the Kárwár Range, 900 fresh teak seedlings were raised in nurseries at the Márdi and Bálémané *Nákas*. The 400 teak seedlings referred to in paragraph 106 of the last Administration Report, were put out in the forests during the rains of 1896, but only 150 of these are reported to have survived.

115. In the Ankola Range, about 5,000 teak plants were planted out and 6,000 teak seeds were sown; of these two lots, 6,300 plants are reported to be thriving.

116. Almost all the plants that were transplanted from nurseries in the Katgál forests (Kunta Range) during past years, are reported to have died during the year under report.

117. About 14 maunds of seeds of sorts were sown broad-cast in the Kumta Range.

118. *Belgaum Division.*—Nothing was done in this direction during the year owing partly to press of work connected with other important operations, and partly to unsatisfactory nature of the results obtained in past years.

119. *Dhárwadn.*—Owing to the unseasonable rainfall, forest-fires and harmful grazing, the attempts made in the way of artificial reproduction, were not attended with success.

120. *Bijápur.*—1,495 seers of seeds of sorts were collected and sown broad-cast, but the result was extremely poor.

121. *Kolába.*—Three plantations were started near large rivers in the Panvel, Nágothna and Roha ranges for raising teak seedlings to be planted out in *coupes* and in addition to these, seeds were dibbled in as opposed to broad-casting, by hired labour under the supervision of forest subordinates. All Forest Guards were made to collect 5 maunds of seeds of sorts for sowing and any additional quantity that was wanted and could be got was purchased from the wild tribes at 4 annas per maund.

122. A sum of Rs. 25,000 was sanctioned by Government for expenditure on sowing and planting operations in Kolába, and part of this sum was spent on

that account up to 30th June 1897. Owing to the dryness of the hills in the district, and to the difficulty in finding suitable places for nurseries in or near forests, such as the banks of streams and rivers having a constant water-supply, it is very doubtful, if anything in the shape of an equal return for the large amount of money spent on the raising of seedlings in nurseries and transplanting them in *coupes*, may be looked for. On the other hand, much may be said in favour of systematic sowings of seeds by dibbling in exploited areas. This method of sowing does not cost much and the seedlings need no further care. Sowing in *coupes* with a mixture of seeds, combined with a judicious selection of a sufficient number of healthy seed-bearing standards, appears to be the best means for obtaining both artificial and natural reproduction for the reboisement of felled areas. Of course, wire-fencing and efficient measures for fire-protection, would, to a large extent, favour the forest-growth.

123. *Ratnágiri*.—2 *khandis*, 4 *maunds* of seed were collected by guards and sown broad-cast in the forest, but the results were not successful.

124. 31,100 seedlings were raised in the nurseries and 10,760 plants were planted out in the Dápoli plantation.

(3).—*Early Thinnings.*

125. In the Northern Division of Kánara, 206 acres of the Barchi plantation and 697 acres of series XI, in the Gund Working-Circle, were thinned. It is reported that the exact area over which the thinning extended in the Supa Working-Circle, could not be ascertained as the operations were scattered all over the forests as formerly. In future, thinnings will extend over the same area as the main fellings.

126. In the Southern Division of Kánara, 5 square miles of the Mundgod forests were thinned.

127. In the Western Division of Kánara, 577 acres of the Kadrá, Mardi and Sulgeri teak plantations were thinned.

128. 4,500 acres were thinned in the Khánápur Range of Belgaum.

129. No such operations were carried out in the other divisions of the Circle.

(4).—*Other operations for the improvement of the Forest.*

130. In the Northern Division of Kánara, creepers were cut by the Forest Guards over the whole area of the organized forests, at no expense to Government. Creepers and inferior species were also cut out of the Barchi, Singatgeri and Bomanhalli plantations at a cost of Rs. 252.

131. In the Southern Division of Kánara, trees of inferior species which were impeding the growth of young teak were girdled to death at a cost of Rs. 130.

132. Inferior species on 1,290 acres in the Western Division, Kánara, and on 1,387 acres in the Belgaum Division, were also girdled to death.

133. In the Ratnágiri Division, creepers were cut by Forest Guards in the Khed and Málvan ranges, and trees of inferior species on 39 acres were girdled to death.

(5).—*Experiments.*

134. No experiments with exotic seeds were made during the year in any of the divisions of the Circle.

135. In the Southern Division, Kánara, experiments with seed of the *Santalum album* were made in the Yellápur and Mundgod Ranges, and 147 seedlings from 1' to 4' in height are reported to have survived.

136. All the *Swietenia macrophylla* seedlings planted out in Belgaum during 1894, are reported to be dead.

(d).—EXPLOITATION OF MAJOR FOREST PRODUCE AND (e).—EXTRACTION AND TRANSPORT OF MAJOR FOREST PRODUCE BY LAND AND WATER.

137. There is nothing special to record under these heads.

*(f)*.—EXPLOITATION OF MINOR FOREST PRODUCE.*(1)*.—*Extraction of Fodder and (2)*.—*Grazing.*

138. Under this head it may be appropriate to say something on the subject of fodder supplied to the famine-affected districts.

139. In accordance with the orders contained in Government Resolution No. 9158, dated 18th November 1896, arrangements for the cutting of grass were made early in December 1896, and a large quantity of grass was collected by departmental agency in the Northern and Southern Divisions of Kánara, and in Belgaum and Dhárwár. Hay-presses were set up in convenient places near the Southern Mahrátta Railway stations, and the grass collected was pressed into bales and despatched to Bijápur and other famine-affected districts, under the orders of the Conservator of Forests, on special duty. The expenditure incurred by the Divisional Officers in connection with these operations, was defrayed from famine-funds placed at their disposal, and separate accounts were rendered by them direct to the officer above mentioned.

*(3)*.—*Miscellaneous Produce.*

140. There is nothing new to record under this head, except that Cassia bark was extracted departmentally in the Bágalkot and Hungund talukas, so as to provide work for the famine-stricken people of the Bijápur District.

141. About 1,292 men, women and children were engaged in collecting the bark, the wages paid to them being in proportion to the quantity collected and brought into depôts, calculated at Rs. 8 per *khandi* of 480 lbs. Men and women were able to earn about 2½ to 3 annas each per diem, and the children about 1½ annas. A quantity of 471 *khandis* was collected at a cost of Rs. 4,155, and of this, 342 *khandis* were sold during the year for Rs. 3,861.

## CHAPTER III.

## GROSS YIELD AND OUTTURN OF FOREST PRODUCE.

## NORTHERN, SOUTHERN AND WESTERN DIVISIONS OF KÁNARA.

142. The large teak exploited yielded 346,472 cubic feet against 352,817 cubic feet in 1895-96, and small teak such as poles, rafters, &c., aggregated 49,442 cubic feet against 55,360.

143. The large junglewood removed fell from 361,133 cubic feet in 1895-96 to 305,796 in 1896-97, but small junglewood rose from 100,575 cubic feet to 111,355. The number of *Jámba* (*Xylia dolabriformis*) sleepers prepared for the Southern Mahrátta and Bombay Baroda and Central India Railways was 88,187 against 26,337 of 1895-96.

144. The yield of large blackwood rose from 16,556 cubic feet in 1895-96 to 42,944 in 1896-97, and of small blackwood amounted to 639 cubic feet.

145. In the yield of teak, there is a decrease of 40,129 cubic feet in Northern Kánara, and this is mainly due to the complete failure of the contractor who undertook to supply girdled wood from the Gund forests to the Kódibág depôt. The Haliyál contractors also were very dilatory and did not bring in the full quantities agreed upon. The principal reason for the failure in the former case was, that owing to the early cessation of rains, there was a scarcity of water in the *Kálinadi* river and no timber could be floated down to the Kódibág depôt in consequence.

146. In consequence of the introduction of the Supa Working-Plan in the Northern Division of Kánara, large blackwood rose from 9,962 to 36,529 cubic feet in 1896-97, and junglewood fell from 70,412 cubic feet to 37,571 cubic feet. The plan provides for the systematic exploitation of teak and blackwood only; hence the labour hitherto devoted to junglewood has now been transferred to these two kinds. The number of *Jámba* sleepers, however, increased from 10,564 in 1895-96 to 29,410 in 1896-97.

147. In the Southern Division of Kánara, large teak increased from 114,593 to 124,298 cubic feet, and would have been greatly in excess of the increased quantity, but for the failure of the contractor referred to in para. 145 above to bring in to the Kódibág depôt girdled wood from the Waderookly, Shelébail, &c., forests, for the same reason as noted in that para. There was also an increase of 6,486 cubic feet in small junglewood and this was mainly due

to the outturn of a larger number of sleepers than in the previous year—53,234 against 15,817—to meet an increased demand for them by the Southern Mahrátta Railway Company.

148. Of the 53,234 sleepers prepared, 5,557 were cut up by the new saw machinery, from the 9th of April when the mills first commenced work, to the 30th of June 1897, at a cost of Rs. 1,084-8-0 (made up of Rs. 128-8-0, Rs. 788-8-0 and Rs. 167-8-0, on account of salaries, wages and stores for working, respectively), the cost per sleeper being 3.12 annas.

149. The actual expenditure for the first three months, however, does not appear to be a fair basis to work upon, since it includes the salaries of the foreman and the engine-driver for February and March 1897, during which period they were employed in connection with the machinery which had arrived and in erecting the shed and laying out foundation. Moreover, the stores purchased, were intended to meet the requirements of two more months; and the outturn of sleepers during the first two months was very small, as one of the driving belts received from the India Office was continually breaking and the work had to be suspended at intervals. The cost per sleeper would have been still less but for these facts.

150. An estimate based on actual saw mill expenditure and on rates at which contractors are paid for the supply of *Jamba* logs to the mills and for carting sleepers to the Railway station, shows that mill-sawn sleepers delivered to the Southern Mahrátta Railway, cost 13.5 annas each as against 15.5 annas paid to contractors for preparing and delivering hand-sawn sleepers. The annual outturn of sleepers is estimated at 36,000, and the saving at 2 annas per sleeper as above described, will, therefore, amount to Rs. 4,500 per annum.

151. In the Western Division of Kánara, there was an increase (14,486 cubic feet against 8,720) in the quantity of teak removed for export, owing to the strict enforcement of the terms of agreements, according to which contractors were bound to purchase and remove the quantities agreed upon within contract periods.

152. There was, however, a decrease in the number of bamboo stems extracted, which was 2,791,166 against 3,782,196 of 1895-96, and this is attributed to famine, cholera, plague and the consequent slackness in trade generally. Owing to a poor crop, the collection of myrabollams also decreased from 3,064 in 1895-96, to 2,817 *khandis* in 1896-97.

153. The firewood exploited, decreased from 3,525,914 cubic feet to 2,495,123 cubic feet. The decrease occurs chiefly in Northern Kánara, and is due to the supply of fuel to the Southern Mahrátta Railway Company, having been discontinued: the quantity supplied from that Division to the Railway in 1895-96 amounted to 1,948,846 cubic feet.

### Belgaum.

154. The yield of large teak fell from 14,461 in 1895-96, to 6,594 cubic feet in 1896-97; but that of blackwood and junglewood rose from 1,349 and 1,504, to 1,445 and 2,419 cubic feet, respectively.

155. The yield of small teak, blackwood and junglewood (poles, &c.) aggregated 68,363, 3,983 and 74,758 cubic feet against 57,870, 4,327 and 77,270 cubic feet, respectively.

156. The decrease in the yield of large teak is owing to there being no such trees reserved in *Málki* numbers for sale during the year under report. The increase in small teak is due to an increased outturn of poles exploited from the local firewood cuttings.

157. The number of *Jamba* sleepers supplied to the Southern Mahrátta Railway Company was 24,641, against 20,762. 2,072 *Matti* sleepers were also supplied during 1896-97.

158. 1,318 sandalwood trees were removed from occupied lands against 12,020. The large decrease is owing to most of the sandalwood trees in such lands having been disposed of in previous years.

159. The yield of firewood was 3,337,847 cubic feet against 2,894,741, the running wood for the Railway increased from 2,217,960 cubic feet to 2,618,180; and lighting wood from 15,794 to 44,993 cubic feet. The increased supply in Belgaum was caused by a corresponding reduction in Northern Kánara, where no cuttings were carried out during the year.

160. The yield of myrabollams was 3,040 against 3,318 *khandis* in 1895-96.

161. Owing to the general slackness in trade, the number of bamboo stems extracted decreased from 511,192 to 406,575.

162. The outturn of *Shigekái* (pods of *Acacia concinna*) was 50 *khandis* against 91, and the decrease is attributed to the bad season.

### Dha'rwá'r.

163. The yield of teak rose from 48,675 to 69,311 cubic feet; but that of junglewood and blackwood rafters and *Jaráyel*-pieces fell from 10,648 to 9,725 cubic feet. The quantity of firewood exploited rose from 233,507 to 298,915 cubic feet; but the demand for bamboos fell, the number of stems removed being 238,055 against 348,908 in the preceding year.

164. The cause of increase in the yield of teak is ascribed to the fact that the depôts were fully restocked during the year, there being no large balances at the beginning of the year; and the same reason is attributed also to the larger quantity of firewood exploited.

165. 1,712 sandalwood trees were removed against 1,296.

### Bija'pur.

166. To provide work for the famine-stricken people, Cassia bark was collected during the year by departmental agency, and the outturn aggregated 471 *khandis*.

167. The junglewood poles and pieces removed, decreased from 7,498 to 6,885 cubic feet. The quantity of firewood extracted also decreased from 321,808 to 147,122 cubic feet. The decrease is due to famine and the consequent slackness in trade generally.

### Kola'ba.

168. The yield of teak is reported to have decreased, from 490,587 to 411,922 cubic feet, and the quantity of firewood from 1,536,381 to 1,100,625 cubic feet.

169. The falling-off in the yield of timber is partly due to a smaller prescription for cuttings having been made in accordance with a revised working-plan which alters the period of revolution to 40 years instead of 30 as laid down in the original plan, and partly to the fact that the *coupes* in the Khálápúr Range, were very unevenly stocked, though the areas were nearly equal to those previously worked.

170. As regards the decrease in the outturn of firewood the Divisional Forest Officer reports that the quantity in cubic feet is arrived at from several sources arising from the different means of exploitation—systematic and irregular—and that the figures are rough approximation obtained by an eye-estimate, and consequently the figures vary from time to time. The reason why an eye-estimate has to be made is that trees in *coupes* are, in all cases, sold standing to contractors for export.

### Ratna'giri.

171. The yield of teak and junglewood rafters, pieces, &c., removed, was 14,072 cubic feet; and the quantity of firewood exploited, amounted to 13,592 cubic feet. No comparison with yield of previous years is given as no mention of this division has been made in former reports,

172. The following quantities of grass are reported to have been collected pressed into bales and despatched to the famine-affected districts under the orders of the Conservator of Forests on special duty :—

				Lbs.
Northern Division, Kánara...	...	...	...	130,577
Southern do.	...	...	...	421,450
Belgaum	...	...	...	260,692
Dhárwár	...	...	...	1,400,782
Total	...	...	...	<u>2,213,501</u>

173. The information required by Government Resolution No. 2872, dated 12th April 1897, is given in Appendix 57A.

174. As required by Government Resolution No. 5792 of 3rd August 1897, the information regarding the value of materials such as stones, kankar, &c., removed free of charge from the State forests by Public Departments is given in the following table :—

Division.	Quantity.	Value.	REMARKS.
	C. ft.	Rs.	
Northern Division, Kánara ...	848,888	2,486	
Southern Division, Kánara ...	646,789	2,939	
Western Division, Kánara ...	579,917	1,450	
Belgaum Division ...	27,170	55	
Dhárwár Division ...	53,881	109	
Bijápur Division ...	42,978	87	
Kolába Division ...	3,444	47	
Ratnágiri Division ..	.....	...	
Total ...	2,202,567	7,123	

## CHAPTER IV.

### FINANCIAL RESULTS.

175. The financial results of the year compare, as follows, with those of the previous year :—

Year.	Receipts.	EXPENDITURE.			Surplus.
		A.—Conservancy and Works.	B.—Establishments.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.
1895-96 ...	14,98,084	5,38,306	3,16,047	8,54,353	6,43,731
1896-97 ...	14,40,798	5,69,459	3,07,098	8,76,557	5,64,241
Increase ...	...	31,153	.....	22,204	.....
Decrease ...	57,286	.....	8,949	.....	79,490

176. The year was a bad one by reason of two main causes—the plague in Bombay and the famine in the Southern Marátha Country,—both of which, and more particularly the latter, greatly diminished the demand for wood all over the Circle.

177. The outstandings of revenue at the end of the two years are as under :—

1895-96 ...	...	...	...	Rs. 2,82,918
1896-97 ...	...	...	...	„ 1,68,056

178. The comparison is largely in favour of the year under report. Decreases in outstandings occur in all divisions except Kolába and Western Division of Kánara, where the export-trade in timber and fuel was greatly hampered by the plague prevailing in Bombay and, consequently, the contractors were unable to clear off the large outstandings due by them to the Department.

179. The following statement gives the details, by main heads, of receipts and expenditure of the Circle for the two forest years :—

Heads of Service.	1895-96.	1896-97.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
<b>RECEIPTS.</b>				
I.—Timber and other produce removed from the Forests by Government Agency ... ..	9,82,038	10,42,000	59,962	...
II.—Timber and other produce removed from the Forests by consumers or purchasers ... ..	4,93,578	3,78,702	...	1,14,876
III.—Drift and waif wood and confiscated Forest produce ... ..	2,222	2,125	...	97
IV.—Revenue from Forests not managed by Government ... ..	29	65	36	...
V.—Miscellaneous ... ..	20,217	17,905	...	2,312
<b>Total, Receipts ...</b>	<b>14,98,084</b>	<b>14,40,797</b>	<b>59,998</b>	<b>1,17,285</b>
<b>CHARGES.</b>				
<i>A.—Conservancy and Works.</i>				
I.—Timber and other produce removed from the Forests by Government Agency ... ..	3,92,435	3,96,126	3,691	...
II.—Timber and other produce removed from the Forests by consumers or purchasers ... ..	13,774	11,455	...	2,319
III.—Drift and waif wood and confiscated Forest produce ... ..	123	96	...	27
IV.—Revenue from Forests not managed by Government ... ..	...	...	...	...
V.—Rent of leased Forests and payments to shareholders in Forests managed by Government ... ..	18,517	19,520	1,003	...
VI.—Live-stock, stores, tools and plant.	2,787	4,040	1,253	...
VII.—Communications and buildings ... ..	8,915	24,564	15,649	...
VIII.—Organization, improvement and extension of Forests ... ..	95,894	99,969	4,075	...
IX.—Miscellaneous ... ..	5,861	13,689	7,828	...
<b>Total, A.—Conservancy and Works ...</b>	<b>5,38,306</b>	<b>5,69,459</b>	<b>33,499</b>	<b>2,316</b>
<i>B.—Establishments.</i>				
I.—Salaries ... ..	2,63,905	2,58,292	...	5,613
II.—Travelling allowances ... ..	40,631	37,774	...	2,857
III.—Contingencies ... ..	11,511	11,032	...	479
<b>Total, B.—Establishments ...</b>	<b>3,16,047</b>	<b>3,07,098</b>	<b>...</b>	<b>8,949</b>
<b>Grand Total of Charges ...</b>	<b>8,54,353</b>	<b>8,76,557</b>	<b>33,499</b>	<b>11,295</b>

**RECEIPTS.**

180. The increase under 'I' occurs in all sub-heads:—(a) *Timber*, Rs. 40,000, (b) *Firewood*, Rs. 2,252, (c) *Bamboos*, Rs. 22, (d) *Sandalwood*, Rs. 710, and (e) *Grass and other minor produce*, Rs. 16,978.

181. Under (a) *Timber*, it is due to increased sleeper-supply to the Southern Mahrátta Railway Company and to the recovery of about Rs. 60,000 on account of wood which remained unsold at the Kódibág depôt and of an outstanding of Rs. 66,330 on account of fuel supplied to the Railway which was not credited in 1895-96—*vide* paragraph 157 of the year's report. But for these items, the gross revenue under this sub-head would have shown a considerable deficit. The reasons are the same as given before—plague and famine, and these greatly diminished the demand for wood in almost all the depôts in Kánara.

182. The increase under (b) *Firewood*, is attributed to a larger quantity of fuel having been supplied to the Southern Mahrátta Railway Company from Belgaum, and that under (e) *Grass and other minor produce*, to better prices obtained for myrobollams in Kánara and Belgaum in spite of a comparatively poor crop, and to the sale of Cassia bark extracted departmentally in Bijápur to provide work for the famine-stricken people.

183. The decrease under 'II' is general to all its sub-heads:—(a) *Timber*, Rs. 53,078, (b) *Firewood*, Rs. 16,722, (c) *Bamboos*, Rs. 15,946, (d) *Grazing*, Rs. 16,922 and (e) *Other minor produce*, Rs. 12,271, and the causes are those already reported.

184. The decrease under 'V' is due to diminished receipts under all of its three sub-heads. These are uncertain items in themselves and, therefore, call for no remarks.

## EXPENDITURE.

### A.—CONSERVANCY AND WORKS.

185. The main head 'I' shows an increase of Rs. 3,691. It is mainly due to increased sleeper-supply, the *soppu* (green manure) operations in Kánara and to the departmental collection of *tarwad* bark in Bijápur, neither of which latter operations were undertaken in the previous year.

186. The increase would have been still greater but for the failure of several contractors to bring in wood to the depôts owing to unforeseen difficulties, and who were, therefore, not paid the dues that would have been paid to them, had they completed their work according to the terms of their contracts.

187. The decrease under 'II' is because of a smaller amount of remuneration paid to village officers, consequent on the diminished revenue from grazing realized during the year.

188. More claims on account of *khoti*-shares in Kolába having been settled during the year under report than in that previous, there is an increase under V.

189. The purchase of new tents in Western and Southern Divisions of Kánara and of rails and wagons for the saw-mills in the latter division contributes to the increase under VI.

190. Increases occur under all the three sub-heads of VII:—(a) *Roads and Bridges*, Rs. 2,834, (b) *Buildings*, Rs. 10,578 and (c) *Other Works*, Rs. 2,235. Under 'a' the road from Nágargali to Birchi in Belgaum and Northern Division, Kánara, was completed and one from Sidalgundi to Bilki in the Southern Division of Kánara, was constructed; under 'b', Rangers' and Foresters' houses in the Supa Working-Circle of the Northern Division, Kánara, and saw-mill sheds in the Southern Division, Kánara, were erected, and under 'c' a larger number of wells were sunk in Kánara than in the previous year.

191. Under 'VIII' the sub-head (a) *Demarcation* shows an increase of Rs. 5,305 due to a large number of boundary stones specially prepared by famine labour in Bijápur, (b) *Cost of Settlement and Compensation for Lands and Rights*, Rs. 5,608 on account of payment for lands acquired in Dhárwár at the time of the forest settlement and (d) *Working-Plans*, Rs. 1,810 owing to development in the Working-Plans. But these excesses were discounted to a certain extent by decreases under (c) *Surveys*, Rs. 4,373 and (f) *Protection from Fire*, Rs. 4,548. The former is due to less triangulation work (230 square miles against 1,074) done by the Survey Party than in the previous year. More traversing (344



square miles against 234) and detailed survey (609 square miles against 363) were effected during the year under report, yet these could not counterbalance the large amount of triangulation done in the previous year. The latter is owing to payments of wages to fire coolies in Kánara not having been made within the year.

192. The increase under 'IX' is owing to enhanced rates paid for materials for forest uniforms and payment of grain-compensation to forest subordinates.

193. The decrease under '(B) Establishments' rests mainly on two facts—(1) that the places of two senior Deputy Conservators were held by Extra Assistants during the second half of the year and (2) the rates of exchange compensation allowance were lower than those at which payments were made in the year before.

## CHAPTER V.

### FOREST ADMINISTRATION.

194. There was no change in the lines of the Forest Administration of the Circle during the year.

195. The saw-mill machinery indented for from England as per Government Resolution No. 2534, dated 20th March 1896, was received in March 1897, although it was expected in December 1896. It was set up at Ittanbail about five miles from Yellápur. As a great many adjustments and alterations had to be made in the machinery, it could not be got into working order before the 9th April 1897. Ever since that date sleepers are being cut up by it in the most satisfactory manner.

### ESTABLISHMENTS AND THEIR RECRUITMENT.

196. The controlling staff of the Circle at commencement and end of the year stood as follows:—

	IMPERIAL.							PROVINCIAL.			
	Conser- vators.	Deputy Conservators.				Assistant Conservators.		Extra Assistant Conservators.			
		2nd Grade Rs. 1,350.	1st Grade Rs. 900.	2nd Grade Rs. 800.	3rd Grade Rs. 650.	4th Grade Rs. 550.	1st Grade Rs. 450.	2nd Grade Rs. 350.	1st Grade Rs. 350.	2nd Grade Rs. 300.	3rd Grade Rs. 250.
On 1st July 1896 ...	1	1	2	3	2	1	2	1	2	2	...
On 30th June 1897 ...	...	1	1	1	2	3	...	1	2	1	1

197. To the permanent subordinate executive and protective staff was added during the year an establishment consisting of

- 1 Ranger on Rs. 50,
- 2 Foresters at Rs. 20 each,
- 6 Guards „ 10 „
- 6 Guards „ 8 „

at an annual cost of Rs. 2,376, thus making the total cost of the establishment in the Circle to amount to Rs. 1,27,128. The new establishment sanctioned was for the Gund Working Circle of the Northern Division, Kánara.

198. There has been no change in the office staff of the Circle.

199. One student with a Ranger's certificate from the College of Science, Poona, was appointed a probationer on an initial salary of Rs. 20.

200. The following officers held charge of the Circle and its divisions during the year :—

Division.	Name of Officer.	Rank.	Period.	
			From	To
Direction ...	J. L. L. MacGregor.	Conservator of Forests, 2nd Grade.	1st July 1896	1st March 1897.
	T. B. Fry ...	Deputy Conservator, 1st Grade...	6th March 1897	11th June 1897.
	W. G. Betham ...	Do. do. ...	12th June 1897	30th June 1897.
	E. G. Oliver ...	Do. 4th Grade...	1st July 1896	Do.
Northern Division, Kanara.	B. J. Haselden ...	Assistant Conservator, 1st Grade.	Do.	Do.
Southern Division, Kanara (old Central Division).	W. A. Talbot ...	Deputy Conservator, 3rd Grade.	Do.	29th July 1896.
	W. R. Woodrow ...	Do. do. ...	30th July 1896	23rd December 1896.
Western Division, Kanara (old Southern Division).	T. R. D. Ball ...	Do. 4th Grade...	24th December 1896.	30th June 1897.
	H. Murray ...	Do. 3rd Grade...	1st July 1896	7th April 1897.
Belgaum ...	W. A. Talbot ...	Do. 2nd Grade...	8th April 1897	30th June 1897.
	W. R. Woodrow ...	Do. 3rd Grade...	1st July 1896	29th July 1896.
Dharwar ...	G. K. Betham ...	Do. 2nd Grade.	30th July 1896	20th December 1896.
	W. R. Woodrow ...	Do. 3rd Grade...	21st December 1896.	30th June 1897.
Bijapur ...	H. Mainwaring ...	Do. 2nd Grade...	1st July 1896	3rd January 1897.
	V. R. Kelkar ...	District Deputy Collector	4th January 1897...	13th January 1897.
Kolaba ...	V. D. P. Rebeiro ...	Extra Assistant, 3rd Grade	14th January 1897.	30th June 1897.
	W. G. Betham ...	Deputy Conservator, 1st Grade...	1st July 1896	20th November 1896.
Fetnágiri ...	A. C. Robinson ...	Extra Assistant Conservator, 2nd Grade.	21st November 1896.	30th June 1897.
	Collector in charge	.....	1st July 1896	Do.
Working-Plans ...	W. E. Copleston ...	Assistant Conservator, 2nd Grade.	Do.	31st July 1896.
	W. A. Talbot ...	Deputy Conservator, 3rd Grade	1st August 1896	2nd April 1897.
	W. E. Copleston ...	Assistant Conservator, 1st Grade.	3rd April 1897	30th June 1897.

201. Mr. D. A. Thomson, Assistant Conservator, remained as an Assistant to the Divisional Forest Officer, Northern Division, Kanara, throughout the year.

202. Mr. W. E. Copleston, Assistant Conservator, on being relieved of the charge of the Working Plans Division, remained as an Assistant to the same Divisional Officer from 1st August to 3rd November 1896, when he was appointed as Assistant to the Divisional Forest Officer, Southern Division, Kanara. He remained as such until 3rd April following, when he again took charge of the Working-Plans Division.

203. Of the Extra Assistant Conservators, Messrs. H. Mitra, and N. D. Sataráwala continued as Assistants to the Working-Plans Divisional Officer, having been attached to Parties I and II, respectively. Mr. Sheshu Manju was in charge of the Supa Range of the Northern Division, Kanara, till the end of November 1896. On December 1st, he proceeded on furlough and finally retired on 20th April 1897. Mr. G. J. Rege who was appointed to act in his place held charge of the Khánápur Range in Belgaum until March 1897, when he assumed charge of the post of Personal Assistant to the Conservator. Mr. A. C. Robinson continued as Sub-divisional Officer, Kolába, until 20th November 1896, when he was appointed to the charge of the Division, on Mr. W. G. Betham's proceeding to the Central Circle to hold administrative charge. Mr. V. D. P. Rebeiro, who was transferred from the Northern to this Circle, joined his appointment as Divisional Forest Officer, Bijapur, on 14th January 1897. Mr. D. M. Bijur who was Personal Assistant to the Conservator, was transferred to the Northern Circle in December.

204. The following officers have been on leave during the year :—

Mr. A. C. Robinson, Extra Assistant Conservator, on three months' privilege leave from 10th July 1896, during which period Mr. G. J. Rege acted as Extra Assistant, but remained in charge of the Khánápur Range.

Mr. H. Murray, Deputy Conservator, on 18 months' furlough from 8th April 1897.

205. The following officers retired from the service during the year :—

Mr. H. Mainwaring, Deputy Conservator, 2nd Grade, on 1st January 1897.

Mr. Sheshu Manju, Extra Assistant Conservator, 3rd Grade, on 20th April 1897.

## TOUR OF THE CONSERVATOR.

206. Mr. MacGregor's first move was to Nágargáli on the 11th November 1896, from where he marched to Bijápur, reaching it on the 19th. Here the Collector, the Commissioner and the Divisional Forest Officer were met. The departmental collection of Cassia bark and the preparation of boundary-stones were sanctioned for providing work for the people affected by the prevailing scarcity.

207. Leaving Bijápur on the 7th December, Mr. MacGregor encamped at Bágalkot and Bádámi. From Bádámi he proceeded direct to Nágargáli and from there to Haliyál on 19th, where he inspected the Divisional Office and the large timber depôt.

208. Turning north, for the Christmas holidays, to Belgaum, he left it on the 15th of January 1897 for Dhárwár, where the Divisional Office was examined. Thence he moved with the Divisional Officer to Bandur on the 21st, where Mr. H. Mitra, Extra Assistant Conservator in charge Working-Plans Party I was met.

209. From Bandur, marching down through Kalghatgi and Tadas, he went into Kánara. Reaching Yellápur on the 11th February, he examined there the Divisional Forest Office, Southern Division, Kánara.

210. He then proceeded *viá* Lálguli, Bomanhulli and Kulgi to Potoli in the Northern Division, Kanára. Here, on the 28th of February, he met his death under circumstances which have been already reported to Government.

211. Mr. Murray, Divisional Forest Officer, Belgaum, who on hearing of the sad accident had come to Mr. MacGregor's camp to be of assistance to him, took charge of the current duties of the office and held it until Mr. T. B. Fry, Deputy Conservator, assumed charge on the 6th March at Belgaum.

212. On the 26th Mr. Fry left Belgaum and marching *viá* Haliyál and Supa arrived at Kárwár on the 13th April. Here the Divisional Office, Western Division, Kánara, was examined.

213. From Kárwár, camping at Hattikeri, Agsur, Sunksál and Arbail he reached Yellápur on the 26th. On May 1st he arrived at Dhárwár and returned on the 11th to Belgaum for the monsoon. I received charge of the office from Mr. Fry on the 11th June 1897, after office hours.

## GENERAL REMARKS.

214. The year has been on the whole the most unhappy one on record. Firstly the plague set in. This caused strict quarantine regulations everywhere and greatly hampered trade. Secondly there was the famine, the immediate result of which was high prices for food-grains resulting in a tightness of money that prevented the people from taking any interest in the timber-and bamboo-trade. It affected the sales at one and all the depôts of Kánara. To add to the above, cholera and fever were prevalent very severely hand in hand during a portion of the year in Kánara. The former visited even certain parts of the Collectorate where it had been unknown before. Want of water in the jungles through scanty rain-fall, and the two deadly diseases mentioned above prevented the Kánara contractors generally from carrying out their works properly, some failing entirely and some only partially.

215. As if the three above agencies were not enough to contend with, gangs of dacoits haunted the forests above ghát in Kánara.

216. One of these gangs attacked and robbed the cartmen and the Forest Guards who were taking from Hubli to Ittanbail, near Yellápur, the saw-mill-machinery, referred to in para. 195 above. Another broke into and robbed the forest-watch-houses at Komersikop and Sanwalli on the frontier of the Southern Division, Kanara, and a third looted the kit of the Assistant Conservator (Mr. D. A. Thomson) near Birchi in the Northern Division, Kánara.

217. Thus Kánara, besides sharing in the consequences of the plague and the famine with its sister Collectirates, Belgaum, Dhárwár and Bijápur, had to

contend against its own adversities, viz., disease and dacoities, and to crown all, the year was also marked by the sudden and sad death of the Conservator Mr. J. L. L. MacGregor, who was killed by a tiger in the Kánara forests. He was wounded by the animal on the 28th of February and succumbed to his injuries next day. He had held charge of the Circle for 10 years and during that time won a lasting respect from those who had the honour of serving under him, in whose minds the memory of his gentleness, courtesy and devotion to duty will ever remain fresh.

218. As a result of famine, a great deal of extra work was thrown upon the staffs in the Northern and Southern Divisions of Kánara, Dhárwár, Belgaum, and Bijápur by the special grass operations which they had to perform in addition to their own duties.

219. Due measures against the recurrence of illegal *Kumri* cultivation in Supa of the Northern Division, Kánara, were taken and fortunately there was no outbreak of it in the year. Under recent Government orders, the privilege of *Kumri* cultivation, which has long proved to be baneful to the forests, has been strictly confined to the original grantees. In this way, it is hoped that it will die out in the course of a few years and become a matter of ancient history.

220. The *soppu* depôt system (to provide garden proprietors with green leaves for manure on payment of fees) was, as already reported in para. 46 above, tried in certain selected parts of the Southern Division, Kánara, but with little success. A full trial of the system, however, has yet to be awaited and its success or otherwise will not be fully known until it has been fully introduced, correlatively with the settlement of *betta* assignments now in progress, in all such parts of Kánara as may be necessary.

221. The conduct of the subordinate establishment does not appear to have been as satisfactory as in the previous year. There were 37 dismissals amongst guards against 17.

222. The health of the establishment was, on the whole, very bad. One ranger, one forester, one clerk and 21 guards died, most of them of cholera and a few of fever.

223. The following officers are reported by Divisional Officers to have deserved special mention :—

*On the Protective Staff.*

Mr. G. L. Ugrankar	...	Range Forest Officer of Haliyál.
„ Mangalore Krishnaráo...		Do. Supa.
„ Mangesh Nágáppa	...	Do. Yellápur.
„ Keshav Kásináth Deshpánde	... ..	Do. Khánápur.
„ Hassan valad Mohidin	...	Do. Belgaum.
„ Shankar Bápu Sáwant	...	Do. Sangameshvar.
„ Mangesh Rangáppa	...	Do. Siddápur.

224. The Working-Plans Officer speaks very highly of Mr. N. D. Sataráwála's untiring energy and gives special praise to Messrs. H. A. Nádkarni, D. D. Anantbhat, S. B. Bendigeri and K. E. Kotwál, while in the other working-plans party under Mr. Mitra, Messrs. G. C. Sirurkar and R. A. Hemmadi are reported to have done excellent work.

225. In the office establishment the clerks specially mentioned are, Messrs. P. M. Murdeshwarkar; J. P. Souza; S. D. Salvi; F. X. Saldanha; V. S. Gáitonde; S. J. Loker; A. R. Trasi; S. H. Bhide and V. M. Varte; and no doubt Mr. MacGregor would have had a word of praise for many, if not all, of the clerks in his office.

W. G. BETHAM,

Acting Conservator of Forests,  
Southern Circle.

LIST OF STATEMENTS ACCOMPANYING THE FOREST ADMINISTRATION REPORT  
OF THE CONSERVATOR OF FORESTS, SOUTHERN CIRCLE, FOR 1896-97.

Form No. 46	...	Area of Reserved Forests, 1896-97.
" " 46A	...	Area of Protected Forests, 1896-97.
" " 47	...	Progress made in and Expenditure incurred on Forest Settlements.
" " 48	...	Demarcation and Maintenance of Boundaries.
" " 49	...	Forest Area surveyed and under survey.
" " 50	...	Progress made in Working Plans.
" " 51	...	Communications and Buildings.
" " 52	...	Prosecutions for Breaches of Forest Rules during 1896-97.
" " 52A	...	Statement showing the number of Cases of Misappropriation of Minor Produce of the several divisions of the Southern Circle for the year 1896-97.
" " 52B	...	Statement showing the Cases dealt with under Section 67 of the Indian Forest Act.
" " 52C	...	Statement showing the number of Cases in which fines amounting to Re. 1, Rs. 2, and so on, up to the maximum, were inflicted during 1896-97.
" " 53	...	Area of Forest Tracts protected from Fire during 1896-97.
" " 54	...	Area open and closed to grazing during 1896-97.
" " 55	...	Return of Grazing in the State Forests during 1896-97.
" " 56	...	Area of Plantations, 1896-97.
" " 57	...	Outturn of Timber and Fuel, 1896-97.
" " 57A	...	Statement showing the Consolidated Outturn of Timber, Fuel and Minor Produce during 1896-97.
" " 58	...	Outturn of Minor Forest Produce, 1896-97.
" " 59	...	Account of Timber and other Produce, cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1896-97.
" " 60	...	Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1896-97.
" " 60A	...	Abstract showing the value of Live and Dead Stock for the year 1896-97.
" " 61	...	Summary of Revenue and Expenditure of the different Divisions during the year 1896-97.
" " 62	...	Account Current for the year 1896-97.
" " 63	...	Revenue received and Outstandings on account of Revenue during 1896-97.
" " 64	...	Outstandings and Liabilities on account of Contractors and Disbursers for 1896-97.
" " 65	...	Financial Results for the year 1896-97.

W. G. BETHAM,  
Deputy Conservator of Forests, Southern Circle.

*Belgaum, 11th October 1897.*

## FOREST DEPARTMENT, BOMBAY—SOUTHERN CIRCLE.

## Area of Reserved Forests, 1896-97.

Division.	Rango.	Civil District or Territory.	Name of Forest.	AREA ON 1ST JULY 1896.		ADDED DURING THE YEAR.		EXCLUDED OR TRANSFERRED TO OTHER HEADS.		AREA ON 30TH JUNE 1897.		Number and Date of Notification of Addition or Transfer.	REMARKS.
				Acres.	Equivalent in Square Miles.	Acres.	Acres.	Acres.	Equivalent in Square Miles.				
1	2	3	4	5	6	7	8	9	10	11	12		
Northern Division, Kánara.	Haliyál and Supa ...	Kánara ...	Haliyál and Supa ...	*161,179	252	425,325	...	586,504	916	No. 7258 of 14th September 1896...	* The difference between these figures and those shown at close of the last year is due to the territorial changes sanctioned in Government Resolution No. 10330 of 7th December 1896.		
Southern Division, Kánara.	Yellápur, Mundgod, Sirsi and Siddápur.	Do. ...	Yellápur, Mundgod, Sirsi and Siddápur.	*325,636	509	871	...	326,507	510	No. 415 of 15th January 1896, and Nos. 4412 and 4413 of 11th June, 1897.			
Western Division, Kánara.	Kárwar, Ankola, Kumta, Honáwar and Bhatkal.	Do. ...	Kárwar, Ankola, Kumta, Honáwar and Bhatkal.	*322,491	504	...	35	322,456	504	No. 8052 of 13th October 1896, and No. 4410 of 11th June 1897.			
Belgaum Division.	Khánapur, Gokák, Belgaum, Sampgaon and Chikodi.	Belgaum ...	Khánapur, Gokák, Belgaum, Sampgaon, Chikodi and Athni.	425,779	665	†402	‡	426,090	666	†5275 of 6th July 1896; 1619 of 27th February 1897; 4203 of 4th June 1897.	‡5858 of 27th July 1896; 6251 of 10th August 1896; 8635 of 3rd November 1896.		
Dhárwar Division.	Dhárwar, Kalghatgi, Hángal, Kod, Bankápur, Gadag, and Ránebennur.	Dhárwar ...	Dhárwar, Kalghatgi, Hángal, Bankápur, Kod, Gadag, Ron, Nargund, Hubli and Ránebennur.	233,504	365	148	2,276	232,376	363	1193A of 12th February 1897; 1442 of 22nd February 1897; 2901 of 12th April 1897; 4298 of 8th June 1897.	415 of 15th January 1896; 3738 of 16th May 1897; and Government Resolution No. 2900 of 12th April 1897.		
Bijápur Division.	Bádámi and Bágalkot.	Bijápur ...	Bádámi, Hungund, Bágalkot, Bijápur, Bágavadi and Indi.	99,256	155	†74,440	†949	172,747	270	†2890B, 2890E and 2890G, 12th April 1897; Government Resolution No. 2900 of 12th April 1897; and ratification of areas in Revision Survey.	‡3883, 3883A and 3883B of 22nd May 1897.		
Kolába Division.	Alibágg, Pen, Panvel, Rohé, Mábád, Mángaon, Karjat, Khálápur and Nágothna.	Kolába ...	Alibágg, Pen, Panvel, Rohé, Mábád, Mángaon, Karjat, Khálápur and Nágothna.	280,975	439	(a)6,481	(b)1	287,455	449	(a)5859 of 27th July 1896; 10516 of 22nd December 1896; 777 of 29th January 1897; 779, 779A, 779B and 779 C of 29th January 1897.	(b) 7217 of 12th September 1896; 10190 of 12th December 1896.		
Ratnágiri Division.	Khed, Sangameshvar and Málvan.	Ratnágiri ...	Dápoli, Khed, Sangameshvar, Rajápur, Chip-lun, Ratnágiri, Desgad and Málvan.	14,173	22	(c)7	(d)4	14,176	22	(c) 4487A of 14th June 1897.	(d) 718 of 28th January 1897.		
Total ...				1,862,993	2,911	508,674	3,356	2,368,311	3,700				

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## FOREST DEPARTMENT, BOMBAY—SOUTHERN CIRCLE.

## Area of Protected Forests, 1896-97.

Division.	Range.	Civil District or Territory.	Name of Forest.	AREA ON 1ST JULY 1896.		ADDED DURING THE YEAR.	EXCLUDED OR TRANSFERRED TO OTHER HEADS.	AREA ON 30TH JUNE 1897.		Number and Date of Notification of Addition or Transfer.	REMARKS.
				Acres.	Equivalent in Square miles.			Acres.	Acres.		
1	2	3	4	5	6	7	8	9	10	11	12
Northern Division, Kánara.	Supa ... ..	Kánara ...	Supa ... ..	425,325	665	...	*425,325	...	...	* Converted into 'Reserved', vide Government Notification No. 7258 of 14th September 1896.	
Southern Division, Kánara.	Sirsi, Yellápur, Siddápur and Mundgod.	Do. ...	Sirsi, Yellápur, Siddápur and Mundgod.	*629,337	983	...	...	629,337	983	.....	* The difference between these figures and those shewn at close of the last year is due to territorial changes sanctioned in Government Resolution No. 10330 of 17th December 1896.
Western Division, Kánara.	Kumta, Ankola, Honávar and Bhatkal.	Do. ...	Ankola, Kumta, Honávar and Bhatkal.	*371,179	580	...	12	371,167	580	No. 4411 of 11th June 1897.	
Belgaum Division.	Belgaum, Chikodi, Gokák and Parasgad.	Belgaum ...	Belgaum, Chikodi, Gokák, and Parasgad.	7,097	11	...	...	7,097	11	.....	
Bijápur Division.	Bádámi and Bágalkot.	Bijápur ...	Bágalkot, Hungund, Bijápur, Bagevádi and Indi.	57,369	90	...	+57,369	...	...	2890 K, 2890 L, and 2890 M of 12th April 1897.	†Of this, 353 acres 13 gunthás were disforested and the remaining area was converted into 'Reserved.'
Kolába Division.	Alibág, Karjat, Khálápur and Mángaon.	Kolába ...	Alibág, Karjat, Khálápur and Mángaon.	3,782	6	...	(a) 1,369	2,413	4	.....	(a) Converted into 'Reserved.'
			Total ...	1,494,089	2,335	...	484,075	1,010,014	1,578		

Belgaum, 11th October 1897.

W. G. BETHAM,  
Deputy Conservator of Forests, Southern Circle.

## FOREST DEPARTMENT,

Statement showing the Progress made in, and the Expendi-

Name of Forest Division.	Name of Civil District or Territory.	Area already settled at commencement of the year.	AREAS FINALLY SETTLED DURING THE YEAR.				
			Number and Date of Government Order according final sanction to the Settlement.	Name of Forest settled.	Area, in square miles.	Expenditure incurred during the year on areas finally settled	
						In Forest Accounts.	In other Accounts.
1	2	3	4	5	6	7	8
<i>Reserved.</i>		Sq. Ms.				Rs.	Rs.
Northern Division, Kánara ...	Kánara ...	252	No. 7258 of 14th September 1896.	Supa ...	665	...	...
Southern Division, Kánara ...	Do. ...	*509	.....	.....	...	...	...
Western Division, Kánara ...	Do. ...	*504	.....	.....	...	...	...
Belgaum Division ...	Belgaum ...	665	No. 1619 of 4th March 1897 and No. 5275 of 6th June 1897.	Gokák ...	1	...	...
Dhárwár Division ...	Dhárwár ...	365	.....	.....	...	5,603	...
Bijápur Division ...	Bijápur ...	155	Nos. 2890 B, 2890 E and 2890 G of 15th April 1897.	Badámi, Hungund, Bágalkot, &c.	114	...	...
Kolába Division... ..	Kolába ...	439	No. 10576 of 22nd December 1896, and Nos. 779, 779 A, 779 B, and 779 C of 29th January 1897.	Karjat and Khalápur.	9	...	...
Ratnágiri Division ...	Ratnágiri ...	22	.....	.....	...	...	...
	Total ...	2,911	.....	.....	789	5,603	...
<i>Protected.</i>							
Southern Division, Kánara ...	Kánara ...	(a) 259	.....	.....	...	...	...
Western Division, Kánara ...	Do. ...	(a) 201	.....	.....	...	...	...
Bijápur Division ...	Bijápur ...	...	.....	.....	...	...	...
Kolába Division... ..	Kolába ...	...	.....	.....	...	...	...
	Total ...	460	.....	.....	...	...	...
	Grand Total ...	3,371	.....	.....	789	5,603	...

Belgaum, 11th October 1897.



No. 47.

BOMBAY—SOUTHERN CIRCLE.

ture incurred on Forest Settlements during 1896-97.

Entire Cost per square mile of areas finally settled during the year.	AREAS UNDERGOING SETTLEMENT.						REMARKS.
	At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing Settlement.		
	Name of Tract.	Area in Square Miles.	Name of Tract.	Area, in Square Miles.	In Forest Accounts.	In other Accounts.	
9	10	11	12	13	14	15	16
...	.....	...	.....	...	...	...	
...	Sirsi ... ..	443	.....	...	...	...	* The difference between these and the last year's figures is due to the territorial changes sanctioned in Government Resolution No. 10330 of 17th December 1896.
...	.....	...	.....	...	...	...	
...	Belgaum, Parasgad, &c.	3	21 villages of Belgaum ...	2	...	...	
...	.....	...	.....	...	...	...	
...	.....	...	.....	...	...	...	
...	.....	...	.....	...	...	...	
...	.....	...	.....	...	...	...	
...	.....	...	.....	...	...	...	
...	.....	446	.....	2	...	...	
...	Siddápur ... ..	230	.....	...	} 5,738	12,062	
...	Honávar and Bhát-kal.	298	.....	...			
...	.....	...	.....	...	...	...	
...	.....	...	.....	...	...	...	
...	.....	528	.....	...	5,738	12,062	
...	.....	974	.....	2	5,738	12,062	

(a) The difference between these and the last year's figures is owing to omission in the statements for previous years, now supplied, and to the territorial changes sanctioned in Government Resolution No. 10330 of 17th December, 1896.

The area entered in column 3 of the statement for 1895-96, was converted into 'Reserved' during 1896-97.

W. G. BETHAM,  
Deputy Conservator of Forests, Southern Circle.

## FORM No. 48

## FOREST DEPARTMENT, BOMBAY—SOUTHERN CIRCLE.

## Record of Demarcation and Maintenance of Boundaries, 1896-97.

DIVISION.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	EXPENDITURE ON DEMAR- CATION DURING THE YEAR.		REMARKS.
								On new work.	On Repairs.	
1	2	3	4	5	6	7	8	9	10	11
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.	
Northern Division, Kánara ...	...	...	1,335	1,335	...	376	1,711	...	...	
Southern do. do. ...	...	...	3,160	3,160	...	12	3,172	...	...	
Western do. do. ...	...	...	2,860	2,860	...	249	3,109	...	...	
Belgaum do. ...	11	...	1,686	1,697	...	177	1,874	647	...	
Dhárwár do. ...	...	...	3,379	3,379	...	...	3,379	...	...	
Bijápur do. ...	...	...	190	190	...	25	215	3,210	...	
Kolába do. ...	...	1	1,668	1,669	...	65	1,734	...	1	To demarcate the boundaries by special marks, stone-pillars were prepared during the year at a cost of Rs. 3,210.
Batnágiri do. ...	9	3	80	92	71	77	240	31	8	
Total ...	20	4	14,358	14,382	71	981	15,434	3,888	9	

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.

Belgaum, 11th October 1897

W. G. BETHAM,  
Deputy Conservator of Forests, Southern Circle.

FORM No. 49.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Statement of Forest Areas Surveyed and under Survey during the year 1896-97.

Names of Districts.	Areas surveyed and under survey during the year.																									Area remaining to be taken under Survey.	Total Forest area at end of the year as per Form No. 46.	Cost.			REMARKS.
	Special Surveys—Maps on 1/4 inch scale or over, by Survey of India Department or Forest Survey Branch.						Ordinary, included in District Surveys.						Chain and Compass or other Surveys by local Officers.						Previous.	Of the year.	Entire cost of all Surveys to end of the year.										
	WITH INTERIOR DETAILS.			BOUNDARY SURVEYS.			WITH INTERIOR DETAILS.			BOUNDARY SURVEYS.			WITH INTERIOR DETAILS.			BOUNDARY SURVEYS.															
	WITH DETAILS OF GROWING STOCK.		Total Cost.	Previous.	Of the year.	Total Cost.	Previous.	Of the year.	Total Cost.	WITH DETAILS OF GROWING STOCK.	WITHOUT DETAILS OF GROWING STOCK.	Total Cost.	Previous.	Of the year.	Total cost.	4-INCH OR OVER.		UNDER 4-INCH.		Total Cost.	Previous.	Of the year.	Total Cost.								
	Previous.	Of the year.														Previous.	Of the year.	Previous.	Of the year.					4-INCH OR OVER.	UNDER 4-INCH.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Kanara	...	...	1,821	348	37,235	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,324	3,493	250,185	37,235	287,420	*Include area surveyed on 2" scale, and the Superintendent, Forest Surveys, has been asked to furnish the figures. † Surveyed and mapped on 2" scale by No. 10 Party.	
Belgaum	...	...	160	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	517	677	18,528	...	18,528		
Dharwar	...	...	116	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	217	363	9,945	...	9,945		
Bijapur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	270	270	...	...	...		
Kolaba	...	...	281	15	2,449	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	157	453	45,193	2,449	47,642		
Ratnagiri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	22	22	...	...	...		
Total	...	...	2,378	363	39,684	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,537	5,278	323,851	39,684	363,535		

Camp Khanapur, Belgaum District, }  
7th January 1898.

W. G. BETHAM,  
Acting Conservator of Forests, Southern Circle.

FORM No. 50.

FOREST DEPARTMENT, BOMBAY—SOUTHERN CIRCLE.

*Progress made in Working-Plans, 1896-97.*

Division.	AREAS FOR WHICH WORKING-PLANS HAVE BEEN COMPLETED.		AREAS FOR WHICH WORKING-PLANS ARE BEING COMPILED.		Areas for which Working-Plans have still to be taken in hand.	Total Forest area, as in Form No. 46.	Entire cost, per square mile, of Working-Plans completed.	REMARKS.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.				
1	2	3	4	5	6	7	8	9
	Sq. ms.	Sq. ms.	Sq. ms.	Sq. ms.	Sq. ms.	Sq. ms.	Rs.	
Northern Division, Kánara ...	263	.....	32	.....	622	917	545	
Southern do. do. ...	.....	.....	59	66	1,367	1,492	.....	
Western do. do. ...	.....	.....	.....	.....	1,084	1,084	.....	
Belgaum do. ...	.....	.....	.....	.....	676	676	.....	
Dhárwár do. ...	.....	.....	.....	155	210	365	.....	
Bijápur do. ...	.....	.....	.....	.....	245	245	.....	
Kolába do. ...	419	.....	.....	.....	26 *	445	33	* "Pasture" reserves not to be organized.
Ratnágiri do. ...	.....	.....	.....	.....	22	22	.....	
Total ...	682	.....	91	221	4,252	5,246	.....	

36

*Belgaum, 11th October 1897.*

W. G. BETHAM,  
Deputy Conservator of Forests, Southern Circle.

FOREST DEPARTMENT, BOMBAY—SOUTHERN CIRCLE.

Communications and Buildings during 1896-97.

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Division.	NEW WORK UNDERTAKEN DURING THE YEAR.						REPAIRS EXECUTED DURING THE YEAR.						REMARKS.								
	Buildings.		Roads and Paths.			Total Expenditure on new work.	Buildings.		Roads and Paths.			Total Expenditure on Repairs.									
	Description of Building.	Expenditure incurred.	Road or Path and object of the same.	Length of Road or Path.	Expenditure incurred.		Nature of Repairs.	Expenditure incurred.	Nature of Repairs.	Length repaired.	Expenditure incurred.										
1	2	3	4	5	6	7	8	9	10	11	12	13	14								
Northern Division Kánara.	9 Forest-houses partly built. Additions and alterations to the Rango Forest office building at Haliyal.	Rs. 7,487 93	Construction of a road from Barchi to Nana-kesrodga.	Miles. 6	Rs. 2,640	Rs.	Monsoon repairs to the several Forest buildings in the Division.	Rs. 246	Repairs to Forest cart-tracks ... Contribution for repairs to the Bhagawati-Patoli road.	Miles. 22 15	Rs. 161 200	Rs.	* These figures do not tally with those shown in Form No. 61, if each Division be taken separately, but the totals of the three Divisions do tally, and this is due to the territorial changes sanctioned in G. B. No. 10350 of 17th December 1896.								
	Total ...	7,580												2,620	*16,200	246	361	*607			
Southern Division Kánara.	Saw-mill shed ...	1,067	Construction of a road from Bilki to Siddalgundi.	6	2,343	2,343	Monsoon and petty repairs to the several Forest buildings in the following Ranges:—	800	Repairs to Forest cart-tracks in the Yellapur Range.	41	865	361	* These figures do not tally with those shown in Form No. 61, if each Division be taken separately, but the totals of the three Divisions do tally, and this is due to the territorial changes sanctioned in G. B. No. 10350 of 17th December 1896.								
	2½ huts for saw-mill workmen.	503												Construction of a road to the Saw-mill shed.	430	103	Mundgod ...	231	Do. do. in the Mundgod Range	5	126
	Range Forest office building at Siddapur.	1,096	Sinking a well at Chipgeri.	450	350	Sirsí ...	79	Contribution to the District Local Board for repairs to the Katur-Umachigi road.	...	...	...										
	Do. Yekambi.	350										Do. Dowgináda.		350	Siddápur ...	41	Fencing around Forest buildings in the Division.	300			
	Do. Khurshi.	350										Cost of completing a well at Basavankop.		186	Total ...	4,652	2,446	*7,098	1,511	1,191	*2,702
	Do. W a d e r h u k l i .	300										Total ...		5	210	215	...	*215	1,080	.....	100
Do. Dowgináda.	350	Temporary Náka at Mannaki.	5	Cost of completing a well at Hattikeri.	210	Total ...	215	1,080	1,910	62	.....	15	.....								
Western Division Kánara.	Cost of completing a well at Basavankop.	186	Extension of the Timber cart-road from Nágargali to Barchi.	1	200	350	350	6	Metalling, ditching and rolling the Hali-Nágargali road.	9.5	541	1,381	1,523								
	Total ...	4,652												2,446	*7,098	1,511	1,191	*2,702			
Belgaum Division.	Temporary Náka at Mannaki.	5	Construction of a road from the rest-house at Nágargali to the Barchi-Nágargali road.	1	150	350	350	107	Do. do. the Nágargali-Barchi road.	2	840	1,381	1,523								
	Cost of completing a well at Hattikeri.	210												.....	.....	.....	.....	.....	.....		
Dhárwár Division.	Temporary Náka at Mandihal.	12	Construction of a road from the rest-house at Nágargali to the Barchi-Nágargali road.	1	150	350	350	24	Do. do. to temporary sheds in the Division.	5	5	1,381	1,523								
	Total ...	12												.....	.....	.....	.....	.....	.....		
Bijápur Division.	Guards' houses in the Karjat and Khálsapur Ranges.	335	Construction of a road from the rest-house at Nágargali to the Barchi-Nágargali road.	1	150	350	350	24	Repairs to a well at Nágargali ...	5	30	54	17								
	Total ...	335												.....	.....	.....	.....	.....	.....		
Kolápa Division.	Guards' houses in the Karjat and Khálsapur Ranges.	335	Construction of a road from the rest-house at Nágargali to the Barchi-Nágargali road.	1	150	350	350	24	Repairs to several Forest buildings in the Division.	204	30	54	17								
	Total ...	335												.....	.....	.....	.....	.....	.....		
Ratnágiri Division.	Guards' houses in the Karjat and Khálsapur Ranges.	335	Construction of a road from the rest-house at Nágargali to the Barchi-Nágargali road.	1	150	350	350	24	Repairs to Guards' houses in the Division.	24	30	54	17								
	Total ...	335												.....	.....	.....	.....	.....	.....		
Grand Total	Guards' houses in the Karjat and Khálsapur Ranges.	335	Construction of a road from the rest-house at Nágargali to the Barchi-Nágargali road.	1	150	350	350	24	Repairs to Guards' hut in the camp plantation.	17	30	54	17								
	Total ...	335												.....	.....	.....	.....	.....	.....		
Grand Total		12,794				5,416	18,210	9,224			3,130	6,364									

37

ANNUAL FORM No. 52—[prescribed.]

FOREST DEPARTMENT, BOMBAY,—SOUTHERN CIRCLE.

Prosecutions for Breaches of Forest Rules during 1896-97.

Forest Division and Civil District.	Cases pending from 1895-96.	NEW CASES OF THE YEAR.					Total Cases.	DISPOSED OF DURING THE YEAR.						Cases pending at close of the year.	
		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.		Convictions.		Acquittals.		Total.			
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Northern Division, Kánara.	A ...	3	1	6	...	3	10	13	5	5	4	4	9	9	4
	B ...	...	...	10	...	...	10	10	10	33	...	...	10	33	...
	C ...	...	60	4	...	...	64	64	...	...	...	...	...	...	...
	Total ...	3	61	20	...	3	84	87	15	38	4	4	10	42	4
Southern Division, Kánara.	A ...	*10	...	48	...	3	51	61	43	50	12	19	55	69	6
	B ...	...	...	57	...	...	57	57	57	63	...	...	57	63	...
	C ...	...	81	7	...	...	88	88	...	...	...	...	...	...	...
	Total ...	10	81	112	...	3	193	206	100	113	12	19	112	132	6
Western Division, Kánara.	A ...	*2	...	40	...	7	47	49	34	46	15	53	49	99	...
	B ...	...	...	48	...	2	50	50	50	89	...	...	50	89	...
	C ...	...	72	16	...	3	91	91	...	...	...	...	...	...	...
	Total ...	2	72	104	...	12	188	190	84	135	15	53	99	188	...
Belgaum Division ...	A ...	4	...	21	3	...	24	28	18	31	5	23	23	57	5
	B ...	...	...	155	...	12	167	167	167	167	...	...	167	167	...
	C ...	...	128	67	...	...	195	195	...	...	...	...	...	...	...
	Total ...	4	128	243	3	12	386	390	185	201	5	23	190	224	5

Dhárwár Division ...	{ A B C	...	4	...	7	1	...	8	12	7	25	4	12	11	37	1	
		...	...	...	14	...	...	14	14	14	...	66	...	...	14	66	...
		...	...	86	19	...	...	105	105	...	...	...	...	...	...	...	...
	Total	...	4	86	40	1	...	127	131	21	91	4	12	25	103	1	
Bijápur Division ...	{ A B C	...	...	...	17	2	4	23	23	18	53	2	6	20	59	3	
		...	...	...	31	2	...	33	33	33	122	...	...	33	122	...	
		...	...	...	1	...	...	1	1	...	...	...	...	...	...	...	...
	Total	...	...	49	4	4	57	57	51	175	2	6	53	181	3		
Kolába Division ...	{ A B C	...	72	7	159	9	44	219	291	110	290	57	162	167	452	124	
		...	...	9	94	5	8	116	116	116	272	...	...	116	272	...	
		...	...	114	302	...	...	416	416	...	...	...	...	...	...	...	...
	Total	...	72	130	555	14	52	751	823	226	562	57	162	283	724	124	
Ratnágiri Division...	{ A B C	...	...	...	6	...	2	8	8	7	8	1	1	8	9	...	
		...	...	...	15	...	1	16	16	16	44	...	...	16	44	...	
		...	...	3	28	...	3	34	34	...	...	...	...	...	...	...	...
	Total	...	...	3	49	...	6	58	58	23	52	1	1	24	53	...	
Grand Total ...	{ A B C	...	95	8	304	15	63	390	485	242	511	100	280	342	791	143	
		...	...	9	424	7	23	463	463	463	856	...	...	463	856	...	
		...	...	544	444	...	6	994	994	...	...	...	...	...	...	...	

63

A means cases taken into Court.

B means cases disposed of under Section 67 of the Indian Forest Act, 1878.

C means undetected cases.

\* The difference between these figures and those shown in Column 15 of the return for 1895-96 is due to the territorial changes sanctioned in Government Resolution No. 10330 of 17th December 1896.

Belgaum, 11th October 1897.

W. G. BETHAM,  
Deputy Conservator of Forests, Southern Circle.

FORM No. 52 A.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Statement showing the Number of Cases of Misappropriation of Timber and Minor Produce of the several Divisions of the Southern Circle, for the years 1895-96 and 1896-97.

Division.	NUMBER OF CASES OF MISAPPROPRIATION OF																				Total Cases of Misappropriation.		REMARKS.			
	Timber.		Firewood.		Minor Produce.																					
					Leaves.		Stones, Earth and Minerals.		Cinnamon, Matti, and Bábul Bark.		Thorns.		Canes and Káryi.		Harda.		Bambus.		Grass.					Total.		
	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.				
Northern Division Kánara ...	*15	13	*59	2	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	*74	16
Southern Division Kánara ...	*59	53	*2	2	*29	49	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	*29	50	*90	105
Western Division Kánara ...	*19	30	*29	40	*17	11	*4	...	*7	4	*14	1	*1	...	2	...	...	...	...	...	...	...	*43	18	*91	88
Belgaum Division	51	119	45	35	...	...	1	11	...	1	11	...	...	1	2	...	8	...	...	...	...	...	13	22	109	176
Dhárwár do.	15	10	13	10	...	...	1	...	...	...	...	1	...	...	...	...	...	2	...	...	...	...	3	1	31	21
Bijápur do.	1	4	19	39	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	20	48
Kolába do.	175	139	42	114	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	4	...	221	253
Ratnágiri do.	7	19	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	21
Total ..	342	387	210	244	46	60	6	17	7	5	25	2	2	1	1	4	...	8	5	...	...	...	92	97	644	728

\* The difference between these figures and those in the return for 1895-96, is due to the territorial changes sanctioned in Government Resolution No. 10330 of 17th December 1896.

Belgaum, 11th October 1897.

W. G. BETHAM,  
Deputy Conservator of Forests, Southern Circle.



FORM No. 52 B.

FOREST DEPARTMENT, BOMBAY—SOUTHERN CIRCLE.

Statement showing the Number of Cases dealt with under Section 67 of the Indian Forest Act and the amounts paid as compensation in 1896-97, as compared with the preceding year.

Division.	1895-96.						1896-97.						REMARKS.
	CASES COMPOUNDED.					Amount realized.	CASES COMPOUNDED.					Amount realized.	
	For Misappropriation of			For	Total.		For Misappropriation of			For	Total.		
	(a) Timber.	(b) Firewood.	(c) Minor Forest Produce.	(d) Other offences.			(a) Timber.	(b) Firewood.	(c) Minor Forest Produce.	(d) Other offences.			
Rs.						Rs.							
Northern Division, Kánara ...	*9	*58	...	2	*69	*425	9	1	...	...	10	26	
Southern Division, Kánara ...	*25	*7	*13	1	*46	*446	39	2	16	...	57	234	
Western Division, Kánara ...	*19	*13	*4	...	*36	*74	22	22	4	2	50	226	
Belgaum Division ...	47	39	12	12	110	79	106	29	20	12	167	216	
Dhárwár do. ...	4	8	1	...	13	22	4	9	1	...	14	17	
Bijápur do. ...	...	3	...	1	4	5	1	25	5	2	33	55	
Kolába do. ...	26	15	4	31	76	345	34	60	...	22	116	275	
Ratnágiri do. ...	6	...	...	...	6	10	14	...	1	1	16	13	
Total ...	136	143	34	47	360	1,406	229	148	47	39	463	1,062	

\* The difference between these figures and those in the return for 1895-96 is due to the territorial changes sanctioned in Government Resolution No. 10830 of 17th December 1896.

W. G. BETHAM,

Deputy Conservator of Forests, Southern Circle.

Belgaum, 11th October 1897.

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FORM No. 52 C.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Statement showing the Number of Cases in which Fines amounting to Re. 1, Rs. 2, and so on, up to the maximum, were respectively inflicted during 1896-97.

Division.	NUMBER OF FINES INFLICTED.																				TOTAL.		REMARKS.
	Re. 1 and under.	Rs. 2	Rs. 3	Rs. 4	Rs. 5	Rs. 6	Rs. 7	Rs. 8	Rs. 9	Rs. 10	Rs. 11	Rs. 12	Rs. 13	Rs. 14	Rs. 15	Rs. 25	Rs. 28	Rs. 31	Rs. 37	Rs. 79	Number.	Amount.	
Northern Division, Kánara ...	2	1	6	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	10	26	
Southern Division, Kánara ...	17	11	7	2	7	2	2	2	...	2	...	...	2	...	1	1	...	1	...	...	57	234	
Western Division, Kánara ...	18	12	4	6	2	2	1	1	1	...	...	1	...	...	...	1	...	...	...	1	50	226	
Belgaum Division ...	114	19	16	2	3	9	...	1	...	...	1	2	...	...	...	...	...	...	...	...	167	216	
Dhárwár do. ...	10	1	2	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14	17	
Bijápur do. ...	19	9	2	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	33	55	
Kolábá do. ...	59	22	11	5	13	...	1	2	...	2	...	...	...	...	...	...	...	...	1	...	116	275	
Ratnágiri do. ...	13	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16	13	
Total ...	252	76	49	16	26	13	5	7	1	5	2	3	2	...	1	1	1	1	1	1	463	1,062	

W. G. BETHAM,

Deputy Conservator of Forests, Southern Circle.

Belgaum, 11th October 1897.

## FORM No. 53.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Area of Forest Tracts Protected from Fire during 1896-97.*

Division.	Forest Tracts.	Year in which protection commenced.	Area protected during 1896-97.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	REMARKS.
1	2	3	4	5	6	7	8	9
			Acres.	Acres.	Acres.	Acres.	Rs.	
Northern Division, Kánara.	Hájyál ... ..	1887-88 ...	190,659	190,751	48,591	142,160	4,004	
	Supa ... ..	1888-89 ...	52,003	42,594	1,440	41,154	1,028	
	Total ... ..	...	242,662	233,345	50,031	183,314	5,032	
Southern Division, Kánara.	Yellápur ... ..	1888-89 ...	83,002	61,822	2,713	59,109	2,243	
	Mundgod ... ..	" ... ..	56,725	49,574	11,694	37,880	2,040	
	Total ... ..	...	139,727	111,396	14,407	96,989	4,283	
Western Division, Kánara.	Kárvár ... ..	1887-88 ...	119,935	136,660	260	136,400	1,998	
	Ankolá ... ..	1888-89 ...	33,114	33,126	13	33,113	1,060	
	Total ... ..	...	153,049	169,786	273	169,513	3,058	
Belgaum Division ...	Chikodi ... ..	1883-84 ...	1,619	2,534	...	2,534	48	
	Khánápur ... ..	1884-85 ...	96,540	110,935	4,644	106,291	2,635	
	Belgaum ... ..	1886-87 ...	69,720	1,842	91	1,751	38	
	Gokák-Sampgaon ... ..	1887-88 ...	11,893	3,169	...	3,169	59	
	Total ... ..	...	179,777	118,480	4,735	113,745	2,780	
Dhárwár Division ...	Dhárwár ... ..	1888-89 ...	7,959	4,380	140	4,740	363	
	Kalghatgi ... ..	" ... ..	6,140	9,124	612	8,512	201	
	Bankápur ... ..	" ... ..	4,536	4,599	937	3,662	234	
	Hángal ... ..	" ... ..	3,749	3,344	94	3,750	143	
	Kod ... ..	" ... ..	6,406	6,712	596	6,116	31	
	Gadag ... ..	" ... ..	6,082	6,406	...	6,406	20	
Total ... ..	...	34,872	35,565	2,379	33,186	992		
Bijápur Division ...	Bádámi ... ..	1889-90 ...	30,619	30,707	...	30,707	77	
	Bágalkot ... ..	" ... ..	42,309	42,684	...	42,684	95	
	Total ... ..	...	72,928	73,391	...	73,391	172	
Kolába Division ...	Khálápur ... ..	1887-88 ...	15,631	14,527	124	14,403	70	
	Ahbág ... ..	1892-93 ...	4,452	4,312	199	4,113	78	
	Nágothna ... ..	" ... ..	2,647	3,780	...	3,780	100	
	Roha ... ..	" ... ..	7,631	2,169	137	2,032	71	
	Mángaon ... ..	" ... ..	2,820	4,533	183	4,350	79	
	Mahád ... ..	" ... ..	3,667	2,235	...	2,235	63	
	Panvel ... ..	" ... ..	1,517	19,973	395	19,578	71	
	Karjat ... ..	" ... ..	26,623	27,737	226	27,511	78	
	Pen ... ..	1894-95 ...	1,703	2,155	50	2,105	52	
	Dápoli ... ..	" ... ..	2,087	2,090	...	2,090	24	
Total ... ..	...	68,778	83,511	1,314	82,197	691		
Ratnágiri Division ...	Dápoli ... ..	1889-90 ...	496	498	7	491	17	
	Khed ... ..	1892-93 ...	6,414	6,414	1	6,413		
	Chiplun ... ..	" ... ..	773	798	...	793		
	Sangameshwar ... ..	" ... ..	3,101	3,101	4	3,097		
	Ratnágiri ... ..	" ... ..	270	270	...	270		
	Rájápur ... ..	" ... ..	322	322	1	321		
	Devgad ... ..	" ... ..	11	11	...	11		
	Málvan ... ..	1889-90 ...	625	625	...	625		
Vengurla ... ..	1892-93 ...	10	10	...	10			
Total ... ..	...	12,022	12,049	13	12,036	17		
GRAND TOTAL ... ..			903,815	837,523	73,152	764,371	17,025	

W. G. BETHAM,

Deputy Conservator of Forests, Southern Circle.

Belgaum, 11th October 1897.

## FORM No. 54.

## FOREST DEPARTMENT, BOMBAY—SOUTHERN CIRCLE.

*Area closed and open to Grazing during 1896-97.*

Division.	AREA IN SQUARE MILES.					Total Area.	REMARKS.
	Closed to all Animals.		Closed to Browsers (Camels, Goats or Sheep).		Open to all Animals.		
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.		
1	2	3	4	5	6	7	8
Northern Division, Kánara	231	...	11	...	675	917*	*The difference between these and the figures shown in Column 7 of the return for 1895-96 is due to the territorial changes sanctioned in Government Resolution No. 10330 of 17th December 1896.
Southern Division, Kánara...	2	27	...	...	1,463	1,492*	
Western Division, Kánara..	121	...	...	...	963	1,084*	
Belgaum Division ... ..	45	...	631	...	...	676	
Dhárwár do. ... ..	59	...	306	...	...	365	
Bijápur do. ... ..	42	...	203	...	...	245	
Kolábá do. ... ..	115	...	115	...	215	445	
Ratnágiri do. ... ..	17	...	...	...	5	22	
Total ..	632	27	1,266	...	3,321	5,246	

W. G. BETHAM,

Deputy Conservator of Forests, Southern Circle.

*Belgaum, 11th October 1897,*

FORM No. 55.

FOREST DEPARTMENT, BOMBAY—SOUTHERN CIRCLE.

Return of Grazing in the State Forests during 1896-97.

B 1428—1250

Division.	GRAZING ON PAYMENT—NUMBER OF ANIMALS.												GRAZING FREE—NUMBER OF ANIMALS.											Total Value of Fees at full rates.	Grand Total of Value at full rates.			
	At full rates.						At privileged rates.						By right under Settlement.						During pleasure of Government, or otherwise than under Settlement.									
	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Fees received.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Fees received.		Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Value of Fees at full rates.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.			Other Animals.	Value of Fees at full rates.	
												Actual.	Value at full rates.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
					Rs.							Rs.	Rs.												Rs.	Rs.	Rs.	
Northern Division, Kánara ...	409	631	4	...	...	1,030	18,807	36,455	1,351	...	...	6,375	60,491	...	...	...	...	...	...	...	...	...	...	...	...	...	...	61,521
Southern Division, Kánara ...	257	133	...	...	...	390	36,370	55,480	2,728	...	...	11,900	94,174	...	...	...	...	...	...	...	...	...	...	...	...	...	...	94,504
Western Division, Kánara ...	...	...	...	...	...	...	13,120	50,765	698	...	...	8,029	63,971	...	...	...	...	...	...	...	...	...	...	...	...	...	...	63,971
Belgaum Division ...	2,072	5,930	13,137	...	13	6,928	5,662	42,331	11,538	...	70	14,810	29,638	...	...	...	...	...	...	16,000	41,415	...	...	...	30,708	30,708	73,274	
Dhárwár do. ...	2,782	7,743	30,095	...	88	10,643	9,145	40,309	34,094	...	...	16,925	33,849	...	...	...	...	...	...	2,323	16,095	...	...	...	10,870	10,870	55,362	
Bijápúr do. ...	73	540	1,176	...	32	513	1,893	9,733	6,438	...	32	4,195	8,390	...	...	...	...	...	...	703	5,379	...	...	2	3,394	3,394	12,307	
Kolába do. ...	56	221	...	...	...	208	2,598	12,118	382	...	...	4,289	10,919	...	...	...	...	...	...	5,617	13,954	29	...	...	14,750	14,750	25,877	
Ratnágiri do. ...	...	...	...	...	...	...	20	2	...	...	...	10	21	...	...	...	...	...	...	...	...	...	...	...	...	...	21	
Total ..	5,649	15,206	44,412	...	133	10,712	84,875	2,47,173	57,217	...	102	66,542	2,91,453	...	...	...	...	...	...	24,643	77,443	29	...	2	65,722	65,722	370,887	

45

Belgaum, 11th October 1897.

W. G. BETHAM,  
Deputy Conservator of Forests, Southern Circle.

## FORM No. 56.

## FOREST DEPARTMENT, BOMRAY—SOUTHERN CIRCLE.

## Area of Plantations, 1895-97.

Division.	Name of Plantation.	AREA IN ACRES.				RECEIPTS.	CHARGES.	REMARKS.
		On 1st July 1896.	Added during the year.	Excluded during the year.	Area on 30th June 1897.	Of the year.		
1	2	3	4	5	6	7	8	9
		Acres.	Arces.	Acres.	Acres.	Rs.	Rs.	
	<i>Regular Plantations.</i>							
Western Division, Kánara.	Devarbail ...	21	...	...	21	8	10	
	Kasarcod ...	198	...	...	198	...	...	
Belgaum Division.	Deshnur ...	184	...	...	184	...	...	
Dhárwár Division.	Kambárganvi ...	25	...	...	25	...	...	
	Saptápur ...	35	...	...	35	13	...	
	Devikop ...	29	...	...	29	...	...	
	Kalkundi ...	275	...	...	275	...	...	
	Hirur ...	12	...	...	12	...	...	
Bijápur Division.	Mamdápur ...	174	...	...	174	...	...	
	Anantpur ...	90	...	...	90	...	...	
	Shivpur ...	12	...	...	12	...	...	
Ratnágiri Division.	Dápoli ...	130	...	...	130	48	56	
	Total Regular Plantations ...	1,185	...	...	1,185	69	66	
	<i>Cultural Operations.</i>							
Southern Division, Kánara.	Hulihond ...	10	...	...	10	...	441	
	Kirwátti ...	3	...	...	3	...	78	
	Wantmané ...	5	...	...	5	...	36	
	Devanguddá ...	39	...	...	39	12	78	
	Banvasi ...	27	...	...	27	...	...	
Western Division, Kánara.	Anegundi ...	7	...	...	7	...	...	
	Báleguli ...	8	...	...	8	3	70	
	Sakalben ...	4	...	...	4	1	70	
	Kalkatti ...	2	...	...	2	...	...	
Belgaum Division.	Konnur ...	200	...	...	200	...	...	
	Hemadge ...	400	...	...	400	6	...	
Dhárwár Division.	Kambárganvi ...	300	...	...	300	...	...	
	Hosur ...	307	...	...	307	...	...	
	Hunshikumbri ...	300	...	...	300	...	...	
	Karkikop ...	1	...	...	1	...	...	
	Dhundshi ...	80	...	...	80	...	...	
	Alipur ...	16	...	...	16	...	...	
	Bábápur ...	25	...	...	25	...	...	
	Channikatti ...	7	...	...	7	...	...	
	Bassápur ...	6	...	...	6	...	...	
	Harikatti ...	2	...	...	2	...	...	
Holtikota ...	200	...	...	200	...	...		
Ragikallápur ...	25	...	...	25	...	...		

## FORM No. 56—continued.

Division.	Name of Plantation.	AREA IN ACRES.				RECEIPTS.	CHARGES.	REMARKS.
		On 1st July 1896.	Added during the year.	Excluded during the year.	Area on 30th June 1897.	Of the year.		
1	2	3	4	5	6	7	8	9
	<i>Cultural Operations—continued.</i>	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	
Dhárwár Division— <i>contd.</i>	Kalkeri ...	200	...	...	200	...	...	
	Ganginkatti ...	200	...	...	200	...	...	
	Tersikop ...	300	...	...	300	...	...	
	Kalkundi ...	100	...	...	100	...	...	
	Hindasgeri ...	400	...	...	400	...	...	
	Halekote-Chikeri ...	706	...	...	706	...	...	
	Dudihalli ...	26	...	...	26	...	...	
	Nidnigal ...	44	...	...	44	...	...	
	Chikbár ...	25	...	...	25	...	...	
	Medleri ...	100	...	...	100	...	...	
	Dambal ...	463	...	...	463	...	...	
	Sankadwadak ...	268	...	...	268	...	...	
Nabápur ...	172	...	...	172	...	...		
Bijápur Division.	Mamdápur ...	216	...	...	216	...	...	
	Kaládgi ...	195	...	...	195	...	...	
	Jaknur ...	9	...	...	9	...	...	
	Hosur ...	2	...	...	2	...	...	
	Manglur ...	2	...	...	2	...	...	
	Total, Cultural Operations ...	5,402	...	...	5,402	22	773	
	GRAND TOTAL ...	6,587	...	...	6,587	91	839	

Belgaum, 11th October 1897.

W. G. BETHAM,  
Deputy Conservator of Forests, Southern Circle

FOREST DEPARTMENT, BOMBAY—SOUTHERN CIRCLE.

Outturn (in cubic feet, solid) of Timber and Fuel, during the year 1896-97, and Agency of Exploitation.

Division.	TIMBER IN THE ROUGH: LOGS.					TIMBER IN THE ROUGH: POLES.					SAWN OR SQUARED TIMBER.					MISCELLANEOUS.				FUEL.					Total.	
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.		Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Northern Division, Kánara	...	C. ft. 18,841	C. ft. ...	C. ft. ...	C. ft. 18,841	C. ft. 37,837	C. ft. 3,418	C. ft. 132	C. ft. ...	C. ft. 41,387	C. ft. 200,900	C. ft. 12,504	C. ft. 2,889	C. ft. ...	C. ft. 273,993	C. ft. 59,423 Bamboos No. 845.	C. ft. 6,755 Bamboos No. 1,740,452.	C. ft. ..... Bamboos No. 10,600.	C. ft. ...	C. ft. 66,178 Bamboos No. 1,751,897.	C. ft. 15,394	C. ft. 339,269	C. ft. ...	C. ft. ...	C. ft. 364,663	C. ft. 757,062 Bamboos No. 1,751,897. 388,498 Bamboos No. 817,649, Sandalwood Khandis 52-15-4, Sandalwood C. ft. 280.
Southern Division, Kánara	54,073	10,393	6,118	...	71,654	6,121	899	4,819	...	11,839	150,061	23,502	7,041	...	180,624	Bamboos No. 806 Sandalwood Khandis 52-15-4 Sandalwood C. ft. 280.	Bamboos No. 811,893.	Bamboos No. 5,180	Bamboos No. 5,180	26,334	98,017	...	...	124,351	Bamboos No. 817,649, Sandalwood Khandis 52-15-4, Sandalwood C. ft. 280.	
Western Division, Kánara	774	139,717	20,116	...	166,607	1,472	...	...	...	1,472	18,909	...	...	...	18,909	Bamboos No. 27. 6,165 Bamboos No. 500 Sandalwood trees 42, Sandalwood pieces 1,721, Sandalwood stacks 37, Sandalwood loppings cart-load 1.	Bamboos No. 216,093. 649 Bamboos No. 404,875, Sandalwood trees 1,276, Sandalwood pieces 19, Sandalwood stacks 37, Sandalwood loppings cart-loads 68.	Bamboos No. 5,500.	Bamboos No. 1,200.	Bamboos No. 221,620. 6,714 Bamboos No. 406,575, Sandalwood trees 1,318 Sandalwood pieces 1,740, Sandalwood stacks 37, Sandalwood stumps 2, Sandalwood loppings cart-load 1, Dry Bamboos cart-loads 68.	93,038	1,923,076	...	...	2,016,109	2,206,217 Bamboos No. 221,620 3,494,517 Bamboos No. 406,575, Sandalwood trees No. 1,318, Sandalwood pieces, 1,740, Sandalwood stacks 37, Sandalwood stumps 2, Sandalwood loppings cart-load 1, Dry Bamboos cart-loads 68.
Belgaum Division	...	...	...	...	...	53,519	6,729	1,140	...	101,388	46,962	1,606	...	...	48,568	Bamboos No. 27. 6,165 Bamboos No. 500 Sandalwood trees 42, Sandalwood pieces 1,721, Sandalwood stacks 37, Sandalwood loppings cart-load 1.	Bamboos No. 216,093. 649 Bamboos No. 404,875, Sandalwood trees 1,276, Sandalwood pieces 19, Sandalwood stacks 37, Sandalwood loppings cart-loads 68.	Bamboos No. 5,500.	Bamboos No. 1,200.	Bamboos No. 221,620. 6,714 Bamboos No. 406,575, Sandalwood trees 1,318 Sandalwood pieces 1,740, Sandalwood stacks 37, Sandalwood stumps 2, Sandalwood loppings cart-load 1, Dry Bamboos cart-loads 68.	3,127,464	209,195	1,188	...	3,337,847	3,494,517 Bamboos No. 406,575, Sandalwood trees No. 1,318, Sandalwood pieces, 1,740, Sandalwood stacks 37, Sandalwood stumps 2, Sandalwood loppings cart-load 1, Dry Bamboos cart-loads 68.
Dhárwár do.	...	...	...	...	...	58,169	19,239	1,578	...	79,036	...	...	...	...	...	Sandalwood Khandis 89-12-20.	Bamboos No. 237,055, Sandalwood trees 497.	Bamboos No. 100.	Bamboos No. 100.	Bamboos No. 238,055 Sandalwood Khandis 89-12-20, Sandalwood trees 497.	245,610	53,305	...	...	298,915	377,951 Bamboos No. 238,055, Sandalwood Khandis 89-12-20, Sandalwood trees 497.
Bijápúr do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	48	Bamboos No. 5,502.	.....	.....	Bamboos No. 5,502.	...	147,122	...	...	147,122	164,007 Bamboos No. 5,502.
Kolába do.	...	2,000	...	...	2,000	...	399,911	6,470	...	405,381	...	...	...	...	...	1,080	Bamboos No. 3,461	.....	.....	Bamboos No. 3,461	3,735	1,096,890	...	...	1,100,625	1,512,547 28,924
Ratnágiri do.	...	38	...	...	38	...	2,974	1,342	...	4,216	...	...	...	...	...	.....	3,823	.....	.....	Bamboos No. 4,541 9,823	3,735	1,096,890 13,952	...	...	1,100,625 13,952	1,512,547 28,924
Total	55,480	171,451	32,234	...	259,185	197,118	432,120	15,481	...	644,719	476,852	37,612	9,650	...	624,094	66,716 Bamboos No. 2,178 Sandalwood Khandis 142-7-24, Sandalwood C. ft. 280 Sandalwood trees 42, Sandalwood pieces 1,721, Sandalwood stacks 37, Sandalwood loppings cart-load 1.	30,545 Bamboos No. 3,416,570, Sandalwood trees 1,773 Sandalwood pieces 19, Sandalwood stumps 2, Dry Bamboos cart-loads 68.	..... Bamboos No. 22,550.	.....	97,261 Bamboos No. 3,441,288, Sandalwood Khandis 142-7-24, Sandalwood C. ft. 280, Sandalwood trees 1,815, Sandalwood pieces 1,740, Sandalwood stacks 37, Sandalwood stumps 2, Sandalwood loppings cart-load 1, Dry Bamboos cart-loads 68.	3,511,570	3,880,828	1,188	...	7,393,584	8,918,823 Bamboos No. 3,441,288, Sandalwood Khandis 142-7-24, Sandalwood C. ft. 280, Sandalwood trees 1,815, Sandalwood pieces 1,740, Sandalwood stacks 37, Sandalwood stumps 2, Sandalwood loppings cart-load 1, Dry Bamboos cart-loads 68.

48

Belgaum, 11th October 1897.

W. G. BETHAM,  
Deputy Conservator of Forests, Southern Circle.



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FORM No. 57A.

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## Statement showing the Consolidated Outturn of Timber

Division.	Agency by which material removed.	MATERIAL REMOVED.						
		Timber.		Fuel.		Total Wood.		Bam.
		Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	No.
Northern Division of Kánara.	Government ... ..	358,160	Rs. 511,9 <sup>c</sup> 2	15,394	960	373,554	519,942	845
	Purchasers ... ..	41,518	20,290	339,269	7,40	380,787	27,430	1,710,452
	Free grants ... ..	2,721	603	.....	...	2,721	603	10,600
	Removed under privileges ...	4,848	1,014	212,588	1,979	217,436	2,993	52,175
	Total ... ..	407,247	533,889	567,251	10,079	9,74,495	543,938	1,804,072
Southern Division of Kánara.	Government ... ..	210,875	250,918	26,334	1,400	237,209	252,318	806
	Purchasers ... ..	35,294	12,052	98,017	1,378	133,311	13,430	811,693
	Free grants ... ..	17,973	3,937	.....	...	17,978	3,937	5,150
	Removed under privileges ...	36,840	3,577	2,028,762	28,177	2,065,602	31,754	414,300
	Total ... ..	300,987	270,484	2,153,113	30,955	2,454,100	301,439	1,237,949
Western Division of Kánara.	Government ... ..	21,155	23,500	93,033	3,160	1,4,188	29,660	27
	Purchasers ... ..	142,837	42,870	1,923,076	69,836	2,065,913	112,706	216,093
	Free grants ... ..	26,116	5,732	.....	...	26,116	5,732	5,500
	Removed under privileges ...	6,514	481	6,789,450	45,863	6,795,914	46,344	48,740
	Total ... ..	196,622	75,583	8,805,559	1,18,859	9,002,181	194,442	270,360
Belgaum Division.	Government ... ..	146,646	90,312	3,127,464	2,18,4 <sup>c</sup> 5	3,274,110	308,797	500
	Purchasers ... ..	8,884	2,284	209,95	4,742	218,679	7,026	404,875
	Free grants ... ..	1,140	361	1,188	46	2,328	396	1,200
	Removed under privileges ...	.....	...	543,568	16,974	543,568	16,274	...
	Total ... ..	156,670	92,947	3,881,415	2,39,546	4,038,085	332,493	4,06,575
Dhárwár Division.	Government ... ..	58,169	25,237	245,610	17,328	303,779	42,565	.....
	Purchasers ... ..	19,289	1,711	53,305	921	72,594	2,632	237,955
	Free grants ... ..	1,578	339	.....	...	1,578	389	100
	Removed under privileges ...	...	...	917,411	5,260	917,411	5,260	.....
	Total ... ..	79,036	27,337	1,276,326	23,499	1,295,362	50,836	238,055
Bijápur Division.	Government ... ..	48	31	.....	...	48	31	.....
	Purchasers ... ..	6,837	1,065	147,122	3,995	153,959	5,030	5,502
	Free grants ... ..	.....	...	.....	...	.....	...	.....
	Removed under privileges ...	...	...	.....	...	.....	...	.....
	Total ... ..	6,885	1,096	147,122	3,995	154,007	5,091	5,502
Kolába Division...	Government ... ..	1,080	233	3,735	33	4,815	266	.....
	Purchasers ... ..	404,372	73,454	1,096,890	36,726	1,501,262	110,180	.....
	Free grants ... ..	6,470	936	.....	...	6,470	936	.....
	Removed under privileges ...	...	...	1,044,600	17,470	1,044,600	17,410	.....
	Total ... ..	411,922	74,673	2,145,225	54,169	2,557,147	128,842	.....
Ratnágiri Division	Government ... ..	33	3	.....	...	33	3	.....
	Purchasers ... ..	12,697	1,420	13,952	862	26,649	2,282	.....
	Free grants ... ..	1,342	281	.....	...	1,342	281	.....
	Removed under privileges ...	.....	...	.....	...	.....	...	.....
	Total ... ..	14,072	1,704	13,952	862	28,024	2,566	.....
Southern Circle...	ABSTRACT.							
	Government ... ..	793,166	9,05,216	3,511,570	2,41,366	4,307,736	1,146,582	2,178
	Purchasers ... ..	671,728	1,55,146	3,880,826	1,25,600	4,552,554	280,746	(a) 3,416,570
	Free grants ... ..	57,315	12,279	1,188	46	58,533	12,324	22,650
	*Removed under privileges ...	43,202	5,072	11,536,379	1,14,953	11,584,581	1,20,025	515,215
	Total in 1893-97 ...	1,573,441	10,77,713	18,929,963	4,81,964	20,503,404	1,559,677	3,956,513
Total in 1895-96 ...	1,630,555	10,77,830	21,696,818	5,48,420	23,377,373	1,626,250	5,156,787	
Difference in 1894-97 ...	-107,114	-117	-2,766,855	-63,456	-2,873,969	-66,573	-1,200,274	

\* There are no right-holders in the Circle.

(a) Besides 63 cart-loads of dry bamboos.

Camp Sukatti, Belgaum District,  
18th December 1897.

No. 57A.

BOMBAY, SOUTHERN CIRCLE.

Fuel and Minor Produce during 1896-97.

					AVERAGE OUTTURN PER SQUARE MILE OF ALL FORESTS.							RE- MARKS.
boos.	Sandalwood.		Minor produce.	Grazing.	Timber and Fuel.		Banboos.		Sandal- wood.	Minor produce.	Grazing.	
Value.	No. or quantity.	Value.	Value.	Value.	Cubic feet.	Value.	No.	Value.	Value.	Value.	Value.	
Rs.		Rs.	Rs.	Rs.		Rs.		Rs.	Rs.	Rs.	Rs.	
15	.....	...	8,966	...	...	...	...	...	...	...	...	...
21,845	.....	...	10,480	6,061	...	...	...	...	...	...	...	...
35	.....	...	...	...	...	...	...	...	...	...	...	...
169	.....	...	15	...	...	...	...	...	...	...	...	...
25,064	.....	...	19,461	6,051	1,063	594	1,969	27	...	21	7	
8	Khandis. 52 15 4 Cubic feet. 2 0	4,558	23,094	12	...	...	...	...	...	...	...	...
11,323	.....	...	2,102	8,619	...	...	...	...	...	...	...	...
31	.....	...	...	...	...	...	...	...	...	...	...	...
903	.....	...	5,709	...	...	...	...	...	...	...	...	...
12,065	.....	4,558	30,905	8,631	1,645	203	826	8	3	21	6	
1	.....	...	2,106	...	...	...	...	...	...	...	...	...
2,471	.....	...	8,778	6,033	...	...	...	...	...	...	...	...
37	.....	...	2	...	...	...	...	...	...	...	...	...
141	.....	...	32	...	...	...	...	...	...	...	...	...
2,650	.....	...	10,918	6,033	8,306	179	249	2	...	10	6	
22	Trees pieces, &c. 1,801	1,821	37,188	...	...	...	...	...	...	...	...	...
7,764	1,297	867	3,069	20,633	...	...	...	...	...	...	...	...
9	.....	...	3,314	55,347	...	...	...	...	...	...	...	...
7,795	.....	2,688	43,571	75,932	5,970	492	601	11	4	64	112	
.....	Khandis. 89 12 20 Trees.	6,201	77	...	...	...	...	...	...	...	...	...
6,434	497	497	2,160	26,257	...	...	...	...	...	...	...	...
3	.....	...	4	...	...	...	...	...	...	...	...	...
.....	.....	...	771	10,870	...	...	...	...	...	...	...	...
6,407	.....	6,698	3,012	37,127	3,550	139	653	17	18	8	102	
.....	.....	...	4,868	...	...	...	...	...	...	...	...	...
123	.....	...	2,086	5,550	...	...	...	...	...	...	...	...
.....	.....	...	2,334	6,760	...	...	...	...	...	...	...	...
123	.....	...	9,288	12,310	629	21	22	...	...	38	50	
.....	.....	...	1,495	5,756	...	...	...	...	...	...	...	...
.....	.....	...	5,145	14,750	...	...	...	...	...	...	...	...
.....	.....	...	6,640	20,506	6,748	289	...	...	...	15	46	
.....	.....	...	2	104	...	...	...	...	...	...	...	...
.....	.....	...	7	...	...	...	...	...	...	...	...	...
.....	.....	...	9	104	1,268	113	...	...	...	...	5	
46	Khandis. 142 7 21 Trees pieces, &c. 1,801 Cubic feet. 250	12,580	76,299	12	...	...	...	...	...	...	...	...
52,930	Trees, &c. 1,794	1,364	30,173	79,015	...	...	...	...	...	...	...	...
115	.....	...	6	87,727	...	...	...	...	...	...	...	...
1,213	.....	...	17,327	...	...	...	...	...	...	...	...	...
54,304	.....	13,944	123,804	166,754	3,909	297	754	10	3	24	32	
70,063	.....	13,043	230,913	168,842	4,456	309	983	13	3	54	32	
-15,693	.....	+ 901	-157,139	-2,088	-547	-12	-229	-3	...	-30	...	

W. G. BETHAM,

Acting Conservator of Forests, Southern Circle.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.  
*Outturn of Minor Forest Produce for the year 1896-97.*

Division.	Description of Produce.	PRODUCE REMOVED OR UTILIZED.										REMARKS.
		By Government Agency.		By Purchasers.		By Free Grantees.		By Right-holders.		Total.		
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
Northern Division, Kánara.	Honey				777						777	
	Myrobollams	Khandis	726	8,808							726	8,808
	Shigekai				605						605	
	Tapping fees on Bainsi trees				40						40	
	Canes	Head-loads			17	4					17	4
	Thorns	Do.	1	1							1	1
	Cinnamon bark	Do.		155	16	1					16	156
	Karvi	Do.			84	1					84	1
	Leaves	Do.	1	1	90	2					91	3
	Shindoli leaves	Cart-loads			95	48					95	48
	Stones	Cubic feet			3,116	5					3,116	5
	Shembi bark					31						31
	Pandri sticks		5	1							5	1
Grass					139						139	
Grazing fees					5,922						5,922	
	Total ..		8,966		16,641						25,507	
Southern Division, Kánara.	Honey and Wax				1,964						1,964	
	Shigekai	Maunds	29	30							29	30
	Bainsi trees	No.			52	73					52	73
	Myrobollams	Khandis	2,009	23,064							2,009	23,064
	Canes	Head-loads			18	7					18	7
	Leaves	Do.			215	28					215	28
	Thorns	Do.			20	2					20	2
	Fruit farm	Do.				3						3
	Stones	Cubic feet			2,274	16					2,274	16
	Earth	Do.			1,644	9					1,644	9
	Grass	Bundles	18,140	12							18,140	12
	Grazing fees					8,619						8,619
		Total ..		23,106		10,721						33,827
Western Division, Kánara.	Myrobollams	Khandis	82	980							82	980
	Shigekai	Do.	37	972		31					37	1,003
	Divi divi pods	Maunds	77	154							77	154
	Catechu farm					7,501						7,501
	Honey do.					498						498
	Cinnamon do.					287						287
	Shembi bark do.					31						31
	Nux-vomica do.					22						22
	Pepper do.					20						20
	Fruit do.					10						10
	Shigechelli	Maunds			693	173					693	173
	Mattichelli	Do.			6	2					6	2
	Canes	Head-loads			448	171	8	2			456	173
Karvi	Do.			390	2					390	2	
Leaves	Do.			16	1					16	1	
Creepers	Do.			59	7					59	7	
Stones	Cubic feet			500	2					500	2	
Do.	Cart-loads			303	19					303	19	
Earth	Do.			12	1					12	1	
Grass farm					12						12	
Grazing fees					6,021						6,021	
	Total ..		2,106		14,811		2				16,919	
Belgaum Division.	Myrobollams	Khandis	3,040	36,901	2	29					3,042	36,930
	Thorns	Bullock-loads			23	21					23	21
	Do.	Cart-loads			52	23					52	23
	Do.	Head-loads			78	4					78	4
	Karvi	Cart-loads			44	26					44	26
	Canes	Head-loads			138	9					138	9
	Dry palm-trees				10	10					10	10
	Wild date palm leaves	Cart-loads			455	244					455	244
	Do.	Head-loads			2,478	77					2,478	77
	Matti bark	Cart-loads			6	6					6	6
	Bandurbi branches	Head-loads			1,967	92					1,967	92
	Earth	Cart-loads			59	6					59	6
	Do.	Cubic feet			5,000	3					5,000	3
Stones	Do.			3,616	18					3,616	18	
Do.	Cart-loads			4,915	383					4,915	383	
Do.	Donkey-loads				419						419	

Division.	Description of Produce.	PRODUCE REMOVED OR UTILIZED.								REMARKS.		
		By Government Agency.		By Purchasers.		By Free Grantees.		By Right-holders.			Total.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.		Quantity.	Value.
Belgaum Division—contd.	Shigekai ... .. Khandis.	10	287	...	...	...	...	...	...	10	287	
	Shigekai farm ... .. Maunds.	...	...	800	901	...	...	...	...	800	901	
	Wax do. ... .. Do.	...	...	94	643	...	...	...	...	94	643	
	Cinnamon do. ... .. Do.	...	...	1,300	131	...	...	...	...	1,300	131	
	Gum do. ... .. Do.	...	...	160	484	...	...	...	...	160	484	
	Milk-bush ... .. Head-loads.	...	...	...	24	...	...	...	...	...	24	2
	Grass ... ..	...	...	...	954	...	...	...	...	...	954	2
	Grazing fees ... ..	...	...	...	19,681	...	...	...	...	...	19,681	954
	Total ... ..	...	37,188	...	23,704	...	...	...	...	...	60,892	19,681
	Dharwar Division.	Karanj seed farm ... ..	...	...	...	1,018	...	...	...	...	...	1,018
Babul pods do. ... ..		...	...	...	10	...	...	...	...	...	10	
Tarwad bark do. ... ..		...	...	...	526	...	...	...	...	...	526	
Myrobollams ... .. Khandis.		8	77	...	9	...	...	...	...	...	86	
Stones ... .. Cart-loads.		...	...	3,227	268	...	...	...	...	3,227	268	
Do. ... .. Animal-loads.		...	...	...	33	...	...	...	...	...	33	1
Earth ... .. Cart-loads.		...	...	116	7	...	...	...	...	116	7	
Thorns ... .. Do.		...	...	382	71	...	...	...	...	382	71	
Do. ... .. Heaps.		...	...	2,297	131	...	...	...	...	2,297	131	
Do. ... .. Head-loads.		...	...	...	11	...	...	...	...	...	11	1
Palm tree leaves ... .. Do.		...	...	173	3	...	...	...	...	173	3	
Do. ... .. Cart-loads.		...	...	12	12	...	...	...	...	12	12	
Do. ... .. Animal-loads.		...	...	544	34	...	...	...	...	544	34	
Tapping fees on toddy trees ... ..		...	...	118	7	...	...	...	...	118	7	
Grass farm ... ..		...	...	...	1,084	...	...	...	...	...	1,084	
Do. ... .. Bundles.		...	...	29,500	59	...	...	...	...	29,500	59	
Do. ... .. Cart-loads.		...	...	...	9	...	...	...	...	...	9	
Do. ... .. Head-loads.	...	...	3,840	120	...	...	...	...	3,840	120		
Grazing fees ... ..	...	...	...	24,985	...	...	...	...	...	24,985		
Broom grass ... .. Head-loads.	...	...	118	2	...	...	...	...	118	2		
Do. ... .. Cart-loads.	...	...	291	60	...	...	...	...	291	60		
Peeragi, &c., twigs ... .. Loads.	...	...	...	60	4	...	...	...	60	4		
Total ... ..	...	77	...	28,417	...	4	...	...	...	23,498		
Bijapur Division.	Stones ... .. Cubic feet.	...	...	143,743	1,102	...	...	...	...	143,743	1,102	
	Earth ... .. Do.	...	...	12,508	754	...	...	...	...	12,508	754	
	Bandurbi leaves ... .. Cart-loads.	...	...	31	76	...	...	...	...	31	76	
	Do. ... .. Bullock-loads.	...	...	...	2	...	...	...	...	2	2	
	Do. ... .. Head-loads.	...	...	783	63	...	...	...	...	783	63	
	Thorns ... .. Do.	...	...	1,349	27	...	...	...	...	1,349	27	
	Do. ... .. Cart-loads.	...	...	837	63	...	...	...	...	837	63	
	Tarwad bark ... .. Khandis.	342	3,861	...	...	...	...	...	...	342	3,861	
Grass from Kurans ... ..	...	...	...	899	...	...	...	...	...	899		
Grazing fees ... ..	...	...	...	4,651	...	...	...	...	...	4,651		
Total ... ..	...	3,861	...	7,636	...	...	...	...	...	11,497		
Kolaba Division.	Myrobollams farm ... ..	...	...	...	275	...	...	...	...	...	275	
	Shigekai do. ... ..	...	...	...	553	...	...	...	...	...	553	
	Shenbi bark do. ... ..	...	...	...	272	...	...	...	...	...	272	
	Karvi do. ... ..	...	...	...	173	...	...	...	...	...	173	
	Palm trees... ..	...	...	...	190	...	...	...	...	...	190	
	Thorns ... ..	...	...	...	1	...	...	...	...	...	1	
	Stones ... ..	...	...	...	31	...	...	...	...	...	31	
Grass and grazing fees ... ..	...	...	...	5,756	...	...	...	...	...	5,756		
Total ... ..	...	...	...	7,251	...	...	...	...	...	7,251		
Raichagiri Division.	Cashew nuts ... ..	...	...	...	2	...	...	...	...	...	2	
	Grass ... ..	...	...	...	104	...	...	...	...	...	104	
	Total ... ..	...	...	...	106	...	...	...	...	...	106	

W. G. BETHAM,

Deputy Conservator of Forests, Southern Circle.

Belgaum, 11th October 1897.

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STATEMENT No. 59—concluded.

Particulars.	No. or Quantity.	Cubic Feet.	TOTAL OF EACH HEAD.		Particulars.	No. or Quantity.	Cubic Feet.	TOTAL EACH HEAD.	
			No. or Quantity.	Cubic Feet.				No. or Quantity.	Cubic Feet.
BALANCE AT THE COMMENCEMENT OF THE YEAR.			MINOR FOREST PRODUCE.		REST PRODUCE.				
<i>Northern Division of Kánara.</i>					REMOVED BY PURCHASERS FROM DEPOTS.				
Hardas, baskets	3½	.....	3½*	.....	Divi-Divi pods	...	3 22 26½		
<i>Southern Division of Kánara.</i>					Hardas	5,567	19 23		
Hardas	12 6 3				Cassia bark	312	8 6		
Shigekai	0 18 0				Cane box	1	.....		
<i>Western Division of Kánara.</i>					Karvi, head-loads	18	.....		
Hardas	0 9 14				Ain bark	4	.....		
Divi-Divi pods	3 13 10				Pandri sticks	5	.....		
Shigekai	43 6 0				Wooden pot	1	.....		
<i>Received from Forests in Depôts.</i>					Ragi	0 1 4½			
Hardas	5,863 19 15½				Shigekai	49 5 8½			
Do. boxes	32	.....			Grass, bundles	4,415	.....	4,414	6,263 17 12½
Cassia bark	471 5 16				SOLD LOCALLY.				
Divi-Divi pods	3 8 17				Soppu, head-loads	60	.....		
Karvi, head-loads	18	.....			Hardas	1 1 0	.....	60	1 1 0
Ain bark	4	.....			WRITTEN OFF.				
Cane box	1	.....			Divi-Divi pods	0 2 16½			
Pandri sticks	5	.....			Shigekai	6 3 12			6-5=27½
Wooden pot	1	.....			USED BY THE DEPARTMENT.				
Ragi	0 1 4½				Divi-Divi pods	0 0 20			
Shigekai	25 8 22½				Grass bundles	13,725	.....	13,725	0 7 15½
Grass, bundles	18,140	.....	18,201	6,363 18 19½	Hardas	0 6 23½	.....		
<i>Received from the Forests and sold locally.</i>					BALANCE AT THE CLOSE OF THE YEAR.				
Soppu, head-loads	60	.....	60	1 1 0	<i>Northern Division of Kánara.</i>				
Hardas	1 1 0	.....	60	1 1 0	Harda, boxes	35½	.....	35½	.....
Total, Minor Forest Produce			18,204½	6,425 7 18½	<i>Southern Division of Kánara.</i>				
					Hardas	7 21 14			
					Shigekai	11 2 3			18 23 17
					<i>Western Division of Kánara.</i>				
					Hardas	0 10 0			
					Shigekai	3 1 27			
					Divi-Divi pods	2 20 21			6 7 20
					<i>Belgaum Division.</i>				
					Hardas	0 2 0			0 2 0
					<i>Bijapur Division.</i>				
					Cassia bark	128 17 10			128 17 10
Total, Minor Forest Produce			18,204½	6,425 7 18½	Total Minor Forest Produce				
					18,204½ 6,425 7 18½				
BALANCE AT THE COMMENCEMENT OF THE YEAR.			DRIFT AND WAIF WOOD AND		D CONFISCATED FOREST PRODUCE.				
<i>Western Division of Kánara.</i>					REMOVED BY PURCHASERS FROM DEPOTS.				
Timber	48 54		41	48 54	Timber	1,250	54	1,469	5,631 54
Fuel, loads	40	.....			Fuel	4,348	.....		
Do. cart	1	.....			Do. cartload	1	.....		
<i>Received in Depôts.</i>					Charcoal, maunds	.....	8		
Timber	1,439	.....			Bamboos	1,214	.....		
Fuel	4,360	.....			Do. pegs	200	.....		
Charcoal, maunds	8	.....			Do. mats	2	.....		
Bamboos	1,214	.....			Thin Bamboos, head-loads	5	.....		
Do. pegs	200	.....			Fencing stakes	5	.....		
Do. mats	2	.....			Thorns	4	.....		
Thin bamboos, head-loads	5	.....			Leaves	1	.....		
Fencing stakes	5	.....			Hardas, seers	12	.....		
Thorns	4	.....			Grass, headloads	5	.....		
Leaves	1	.....			Paddy, shiddies	4	.....		
Hardas, seers	12	.....			Sandalwood, pieces	32	.....		
Grass, head-loads	5	.....			BALANCE AT THE CLOSE OF THE YEAR.				
Paddy, Shiddies	4	.....			<i>Western Division of Kánara.</i>				
Sandalwood, pieces	34	.....	1,479	5,823	Timber	49	224	49	224
Total Drift and Waif wood and Confiscated Forest produce			1,520	5,871 54	<i>Dhárwad Division.</i>				
					Timber	4	.....		
					Fuel	12	.....		
					Sandalwood, pieces	2	.....		16
					Total Balance				
					51 240				
					Total, Drift and Waifwood and Confiscated Forest produce				
					1,520 5,871 54				

\* The difference between these figures and those given in the return for 1895-96 is due to the territorial changes sanctioned in Government Resolution No. 10330 of 17th December 1896.

† Old Southern Division of Kánara.

Camp Sulkatti, Belgaum District, }  
18th December 1897.

W. G. BETHAM,  
Acting Conservator of Forests, S. C.



## FORM No. 60.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1896-97.

Description of Timber and other Produce.	ON HAND AT COMMENCEMENT OF THE YEAR.			ON HAND AT CLOSE OF THE YEAR.			DIFFERENCE IN VALUE.		REMARKS.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.	
<b>TIMBER.</b>									
<i>Northern Division of Kánara.</i>									
Teak logs ... ..	7,862	223,139	3,34,710	10,866	261,284	3,91,926	57,216	...	
Do. poles ... ..	4	176	4	9,301	16,979	9,301	9,297	...	
Demarcation-boards ... ..	104	104	52	101	104	5	...	...	
Blackwood logs ... ..	1,475	30,021	30,021	1,532	33,277	33,277	3,256	...	
Do. end pieces ... ..	27	187	7	29	193	8	1	...	
Do. poles ... ..	...	.....	...	120	240	60	60	...	
Junglewood logs ... ..	1,230	36,599	36,599	1,242	35,063	35,062	...	1,537	
Do. sleepers ... ..	643	1,126	1,086	4,607	9,214	9,214	8,128	...	
Do. slabs... ..	2	4	1	...	...	...	...	1	
Do. poles... ..	7	34	5	7	34	5	...	...	
Sugarcane mill-rollers ... ..	3	12	2	...	...	...	...	...	
Total ... ..	...	.....	*4,02,487	...	...	4,78,905	76,418	...	
<i>Southern Division of Kánara.</i>									
Logs ... ..	5,328	90,353	90,350	9,994	173,715	1,73,710	83,360	...	
Teak poles ... ..	1,474	6,375	2,000	439	2,100	700	...	1,300	
Do. slabs... ..	6,175	5,162	150	...	...	...	...	150	
Teak Jeraiti wood... ..	439	880	298	96	112	35	...	263	
Blackwood poles ... ..	14	46	40	7	27	20	...	20	
Junglewood poles ... ..	52	311	100	99	318	100	...	...	
Do. sleepers ... ..	3,648	5,036	15,200	22,974	24,508	35,000	19,800	...	
Do. sleeper logs ... ..	2,904	10,479	8,380	14,767	28,808	25,000	16,620	...	
Do. slabs ... ..	7,500	7,796	370	26,646	18,057	950	50	...	
Do. Jeraiti wood ... ..	6	6	2	...	...	...	...	2	
Total ... ..	...	.....	*1,16,890	...	...	2,35,515	1,18,625	...	
<i>Western Division of Kánara.</i>									
Teak logs ... ..	2,207	90,210	1,85,313	1	4	3	...	1,35,310	
Do. poles ... ..	...	.....	...	589	1,472	50	50	...	
Blackwood logs ... ..	11	124	124	...	...	...	...	124	
Junglewood do. ... ..	3	29	20	...	...	...	...	20	
Do. sleepers ... ..	3,914	10,619	5,830	8,576	25,663	39,128	33,298	...	
Do. slabs ... ..	1,970	1,674	100	...	...	...	...	100	
Do. sleeper logs ... ..	214	856	620	...	...	...	...	620	
Total ... ..	...	.....	1,42,007	...	...	39,181	...	1,02,826	
<i>Belgaum Division.</i>									
Teak logs ... ..	6	178	120	4	146	60	...	60	
Do. poles ... ..	104	367	100	149	1,340	200	100	...	
Do. pieces... ..	...	.....	...	2	2	1	1	...	
Blackwood log ... ..	1	8	5	...	...	...	...	5	
Do. piece ... ..	...	.....	...	1	2	1	1	...	
Do. poles ... ..	10	25	8	4	40	7	...	7	
Junglewood poles ... ..	117	367	100	89	778	50	...	50	
Do. sleepers ... ..	5,928	8,892	11,856	...	...	...	...	1,856	
Do. sleeper logs ... ..	88	450	88	...	...	...	...	88	
Do. rejected sleepers ... ..	...	.....	...	1,202	1,803	574	574	...	
Teak Jeraiti pieces ... ..	...	.....	...	278	155	49	49	...	
Do. stacks ... ..	...	.....	...	29	580	50	50	...	
Total ... ..	...	.....	12,277	...	...	986	...	11,291	
<i>Dhárwad Division.</i>									
Teak poles ... ..	...	.....	...	370	6,262	7,745	7,745	...	
Blackwood poles ... ..	...	.....	...	101	2,458	1,280	1,280	...	
Total ... ..	...	.....	...	...	...	9,025	9,025	...	
<i>Kolábat Division.</i>									
Teak pieces... ..	97	291	10	42	106	8	...	2	
Do. trees ... ..	1,300	4,530	420	...	...	1	...	420	
Junglewood pieces ... ..	25	75	3	2	6	10	10	...	
Blackwood pieces ... ..	...	.....	...	26	78	10	...	...	
Total ... ..	...	.....	433	...	...	19	...	414	
Total Timber ... ..	...	.....	6,74,094	...	...	7,63,631	89,537	...	

\*The difference between these figures and those given in the return for 1895-96, is due to the territorial changes sanctioned in Government Resolution No. 10330 of 17th December 1896.

## FORM No. 60—continued.

Description of Timber and other Produce.	ON HAND AT COMMENCEMENT OF THE YEAR.			ON HAND AT CLOSE OF THE YEAR.			DIFFERENCE IN VALUE.		REMARKS.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.	
<b>FIREWOOD.</b>									
<i>Northern Division of Kanara.</i>									
Firewood ... ..	...	7,270	440	...	7,260	440	...	...	
<i>Southern Division of Kanara.</i>									
Firewood ... ..	...	3,222	179	...	...	...	...	179	
<i>Western Division of Kanara.</i>									
Firewood ... ..	...	.....	...	...	1,600	33	33	...	
<i>Belgaum Division.</i>									
Firewood ... ..	...	40,758	1,814	...	466,395	32,490	30,676	...	
<i>Dhadrwr Division.</i>									
Firewood ... ..	...	21,060	1,382	...	35,118	2,374	992	...	
<i>Koldba Division.</i>									
Firewood ... ..	...	4,590	35	...	780	7	...	28	
Total, Firewood ...	...	.....	3,850	...	...	35,344	31,494	...	
<b>BAMBOOS.</b>									
<i>Northern Division of Kanara.</i>									
Bamboos ... ..	2	.....	1	...	...	...	...	1	
<b>SANDALWOOD.</b>									
<i>Southern Division of Kanara.</i>									
Sandalwood billets ... ..	51	0 7 17	4	...	...	...	...	4	
Sandalwood trees ... ..	72	.....	20	125	...	35	15	...	
Do. white pieces... ..	...	.....	...	250	3 10 0	200	200	...	
Miscellaneous pieces, carts ... ..	...	.....	...	10	...	40	40	...	
Total ... ..	...	.....	24*	...	...	275	251	...	
<i>Dhadrwr Division.</i>									
Sandalwood trees ... ..	51	.....	204	7	...	15	...	189	
Do. pieces, roots, branches and stumps ... ..	40	7 1 0	50	28	...	20	...	30	
Total ... ..	...	.....	254	...	...	35	...	219	
Total, Sandalwood ...	...	.....	278	...	...	310	32	...	
<b>MINOR FOREST PRODUCE.</b>									
<i>Northern Division of Kanara.</i>									
Hardas, baskets ... ..	3½	...	*2	35½	...	24	22	...	
<i>Southern Division of Kanara.</i>									
Hardas ... ..	...	12 6 3	132	...	7 21 14	80	...	52	
Shikekai ... ..	...	0 18 0	20	...	11 2 3	120	100	...	
Total ... ..	...	.....	*152	...	...	200	48	...	
<i>Western Division of Kanara.</i>									
Hardas ... ..	...	0 9 14	5	...	0 10 0	5	...	...	
Shikekai ... ..	...	43 6 0	1,124	...	3 1 27	78	...	1,046	
Divi-Divi pods ... ..	...	3 13 10	60	...	2 20 21	70	10	...	
Total ... ..	...	.....	*1,189	...	...	153	...	1,036	

\* The difference between these figures and those given in the return for 1895-96, is due to the territorial changes sanctioned in Government Resolution No. 10330 of 17th December 1896.

## FORM No. 60—continued.

Description of Timber and other Produce.	ON HAND AT COMMENCEMENT OF THE YEAR.			ON HAND AT CLOSE OF THE YEAR.			DIFFERENCE IN VALUE.		REMARKS.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.	
<b>MINOR FOREST PRODUCE—</b> <i>continued.</i>			Rs.			Rs.	Rs.	Rs.	
<i>Belgaum Division.</i>									
Hardas ... ..	...	.....	...	...	0 2 0	1	1	...	
<i>Bijapur Division.</i>									
Cassia bark... ..	...	.....	...	...	128 17 20	1,007	1,007	...	
Total, Minor Forest Produce ...	...	.....	1,343	...	...	1,385	42	...	
<b>DRIFT AND WAIF WOOD, AND CONFISCATED FOREST PRODUCE.</b>									
<i>† Western Division of Kánara.</i>									
Timber ... ..	...	48-54	10	...	224	35	25	...	† Old Southern Division of Kánara,
Fuel, head-loads ... ..	40	.....	1	49	...	2	1	...	
„ cart ... ..	1	.....	...	...	...	...	...	...	
Total ...	...	.....	11	...	...	37	26	...	
<i>Dharwad Division.</i>									
Sandalwood pieces ... ..	...	.....	...	2	...	5	5	...	
Timber ... ..	...	.....	...	4	...				
Firewood ... ..	...	.....	...	12	...				
Total ...	...	.....	...	...	...	5	5	...	
Total Drift and Waif Wood, and Confiscated, Forest Produce ... ..	...	.....	11	...	...	42	31	...	
Grand Total ...	...	.....	6,79,577	...	...	8,00,712	1,21,135	...	

Net difference in favour of the year Rs. 1,21,135.

W. G. BETHAM,  
Acting Conservator of Forests, Southern Circle.

Camp Sutkatti, Belgaum District, }  
18th December 1897.

## FORM No. 60A.

## FOREST DEPARTMENT, BOMBAY—SOUTHERN CIRCLE.

Abstract showing the Value of Live and Dead Stock for the year 1896-97.

Description.	ON HAND AT COMMENCEMENT OF THE YEAR.		ON HAND AT CLOSE OF THE YEAR.		DIFFERENCE IN VALUE.		REMARKS.	
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.		
<i>Direction.</i>		Rs.		Rs.	Rs.	Rs.		
Office tents ... ..	2	902	2	900	450	452	The old tent was sold.	
Tent (small) ... ..	1	215	1	215	...	...		
Tools, Plant and Office furniture... ..	...	639	...	648	9	...		
Total ... ..	...	1,756	...	1,763	459	452		
<i>Northern Division, Kánara.</i>								
Forest Bungalow at Haliyál ... ..	1	2,700	1	2,700	...	...	*The difference between these and the figures given in the return for 1895-96, is due to the territorial changes sanctioned in Government Resolution No. 10330 of 17th December 1896.	
Range Forest Office at Haliyál ... ..	1	900	1	900	...	...		
Divisional Forest Office at Haliyál ... ..	1	350	1	350	...	...		
Forest Nákás ... ..	12	3,824	12	3,824	...	...		
Office tent ... ..	1	433	1	433	...	...		
Tools, Plant and Office furniture... ..	...	3,219	...	3,760	541	...		
Total ... ..	...	*11,426	...	11,967	541	...		
<i>Southern Division, Kánara.</i>								
Forest Bungalows at Yellápur ... ..	2	3,050	2	3,050	...	...		} The carts and bullocks were sold.
Workshop at Yellápur ... ..	1	114	...	...	...	114		
Rest-house at Kolikeri ... ..	1	908	1	908	...	...		
Do. at Bilki ... ..	1	300	1	300	...	...		
Old Range Office at Yellápur ... ..	1	250	1	250	...	...		
Divisional Forest Office at Sirsi ... ..	1	1,717	1	1,717	...	...		
Depôt-house at Sirsi ... ..	1	1,219	1	1,219	...	...		
Range Forest Office at Shiddápur ... ..	...	...	1	1,019	1,019	...		
Saw-mill shed at Itenbail ... ..	...	...	1	1,067	1,067	...		
Temporary depôt-houses ... ..	...	...	12	400	400	...		
Do. huts for Saw-mill workmen. ... ..	...	...	24	503	503	...		
Forest Náká houses ... ..	31	9,253	31	9,253	...	...		
Carts ... ..	3	105	...	...	...	105		
Bullocks ... ..	2	53	...	...	...	53		
Office tent ... ..	1	350	2	783	433	...		
Tools, Plant and Office furniture... ..	...	7,343	...	16,329	8,986	...		
Total ... ..	...	*24,662	...	36,798	12,408	272		
<i>Western Division, Kánara.</i>								
Forest Bungalow at Kadrá ... ..	1	8,100	1	8,100	...	...	The house was dismantled and the materials sold.	
Kodibág depôt-house ... ..	1	4,960	1	4,960	...	...		
Range Forest Office at Ankola ... ..	1	300	1	300	...	...		
Rest-house at Rámanguli ... ..	1	150	...	...	...	150		
Range Forest Office at Honáwar ... ..	1	871	1	871	...	...		
Forest Náká-houses ... ..	12	3,650	12	3,650	...	...		
Office tent ... ..	1	350	2	783	433	...		
Tools, Plant and Office furniture... ..	...	3,032	...	3,084	52	...		
Total ... ..	...	*21,413	...	21,748	485	150		

## FORM No. 60A—continued.

Description.	ON HAND AT COMMENCEMENT OF THE YEAR.		ON HAND AT CLOSE OF THE YEAR.		DIFFERENCE IN VALUE.		REMARKS.
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
		Rs.		Rs.	Rs.	Rs.	
<i>Belgaum Division.</i>							
Rest-house ... ..	1	2,500	1	2,500	...	...	
Forest Nákás ... ..	12	5,789	11	5,489	...	300	One Náká-house was sold.
Office tent ... ..	1	350	1	350	...	...	
Tools, Plant and Office furniture...	...	4,205	...	4,306	101	...	Unserviceable articles valued at Rs. 6 were sold and written off during the year.
Total ... ..	...	12,844	...	12,645	101	300	
<i>Dhárwár Division.</i>							
Rest-house ... ..	1	800	1	800	...	...	
Watch-houses ... ..	9	2,700	9	2,700	...	...	
Depôt-house at Hubli ... ..	1	999	1	999	...	...	
Office tent ... ..	1	350	1	350	...	...	
Tools, Plant and Office furniture...	...	3,630	...	4,314	684	...	
Total ... ..	...	8,479	...	9,163	684	...	
<i>Bijápur Division.</i>							
Office tent ... ..	1	310	1	310	...	...	
Tools, Plant and Office furniture...	...	1,000	...	1,298	298	...	
Total ... ..	...	1,310	...	1,608	298	...	
<i>Kolábá Division.</i>							
Swiss cottage tent ... ..	1	380	1	380	...	...	
Rowti ... ..	1	130	1	130	...	...	
Forest boat with fittings ... ..	1	300	1	300	...	...	
Tools, Plant and Office furniture...	...	3,659	...	3,792	133	...	
Total ... ..	...	4,469	...	4,602	133	...	
<i>Ratnágiri Division.</i>							
Tools, Plant and Office furniture...	...	799	...	798	...	1	
<i>Working Plans Division.</i>							
Tents ... ..	5	1,184	5	1,034	130	280	The old tent was sold.
Tools, Plant and Office furniture...	...	3,280	...	3,335	55	...	
Total ... ..	...	4,464	...	4,369	185	280	
Grand Total ... ..	...	91,622	...	1,05,461	15,294	1,455	

W. G. BETHAM,

Deputy Conservator of Forests, Southern Circle.

Belgaum, 11th October 1897.

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FORM No. 61.

FOREST DEPARTMENT, BOMBAY—SOUTHERN CIRCLE.

Summary of Revenue and Expenditure of the different Divisions for the Forest year 1896-97 (July 1896 to June 1897.)

Budget Heads.	Direction.	Kánara, Northern Division.	Kánara, Southern Division.	Kánara, Western Division.	Bolgaum Division.	Kolába Division.	Dhárwár Division.	Ratnágiri Division.	Bijápúr Division.	Forest Survey Expenditure for the Forest year added as instructed by the Superin- tendent, Forest Survey.	Total Forest year 1896-97.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
<b>REVENUE.</b>											
<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>											
a. Timber ... ..	.....	4,01,891 12 7	1,09,176 9 10	7,792 0 6	1,15,073 9 2	233 12 6	64,428 13 7	.....	.....	.....	6,98,596 10 2
b. Firewood and charcoal ... ..	.....	15,951 4 1	951 2 6	2,371 0 0	2,18,485 4 7	33 2 9	14,954 15 0	.....	.....	.....	2,52,746 12 11
c. Bamboos ... ..	.....	.....	.....	.....	22 4 0	.....	.....	.....	.....	.....	22 4 0
d. Sandalwood ... ..	.....	.....	35 2 0	4,482 12 10	2,006 0 0	.....	7,276 9 1	.....	—46 8 0	.....	13,763 15 11
e. Grass and other minor produce ... ..	.....	10,493 10 2	23,111 3 1	2,101 2 9	37,235 14 6	.....	77 0 0	.....	3,861 4 1	.....	76,880 2 7
Total—I ... ..	.....	4,28,336 10 10	1,33,274 1 5	16,747 0 1	3,72,823 0 3	266 15 3	86,737 5 8	.....	3,814 12 1	.....	10,41,999 13 7
<i>II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—</i>											
a. Timber ... ..	.....	9,291 13 2	13,543 11 9	35,657 4 4	2,863 5 9	1,06,539 4 5	1,711 10 0	1,420 2 3	979 3 0	.....	1,71,966 6 8
b. Firewood and charcoal ... ..	.....	18,563 9 1	7,843 14 9	12,959 11 2	4,875 6 3	2,597 7 6	918 15 1	862 4 10	3,995 6 3	.....	52,216 10 11
c. Bamboos ... ..	.....	25,661 10 5	11,430 12 0	1,341 1 0	7,763 15 8	.....	6,404 8 0	.....	123 0 0	.....	62,724 15 1
d. Grazing and fodder grass ... ..	.....	6,060 12 3	9,485 3 3	5,695 5 3	20,683 5 6	5,748 3 6	26,247 3 6	112 10 0	5,333 15 5	.....	79,066 10 8
e. Other minor produce ... ..	.....	1,667 7 11	2,480 10 2	9,100 13 2	3,068 8 10	1,613 2 3	2,169 2 11	4 3 10	2,629 0 10	.....	22,632 12 11
f. Commutation fees ... ..	.....	.....	94 11 3	.....	.....	.....	.....	.....	.....	.....	94 11 3
Total—II ... ..	.....	61,245 4 10	44,377 15 2	64,654 2 11	39,064 5 0	1,16,698 1 8	37,451 7 6	2,399 4 11	12,820 9 6	.....	3,78,702 3 6
<i>III.—Drift and Waif Wood and Confiscated Forest Produce ... ..</i>											
Total—III ... ..	.....	59 2 10	240 2 6	554 11 9	169 7 9	743 12 4	324 3 1	2 12 9	30 9 10	.....	2,124 14 10
<i>IV.—Revenue from Forest not managed by Government—</i>											
a. Duty on foreign timber and other Forest produce ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests, ... ..	.....	.....	.....	.....	.....	35 2 11	.....	30 6 2	.....	.....	65 9 1
Total—IV ... ..	.....	.....	.....	.....	.....	35 2 11	.....	30 6 2	.....	.....	65 9 1
<i>V.—Miscellaneous—</i>											
a. Fines and forfeitures ... ..	.....	10 0 0	208 0 0	4 0 0	.....	740 13 6	.....	.....	.....	.....	962 13 6
b. Refunds ... ..	22 2 10	17 6 8	123 8 3	14 12 6	4 7 0	103 5 10	0 0 1	.....	31 8 0	.....	317 8 2
c. Other sources ... ..	386 3 11	312 14 7	412 5 3	1,063 5 1	11,846 12 9	2,117 14 11	308 15 7	53 11 2	122 15 9	.....	16,625 3 0
Total—V ... ..	408 6 9	340 5 3	743 13 6	1,082 1 7	11,851 3 9	2,962 2 3	308 15 8	53 11 2	154 7 9	.....	17,905 3 8
<b>Grand Total Revenue ... ..</b>	<b>408 6 9</b>	<b>4,89,981 7 9</b>	<b>1,78,637 0 7</b>	<b>83,038 0 4</b>	<b>4,23,808 0 9</b>	<b>1,20,706 2 5</b>	<b>1,24,821 15 11</b>	<b>2,486 3 0</b>	<b>16,820 7 2</b>	<b>.....</b>	<b>14,40,737 12 8</b>

EXPENDITURE.

A.—CONSERVANCY AND WORKS.

<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>											
a. Timber ... ..	1,21,052 13 0	92,623 14 2	3,867 9 6	50,054 9 10	136 7 9	5,196 8 6	.....	.....	.....	.....	2,729,31 14 8
b. Firewood and charcoal ... ..	8,342 0 1	421 13 8	310 4 0	69,825 1 4	0 10 0	4,469 7 0	.....	.....	.....	.....	83,869 4 1
c. Bamboos ... ..	.....	.....	8 13 0	9 12 0	.....	.....	.....	.....	.....	.....	18 9 0
d. Sandalwood ... ..	197 6 0	568 14 6	104 0 4	180 14 0	.....	745 9 2	.....	.....	.....	.....	1,794 12 0
e. Grass and other minor produce... ..	3,892 14 8	15,920 5 10	3,072 0 6	10,445 15 9	.....	15 1 5	.....	4,154 13 7	.....	.....	37,511 3 9
Total, A—I ... ..	1,33,965 1 9	1,09,533 0 2	7,362 11 3	1,30,516 4 11	137 1 9	10,436 10 1	.....	4,154 13 7	.....	.....	3,96,125 11 6
<i>II.—Timber and other Produce removed from the Forests by Consumers or Purchasers ... ..</i>											
Total, A—II ... ..	508 2 8	851 3 11	1,145 14 5	1,284 14 6	5,543 11 1	1,623 8 8	161 0 11	336 10 3	.....	.....	11,455 2 5
<i>III.—Drift and Waif Wood and Confiscated Forest Produce ... ..</i>											
Total, A—III ... ..	1 9 2	7 8 0	12 11 4	3 3 6	45 15 4	21 7 0	.....	3 8 0	.....	.....	95 14 4
<i>IV.—Revenue from Forests not managed by Government—</i>											
a. Duty on foreign timber and other forest produce ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, A—IV ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<i>V.—Rent of leased Forests and Payments to Share-holders in Forests Managed by Government ... ..</i>											
Total, A—V ... ..	.....	.....	.....	.....	19,520 2 10	.....	.....	.....	.....	.....	19,520 2 10
<i>VI.—Live Stock, Stores, Tools and Plant—</i>											
a. Purchase of cattle ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Feed and keep of cattle ... ..	.....	1 4 0	.....	.....	.....	.....	.....	.....	.....	.....	1 4 0
c. Purchase of stores, tools and plant ... ..	458 6 0	1,135 2 0	1,246 14 6	545 6 0	96 8 0	138 11 0	293 3 6	8 0 0	116 5 9	.....	4,038 8 9
Total, A—VI ... ..	458 6 0	1,135 2 0	1,248 2 6	545 6 0	96 8 0	138 11 0	293 3 6	8 0 0	116 5 9	.....	4,039 12 9
<i>VII.—Communications and Buildings—</i>											
a. Roads and bridges ... ..	2,998 9 10	3,637 6 9	52 3 6	1,731 1 9	38 14 0	.....	.....	.....	.....	.....	8,456 3 10
b. Buildings ... ..	8,068 15 5	2,693 2 5	1,294 5 9	137 6 2	349 15 9	210 0 11	16 11 0	.....	.....	.....	12,970 9 5
c. Other works ... ..	546 12 0	2,236 1 6	343 9 0	5 0 0	.....	6 0 0	.....	.....	.....	.....	3,137 6 6
Total, A—VII ... ..	11,612 5 3	8,766 10 8	1,690 2 3	1,873 7 11	388 13 9	216 0 11	16 11 0	.....	.....	.....	24,564 3 9

FORM No. 61—continued.

Budget Heads.	Direction.	Kánara Northern Division.	Kánara Southern Division.	Kánara Western Division.	Belgaum Division.	Kolába Division.	Dhárwár Division.	Ratnágiri Division.	Bijápúr Division.	Forest Survey Expenditure for Forest year added as instructed by the Superintendent, Forest surveys.	Total Forest year 1896-97.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
<b>EXPENDITURE—continued.</b>											
<b>A.—CONSERVANCY AND WORKS—continued.</b>											
<b>VIII.—Organization, Improvement, and Extension of Forests—</b>											
a. Demarcation ... ..	.....	256 15 6	4,303 12 11	1,317 11 11	646 14 9	63 4 6	1 2 0	38 9 0	3,209 11 10	.....	9,838 2 5
b. Cost of Settlements; compensation for land and rights ... ..	.....	655 0 0	1,970 8 2	3,417 8 7	.....	7 6 0	5,615 2 9	.....	.....	+39,730 12 7	+39,730 12 7
c. Surveys ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11,675 9 6
d. Working-plans ... ..	.....	.....	11,403 4 11	.....	.....	864 2 1	1,647 9 4	.....	.....	.....	13,915 0 4
e. Sowing and planting ... ..	.....	380 14 6	776 2 6	234 0 0	49 0 0	309 14 3	.....	55 10 0	.....	.....	1,805 9 3
f. Protection from fire ... ..	.....	10,515 11 0	4,528 13 9	2,203 1 6	2,780 3 0	758 14 3	992 4 6	17 3 9	171 15 4	.....	21,968 3 1
g. Other works ... ..	.....	8 10 0	321 3 9	216 12 0	1 8 0	157 6 2	156 6 11	46 13 3	126 8 0	.....	1,035 4 1
Total, A—VIII ... ..	.....	11,827 3 0	23,303 14 0	7,389 2 0	3,477 9 9	2,160 15 3	8,412 9 6	158 4 0	3,508 3 2	+39,730 12 7	+39,730 12 7
<b>IX.—Miscellaneous—</b>											
a. Law charges ... ..	.....	.....	.....	.....	.....	16 15 0	.....	.....	.....	.....	16 15 0
b. Other charges ... ..	29 5 8	1,706 12 5	2,287 2 6	1,392 0 6	1,865 6 5	4,175 10 4	649 0 10	219 13 5	1,347 2 10	.....	13,672 6 11
Total, A—IX ... ..	29 5 8	1,706 12 5	2,287 2 6	1,392 0 6	1,865 6 5	4,192 9 4	649 0 10	219 13 5	1,347 2 10	.....	13,689 5 11
Total A.—CONSERVANCY AND WORKS ... ..	487 11 8	1,60,776 4 3	1,45,997 9 9	19,537 15 9	1,89,117 7 0	32,128 0 4	21,652 8 6	563 13 4	9,466 11 7	+39,730 12 7	+39,730 12 7
<b>B.—ESTABLISHMENTS.</b>											
<b>I.—Salaries—</b>											
a. Conservators ... ..	13,001 9 9	.....	.....	.....	.....	.....	.....	.....	.....	.....	13,001 9 9
b. Superior Officers ... ..	5,369 15 10	12,601 9 11	25,689 1 1	7,946 10 0	9,560 0 0	8,100 0 0	12,214 4 8	.....	7,130 12 1	.....	48,612 5 7
c. Subordinate Forest and Depôt Establishments ... ..	.....	18,831 14 7	15,464 4 7	11,868 8 11	22,098 10 11	27,019 8 3	15,151 11 10	2,776 12 10	6,736 14 9	.....	1,19,948 6 8
d. Office Establishments ... ..	6,587 5 4	3,775 5 8	4,074 2 3	2,331 12 5	2,313 2 7	2,955 3 9	2,099 7 8	302 1 0	914 9 3	.....	25,353 1 11
e. Deputation and Special Allowances ... ..	900 0 0	.....	278 4 9	.....	.....	.....	80 0 0	.....	.....	.....	658 4 9
f. Exchange Compensation Allowances—											
1. Conservators ... ..	1,646 0 8	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,646 0 8
2. Deputy Conservators ... ..	263 15 9	783 0 6	1,039 5 9	952 5 5	1,043 12 7	660 1 11	1,321 1 6	.....	781 0 11	.....	6,844 12 4
3. Assistant Conservators ... ..	.....	525 5 2	1,814 12 4	.....	.....	.....	.....	.....	.....	.....	1,840 1 6
4. Extra Assistant Conservators ... ..	.....	.....	.....	.....	.....	385 8 9	.....	.....	.....	.....	385 8 9
5. Range Forest Officer ... ..	.....	1 5 3	.....	.....	.....	.....	.....	.....	.....	.....	1 5 3
Total, B—I ... ..	27,168 15 4	36,518 9 1	47,859 14 9	23,099 4 9	35,015 10 1	39,120 6 8	30,866 9 8	3,078 13 10	15,563 5 0	.....	2,58,291 9 2



II.—Traveling Allowances—

(a. Conservators ... ..	1,706 7 3	.....	.....	.....	.....	.....	150 5 2	.....	.....	.....	.....	.....	1,916 12 5
b. Superior Officers ... ..	964 2 5	4,022 4 0	6,045 13 2	1,846 10 0	2,170 6 0	1,536 5 3	1,914 6 10	.....	.....	1,534 12 9	.....	.....	20,034 12 5
c. Subordinate Forest and Depot Establishments ... ..	.....	1,703 9 11	1,053 0 5	932 15 8	1,611 5 8	1,329 4 1	1,279 0 4	363 13 0	251 3 0	.....	.....	.....	8,524 4 1
d. Office Establishments ... ..	1,433 7 7	913 2 5	1,281 5 6	810 11 3	661 10 7	967 3 0	647 6 11	240 0 0	334 6 1	.....	.....	.....	7,298 5 4
<b>Total, B—II ...</b>	<b>4,164 1 3</b>	<b>6,639 0 4</b>	<b>8,380 3 1</b>	<b>3,599 4 11</b>	<b>4,443 6 3</b>	<b>3,983 1 6</b>	<b>3,840 14 1</b>	<b>603 13 0</b>	<b>2,120 5 10</b>	<b>.....</b>	<b>.....</b>	<b>.....</b>	<b>37,774 2 3</b>

III.—Contingencies—

a. Stationery ... ..	7 4 8	240 6 6	267 8 11	283 14 3	295 6 4	360 9 6	159 1 6	63 12 0	91 8 6	.....	.....	.....	1,774 8 2
b. Carriage of tents and records ... ..	543 14 6	465 5 0	134 10 0	674 11 6	138 4 6	347 14 6	137 5 0	26 12 8	111 14 6	.....	.....	.....	2,580 12 2
c. Rents, rates and taxes ... ..	250 0 0	56 0 0	210 0 0	27 15 1	271 4 0	58 4 3	73 8 0	72 0 0	78 0 0	.....	.....	.....	1,096 15 4
d. Pay of Police guards ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Official Postage ... ..	298 4 0	467 12 6	556 12 0	517 14 0	502 1 0	753 15 0	379 9 0	167 5 0	191 1 0	.....	.....	.....	3,834 9 6
f. Sundries ... ..	334 8 6	184 1 6	232 15 9	234 6 5	317 8 1	185 10 3	150 6 3	19 6 11	86 11 3	.....	.....	.....	1,745 10 11
Payments to Officers of other Provinces ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<b>Total, B—III ...</b>	<b>1,433 15 8</b>	<b>1,413 9 6</b>	<b>1,401 14 8</b>	<b>1,738 13 3</b>	<b>1,524 7 11</b>	<b>1,706 5 6</b>	<b>899 13 9</b>	<b>354 4 7</b>	<b>559 3 3</b>	<b>.....</b>	<b>.....</b>	<b>.....</b>	<b>11,032 8 1</b>

<b>Total, B.—ESTABLISHMENTS ...</b>	<b>92,767 0 3</b>	<b>44,571 2 11</b>	<b>57,642 0 6</b>	<b>28,437 6 11</b>	<b>40,983 8 3</b>	<b>44,809 13 8</b>	<b>35,607 5 6</b>	<b>4,036 15 5</b>	<b>18,242 14 1</b>	<b>.....</b>	<b>.....</b>	<b>.....</b>	<b>3,07,098 3 6</b>
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<b>GRAND TOTAL OF EXPENDITURE ...</b>	<b>33,254 11 11</b>	<b>2,05,347 7 2</b>	<b>2,03,639 10 3</b>	<b>47,975 6 8</b>	<b>1,80,100 15 3</b>	<b>76,937 14 0</b>	<b>57,259 14 0</b>	<b>4,600 12 9</b>	<b>27,709 9 8</b>	<b>.....</b>	<b>.....</b>	<b>.....</b>	<b>8,36,826 5 8</b>
										<b>+39,730 12 7</b>	<b>.....</b>	<b>.....</b>	<b>+39,730 12 7</b>

No.  $\frac{F.}{15984}$

Forwarded to the Deputy Conservator of Forests, Southern Circle, under Section 267 of the Forest Code.

Accountant General's Office,  
Bombay, 2nd September 1897.

E. LAWRENCE,  
Accountant General.

FORM No. 62.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Annual Account Current for the Forest year 1896-97.

	Rs.	a.	p.	Rs.	a.	p.		Rs.	a.	p.	Rs.	a.	p.
To Opening Balance	.....			238	5	5	By 1. Refunds and Drawbacks—Refunds—						
" VIII. Assessed Taxes—Income Tax—							Divided Heads, Forest	.....			2,412	14	6
Deductions by Government from Salaries and Pensions	3,211	14	7				" 11. Forest (as per Annual Summary Form No. 61)	.....			8,36,826	5	8
Tax on other sources of Income, Recoveries by Revenue authorities	391	6	7	3,603	5	2	" 14. Interest on other Obligations—						
" IX. Forest (as per Annual Summary Form No. 61)	.....			14,40,797	12	8	Savings Banks Deposit—				25	13	4
" XII. Interest—							Interest on Forest Officers' Provident Fund	.....					
Interest on arrears of Revenue	.....			60	6	4	" 32. Miscellaneous—Miscellaneous Refunds—				325	0	11
" XXV. Miscellaneous—							Lapsed Deposits	.....			77,196	5	6
Sale-proceeds of Stores and Materials (Provincial)	8	15	9	666	15	9	Revenue Deposits (Forests)	.....					
Unclaimed Deposits—Other Deposits	658	0	0				" Advances Recoverable—						
" Bombay Uncovenanted Service F. P. Fund—							Forest Advances	5,09,551	7	2			
Widows' Branch	490	2	6				Tentage Advances	.....					
Life Assurance Branch	45	5	8	535	8	2	Objection Book Advances	12,704	4	7	5,22,255	11	9
" Revenue Deposits (Forest)	.....			60,475	15	11	" Cash Recoveries	.....			8,718	13	11
" Advances Recoverable—							" Cheques and Bills (Forest Cheques cancelled)	.....			11,075	7	0
Forest Advances	5,08,247	6	2				" Forest Remittances—						
Tentage Advances	.....						Remittances to Treasuries	10,52,369	11	10			
Objection Book Advances	7,652	8	4				Inter-departmental Transfers	15,303	11	9	10,67,673	7	7
" Cash Recoveries	.....			5,15,899	14	6	" Accounts Current—						
" Cheques and Bills (Departmental Cheques), Forest	.....			8,218	13	11	Account between Bombay and Military, Bombay—						
" Forest Remittances—				9,17,433	10	1	IV. Items adjustable by Military	.....			24,924	13	11
Remittances to Treasuries	1,539	9	1				Account between Bombay and Public Works Department						
Inter-departmental Transfers	16,729	14	6				Bombay—						
" Accounts Current—				18,269	7	7	(Ordinary Branches)—						
Account between India and Bombay—							IV. Items adjustable by Public Works Department—						
III. Items adjustable by India—							Inter-departmental Transfers	.....			2,066	9	4
Account between Bombay and Public Works Department, Bombay—							Miscellaneous	.....			.....		
IV. Items adjustable by Public Works Department—							Account between Bombay and Public Works Department—						
Payments into Treasuries by Civil Officers on account of Public Works Department	.....			765	8	7	(Railway Branch) Southern Maratha Railway—						
Miscellaneous	.....						IV. Items adjustable by Public Works Department	.....			4,16,243	0	11
To Forest Officers' Provident Fund	.....			2,594	0	8	Closing Balance	.....			315	4	5
Total	.....			29,69,559	12	9	Total	.....			29,69,559	12	9

66

No.  $\frac{P.}{15459}$

Forwarded to the Deputy Conservator of Forests, Southern Circle, under Sections 265, 267 and 268 of the Forest Department Code.

Accountant General's Office: }  
Bombay, 2nd September 1897. }

E. LAWRENCE,  
Accountant General.

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FORM No 63.

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ANNUAL FORM No. 63.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Revenue received and Outstandings on account of Revenue during 1896-97.

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	REMARKS.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Northern Division, Kánara.	I.—Timber and other Produce removed from the Forests by Government Agency—						
	a. Timber ...	114,976 11 9	3,62,489 9 11	4,77,466 5 8	1,01,891 12 7	75,574 9 1	*The difference between these and the figures shown in the return for 1895-96 is due to the territorial changes sanctioned in Government Resolution No. 10330 of 17th December 1896.
	b. Firewood and charcoal ...	15,685 11 0	268 5 1	15,954 0 1	15,951 4 1	2 12 0	
	c. Bamboos ...	.....	.....	.....	.....	.....	
	d. Sandalwood ...	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	10,493 10 2	10,493 10 2	10,493 10 2	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber ...	284 6 7	9,606 9 11	9,891 0 6	9,291 13 2	599 3 4	
	b. Firewood and charcoal ...	.....	18,563 9 1	18,563 9 1	18,563 9 1	.....	
	c. Bamboos ...	.....	25,666 10 5	25,666 10 5	25,661 10 5	5 0 0	
	d. Grazing and fodder grass ...	.....	6,060 12 3	6,060 12 3	6,060 12 3	.....	
	e. Other minor produce ...	.....	1,667 7 11	1,667 7 11	1,667 7 11	.....	
	II.—Drift and Waif wood and Confiscated Forest Produce						
	V. a. Fines and forfeitures ...	.....	59 2 10	59 2 10	59 2 10	.....	
" c. Other sources ...	.....	10 0 0	10 0 0	10 0 0	.....		
		312 14 7	312 14 7	312 14 7	.....		
	Total, Northern Division, Kánara ...	*1,80,946 13 4	4,85,198 12 2	5,66,145 9 6	4,89,964 1 1	76,181 8 5	
Southern Division, Kánara.	I.—Timber and other Produce removed from the Forests by Government Agency—						
	a. Timber ...	34,867 8 2	84,062 3 8	1,18,929 11 10	1,02,176 9 10	9,753 2 0	
	b. Firewood and charcoal ...	700 4 0	1,207 7 0	1,907 11 0	951 2 6	956 8 6	
	c. Bamboos ...	.....	.....	.....	.....	.....	
	d. Sandalwood ...	.....	38 6 0	38 6 0	35 2 0	3 4 0	
	e. Grass and other minor produce ...	.....	23,111 3 1	23,111 3 1	23,111 3 1	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber ...	1,938 8 5	12,612 12 7	14,551 5 0	13,543 11 9	1,007 9 3	
	b. Firewood and charcoal ...	651 12 0	7,393 2 9	8,044 14 9	7,343 14 9	701 0 0	
	c. Bamboos ...	0 8 0	11,431 4 0	11,431 12 0	11,430 12 0	1 0 0	
	d. Grazing and fodder grass ...	.....	9,485 3 3	9,485 3 3	9,485 3 3	.....	
e. Other minor produce ...	.....	2,480 10 2	2,480 10 2	2,480 10 2	.....		

Western Division, Kánara.

Belgaum Division.

III.— <i>Drift and Waif wood and Confiscated Forest Produce</i> ... ..		240 2 6	240 2 6	240 2 6	240 2 6	.....
V. a. Fines and forfeitures ... ..		208 0 0	208 0 0	208 0 0	208 0 0	.....
,, c. Other sources ... ..		412 5 3	412 5 3	412 5 3	412 5 3	.....
Total, Southern Division, Kánara ...		*38,158 8 7	1,52,682 12 3	1,90,841 4 10	1,78,418 13 1	12,422 7 9
I.— <i>Timber and other Produce removed from the Forests by Government Agency—</i>						
a. Timber ... ..		17 0 0	8,426 14 1	8,443 14 1	7,792 0 6	651 13 7
b. Firewood and charcoal ... ..		2,481 8 4	2,973 6 5	5,454 14 9	2,371 0 0	3,083 14 9
c. Bamboos ... ..		.....	.....	.....	.....	.....
d. Sandalwood ... ..		.....	4,482 12 10	4,482 12 10	4,482 12 10	.....
e. Grass and other minor produce ... ..		.....	2,101 2 9	2,101 2 9	2,101 2 9	.....
II.— <i>Timber and other Produce removed from the Forests by Consumers or Purchasers—</i>						
a. Timber ... ..		901 7 10	38,569 9 10	39,471 1 8	35,657 4 4	3,813 13 4
b. Firewood and charcoal ... ..		10,964 1 8	47,653 13 3	58,617 14 11	12,959 11 2	45,658 3 9
c. Bamboos ... ..		.....	1,495 10 0	1,495 10 0	1,341 1 0	154 9 0
d. Grazing and fodder grass ... ..		.....	5,595 5 3	5,595 5 3	5,595 5 3	.....
e. Other minor produce ... ..		532 15 0	9,131 13 2	9,664 12 2	9,100 13 2	563 15 0
III.— <i>Drift and Waif wood and Confiscated Forest Produce</i> ... ..		.....	629 12 9	629 12 9	554 11 9	75 1 0
V. a. Fines and forfeitures ... ..		.....	4 0 0	4 0 0	4 0 0	.....
,, c. Other sources ... ..		.....	1,063 5 1	1,063 5 1	1,063 5 1	.....
Total, Western Division, Kánara ...		*14,897 0 10	1,22,127 9 5	1,37,024 10 3	83,023 3 10	54,001 6 5
I.— <i>Timber and other Produce removed from the Forests by Government Agency—</i>						
a. Timber ... ..		2,662 0 0	1,13,991 6 2	1,16,653 6 2	1,15,073 9 2	1,579 13 0
b. Firewood and charcoal ... ..		66,330 0 0	1,52,181 2 7	2,18,511 2 7	2,18,485 4 7	25 14 0
c. Bamboos ... ..		.....	22 4 0	22 4 0	22 4 0	.....
d. Sandalwood... ..		187 0 0	1,819 0 0	2,006 0 0	2,006 0 0	.....
e. Grass and other minor produce ... ..		.....	37,235 14 6	37,235 14 6	37,235 14 6	.....
II.— <i>Timber and other Produce removed from the Forests by Consumers or Purchasers—</i>						
a. Timber ... ..		.....	2,863 5 9	2,863 5 9	2,863 5 9	.....
b. Firewood and charcoal ... ..		.....	4,675 6 3	4,675 6 3	4,675 6 3	.....
c. Bamboos ... ..		.....	7,763 15 8	7,763 15 8	7,763 15 8	.....
d. Grazing and fodder grass ... ..		.....	20,683 5 6	20,683 5 6	20,683 5 6	.....
e. Other minor produce ... ..		.....	3,068 3 10	3,068 3 10	3,068 3 10	.....
III.— <i>Drift and Waif wood and Confiscated Forest Produce</i> ... ..						
V. a. Fines and forfeitures ... ..		.....	169 7 9	169 7 9	169 7 9	.....
,, c. Other sources ... ..		2,980 5 9	11,955 14 0	14,936 3 9	11,846 12 9	3,089 7 0
Total, Belgaum Division ...		72,159 5 9	3,56,429 6 0	4,28,588 11 9	4,23,893 9 9	4,695 2 0

ANNUAL FORM No. 63—continued.

Division.	Particulars.	Outstandings	Value of Sales and	Total.	Amount realized	Balance due to	REMARKS.
		at commencement	other Revenue				
		of year.	during year.		during year.	at end of year.	
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Dhárwár Divi- sion.	I.—Timber and other Produce removed from the Forests by Government Agency—						
	a. Timber ... ..	19,882 14 0	56,274 1 0	76,156 15 0	64,428 13 7	11,728 1 5	
	b. Firewood and charcoal ... ..	.....	14,958 11 0	14,958 11 0	14,954 15 0	3 12 0	
	c. Bamboos ... ..	.....	.....	.....	.....	.....	
	d. Sandalwood... ..	.....	7,441 9 1	7,441 9 1	7,276 9 1	165 0 0	
	e. Grass and other minor produce ... ..	.....	77 0 0	77 0 0	77 0 0	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber ... ..	.....	1,711 10 0	1,711 10 0	1,711 10 0	.....	
	b. Firewood and charcoal ... ..	.....	918 15 1	918 15 1	918 15 1	.....	
	c. Bamboos ... ..	.....	6,404 8 0	6,404 8 0	6,404 8 0	.....	
	d. Grazing and fodder grass ... ..	.....	26,247 3 6	26,247 3 6	26,247 3 6	.....	
	e. Other minor produce ... ..	.....	2,169 2 11	2,169 2 11	2,169 2 11	.....	
	III.—Drift and Waif wood and Confiscated Forest Produce						
	V. a. Fines and forfeitures ... ..	.....	324 3 1	324 3 1	324 3 1	.....	
	„ c. Other sources ... ..	.....	308 15 7	308 15 7	308 15 7	.....	
Total, Dhárwár Division ... ..		19,882 14 0	1,16,835 15 3	1,36,718 13 3	1,24,821 15 10	11,896 13 5	
Bijápur Divi- sion.	I.—Timber and other Produce removed from the Forests by Government Agency—						
	a. Timber ... ..	.....	.....	.....	.....	.....	
	b. Firewood and charcoal ... ..	.....	.....	.....	.....	.....	
	c. Bamboos ... ..	.....	.....	.....	.....	.....	
	d. Sandalwood... ..	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ... ..	.....	3,814 12 1	3,814 12 1	3,814 12 1	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber ... ..	.....	939 3 0	939 3 0	939 3 0	.....	
	b. Firewood and charcoal ... ..	.....	3,995 6 3	3,995 6 3	3,995 6 3	.....	
	c. Bamboos ... ..	.....	123 0 0	123 0 0	123 0 0	.....	
	d. Grazing and fodder grass ... ..	.....	5,134 15 5	5,134 15 5	5,133 15 5	1 0 0	
	e. Other minor produce ... ..	.....	2,629 0 10	2,629 0 10	2,629 0 10	.....	
III.—Drift and Waif wood and Confiscated Forest Produce							
.....	.....	30 9 10	30 9 10	30 9 10	.....		

	V. a. Fines and forfeitures ... ..	.....	.....	.....	.....	.....
	„ c. Other sources... ..	.....	-122 15 9	122 15 9	122 15 9	.....
	Total, Bijápur Division ... ..	.....	16,789 15 2	16,789 15 2	16,788 15 2	1 0 0
	I.—Timber and other Produce removed from the Forests by Government Agency—					
	a. Timber ... ..	.....	233 12 6	233 12 6	233 12 6	.....
	b. Firewood and charcoal ... ..	.....	33 2 9	33 2 9	33 2 9	.....
	c. Bamboos ... ..	.....	.....	.....	.....	.....
	d. Sandalwood ... ..	.....	.....	.....	.....	.....
	e. Grass and other minor produce ... ..	.....	.....	.....	.....	.....
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
Kolába Division.	a. Timber ... ..	6,673 0 0	1,08,601 10 2	1,15,274 10 2	1,06,539 4 5	8,735 5 9
	b. Firewood and charcoal ... ..	.....	3,019 7 6	3,019 7 6	2,897 7 6	122 0 0
	c. Bamboos ... ..	.....	.....	.....	.....	.....
	d. Grazing and fodder grass ... ..	.....	5,748 3 6	5,748 3 6	5,748 3 6	.....
	e. Other minor produce ... ..	.....	1,513 2 3	1,513 2 3	1,513 2 3	.....
	III.—Drift and Waif wood and Confiscated Forest Produce					
	V. a. Fines and forfeitures ... ..	200 0 0	540 13 6	740 13 6	740 13 6	.....
	„ c. Other sources ... ..	.....	2117 14 11	2,117 14 11	2,117 14 11	.....
	Total, Kolába Division ... ..	6,873 0 0	1,22,551 15 5	1,29,424 15 5	1,20,567 9 8	8,857 5 9
	I.—Timber and other Produce removed from the Forests by Government Agency—					
	a. Timber ... ..	.....	.....	.....	.....	.....
	b. Firewood and charcoal ... ..	.....	.....	.....	.....	.....
	c. Bamboos ... ..	.....	.....	.....	.....	.....
	d. Sandalwood ... ..	.....	.....	.....	.....	.....
	e. Grass and other minor produce ... ..	.....	.....	.....	.....	.....
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
Ratnágiri Division.	a. Timber ... ..	.....	1,420 2 3	1,420 2 3	1,420 2 3	.....
	b. Firewood ... ..	.....	862 4 10	862 4 10	862 4 10	.....
	c. Bamboos ... ..	.....	.....	.....	.....	.....
	d. Grazing and fodder grass ... ..	.....	112 10 0	112 10 0	112 10 0	.....
	e. Other minor produce ... ..	.....	4 3 10	4 3 10	4 3 10	.....
	III.—Drift and Waif wood and Confiscated Forest Produce					
	V. a. Fines and forfeitures ... ..	.....	2 12 9	2 12 9	2 12 9	.....
	„ c. Other sources ... ..	.....	53 11 2	53 11 2 <sup>1</sup>	53 11 2	.....
	Total, Ratnágiri Division ... ..	.....	2,455 12 10	2,455 12 10	2,455 12 10	.....

ANNUAL FORM No. 63—continued.

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	REMARKS.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Total of the Circle.	<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>						
	a. Timber ... ..	1,72,406 1 11	6,25,477 15 4	7,97,884 1 3	6,98,596 10 2	99,287 7 1	
	b. Firewood and charcoal ... ..	85,197 7 4	1,71,622 2 10	2,56,819 10 2	2,52,746 12 11	4,072 13 3	
	c. Bamboos ... ..	.....	22 4 0	22 4 0	22 4 0	.....	
	d. Sandalwood ... ..	187 0 0	13,735 3 11	13,922 3 11	13,753 15 11	168 4 0	
	e. Grass and other minor produce ... ..	.....	76,880 2 7	76,880 2 7	76,880 2 7	.....	
	<i>II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—</i>						
	a. Timber ... ..	9,797 6 10	1,76,324 15 6	1,86,122 6 4	1,71,966 6 8	14,155 15 8	
	b. Firewood and charcoal ... ..	11,615 13 8	87,082 1 0	98,697 14 8	52,216 10 11	46,481 3 9	
	c. Bamboos ... ..	0 8 0	52,885 0 1	52,885 8 1	52,724 15 1	160 9 0	
	d. Grazing and fodder grass ... ..	.....	79,067 10 8	79,067 10 8	79,066 10 8	1 0 0	
	e. Other minor produce ... ..	532 15 0	22,663 12 11	23,196 11 11	22,632 12 11	563 15 0	
	<i>III.—Drift and Waif wood and Confiscated Forest Produce ... ..</i>						
	V. a. Fines and forfeitures ... ..	200 0 0	762 13 6	962 13 6	962 13 6	.....	
	„ c. Other sources ... ..	2,980 5 9	16,348 0 4	19,328 6 1	16,238 15 1	3,089 7 0	
	Grand Total ...	2,82,917 10 6	13,25,072 2 6	16,07,989 13 0	14,39,934 1 3	1,68,055 11 9	

Note.—The revenue under the Budget heads "IIh, IV and Vb" is Rs. 94-11-3, 65-9-1 and 317-3-2, respectively. The total amount realized during the year is Rs. 14,40,797-12-8.

Belgaum, 11th October 1897.

W. G. BETHAM,  
Deputy Conservator of Forests, Southern Circle.



ANNUAL FORM No. 64.

FOREST DEPARTMENT, BOMBAY—SOUTHERN CIRCLE.

Outstandings and Liabilities on account of Contractors and Disbursers for the Forest year July 1896 to June 1897.

B 128-19 sc

Division.	DEPARTMENT DEBTOR.			DEPARTMENT CREDITOR.			BALANCE DUE.		REMARKS.
	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).	
1	2	3	4	5	6	7	8	9	10
Contractors.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Kánara, Northern Division	.....	60,941 8 5	60,941 8 5	30,400 0 0	63,250 0 0	93,650 0 0	32,708 7 7	.....	
"    Western    "	.....	300 0 0	300 0 0	300 0 0	8,000 0 0	8,300 0 0	8,000 0 0	.....	
"    Southern    "	.....	27,044 0 5	27,044 0 5	9,831 1 0	23,858 0 11	33,689 1 11	6,645 1 6	.....	
Belgaum ... ..	.....	74,241 8 7	74,241 8 7	8,252 6 8	70,510 0 8	78,742 7 4	4,520 14 9	.....	
Kolaba ... ..	.....	647 10 0	647 10 0	.....	647 14 0	647 14 0	0 4 0	.....	
Bijápur ... ..	.....	120 8 0	120 8 0	50 0 0	70 8 0	120 8 0	.....	.....	
Total, Contractors ...	.....	1,63,295 3 5	1,63,295 3 5	48,833 7 8	1,66,336 7 7	2,10,169 15 3	51,874 11 10	...	
Disbursers.									
Kánara, Northern Division	.....	56,685 7 9	56,685 7 9	5,435 1 7	52,750 7 7	58,185 9 2	1,500 1 5	.....	
"    Western    "	.....	44,895 13 11	44,895 13 11	4,970 12 9	43,303 14 10	48,274 11 7	3,378 13 8	.....	
"    Southern    "	.....	94,305 2 3	94,305 2 3	2,852 10 1	97,495 7 5	1,00,348 1 6	6,042 15 3	.....	
Belgaum ... ..	.....	49,448 11 6	49,448 11 6	2,519 2 5	48,642 1 0	51,161 3 5	1,712 7 11	.....	
Kolaba ... ..	.....	38,820 0 7	38,820 0 7	1,000 12 3	38,573 4 3	39,574 0 6	753 15 11	.....	
Dhárwár ... ..	.....	41,877 13 2	41,877 13 2	1,072 13 10	42,575 8 1	43,648 5 11	1,770 8 9	.....	
Ratnágiri ... ..	.....	3,677 13 7	3,677 13 7	80 11 6	3,742 3 10	3,822 15 4	145 1 9	.....	
Bijápur ... ..	.....	15,241 4 0	15,241 4 0	92 2 5	16,132 0 7	16,244 3 0	982 15 0	.....	
Total, Disbursers...	.....	3,44,952 2 9	3,44,952 2 9	18,024 2 10	3,43,214 15 7	3,61,239 2 5	16,286 15 8	...	
Grand Total ...	.....	5,08,247 6 2	5,08,247 6 2	66,857 10 6	5,09,551 7 2	5,71,403 1 8	68,161 11 6	...	

73

No.  $\frac{P}{15460}$

Forwarded to the Deputy Conservator of Forests, Southern Circle, under Section 267 of the Forest Department Code.

Accountant General's Office, }  
Bombay, 2nd September 1897. }

E. LAWRENCE,  
Accountant General.

## FORM No. 65.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Financial Results of the year 1896-97.*

Division.	TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY.		OTHER REVENUE.		FORMATION, PROTECTION AND IMPROVEMENT OF FORESTS.	TOTAL.		REMARKS.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Direction ... ..	...	...	403	33,255	...	403	33,255	
Northern Division, Kánara ... ..	4,28,337	141,118	61,644	9,385	54,844	4,89,981	2,05,347	
Southern Division, Kánara ... ..	1,33,274	1,32,302	45,863	25,274	46,064	178,637	2,03,640	
Western Division, Kánara ... ..	16,747	15,310	66,291	17,332	15,333	83,038	47,975	
Belgaum Division ...	3,72,823	1,51,682	51,075	14,023	14,396	4,23,898	1,80,101	
Dhárwár do. ...	86,737	34,319	38,085	2,294	20,647	1,24,822	57,260	
Bijápur do. ...	3,823	8,719	12,998	5,293	13,697	16,821	27,709	
Kolába do. ...	360	183	1,20,346	49,704	27,051	1,20,706	76,533	
Ratnágiri do. ..	...	...	2,486	2,400	2,201	2,486	4,601	
Forest Survey Branch ...	...	...	...	...	39,731	...	39,731	
Total ...	10,42,101	4,83,633	3,98,696	1,58,960	2,33,964	14,40,797	8,76,557	

W. G. BETHAM,

Deputy Conservator of Forests, Southern Circle.

Belgaum, 11th October 1897.

No. 1089 OF 1898.

REVENUE DEPARTMENT.

*Belgaum, 24th March 1898.*

Forwarded to Government.

2. This report relates to the year ending 30th June 1897. The delay of 9 months is not accounted for.

3. The total forest area at the opening of the year under report was 5,245 square miles, 282 acres, while that at the close of it was 5,278 square miles, 405 acres, showing an increase of 33 square miles, 123 acres, which has been fully explained in paras. 3 to 8 of the Conservator's report.

4. Owing to Mr. Sheppard's employment as Personal Assistant to the Collector of Bijapur, in addition to his Forest Settlement duties, no field work was done during the year. His report on the Bhatkal Petha has already been submitted to Government. It is only the Forest villages in the Siddapur Taluka which remain to be reported on. The work to be done in the other districts of the Division is only of a fragmentary nature. The forest settlement work remaining to be done as per Appendix 47 is 1,118 square miles, whereas in the statement at para. 14 of the report, the area to be settled is set forth as 1,053 square miles. This discrepancy is explained in paragraph 16 to be due to inaccuracies in the areas of the Kanara forests originally notified under Section 34 of the Act.

5. According to statement No. 48, the boundary newly demarcated during the year measured 20 miles, costing Rs. 678. In addition 10,805 stone pillars were made at a cost of Rs. 3,210 in the Bijapur District for demarcating forest boundaries which afforded employment during the famine to 2,000 Waddars. The total length of boundaries at the end of the year under report was 15,434 miles against 5,706 miles in 1895-96. This abnormal increase is due, as surmised in para. 24 of the report for 1895-96, to erroneous figures previously supplied.

6. The cost of the forest survey operations amounted during the year to Rs. 39,684 against Rs. 47,968 in 1895-96. Only 348 square miles on the 4" scale and 15 miles on the 8" scale were completed during the year against 609 square miles in the previous year. The falling off of nearly 200 per cent. has not been explained. The work carried out during the forest year has been summarised in the following extract from the annual report of the Bombay Survey Party:—

"Advance triangulation to the extent of 194 square miles, at a cost of Rs. 4, and of 880 square miles, at a cost of about Rs. 8 for 8" and 4" detail surveys respectively, was carried out, the former in Roha in Kolaba, and the latter in Kumta, Siddapur and Honavar in Kanara. Besides the above, the supplementary traversing on the 4" scale to the extent of 234 square miles, at a cost of Rs. 11, was effected in Sirsi and Ankola talukas in Kanara. In addition to this detail survey to the extent of 387.50 square miles, at a cost of Rs. 73, was completed in the above two talukas as also in Karwar and Kumta talukas of the same district. Detail survey on 8" scale of 15 square miles, at an average cost of Rs. 110 per square mile, was also carried out in Alibag taluka of the Kolaba district. The cost rates of traversing and triangulation compare favourably with those of similar work in the previous year, while the rate of detail survey is in excess of that of similar work done last year.

"The recess work of the party in respect of mapping is still not kept up to date. To prevent accumulation of arrears, the Superintendent proposes in future to divide the year equally between the field and recess seasons in this branch and it is hoped that the arrangement will secure the end in view."

7. Two Working-Plans parties were employed during the year. Party No. I under Mr. H. Mitra, Extra Assistant Conservator of Forests, was engaged in organizing teak coppice in Dhárwar and Party No. II under Mr. Satarawalla worked in the Yellapur Taluka. The outturn in both the cases was satisfactory. The average cost per acre of the work done by Party No. I came to 11.7 pies

and that of the work done by Party No. II to 9 annas 7 pies. The figures given in column 7 of form 50 regarding the total area seem to be incorrect.

The Working-Plans parties were organized in the Southern Division in the year 1889. Four\* plans have up to date been prepared and approved of by Government.

8. The expenditure on roads and buildings rose during the year under report from Rs. 8,915 to Rs. 24,564. Out of this Rs. 18,210 were spent on original works; most of this expenditure was incurred in the Northern and Southern Divisions of Kánara. No amount was spent in the Bijápur Division.

9. The depôt system sanctioned by Government for the issue of soppu to the garden cultivators has not proved successful. Eight depôts were opened in the Sirsi and four in the Yellápur forests, but they had all to be closed for want of demand. It is reported that one of the depôt huts in Sirsi was burnt by incendiaries. The experiment has cost Rs. 3,326 without any return in revenue.

10. The total number of breaches of the forest law reported during the year was 1,847 against 2,151 in 1895-96. The details are given in the subjoined statement:—

Nature of offence.	Dealt with by Magistrates.	Dealt with under Section 67.	Not detected.
Injury to forest by fire ... ..	8	9	544
Unauthorised felling ... ..	304	424	444
Grazing without permission ... ..	15	7	.....
Other offences ... ..	63	23	6
Total ... ..	390	463	994

The results of the prosecutions in respect of the 390 offences taken into Court during the year and the 95 cases pending at the end of the last year are exhibited in the subjoined table:—

District.	1895-96.			1896-97.			Percentage of Failures.	
	Prosecutions.	Convictions.	Acquittals.	Prosecutions.	Convictions.	Acquittals.	1895-96.	1896-97.
Belgaum ... ..	14	7	3	28	18	5	30	21·7
Bijápúr ... ..	23	18	5	23	18	2	21·7	10
Dhárwár ... ..	20	13	3	12	7	4	18·7	36·3
Kánara ... ..	144	83	46	123	82	31	35·6	27·4
Kolába ... ..	390	272	46	291	110	57	14·4	34·1
Ratnágiri ... ..	8	7	1	8	7	1	12·5	12·5

170 fewer prosecutions were instituted during the year than in 1895-96. The number in the Belgaum district has doubled owing, it is stated, to the prevalence of scarcity. In the Bijápúr and Ratnágiri districts the figures are stationary; while those of Kánara show a slight decline. In Kolába the decrease amounted to 156 cases, which chiefly accounts for the divisional decrease of 170. As regards percentage of failures the Northern Division of Kánara, Dhárwár and Kolába are the only forest divisions where there has been an increase. The percentage of failures in the Northern Division of Kánara, which comes to 44·4

\* 1. Supa Circle, including Haliyál and Supa forests.  
 2. Gúnd Circle, being a part of Supa.  
 3. Central Kolába comprising Panvel, Pen, Nágothna and Alibág.  
 4. Southern Kolába comprising Mahád Mángaon and Roha.

against 16.6, would appear to be immaterial when the figures on which it has been calculated, and which are shown in the margin, are taken into consideration. The same remark holds good for Dhárwár. As regards Kolába, the number of cases for disposal has declined from 390 to 291; but the percentage of failurer has more than doubled, the actual figures being 34.1 per cent. in 1896-97 as compared with 14.4 per cent. in 1895-96.

11. The following table shows the details of cases compounded by the Divisional Forest Officer under Section 67 of the Forest Act:—

District.	1895-96.				1896-97.			
	Total number of cases disposed of.	Number of cases commuted.	Number of cases discharged.	Amount of compensation recovered.	Total number of cases disposed of.	Number of cases commuted.	Number of cases discharged.	Amount of compensation recovered.
Belgaum ...	110	110	...	79	167	167	...	216
Bijápur ...	4	4	...	5	33	33	...	55
Dhárwár ...	13	13	...	22	14	14	...	17
Kánara ...	151	151	...	945	117	117	...	486
Kolába... ..	76	76	...	345	116	116	...	275
Ratnágiri ...	6	6	...	10	16	16	...	13
Total ...	360	360	...	1,406	463	463	...	1,062

Of the 463 offences 377 related to misappropriation of timber and firewood and 47 to that of minor forest produce. The net increase of 103 in the total number of cases dealt with is made up of the increases in all the districts except Kánara, which shows a decrease of 34. The amount of compensation recovered, however, does not show a corresponding increase in the case of Dhárwár and Kolába. The total number of cases let off with simple warning during the year was 335 against 234 in 1895-96. The Commissioner concurs with the Conservator of Forests in his remarks as regards Bijápur where, in view of the prevailing distress, due leniency was shown by the Divisional Forest Officer. The highest amount of fine recovered in a single case during the year was Rs. 79, which occurred in the Western Division of Kánara. In only 13 cases was the fine in excess of Rs. 10, and in no less than 250 cases it was only one rupee.

12. While the proportion of area under fire protection was less, the percentage of failures was much larger than in 1895-96. This is attributed to the fact that the season being an abnormally dry one there was greater risk from fire. The result is also partly attributed to more accurate registration of burnt area. The total number of fires was 561 against 731 in the preceding year. Belgaum and Kolába have again contributed the largest number, *viz.*, 128 and 130, respectively. Taking the Division as a whole in only 22 out of 561 cases were the offenders detected. In one case conviction was obtained, in two the offenders were acquitted, two were let off with warning, nine were compounded, and eight were pending trial. From the table at para. 85 it would appear that 50 per cent. of the number of fires remained undetected. Twenty-five per cent. were due to carelessness on the part of villagers and travellers.

13. The area closed to all animals against grazing was 659 square miles against 595 in 1895-96, to browsers 1,266 against 902, and the area open to all animals was 3,321 against 3,763.

The number of cattle impounded rose from 14,511 to 16,174. This increase is more than covered by that which occurred in the Belgaum district, where the impoundings during the year numbered 8,272 against 5,166 in the preceding year. It is explained that the orders regarding the throwing of the forests open for grazing to outside cattle from the famine-affected areas were not received by the Divisional Forest Officer until late in November 1896. They were issued by Government in their Resolution No. 8939, dated the 11th November 1896. The decrease occurs in the Bijápur, Dhárwár and Kolába districts, and is due to the general relaxation of the grazing rules on account of famine and partly also, especially as regards Bijápur, to death or removal of a large number of cattle on account of the scarcity of fodder.

14. Natural reproduction is reported to have been successful during the year in the Kánara and Belgaum districts. In Bijápur and Dhárwár the season was unfavourable. In Kolába fires and trespass by cattle appear to have interfered with the operations. In Ratnágiri reproduction is stated to be far from satisfactory. The results of artificial regeneration are reported to be not very hopeful. During the year a large quantity of grass (2,213,501 lbs.) was collected by the Department, pressed into bales, and despatched to the famine-stricken districts.

15. The following table extracted from Form 57 shows the out-turn of major forest produce for the year as compared with 1895-96 :—

Produce.	Out-turn.		+	-
	1895-96.	1896-97.		
Timber—	Cubic feet.	Cubic feet.		
Rough logs ... ..	391,800	259,165	...	132,635
Do. poles ... ..	672,208	644,719	...	27,489
Sawn or square... ..	477,278	524,094	46,816	...
Miscellaneous ... ..	78,535	97,261	18,726	...
Fuel ... ..	7,665,489	7,393,584	...	2,71,905
	Khandis.	Khandis.	Khandis.	
Sandal-wood—	115 5 7	142 7 24	27 2 17	...
	Cubic feet.	Cubic feet.		
Do. ... ..	326	280	...	46
	Number.	Number.		
Do. trees, poles and stumps ...	13,323*	3,557	...	9,766
Do. stacks ... ..	.....	37†	...	...
Bamboos ... ..	46,52,496	3,441,298	...	1,211,198
	Cart-loads.	Cart-loads.		
Dry bamboos ... ..	516	68	...	448

\* Branch wood, 14 cart-loads.

† Loppings, one cart-load.

It appears from Form 57 A that the out-turn, during the year, of timber was 107,114 cubic feet, and of fuel 2,766,855 cubic feet less than in 1895-96. Also 1,200,274 bamboos less were extracted in 1895-96.

16. The receipts and expenditure of the past and the present year are given in the subjoined table :—

Year.	Receipts.	Expenditure.	Surplus Revenue.
	Rs.	Rs.	Rs.
1895-96 ...	14,98,084	8,54,353	6,43,731
1896-97 ...	14,40,798	8,76,557	5,64,241
	—57,286	+22,204	—79,490

From a financial point of view the year was not a good one, famine and plague having diminished the demand for wood. The net decrease in receipts amounted to Rs. 57,286, but when it is borne in mind that the two large items of receipts belonging to the year 1895-96, and noted in the margin, are included in the total, it will be seen that the year's working shows a much larger decrease in the surplus revenue.

Rs. 60,000 on account of wood which remained unsold at the Kodibág Depôt.

Rs. 66,330 outstanding on account of fuel supplied to the Southern Marátha Railway Company.

17. The saw mill machinery established at Ittanbail, about five miles from Yellápur, is reported to be working satisfactorily. The conduct of the subordinate establishment was not as good as in the previous year. thirty-seven guards were dismissed during the year against seventeen in 1895-96. The health of the establishment was very bad. One Ranger, one Forester, one clerk, and twenty-one guards having died either of cholera or of fever. The officers mentioned for special notice are all new with the exception of Mr. Ugrankar. The sudden and sad death of the Conservator, Mr. Macgregor, referred to in para. 217, has already been noticed with regret by Government in their Resolution No. 5619, dated 27th July 1897, reviewing the report of the Forest Administration for 1895-96.

Chapter V.—Forest Administration.

C. B. WINCHESTER,  
Acting Commissioner, S. D.

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SIND CIRCLE.

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# ANNUAL ADMINISTRATION REPORT

OF THE

## SIND FOREST CIRCLE

FOR THE YEAR 1896-97

WITH THE REVIEW THEREOF

BY THE

**COMMISSIONER IN SIND.**



**Larachi:**

PRINTED AT THE COMMISSIONER'S PRESS.

1897-98.

REVENUE DEPARTMENT.

Commissioner's Office,  
Camp Daulatpur, 5th March 1898.

Annual Administration Report of the Sind Forest  
Circle for 1896-97.

Forwarded to Government.

The Acting Commissioner much regrets the delay in submitting his review, and he can only explain that, after being in the Press for over six weeks, the Conservator's report, which is dated the 9th November, was returned to him for examination and rectification of certain discrepancies, and the revised proofs only reached his office at the end of January. The further delay has been due to press of other work.

2. The net results of the changes in area show an addition of 3 square miles 535 acres or 2,455 acres to the total extent of forest under conservation. Of this area, which is exclusively "Reserved" forest, 2,221 acres or 3 square miles 301 acres were added by afforestation during the year. The remainder is due to rectification of mistakes explained by the Conservator.

The changes that occur under "Protected" and "Unclassed" are merely a transfer from the former of land which more properly belongs to the latter, and do not affect the total area. The whole of the additional area shown above was finally settled and notified during the year (paragraph 29). It is not understood how the areas lost by erosion and gained by accretion are dealt with. In last year's report, it was mentioned that 2,570 acres had been lost and 7,788 acres gained. The net gain did not enter into last year's totals, nor into the changes during the year detailed in paragraphs 19, 20 and 22 of the report. In the year 1896-97, 3,574 more acres were lost by erosion, of which 2,199 acres were valuable forest, and 17,922 acres are said to have been gained by accretion, though "they may not be handed over to the Department." The figures, perhaps, have hitherto been too vague to take into account, but the task of correcting the river frontage of the forest maps has now been undertaken, and it should not be difficult in future to give accurate details in Form 46.

3. In two years, 3,369 acres, over 5 square miles, of forest-bearing land have been lost. In return, the Department have gained an unknown quantity of alluvial deposit, comparatively little of which becomes a permanent accretion. The interests of the Department in obtaining due recognition of such accretion have been attended to, and claims have evidently been preferred with discretion. It is satisfactory to find that Rs. 5,380 worth of timber was saved from the "cutting" banks during the year. The distance to which erosion may extend can never be estimated, but the points at which the river is likely to be active during the ensuing inundation can generally be pointed out at an early date. At the threatened strips water carriage is more easily available than at any other time. It is hoped that a further improvement in this direction will be seen next year.

4. The details given in paragraph 31 of the report are not understood. The delay which the Conservator alludes to in his paragraph 32 will be enquired into, but it will be noticed that, of the areas entered under heading "Land to be settled under S. 7," the following—

			A.	S.
Sukkur	...	...	176	37
Hyderabad *	...	...	9,397	17
Jerruck *	...	...	124	29

\* These added together equal A. 9,522-S.

appeared in paragraph 29 of the last report under the heading "Land to be notified under S. 19," about which the Commissioner remarked "The correspondence \* \* \* is presumably in the Conservator's own office."

Regarding the 4,567.39 acres to be notified under S. 4, it is supposed that the Forest and Revenue officers have not yet formulated their proposals. Any delay there may have been on the part of the Revenue officers in settling lands notified under S. 4 during the past year may justly be excused, as for the greater part of the District season their energies were directed towards stopping the progress of the plague.

Demarcation, with which little progress was made during the year, amounted to 18 miles 673 yards of boundaries. The small outturn of work was unavoidable. Mr. Napier, the Demarcation Officer, was unable to devote more than a month and a half to it, as, when plague broke out, he was deputed on special duty with the Conservator's approval. Mr. Dasai has explained that there were other difficulties besides which hampered its progress. Only Rs. 183-5-0 were spent on demarcation. The smallness of the amount is partly due to the free labour given by zamindars and others in return for privileges and concessions they enjoy. The system of utilising the services of cattle breeders and others for repairing boundaries secured even better results than last year. No less than 14,375 boundary marks were put up and repaired, and 1,406 miles of boundary line cleared and kept in order. The economy effected by this very useful arrangement is estimated at Rs. 3,602. More repairs were necessary owing to the higher inundation of 1896.

5. The Working Plans office was at first in charge of Mr. Napier and subsequently of Mr. Dalal. The report gives the first complete year's record of the new division. The outbreak of plague was not only responsible for a change in the head of the office during the travelling season, but prevented the acquisition of a qualified staff. The operations were confined chiefly to the Sukkur and Hyderabad Divisions and the survey of the river frontage, which has already been alluded to. From the details given in paragraph 43, it appears that the Working Plans staff marked out 72 coupes, measuring 7,940 acres, and 67, measuring 8,898 acres, were also marked out by the Executive staff. In the recess season 378 copies of maps were prepared. As far as the Acting Commissioner can judge, the first year's work will prove very useful. The area of major Forest produce set apart for exploitation during the year was not so large as in the previous year, being 22,851 (*vide* paragraph 94) against a total of 31,349 acres. The whole of the area was sold in coupes to contractors, with the exception of 2,500 acres of small bahan timber, such as posts, rafters, &c., exploited under the selection method in the Hyderabad and Naushahro Divisions to meet the large demand in Hyderabad city.

6. Less progress was made in the cutting up of Reserves into compartments. As the Conservator has explained, the work was held in abeyance in view of the orders of Government regarding the postponement of all avoidable expenditure. Labourers were scarce, owing to the scare established by the plague, and the cost per mile for this work was consequently higher. The footnote to the table in paragraph 46 is evidently intended to explain the discrepancy between the figures therein and those in the table in paragraph 43 of last year's report. The total of the area cut up and the area remaining to be cut up agrees with the total area in paragraph 19.

7. During the year 60 new forest cases were taken into Court, which, added to the previous year's arrears of 22, made a total of 82 cases for disposal by Magistrates as against 92. Of these 52 only were disposed of as against 70 in the previous year, the number of cases pending being consequently larger. The percentage of failures, though still high, shows an improvement over last year. The percentage of failures in divisions where a few cases only were tried of course proves nothing. It might have been explained why so many (comparatively) cases were outstanding in the Hyderabad Division.

The reduction in the number of cases is stated to be partly due to the Honourable Mr. James' rules under Section 67, which seem to Mr. Dasai

to err on the side of leniency. His communication on the subject of these rules will be awaited. The number of cases compounded under Section 67 was 2,162 against 2,024 in the previous year—an increase of 138. The Sukkur Division is again conspicuous with a large number of cases of illicit grazing, attributed to greater vigilance on the part of the Protective Staff. The activity of the Range Officers in the Naushahro and Jerruck Divisions has had the opposite and more desirable effect of keeping down offences. In three-fifths of the cases, the compensation accepted did not exceed Re. 1. The number of cattle impounded from open forests was 11,367 against 11,567 shown in last year's report. The number in the Sukkur Division has further risen from 5,465 to 7,025. The number impounded from closed forests has more than doubled in this division, the total for which has risen from 9,321 to 16,759. All divisions show increases in the numbers of cattle impounded in closed forests, but none of the other three are very marked. The reason is clear from the table in paragraph 73, which shows that half the forest area in the Sukkur Division was closed against browsers, which are the chief offenders and at the same time the most destructive. The area closed to browsers in the Naushahro division amounted to 41 per cent. The Commissioner feels sure the Conservator will do his utmost to prevent hardship, and recognises the difficulty Mr. Dasai has to deal with, but both from the figures above stated and verbal complaints made to him on his recent visit to the Sukkur Taluka he is doubtful if some hardship does not exist there, and if along the broad line of forests, which entirely close in its eastern side, consideration is given when closing forests to the reasonable needs of the villagers adjoining. The remarks in paragraph 79 are interesting, and if Mr. Dasai's rules result in the prevention of squatting except in authorised places, they may also be of assistance to the Police in dealing with the very numerous cattle thieves in Upper Sind. The number of animals licensed for grazing at full and privileged rates was 577,316 as compared with 563,875. The Sukkur Division, however, shows a falling off, due to cattle disease, insufficient fodder in two sub-ranges and the closure of a larger area to browsers. The receipts from grazing fees amounted to Rs. 53,470 against Rs. 57,080. Free grazing was conceded to a smaller number of cattle during the year, *viz.*, 26,187 compared with 27,774—a fact which should have been explained, as more than 90 per cent. of free grazing is not a concession, but a right granted under settlement. The value of the free grazing is estimated at Rs. 27,632.

8. A more favourable river, which rose early and remained high longer, coupled with the rigorous measures taken in some parts of Sind, resulted in a marked decrease in the number of forest fires, the area which suffered being 3,975 only against 10,884 acres in the year 1895-96. The Commissioner notes with great pleasure that the efforts on the part of villagers, who readily and cheerfully gave assistance in extinguishing fires, were quite as strenuous as those of the Protective Staff. It will be noticed that 28 out of the 72 are attributed to the carelessness of passers through the forest. Other 20 were intentional, the object being to obtain grass, and 2 were malicious. Two cases of wilful damage by fire ended in conviction, and fines of Rs. 25 in one case and Rs. 5 on each of 2 offenders in the second were inflicted.

9. Mr. Dasai characterises the season as a "model" one for forest growth, the inundation being neither too high nor too low. The result was a general improvement in natural reproduction, which was considerably enhanced by the precautions taken against fires and injurious grazing. Artificial reproduction is confined almost entirely to broad-cast sowings on bare patches or felled coupes in all except the Sukkur Division. In this division, in the Kot Sultau Reserve, 687 A. in addition to the previous 201 A. have been planted with babul by the aid of zamindars, and the same system has been applied in another range. Under special rules, similar arrangements have been made for starting plantations on higher ground watered by lift. If carefully supervised, the system is a good one. Obviously, the crops raised are very paying, and it will need watchfulness to prevent abuses. The scale of penalties, however, which the Conservator has drawn up for neglect to protect the plantations are, as he must know, not legally enforceable, and it would have been better had he con-

sulted the Commissioner before introducing them. Presumably failure to pay would be followed by failure to renew the lease in the ensuing year, but apparently the rules contemplate a 4-years' lease, in which case, how would a defaulter in the second year be dealt with?

A number of small tali nurseries have also been started, and cultural operations for introducing better species of forest wood in some reserves have been carefully prepared.

Mr. Dasai has furnished interesting details of the cultural operations carried out in the different ranges during the year, which exhibit sufficiently the degree of success that attended them. The total area which was given out for cereal cultivation during the year was 3,954 acres, and the amount realised by assessment was Rs. 11,554.

10. The report shows a very satisfactory increase in the revenue realised from the sale of coupes to contractors. The average rate of prices was higher, being Rs. 8-0-4 per acre against Rs. 6-0-8 last year, and the receipts from the sales amounted to Rs. 1,63,248 as compared with Rs. 1,59,000, although the area sold was about 6,000 acres less than last year. Contractors were, however, hampered considerably in the exploitation and removal of timber owing to scarcity of labour occasioned by the prevalence of plague, even though wages were considerably enhanced. Mr. Dasai has detailed in paragraph 97 the difficulties with which he had to contend in carrying on the coupe contract system, and he is to be congratulated on the success he attained. The sales to and removals by others than coupe contractors show a great falling off.

The firewood and charcoal removed by other than coupe contractors amounted to 3,151,983 cubic feet as compared with 4,587,765 cubic feet. The decrease is attributed to the plague epidemic, but Mr. Dasai is incorrect in saying that plague decimated the population of any town in Upper Sind, least of all Shikarpur, where only a few imported cases occurred. The exploitation of bahan in Hyderabad did not reach one-half of the quantity stipulated for, and the revenue realised by sales of dead wood at ghats amounted to Rs. 27,089 as against Rs. 33,680. The only case in which an increase is observed, *viz.*, timber cut and removed by purchasers, is due to sales of wood from the erosion fellings previously alluded to.

It is not, therefore, a matter of surprise that the revenue receipts were affected materially and the financial results of the year are somewhat unfavourable. The outstandings amounted to Rs. 73,533-15-3 at the end of the Forest year as compared with Rs. 56,180-5-10 at the end of the previous year. Mr. Dasai is, however, sanguine of being able to recover the deficits without difficulty. They were due to the special conditions of the year, and the Conservator is justified in not pressing for payment too rigorously. The Conservator has acted upon the suggestion of the Commissioner in last year's review and furnished statistics of the quantity of wood fuel supplied by coupe contractors to the N.-W. Railway and other Departments. The entire quantity amounted to 1,320,270 maunds, out of which the N.-W. Railway absorbed no less than 1,096,815 maunds.

11. Exclusive of minor Forest produce, details of which are given in the table in paragraph 133, the quantity of timber and fuel removed from forests by all agencies was 18,146,461 cubic feet against 24,306,258 in the previous year.

12. The receipts and expenditure of the past three Forest years are given in the following table :—

	Receipts.	Expenditure.	Difference.
	Rs.	Rs.	Rs:
1894-95...	6,79,823	4,17,757	2,62,066
1895-96...	4,65,745	2,34,807	2,30,938
1896-97...	3,12,297	1,34,209	1,78,088

The decrease in the net surplus of the year as contrasted with 1895-96 is Rs. 52,850, the difference between 1894-95 and that year having been Rs. 31,128. The percentage of expenditure at the same time fell from 50 to 43 per

cent. The receipts have been fully discussed. Little comparison can be made of items of expenditure. The cost of establishment was higher, presumably owing to the formation of the Working Plans Division, which was under a separate officer for part of the year.

13. The forms asked for in Government Resolution No. 8582, dated 25th November last, have not been submitted by the Conservator, who writes that he understood they did not apply to the Sind Circle. The appointment of the Special Forest Settlement Officer ceased a couple of years back, and there is little or no expenditure to show under the head of "Forest Settlement." A small area in each division, which was notified under Section 4 of the Indian Forest Act in the last and preceding years, has not as yet been declared Reserved Forest, and the Assistant or Deputy Collectors who have been appointed Forest Settlement Officers have not furnished any details as to the progress of the enquiries they have made. The Survey party of the Government of India has not yet commenced its operations in the Forest areas of the Sind Circle, nor has any survey of Forests been made by local officers.

14. The Acting Commissioner concurs with Mr. Dasai in his opinion that Sind has lost two zealous officers by the transfer of Messrs. G. M. Ryan and B. H. Dalal. Mr. Shaukiram, who holds the Sukkur Division, has maintained the reputation he earned in Hyderabad, and Mr. Napier has been specially mentioned by Mr. Dasai; and the Acting Commissioner only desires to add that, although the year has been one not unattended by difficulties,—notably (1) the plague, which, as explained by the Conservator in his 137th paragraph, paralysed to a considerable extent the trade in timber by causing at once a dearth of labour and an immense decrease in the demand for material, with a consequent accumulation of stock and inability on the part of the contractors to realise their profits, and (2) those still attending the new coupe contract system, which, however, show signs of disappearing,—the report bears clear testimony of careful and successful administration.

**R. GILES,**  
Acting Commissioner in Sind.

No. 3141 of 1897-98.

From

THE CONSERVATOR OF FORESTS,  
SIND CIRCLE,

To

THE COMMISSIONER IN SIND.

SIND FOREST CIRCLE OFFICE,  
*Camp Miani, 9th November 1897.*

SIR,

I have the honour to submit herewith the annual Administration Report of the Sind Forest Circle for the year 1896-97, together with its subsidiary statements.

2. It is to be regretted that the report is late this year, also. The sickness of the Divisional Forest Officer, Naushahro, and his only English-knowing clerk caused a delay of about a month in the submission of the divisional report, and some of the references calling for information, required to be incorporated in the Circle report under your orders as well as those of Government, were not replied to till yesterday.

3. With the consent of the Accountant General, Form No. 61 for the Forest and the Financial year has been altered and initialled wherever the figures were found to be incorrect.

I have the honour to be,

Sir,

Your most obedient Servant,

F. R. DASAI,

Conservator of Forests,

Sind Circle.

# INDEX.

*Forest Administration Report of the Sind Forest Circle for the year 1896-97.*

Chapter.	Subject.	Paras.
	INTRODUCTION ... ..	1-18
I	EXTENSION AND CONSTITUTION OF STATE FORESTS—	
	I.—Alteration of Area ... ..	19-28
	II.—Forest Settlements ... ..	29-32
	III.—Demarcation ... ..	33-38
	IV.—Surveys ... ..	39
II	MANAGEMENT OF STATE FORESTS—	
	I.—Regulation and Management—	
	(a) Working plans and their control ... ..	40-46
	(b) Annual plans of operations ... ..	47
	II.—Working of the year—	
	(a) Communications and Buildings ... ..	48-51
	(b) Protection of Forests from injury—	
	(1) General Protection and breaches of Forest law—	
	(a) General protection ... ..	52
	(b) Breaches of Forest law ... ..	53-64
	(2) Fire protection ... ..	65-70
	(3) Regulation of grazing and protection from cattle—	
	(a) Grazing regulations ... ..	71
	(b) Protection from cattle ... ..	72-79
	(c) Fencing ... ..	80
	(c) Improvement of Forest growth—	
	(1) Natural reproduction ... ..	81 & 82
	(2) Artificial reproduction ... ..	83-87
	(3) Early thinnings ... ..	88
	(4) Other operations for the improvement of the growing stock ... ..	89
	(5) Experiments ... ..	90-92
	(d) Exploitation of major Forest produce ... ..	93-96
	(e) Extraction of major Forest produce by land and water ... ..	97
	(f) Exploitation of minor Forest produce—	
	(1) Extraction of fodder ... ..	98
	(2) Grazing ... ..	99-101
	(3) Miscellaneous produce ... ..	102
III	GROSS YIELD AND OUTTURN OF FOREST PRODUCE—	
	I.—Departmental operations—	
	(a) Timber ... ..	103-106
	(b) Firewood and Charcoal ... ..	107-108
	(c) Other minor produce ... ..	109
	II.—Removal of produce by purchasers—	
	(a) Timber ... ..	110 & 111
	(b) Firewood and Charcoal ... ..	112-120
	(c) Grazing ... ..	121-122
	(d) Other minor produce ... ..	123 & 124
	(e) Cultivation ... ..	125-127
	III.—Free grants of Forest produce ... ..	128-130
	IV.—Produce removed by right-holders and under privileges ... ..	131-133
IV	FINANCIAL RESULTS ... ..	134-150
V	FOREST ADMINISTRATION ... ..	151-166
	General Remarks ... ..	167-172
	Forms Nos. 46 to 65.	



ANNUAL ADMINISTRATION REPORT OF THE SIND FOREST  
CIRCLE FOR THE YEAR 1896-97.

INTRODUCTION.

The year under report is the second in the working of the forests under the coupe contract system. Although the absence of competition among the bidders has stood in the way of obtaining more favourable prices for the standing crop on the area set apart for exploitation, it is hoped there will be an appreciable rise in revenue in the near future. Other characteristic features of the report are—

- (a) the remarkable decrease in the number of forest fires, notably in the extent of destruction caused by them, which was partly the result of the somewhat favourable circumstances of the year and partly of the punitive measures which were adopted since 1895-96; and
  - (b) the specially extensive scale of the cultural operations undertaken during the year in view of the regeneration of a great many of the treeless tracts.
2. There were practically no exclusions during the year from the forest area, while that added by afforestation and rectifications of errors amounted to 3 square miles and 535 acres, which raised the area at close of the year to  $1,068\frac{23}{40}$  square miles.
  3. Efforts were made to remove the discrepancies in the forest areas recorded in the forest forms and the agricultural returns, but they were hampered by unforeseen difficulties which unhappily cropped up.
  4. Against the area lost by erosion (3,514 acres), 17,922 acres of fresh alluvial lands appeared in front of the forests by the changes in the course of the river. The material on the eroding banks was cut and removed partly by contract and partly by departmental agency.
  5. Exclusive of the six undecided claims on 1st July 1896, twenty new claims to *kachas* were made, out of which decision was arrived at in 17, leaving 9 pending on 30th June 1897.
  6. The areas proposed for reservation and those under different stages of enquiry under the Forest Act amounted to  $16,862\frac{1}{8}$  acres.
  7. In the  $18\frac{673}{1760}$  linear miles of the new reserves demarcated during the year, 185 boundary marks were erected, which cost in the aggregate a sum of Rs. 188-5-0. The number of boundary marks put up and replaced, as well as the length in miles of boundary paths cleared and repaired, was respectively 14,375 and 1,406. This was, as usual, carried out free of cost with the assistance of maldars and others.
  8. No regular survey of the forests took place during the year.
  9. It is gratifying to note that, for the first time in the history of the Sind Forest Department, the preparation of regular Working Plans was taken in hand in the year of report, and working Circles were formed in five of the forest blocks in the Sukkur Division, the area thus dealt with being 17,000 acres. Fifty-six linear miles of compartment lines were cut, comprising within their pale 13,760 acres of forest land. The average cost per mile was Rs. 9-12-3.

10. On repairs and the construction of new buildings, the outlay of the year was Rs. 457.

11. The number of new cases taken into Court during the year was 60 against 85 of the year before. Of the 52 cases disposed of in 1896-97, conviction was obtained in 34, and the percentage of failure for the two years was 40 and 35, respectively, while the cases compounded under S. 67 of the Indian Forest Act rose from 2,029 to 2,162.

12. The area closed against the grazing of browsers and other animals is in excess of what it was in 1895-96 for the sole reason that there is an urgent need for bringing a vast area under reproduction.

13. The impoundings have been heavier, the figures of 1896-97 showing an excess of 8,620 head of animals over those of 1895-96. The increase is mainly among browsers.

14. The value of free labour availed of for the purposes of constructing and repairing boundary marks and paths as well as erecting hedges round the compartments under reproduction in the different Divisions of the Circle is estimated at Rs. 10,266 in the aggregate.

15. The season was one of normal inundation, in consequence of which the natural reproduction was of an average character, and the efforts made to reproduce certain areas artificially also met with a fair amount of success. In the Kot Sultan plantation, cultural operations were undertaken in a further area of 657 acres. The young crop of seedlings, natural as well as artificial, was more or less injured by frost in some of the forests of Upper and Central Sind.

16. The average price per acre realised by the sale of the standing crop in the coupes marked out for exploitation during 1896-97 was Rs. 8-0-4 against Rs. 6-0-8 of the year previous.

17. From grazing fees, the receipts of the year amounted to Rs. 58,470, *i.e.*, there was an increase of Rs. 1,390 over those of the one preceding.

18. The gross as well as the surplus revenue of the Forest year exhibit a falling off of Rs. 1,53,448 and Rs. 52,850, respectively, owing to unprecedented circumstances. In the first place, the cost of the departmental fellings formed an item of credit on the revenue side for a portion of the year 1895-96, and in the second place the instalments, amounting to Rs. 61,000, due from coupe contractors and payable before the end of June 1897 could not be recovered in time, and the revenue realised by the sale of bahan timber fell short of the expectations owing to the outbreak of plague.

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## CHAPTER I.

### EXTENSION AND CONSTITUTION OF STATE FORESTS.

#### *I.—Alteration of Area.*

19. The modifications in area that have taken place during the past year are given in detail in Forms Nos. 46 and 46A. The following abstract statement shows the net results of these changes:—

Changes during the year.

Class of Forests.	At the commencement of the year.		CHANGES DURING THE YEAR.				At close of the year.	
			Added.		Excluded.			
	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.
Reserved ...	1,060	106	3	535	...	...	1,064	1
Protected ...	4	372	...	...	3	427	...	585
Unclassed ...	...	...	3	427	...	...	3	427
<b>Total ...</b>	<b>1,064</b>	<b>478</b>	<b>7</b>	<b>322</b>	<b>3</b>	<b>427</b>	<b>1,068</b>	<b>373</b>

Explanation of the differences.

20. The difference in the area coming under each of the three heads adopted is explained below:—

(a) *Reserved Forests.*

(i) The afforestations by notifications under the Indian Forest Act amounted to 2,071, 136 and 14 acres, respectively, in the Suikarpur, Hyderabad and Karachi Collectorates.

(ii) An area of 88 acres, which was constituted a Reserved Forest under the authority of Government Resolution No. 7031, dated 22nd August 1894, in the Tatta Taluka of the Karachi District having not been taken into account since it was notified, has been included in this year's returns.

(iii) The addition of the remaining 146 acres is due to the correction of a mistake made in the past in striking off from the register lands simply alienated for the requirements of the Irrigation Department in the Mehar and Labdarya Talukas of the Shikarpur District, but not formally disforested under S. 26 of the Indian Forest Act.

(b) *Protected and Unclassed Forests.*

The rectification of an error in including  $3\frac{427}{1000}$  square miles under Protected Forest, through a misinterpretation of the orders contained in Government Resolution No. 6453, dated 13th September 1886, accounts for the difference shown under these two heads. This area Government, when according their sanction to its temporary retention by the Forest Department, had no intention of recognising as a legally constituted Protected Forest.

The actual increase in the total area of State Forests was 2,221 acres, the remainder of the total difference of 234 acres resulting merely from errors corrected and omissions supplied.

21. The reconciliation of the discrepancies discovered between the areas shown in statistical returns of the Agricultural Department and those given in Forest Form No. 46 is found to be surrounded with no ordinary difficulties. But every effort is being made to remove them, or, at any rate, to reduce their number to a minimum. It has been reported that, while the figures were being scrutinised in a divisional office, it was necessary to send for the Survey Registers with a view to trace the origin of the discrepancies. It so transpired that, while some of the mistakes were due to purely clerical errors, others had been caused by the peculiar method in which the Survey records are maintained, in that the legally constituted forest area in some cases has been omitted, while that which has not been formally disforested under the Indian Forest Act has been excluded from their Registers. The Superintendent of Land Records and Agriculture has, therefore, been asked to adopt certain suggestions and revise his Registers in order to render the detection and subsequent elimination of errors comparatively easy.

22. The distribution amongst Forest Divisions of the legally constituted areas, at the commencement and the close of the year under report, is given in the following statement:—

Details of the distribution of the legally constituted forest areas.

Division.	AREA ON 1ST JULY 1896.						ADDED DURING THE YEAR.					
	Reserved.		Protected.		Unclassed.		Reserved.		Protected.		Unclassed.	
	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.
Sukkur ... ..	449	358	...	585	...	...	...	...	...	...	...	...
Naushahro ... ..	241	297	3	427	...	...	(a) 3	433	...	...	3	427
Hyderabad ... ..	197	121	...	...	...	...	...	...	...	...	...	...
Jerruck ... ..	172	60	...	...	...	...	(c) 11	286	...	...	...	...
Total ... ..	1,060	106	4	372	...	...	15	79	...	...	3	427

Division.	EXCLUDED DURING THE YEAR.						AREA ON 30TH JUNE 1897.					
	Reserved.		Protected.		Unclassed.		Reserved.		Protected.		Unclassed.	
	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.
Sukkur ... ..	...	...	...	...	...	...	449	358	...	585	...	...
Naushahro ... ..	...	...	3	427	...	...	245	...	...	...	3	427
Hyderabad ... ..	(b) 11	184	...	...	...	...	185	577	...	...	...	...
Jerruck ... ..	...	...	...	...	...	...	183	346	...	...	...	...
Total ... ..	11	184	3	427	...	...	1,064	1	...	585	3	427

(a) By settlement, 3 square miles 237 acres. By correction of errors, 146 acres.

(b) By redistribution.

(c) By settlement, 14 acres. By correction of errors, 88 acres. By redistribution, 11 square miles 184 acres.

N. B.—To ensure greater facility of inspection and to equaise the area between the two divisions, 11 $\frac{1}{4}$  square miles were transferred from the Hyderabad to the Jerruck Division.

23. The following statement shows approximately the action of the river on the forest frontage during the period under report :—

Action of the river.

Division.	Area lost.	Area gained.	Amount spent.	Net value of material sold.	Net value of material remaining in hand.
	Acres.	Acres.	Rs. a p.	Rs. a p.	Rs. a p.
Sukkur ... ..	1,607	6,956	126 0 0	618 0 0	585 0 0
Naushahro ... ..	905	9,046	...	3,419 12 0	...
Hyderabad ... ..	677	800	...	451 12 0	...
Jerruck ... ..	325	1,120	...	276 0 0	...
Total ... ..	3,514	17,922	126 0 0	4,795 8 0	585 0 0

24 The set of the river was in favour of the forests throughout the year, especially in the Naushahro and Sukkur Divisions, resulting in more than double the area being thrown up in front of the forests than in 1895-96. This addition may or may not be washed away, and, even should it remain as permanent accretions, may not be handed over to the Department.

The area gained during the year was 14,408 acres in excess of the area lost by erosion. Out of the latter, 2,199 acres were valuable and fit for the axe, whereas the remaining 1,315 acres were low sand or mud banks, or covered with inferior or useless growth.

25. Fresh orders were issued, in the sense of the remarks made by the Commissioner in Sind in paragraph 3 of his last review, to ensure against unavoidable loss of timber on banks threatened by erosion. The small amount of Rs. 126 spent for the purpose of keeping "cutting" banks clear of trees and to save them from falling into the river was spent in only one forest of the Sukkur Division, and does not represent the real extent of the erosion operations. In the other divisions as well as in Sukkur, the timber as a rule was sold either standing for a lump sum or on reduced royalty to contractors, who bore the cost of felling and removing. The net value of the wood thus extracted (Rs. 5,380), however, indicates that the measures taken were as vigorous as could be expected under the circumstances.

26. In order to keep a correct record of the changes due to the action of the river and to enable the Department to see whether, in the long run, by such changes it is a gainer or a loser, the river frontage of most of the forests was for the first time correctly surveyed and its correct position marked on the maps. This was urgently called for, having in a majority of cases never been attempted with any pretensions to accuracy since the original reservation.

27. The following statement exhibits the success which attended the efforts of the Department in acquiring new formations thrown up in front of and adjoining Reserved Forests under the Commissioner in Sind's Circular No. 1238, dated 11th April 1889:—

Division.	No. of undecided claims on 1st July 1896.	No. of new claims.	No. OF CLAIMS DECIDED.			No. of claims undecided on 30th June 1897.
			In favour of the Department.	Against the Department.	Total.	
Sukkur ...	1	6	5	...	5	2
Naushahro ...	3	10	9	...	9	4
Hyderabad ...	1	2	1	...	1	2
Jerruck ...	* 1	2	2	...	2	1
Total ...	6	20	17	...	17	9

\* This claim is for an accretion to the Keti Mahrani Forest, transferred from the Hyderabad Division.

28. It is very satisfactory to note that all the claims preferred by the Department were settled in its favour. A new claim of the year (Sharifpur in the Larkana Range), rejected by the Collector, has been appealed to, and until the decision of, the Commissioner is known, it has been shown as pending.

## II.—Forest Settlements.

29. The areas finally settled and notified under S. 19 of the Indian Forest Act during the period of this report have been already given under paragraph 20, above.

30. The settlement of the following areas was awaiting the final orders of Government at the close of the year:—

Division.	Civil District.	Name of Taluka.	Area.	No. and date of Notification under S. 4.
Jerruck ...	Hyderabad ...	Guni ...	A. g. 976 28	1967 of 14th March 1895.

31. The work left to be done in connection with Forest settlements is summarised below in the form prescribed in paragraph 3 of Government Resolution No. 5068, dated 29th June 1896:—

Division.	STAGES OF OUTSTANDING WORK.							
	OCCUPIED LANDS TO BE ACQUIRED.				Land to be notified under S. 4.	Land to be settled under S. 7.	Land to be notified under S. 19.	Total.
	By exchange or compensation.		Land to be notified under Land Acquisition Act.					
	Negotiations proceeding.	Negotiations completed.						
				A. g.	A. g.	A. g.	A. g.	
Sukkur ...	...	...	...	1,794 7	176 37	...	1,971 4	
Naushahro ...	...	...	...	2,773 32	1,618 15	...	4,392 7	
Hyderabad ...	...	...	...	...	9,397 17	...	9,397 17	
Jerruek ...	...	...	...	...	124 29	976 28	1,101 17	
Total ...	...	...	...	4,567 39	11,317 18	976 28	16,862 5	

32. As there has been no special Forest and Settlement Officer attached to this Circle since the end of March 1895, the different Assistant and Deputy Collectors have been appointed *ex-officio* Forest Settlement Officers in their own respective charges, and the work of enquiry and settlement in respect of the acquisition of lands notified under S. 4 of the Indian Forest Act is entrusted to them. The protracted delay prior to October 1896 in formulating proposals and submitting them with the necessary draft notifications under S. 19 in respect of the lands awaiting settlement is much to be regretted. The papers in several cases have now been with the officers concerned for over two years without any visible results. In the meanwhile, the Divisional Forest Officers, under instructions from this office, continued to remind the Forest Settlement Officers with a view to their settlement being expedited, but as their communications in more instances than one did not meet with a ready response, I took up the matter myself and addressed the different Collectors, pointing out what areas were awaiting to undergo enquiries, and asking their co-operation, which it is hoped will bring forth satisfactory results. Although it has to be admitted on the one hand that—the ordinary Revenue and Magisterial duties besides being always heavy—the officers concerned had, during a great portion of the year under report, to concentrate their energies in devoting their chief attention to the measures for the suppression of the plague, on the other, it has to be remembered that, the longer the interval that lapses between the issue of the notifications under Ss. 4 and 19, the worse is the fate of the areas proposed for reservation, as the reports received show that the tree growth on them, unguarded as it is, is being mercilessly hacked and wantonly damaged by goat-herds and other village population.

### III.—Demarcation.

33. It is to be regretted that the demarcation of the areas afforested between 1893 and 1895 could not be completed by Mr. Napier, who during the greater portion of the year continued to be Forest Demarcation Officer in addition to his duties as Divisional Forest Officer, Working Plans. The chief reasons for this work having been left in an incomplete state at the close of the year were as follow:—

(i) The inroads made by the river had so altered the shape of some of the newly afforested areas, while in others the maps prepared by Mr. Barrow were so utterly at variance with the configuration of the ground, that their demarcation could not be undertaken without further consultation with the

Revenue authorities, which, having entailed considerable delay, led to the work being postponed for the time being.

(ii) It was found that selections had been made to include within forest limits certain other "dehs" which are conterminous with those already afforested. It was, therefore, considered useless to lay out the boundary, only to be changed soon after.

(iii) The deputation of Mr. Napier to Plague duty and his subsequent serious illness, which necessitated his immediate departure to Europe on leave.

34. The outturn of the work during the year under report is shown in the following statement:—

Civil District.	Length of boundary demarcated.		No. of cairns erected.	Amount spent.			Rate per mile.		
	Miles.	Yards.		Rs.	a.	p.	Rs.	a.	p.
Karachi ...	8	1,375	88	109	5	0	12	7	2
Hyderabad ...	9	1,058	97	79	0	0	8	3	7
Total ...	18	673	185	188	5	0	10	3	11

Note.—The cost was greater in the Jerruck than in the Hyderabad Division, owing to no free labour being available in the former.

35. Considering that Mr. Napier was only able to spare about one month and a half (from 10th November to 23rd December 1896), and that the delimitation had to be determined by actual survey, the work turned out could not be greater.

36. From the following summary, the nature of the outstanding work will be seen:—

District.	Total area notified under S. 19.	AREA OF WHICH DEMARCATION IS COMPLETE.				Area partly demarcated by Forest Demarcation Officer.	Area absolutely untouched by any one.
		By Forest Demarcation Officer.	By Divisional or Range Forest Officers and Revenue people.	Total.			
	Acres. g.	Acres. g.	Acres. g.	Acres. g.	Acres. g.	Acres. g.	
Shikarpur ...	17,301 24	14,864 36	2,436 28	17,301 24	...	...	
Hyderabad ...	28,204 15	7,726 31	7,925 17	15,652 8	7,795 4	4,757 3	
Karachi ...	20,769 4	6,613 11	9,770 36	16,384 7	...	4,384 37	
Upper Sind Frontier ...	26,525 11	24,861 13	...	24,861 13	1,663 38	...	
Total ...	92,800 14	54,066 11	20,133 1	74,199 12	9,459 2	9,142 0	

37. Repairs to existing boundaries and boundary marks of the old Reserves were carried out as usual with the assistance of cattle breeders who live within forest limits and Boundary marks and paths.

other persons in enjoyment of forest privileges. The extent of the operations, and the value of free labour availed of for this purpose, is shown below :—

Division.	No. of boundary marks put up and repaired.	Length of boundary paths cleared and repaired.	Estimated value.		
			Miles.	Miles.	Rs. a. p.
Sukkur ... ..	7,157	948	1,395	0	0
Naushahro ... ..	2,878	20	404	0	0
Hyderabad ... ..	1,931	260	984	0	0
Jerruck ... ..	2,409	178	819	0	0
Total ... ..	14,375	1,406	3,602	0	0

38. The riverain forests having been flooded to a greater extent than in the previous year, the number of marks replaced or repaired, as well as the length of the boundary paths cleared, was in excess of the year 1895-96 by 2,554 and 922 miles, respectively.

#### IV.—Surveys.

39. The Forest Survey branch parties of the Government of India have not yet commenced operations in this Circle. The Riverain Survey has been completed, and the maps prepared have been found to be of great use.

## CHAPTER II.

### MANAGEMENT OF STATE FORESTS.

#### I.—Regulation and Management.

##### (a) Working Plans and their Control.

40. During the year under report, it might be said the year in which a separate Division for preparing Working Plans came into existence, it was not possible for the officers in charge, Messrs. Napier and Dalal, to undertake more work than was done. After completing the demarcation referred to in paragraph 34, work was commenced in the Sukkur Division at the beginning of January 1897 with a view to the organisation of the Rohri, Dubar Wahan, Katha, Changni, and Hingora Forest Reserves in the Sadhuja Range, which, besides being in close proximity of the North-Western Railway line, come within the direct influence of the annual floods and at the same time, being safe from erosion, are not subject to fluctuations in area. The object of taking these areas first in hand is not simply because they play at present a very important part in the fuel supply of the North-Western Railway and the Quetta Commissariat, but chiefly to carry out the intention I have had all along in view to convert them gradually into babul (*Acacia Arabica*) and tali (*Dalbergia Sissoo*) forests by systematic cultural operations, as they are capable of being stocked with these valuable species in place of the existing growth of kandi (*Prosopis Specigera*) and lye (*Tamarix Gallica*). This work was finished by the middle of March, when, at the Commissioner's request, Mr. Napier's services were lent for Plague duty, and he was placed under the orders of the Sukkur Plague Committee. Mr. Dalal, Divisional Forest Officer, Hyderabad, then took charge of the Working Plans office in addition to his own, and before the close of the tour season made a survey in advance of the Miani, Muhammad Khan, Kathri, and Matiari babul reserves in order that correct maps may be ready to enable the organisation of these very valuable State properties being taken in hand at the commencement of the following working season.



41. Mr. Napier's operations extended over an area of 17,000 acres, and the details of the work done by the Working Plans Officer. the details of the work performed by him during the two months and a half he was engaged on it are briefly as follow :—

(i) A careful examination of the forests to compare the growing stock with the estimates thereof as made in the previous year by the Divisional Forest Officer, Sukkur.

(ii) Preparation of correct maps, showing boundaries and compartment lines accurately, a point in which the old maps failed signally.

(iii) Recalculation of area according to the fresh maps.

(iv) The formation of Working Circles and the splitting up of the Circles into "affectations", or periodic blocks, (three in number), corresponding to each period of the rotation.

(v) The selection of the coupes (5) for the first period.

(vi) The marking off on the ground of the first year's coupes.

42. The Working Plans staff sanctioned for the year numbered six Surveyors, one on the permanent establishment and five on the temporary list, but in the past year considerable difficulty was experienced in obtaining qualified men, and it was seldom that the full complement was employed, the difficulty being doubtless increased by the presence of the famine and plague, as one man resigned in December 1896 on obtaining a more lucrative post on Famine Relief Works in the Deccan.

43. During the recess season, this staff was employed in preparing fresh maps of the forests of the Circle, five copies of each map being made for the use of the different officers, including a vernacular copy for Sub-Rangers. Of the Surveyors available in the working season, two were employed directly under Messrs Napier and Dalal for demarcation and organisation, and one Surveyor was attached to each of the Sukkur, Naushahro and Hyderabad Divisions to survey the river boundary and correct the existing maps as well as to mark out the coupes to be exploited in 1897-98. For the fourth division, Jerruck, no Surveyor could be spared at any time during the season, and therefore both the operations were undertaken by trained Range Forest Officers. A complete statement of the work performed appears as under :—

Division.	BY WORKING PLANS STAFF.							BY EXECUTIVE STAFF.							
	No. of copies of maps prepared	Length of river frontage surveyed.		No. of coupes.	Area of the coupes marked out.		Cost of all the work done.	Length of river frontage surveyed.		No. of coupes.	Area of the coupes marked out.		Cost of the work done.		
		Miles.	Yards.		Acres.	Guntas.		Rs. a p.	Miles.		Yards.	Acres.		Guntas.	Rs. a p.
Sukkur ... ..	33	25	1,495	7	1,022	10	13	8	0	...	41	4,953	...	...	
Naushahro ... ..	58	54	1,617	39	3,836	8	...	...	...	1	819	5	...	...	
Hyderabad ... ..	120	75	835	26	3,081	22	...	...	...	...	...	...	...	...	
Jerruck ... ..	167	...	...	...	...	...	...	6	890	25	3,126	31	...	...	
Total ... ..	378	156	429	72	7,940	...	13	8	0	6	890	67	8,898	36	...

44. All the reserves capable of being exploited systematically in the several divisions have been roughly differentiated into Working Circles on the maps and are placed under rational treatment.

45. The breaking up of forests into compartments was purposely allowed to stand over, as, under the orders of Government contained in their Resolution No. 3822 in the Financial Department, dated 11th November 1896, owing to pressing demands on the Treasury, all avoidable expenditure had to be postponed.

During the year, only 56 miles of compartment lines as against 152 in the previous year were cut and cleared, at an average cost of Rs. 9-12-3 per mile, which cost rate is in excess of that of the last year by about Rs. 2 in consequence of the difficulty of procuring labour at reasonable rates, due to the outbreak of the plague.

Progress made in cutting up forests into compartments.

46. The year's work and that remaining to be done is exhibited in the following statement:—

Division.	AREA CUT UP INTO COMPARTMENTS UP TO 1st JULY 1896.		AREA CUT UP DURING 1896-97.		TOTAL AREA CUT UP INTO COMPARTMENTS.		AREA STILL REMAINING TO BE CUT UP.
	Acres.	Length in miles of rides 20 feet wide.	Acres.	Length in miles of rides 20 feet wide.	Acres.	Length in miles of rides 20 feet wide.	Acres.
Sukkur ...	*203,307	1,310	5,870	17	209,177	1,327	78,541
Naushahro ...	*83,764	523	1,668	4	85,432	527	71,368
Hyderabad ...	103,055	530	5,022	29	108,077	559	10,900
Jerruck ...	96,196	561	1,200	6	97,396	567	20,070
Total ...	486,322	2,924	13,760	56	500,082	2,980	180,879

\* Disforested area has been excluded.

(b) Annual Plans of Operations.

47. The provision of the plans it was somewhat difficult, in a year like that of 1896-97 in which pestilence raged throughout the province, to adhere to. When quarantine and other restrictions were first imposed, there was a wide spread scare amongst the coupe contractors and their work people, which was with considerable difficulty somewhat appeased. Operations in some forests actually came to a stand still, and additional time to exploit the remaining material in such coupes as were left wholly or partially unworked at the expiry of the contract period had to be granted.

Annual Plans of Operations.

II.—Working of the year.

(a) Communications and Buildings.

(1) Roads.

48. As explained in paragraph 39 of the Administration Report for the year 1894-95, hardly any necessity exists for undertaking the construction of any expensive forest roads.

Roads.

(2) Buildings.

49. The expenditure on buildings as compared with that of the previous year was as follows:—

Buildings.

Year.	New work.	Repairs.	Total.
	Rs.	Rs.	Rs.
1895-96 ...	212	335	547
1896-97 ...	122	335	457

50. A good deal of work remains to be done in all divisions under this head in building quarters for the subordinate staff. In this respect, the Jerruck Division is the worst, in which during the year three new *landhis* were erected at a cost of Rs. 122.

51. No works were carried out through the agency of the Public Works Department.

(b) Protection of Forests from Injury.

(1) General Protection and Breaches of Forest Law.

(a) General Protection.

52. The protective establishment has remained unchanged during the year.

Fresh instructions have been issued by Government on the proposals relating to the reorganisation of the subordinate Forest establishments submitted in response to their Resolution No. 5811, dated 29th July 1896, and all the Conservators in the Bombay Presidency have been directed to consult together and resubmit them on a uniform plan.

(b) Breaches of Forest Law.

53. The following statement shows the number of cases tried by Magistrates for breaches of Forest law during the years 1895-96 and 1896-97, with the result of the trials :—

Division.	CASES OF 1895-96.						CASES OF 1896-97.						Cases tried by Magistrates.		Percentage of failure.	
	Pending in Court on 1st July 1895.	Taken into Court during the year.	Total.	Disposed of by Magistrates during the year.			Pending in Court on 1st July 1896.	Taken into Court during the year.	Total.	Disposed of by Magistrates during the year.			Pending in Court on 1st July 1897.	1895-96.		1896-97.
				Convicted.	Acquitted.	Total.				Convicted.	Acquitted.	Total.				
Sukkur ...	...	29	29	12	8	29	9	31	40	19	9	28	12	40	32	
Naushahro ...	3	28	31	12	11	23	8	14	22	11	4	15	7	48	27	
Hyderabad ...	4	25	29	17	8	25	4	11	15	2	3	5	10	32	60	
Jerruck ...	...	3	3	1	1	2	1	4	5	2	2	4	1	50	30	
Total ...	7	85	92	42	28	70	22	60	82	34	18	52	30	40	35	

54. The year opened with 22 cases awaiting trial and 60 were taken into Court during the year. Of the total number, 52 were disposed of by the 30th June 1897, with the result that there were 34 convictions and 18 acquittals. The percentage of failures for the Circle has fallen from 40 to 35, which appears still somewhat high, but it is not actually so. When the number of prosecutions is small, as in the Sukkur and Jerruck Divisions, the slightest variation in the number of cases convicted or acquitted affects the proportion so considerably as to tend to an abnormal rise or fall in the percentage of failures, and such being the case in the year 1896-97 the results are not discouraging as they appear at first sight, but show a general improvement over those of 1895-96.

55. In the statement following, the number and nature of new cases taken into Court during the two years 1895-96 and 1896-97 are compared :—

Division.	NEW CASES OF THE YEAR.										Total.
	Injury to forest by fire.		Unauthorised felling or appropriation of wood and other minor forest produce.		Grazing without permission or in tracts in which grazing is prohibited.		Other offences.				
	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	
Sukkur ...	...	3	19	6	...	8	7	2	15	29	31
Naushahro ...	2	1	11	3	...	...	...	15	10	28	14
Hyderabad ...	...	...	17	8	...	4	1	4	2	25	11
Jerruck ...	...	1	1	1	...	2	...	...	2	3	4
Total ...	2	5	48	18	...	14	8	21	29	85	60

56. In the Naushahro and Hyderabad Divisions, the number of new prosecutions is considerably less than in the year preceding, whereas in the other two it varies but little. This is the natural result of the special rules framed by the Commissioner in Sind, under which trivial offences are, as a rule, now compounded (*vide* paragraph 56 of the last Administration Report).

Two serious cases of theft of tali timber (*Dalbergia Sissoo*) from an old plantation created in the seventies in the Kadrapur Forest, near Sukkur, were brought to light, one of which was successfully prosecuted, and the other is under enquiry.

In five fire cases, the incendiaries were traced, and conviction was obtained only in two cases. In one, the offender was acquitted. One of the incendiaries has absconded into foreign territory (Bahawalpur), and a warrant is out against him, and one case was under trial at the close of the year. In the case acquitted, the culprit was seen attempting to fire the forest, but the witnesses who had given the information to the Range Forest Officer retracted their statements before the Magistrate.

57. The unauthorized clearing of forest growth for cultivation in a couple of new Reserves in the Naushahro Division, which was remarked on in paragraph 55 of last year's report, was again persisted in. There were 8 such cases during the year, for the successful prosecution of which Forester Tekchand, Range Forest Officer, Kandiaro, deserves great credit.

58. Reports from Divisional Forest Officers have been called for on the working of the special rules framed by the Hon'ble Mr. James for the treatment of offences compounded under S. 67 of the Indian Forest Act, which were reproduced *in extenso* under paragraph 56 of last year's report, but they have not yet come to hand. The rules have so far been known to cause some inconvenience. Doubtless, they side on leniency, but at the same time it has been found in practice that the limit of Rs. 5 up to which compensation for offences coming under Rule I-A can be accepted by Divisional Forest Officers has this disadvantage—that, when the produce stolen for use by a villager, and not for trade, is of higher value, as is not unfrequently the case, the only course open is to resort to prosecution or to accept compensation much below the real value of the stolen property. In order not to subject the poor population to unnecessary harassment as well as to save the time of the Forest Subordinates and Magistrates, the latter course is usually followed. It will be, therefore, necessary on the receipt of the Divisional Forest Officers' reports on the subject to address a special communication to the Commissioner in Sind with a view to the rules being modified in this particular as well as in others.

59. The details of cases compounded during the year under report are compared with those of the previous year in the subjoined table:—

Division.	OFFENCES RELATING TO						Total.	
	Illicit grazing.		Theft.		Other offences.		1895-96.	1896-97.
	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.		
Sukkur ...	1,014	1,151	54	53	...	...	1,068	1,204
Naushahro ...	184	155	30	83	...	...	214	238
Hyderabad ...	351	405	20	50	...	1	371	456
Jerruck ...	318	240	53	24	...	...	371	264
Total ...	1,867	1,951	157	210	...	1	2,024	2,162

60. Under the first head, the Divisional Forest Officers, Sukkur and Hyderabad, attribute the increase to greater vigilance on the part of the Protective staff, not only in detecting cattle trespass in open forests, but also in keeping browsers out of the areas in which they were prohibited to graze. The decrease in Naushahro and Jerruck, on the other hand, is due to the activity displayed by some of the Range Forest Officers in petrolling their forests, resulting in the owners of cattle preferring to pay the legitimate dues instead of running the risk of paying the fines in addition when their cattle are caught actually trespassing.

A somewhat larger number of theft cases, in which are included offences relating to lopping of trees by goatherds and other graziers, appear in the Naushahro and Hyderabad Divisions. In Sukkur, it is about the same as in the previous year; but in Jerruck it is again reduced. Protection of the forests from theft in all the divisions has not reached that standard of perfection as the number of cases dealt with since 1893-94 would lead one to believe. The forests show signs of unauthorised loppings and misappropriation of small building timber—perhaps, not to the same extent as in former days—, but it has to be acknowledged that the number of such offences actually committed is far in excess of that shown annually in the returns as dealt with by Divisional Forest Officers. A good many either go undetected, owing to the numerical strength of the Protective staff being weak, or, what is equally probable, when discovered, the low-paid Forest Guards connive with the offenders for obvious reasons, and fail to report them.

61. Exclusive of illicit grazing cases which are commuted on a fixed scale under the special rules mentioned above, the number compounded, together with the sums of money accepted and received by Divisional Forest Officers, by payment of money compensation under S. 67 of the Indian Forest Act, compared with the figures of 1895-96, stood as under :—

Division.	1895-96.		1896-97.	
	Number of cases.	Compensation.	Number of cases.	Compensation.
		Rs.		Rs.
Sukkur ...	54	141	53	182
Naushahro ...	30	48	83	111
Hyderabad ...	20	75	51	87
Jerruck ...	53	155	24	61
<b>Total ...</b>	<b>157</b>	<b>419</b>	<b>211</b>	<b>441</b>

N. B.—The compensation from 1951 cases of illicit grazing amounted during the year to Rs. 2,437 as against Rs. 2,142 from 1,867 cases of the year previous.

62. The details of these 211 compounded cases, as well as those coming under "illicit grazing," required under Government Resolution No. 1899, dated 13th March 1891, are given in the following statement. The average compensation per case is Re. 1-5-4 :—

Division.	NUMBER OF CASES IN WHICH COMPENSATION WAS FIXED AT RUPEES															Total.
	1	2	3	4	5	6	7	8	9	10	11	12	14	15	18	
Sukkur ...	626	290	149	48	45	14	9	7	5	3	2	3	2	...	1	1,204
Naushahro ...	181	42	7	2	4	1	...	...	...	...	...	...	...	...	1	238
Hyderabad ...	393	32	10	8	11	2	...	...	...	...	...	...	...	...	...	456
Jerruck ...	138	76	32	5	9	1	2	1	...	...	...	...	...	...	...	264
<b>Total ...</b>	<b>1,338</b>	<b>440</b>	<b>198</b>	<b>63</b>	<b>69</b>	<b>18</b>	<b>11</b>	<b>8</b>	<b>5</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2,162</b>

63 The information given below is in accordance with paragraph 11 of Government Resolution No. 1899 of the 15th March 1891 :—

Division.	Number of complaints disposed of under S. 67.	Number of cases in which compensation has been accepted	Number of appeals against the proceedings.	Manner in which appeals have been disposed of.
Sukkur ...	1,204	1,204	...	...
Naushahro ...	241	*238	...	...
Hyderabad ...	456	456	...	...
Jerruck ...	264	264	...	...
<b>Total ...</b>	<b>2,165</b>	<b>2,162</b>	<b>...</b>	<b>...</b>

\* 3 cases were let off with a warning.

64. The following table gives a classification of the new cases of the year under the various heads of crime in the form prescribed in circular letter No. 9-171-1-F. of the Government of India, dated 10th June 1897 :—

Division.	CASES TAKEN INTO COURT.				CASES COMPOUNDED.				CASES UNDETECTED.				TOTAL CASES.				Grand Total of Cases.
	Injury to forests by fire.	Unauthorized fellings 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 fellings 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 fellings 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 fellings or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	
Sukkur ...	3	6	7	15	...	50	1,151	3	25	26	...	...	28	82	1,158	18	1,286
Naushahro ...	1	3	...	10	...	93	155	...	12	...	...	...	13	86	155	10	264
Hyderabad ...	...	8	...	2	...	50	405	1	...	14	...	...	...	72	406	3	481
Jerruck ...	1	1	...	2	...	24	240	...	...	...	...	...	1	25	240	3	268
Total ...	5	18	8	29	...	207	1,951	4	37	40	...	...	43	265	1,979	33	2,293

(2) Fire Protection.

65. The results of the year's fire protection as compared with those for the year 1895-96 are shown below :—

Forest fires.

Division.	NUMBER OF FIRES.		AREA BURNT.	
	1895-96.	1896-97.	1895-96.	1896-97.
			Acres.	Acres.
Sukkur	88	28	6,653	1,416
Naushahro ..	17	12	329	281
Hyderabad ...	16	16	1,236	1,241
Jerruck ..	24	16	2,666	1,037
Total ...	145	72	10,884	3,975

66. Fire protection was generally successful in all divisions, and the work was a little lightened by the season being not so unfavourable as the last for fire conservancy. The river commenced to rise earlier and kept up to about its normal height between the last week in June and the middle of September, so that the forests were not in such an inflammable condition as they were in 1895-96. The punitive measures enforced in some of the forests in Upper and Central Sind in that year have also had the desired effect in that the number of fires was visibly less, especially in the Sukkur Division.

67. It is also satisfactory to be able to record that fire discipline was successfully maintained. The good will of the villagers in repairing to the scene readily and cheerfully to fight fires was remarkable, and it is due to their efforts as well as to those of the Protective staff that, out of the 72 fire occurrences, 23 were extinguished before they had time to cause hardly any damage. Fires got out of hand only in two instances, when there was a strong breeze blowing continuously for hours. In one case, the worst one of the year, the fire, having been observed on the 10th February 1897 at about 3 o'clock in the afternoon, was with considerable difficulty got over by midnight, but unfortunately was relighted by sparks from a smouldering log owing to a gale of wind having sprung up at about noon on the following day—such storms being of frequent occurrence at the time of the year. In the other, both the subordinates and villagers were helpless, as it had taken a strong hold of the impenetrable mass of reeds before they reached the scene, and consequently all attempts to suppress it were set at defiance, owing to the inflammable material which was ablaze as well as the high wind which was raging at the time.

The treatment of detected offences in regard to fire protection is tabulated below in the form required by the Government of India in their Resolution quoted in paragraph 64 of this report :—

Division.	DETAILS OF PROSECUTIONS FOR OFFENCES BY FIRE.						REMARKS.
	Serial number of fire.	Acres burnt.	Character of offence (whether careless or intentional).	Whether acquitted or convicted.	Section of law under which convicted.	Amount of punishment.	
Sukkur ...	1	1	Intentional.	Convicted.	S. 25 of I. F. Act, 1878.	Fine Rs. 25.	Case pending in Court.
Naushahro ...	2	250	"	...	...	...	
Hyderabad ...	3	25	"	...	...	...	
Jerruck ...	1	...	"	Acquitted.	...	...	The offender did not actually set fire, but was attempting to do it.
Total ...	5	297	Intentional.	Convicted.	(b) S. 25 of I. F. Act, 1878.	Two persons fined Rs. 5 each.	

68. The following is a statement of the causes of the different fires, prepared in accordance with the instructions contained in the Resolution quoted above :—

Division.	(C.) FIRE BEGINNING INSIDE THE RESERVE OR FIRE-TRACED AREA.																Cases unknown.	Total A, B and C.							
	(A.) Fire caused by accident or through carelessness in burning fire fires.	(B.) Fire entering the reserve by crossing exterior fire traces.	Owing to carelessness or accident.						By intentional firing.						Total.										
			By workmen employed in the forests, by purchasers of forest produce and by hunters.		By villagers, travellers, &c. passing through the forests.		By Railway engines.		By lightning or by fire balloons.		In order to obtain new grass.		In order to turn out game or to reduce cover.							Maliciously fired.					
			No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.						No. of fires.	Area burnt in acres.				
Sukkur ...	...	...	5	77	2	51	4	231	...	...	...	...	16	805	...	...	1	250	23	1,319	...	...	23	1,416	
Naushahro ...	1	4	2	48	...	...	8	46	...	...	...	...	...	...	...	...	...	...	8	46	...	1	183	11	88
Hyderabad ...	...	...	...	...	2	850	8	171	2	35	...	...	3	145	...	...	1	40	16	1,241	...	...	16	1,241	
Jerruck ...	3	138	2	30	2	123	8	696	...	...	...	...	1	50	...	...	...	...	11	839	...	...	16	1,057	
Total ...	4	142	9	155	6	1,024	28	1,146	2	35	...	...	20	1,000	...	...	2	280	54	3,495	1	183	71	3,722	

69. The most serious case of fire (paragraph 67) occurred in the Unarpur Range of the Hyderabad Division, burning 750 acres, and was suspected to have been caused by the labourers who had been engaged by the coupe contractor to work for him. The principal constituent of this tract being exploitable bahau, growing amongst a dense mass of reeds, it was thought that, to facilitate exploitation, the fire was intentionally lighted. There was naturally no proof to connect any individual with the crime, and the contractor could not be taken to task as, under his agreement, he was able to prove that his workmen were employed in another part of the forest on the day the fire occurred. There being, however, a very strong suspicion, especially as his workmen would be the only gainers by the burning of the grass in that locality, that the fire was lighted by some one of them, the extraction of small bahau timber was immediately prohibited from the burnt compartments. Once the grass was got rid of, the daily outturn of work would be considerable, and almost double wages could be earned for the rest of the season. The prohibition enforced, therefore, deprived them from realising any advantage they might have sought to obtain.

70. As a rule, the number of fires for obtaining a fresh crop of grass exceeds that originating from any other cause. But from the figures shown in the above statement it will appear that, during the year of this report, that cause has not been the principal source of mischief, no less than 28 fires of the total number having been attributed to the carelessness of villagers and travellers passing through the forests on their way to and from the ferries on the river.

### (3) Regulation of Grazing and Protection from Cattle.

#### (a) Grazing Regulations.

71. There is nothing special to note under grazing arrangements in addition to what has been already recorded in former reports. They are suited to the Province and, having been in force for the last quarter of a century, the people seem to be well satisfied with them. The quality of the grazing in Sind is liable to changes,

which cannot be foreseen, depending as it does on the greater or less extent to which the annual floods reach the forests, or, at times, never touching them at all, when the river recedes and leaves them high and dry. In a couple of forests, the grazing having been found undoubtedly to have become worse, a lower scale of fees was charged in them on a representation to that effect having been made by the cattle owners and villagers living in their vicinity.

## (b) Protection from Cattle.

72. Form No. 54 gives the areas closed and open to grazing during the year 1896-97, which, as compared with those of the year before, show that against all animals the area of closures has risen from  $79\frac{199}{640}$  to  $108\frac{168}{40}$  square miles, and that against browsers from  $167\frac{607}{640}$  to  $373\frac{335}{40}$  square miles. The areas given in column 3 of Form No. 54 for both years ( $19\frac{127}{640}$  and  $22\frac{267}{40}$ , respectively), it has to be noted, are temporary punitive closures for the prevention of forest fires, the object being to keep out cattle of the incendiary *maldars* from grazing on the fresh and nutritious crop of grass which springs up almost at once in the fired tracts, and thereby defeating the very purpose they have in view.

73. The extent of the closures in each division at the commencement and close of the year, with other details, is given in the following statement :—

Division.	AREA IN SQUARE MILES.								Total area of Reserved Forests.	Percentage of total area closed.
	CLOSED AT COMMENCEMENT OF THE YEAR.		OPENED DURING THE YEAR.		NEW CLOSURES OF THE YEAR.		CLOSED AT THE END OF THE YEAR.			
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.	Part of year.		
					<i>All animals.</i>					
Sukkur ...	17 359	12 148	...	7 552	16 <sup>299</sup>	18 31	34 18	22 267	449 358	12
Naushahro ...	7 382	...	3 354	...	6 85	...	10 113	...	245 0	4
Hyderabad ...	22 153	...	...	...	7 135	...	29 298	...	165 577	16
Jerruck ...	12 19	...	4 245	...	4 338	...	12 112	...	183 346	7
T. tal ...	59 273	12 148	7 599	7 552	34 227	18 31	85 541	22 267	1,064 1	10
					<i>Browsers.</i>					
Sukkur ...	1 262	80 467	...	...	142 597	...	225 46	...	449 358	50
Naushahro ...	42 413	...	1 160	...	58 227	...	99 450	...	245 0	41
Hyderabad ...	43 39	...	3 411	3 80	...	...	36 188	...	165 577	19
Jerruck ...	...	...	...	...	12 361	...	12 361	...	183 346	7
Total ...	87 74	80 467	4 571	3 80	213 545	...	373 435	...	1,064 1	35

74. Cultural operations having been undertaken on a larger scale than before not only in the felled coupes of the year, but in blanks both in the Sukkur and Naushahro Divisions, it naturally follows that the area closed to all animals must be greater. At the same time, it will be noticed that, in accordance with the instructions quoted in paragraph 62 of the report for 1894-95, an aggregate area of  $12\frac{3}{4}$  square miles, in which reproduction was assured and the further prohibition of grazing wherein would simply be a source of annoyance to the villagers, was re-opened. The almost irretrievable damage which is being committed by browsers in Upper and Central Sind had, moreover, to be checked. Hence, the increase in the area closed to such animals.

75. The number of cattle impounded during the year under report and the year before in open and closed forests is given below :—

Division.	FROM OPEN FORESTS.		FROM CLOSED FORESTS.		TOTAL.	
	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
	No.	No.	No.	No.	No.	No.
Sukkur ...	5,465	7,025	3,856	9,734	9,321	16,759
Naushahro ...	2,630	1,703	3,905	5,268	6,535	6,971
Hyderabad ...	2,670	1,716	6,082	7,583	8,752	9,299
Jerruck ...	804	923	3,427	3,507	4,231	4,439
Total ...	11,569	11,367	17,270	26,092	28,839	37,459

76. The impoundings for the whole Circle from open forests vary but little, the larger number in the Sukkur and Jerruck Divisions being nearly counterbalanced by the smaller



number in the other two. In the latter, it has been already stated (paragraph 60) that the graziers appear to have realised that the chances of escaping detection were so limited, owing to the vigilance of the subordinates, that they took out grazing permits before driving their cattle into the forests instead of running the risk of paying the fines in addition. The cause of the increase under closed forests will be found explained in paragraph 78.

77. The following statement shows the number of cattle of different kinds impounded in the several divisions during the year :—

Division.	Kind of area.	Cows and Bullocks.	Buffaloes.	Camels.	Horses	Asses.	Goats and Sheep.	TOTAL FROM	
								Open.	Closed.
		No.	No.	No.	No.	No.	No.	No.	No.
Sukkur	Open	1,899	1,063	386	49	53	3,575	7,025	...
	Closed	1,626	1,192	434	36	60	6,386	...	9,734
Naushahro	Open	402	190	166	8	92	845	1,703	...
	Closed	1,802	773	496	54	47	2,096	...	5,268
Hyderabad	Open	256	136	157	...	3	1,164	1,716	...
	Closed	2,217	683	770	...	20	3,893	...	7,583
Jerruck	Open	406	206	41	5	2	263	923	...
	Closed	1,310	521	524	17	33	1,102	...	3,507
Total	Open	2,963	1,595	750	62	150	5,847	11,367	...
	Closed	6,955	3,169	2,224	107	160	13,477	...	26,092

78. Increased trespass by browsers was to be expected, following, as it did, the necessity of excluding these pests to forest conservancy from a larger area. The total of all kinds of animals captured in closed blocks amounts to 26,092 head, while browsers alone to 15,701, whereas the figures for the previous year shown in the statement under paragraph 78 are, respectively, 17,270 and 7,388.

The information required under paragraph 5 of Government Resolution No. 8265, dated 21st October 1896, is given below :—

Division.	Number of animals captured in closed blocks.	Number of animals covered by passes for open forest.
Sukkur ...	9,734	3,204
Naushahro ...	5,268	3,068
Hyderabad ...	7,583	3,051
Jerruck ...	3,507	1,204
Total ...	26,092	10,527

79. In connection with the matter of impoundings, the following remarks may be found interesting.

There are *maldars* in almost every range who defy the subordinates and indulge in illicit grazing, principally at night, and keep their animals tethered in the day in the densest parts of the forest. To catch them is by no means an easy task, as their owners are daring and do not hesitate to use criminal force when interfered with. The Range Forest Officers and Forest Guards now and then go prepared to resist intimidation of this sort, and sometimes succeed in effecting seizures, but even then the cattle owners refuse to compound the offence and register their cattle, and prefer to be mulcted in Pound fees, which are heavier than the fines imposed under the departmental rules. The reason for this is not far to seek, as most of them are either professional cattle-lifters themselves or are harbourers of stolen cattle. The former have no fixed place of abode, and leave one forest directly the Police or Forest officers are on their track to go to another, perhaps across, or many miles down, the river, especially

if the stolen animals are buffaloes, as they can swim for hours with the current when properly led, in order that their whereabouts may not be discovered; whereas the latter, I noticed during my tour, not unfrequently take up their abode in the densest part of the forests in defiance of all previous orders. It was, therefore, necessary to call the attention of the Divisional Forest Officers as well as their subordinates in a special circular quoted below to mitigate the evil caused by such miscreants finding shelter in the forests:—

“Notwithstanding the orders not to allow cattle-breeders and professional graziers to squat in such localities as are not easily accessible, the Conservator noticed with regret during his inspection that cattle-sheds had, in some instances, been suffered to be constructed in the heart of dense jungle within forest limits. As the forests are apt to harbour cattle-thieves and other bad characters, Divisional Forest Officers are requested to see that the orders given below are strictly carried out in future, and to report for the orders of the Conservator all cases in which there are reasonable grounds for believing that they have been set at defiance by collusion with Forest subordinates :

1. No one should be permitted to reside within forest limits without having previously obtained the written permission of the Range Forest Officer.
2. The permission so given should be immediately communicated to the Divisional Forest Officer.
3. Suitable sites for *maldars* now living on the borders of rides, on the banks of *dhands*, or on the edge of forests should be selected by Range Forest Officers, and, on their being approved, should be marked off and fenced in.
4. If a new site is required by a *maldar*, he should not be permitted to squat thereon until the site has been approved of by the Divisional Forest Officer and enclosed by a hedge by the intended settler, after being demarcated by the Range Forest Officer.
5. Squatters living in any site not approved of and marked off as aforesaid should be at once turned out of the forest, and, if necessary, the aid of the Police should be sought for this purpose.
6. The selection of sites should be carefully performed, and they should be neither too many in number nor too far between. Arrangements should be made to so locate them as can easily admit of a good number of the graziers settling at one place, instead of being scattered throughout the length and breadth of the forest.
7. The extent of a site chosen should be restricted to five acres. This limit should neither be exceeded nor reduced, except under special circumstances, which should be reported to the undersigned, and no two of them should on any account be more than a mile apart.
8. A register in the accompanying form should be kept by all Range Forest Officers, in which all settlements which have been duly approved of and sanctioned by Divisional Forest Officers should be entered.
9. From this register, a quarterly list of such settlements should be prepared and submitted by Range Forest Officers to their respective Divisional Forest Officers, who should on receipt of the same forward for the information of the District Magistrate and the Superintendent of Police extracts therefrom appertaining to the forests coming within their respective jurisdictions.
10. The squatters should be made to clearly understand that their residence within forest limits is subject to the pleasure of the Department during their good behaviour, and if at any time it is discovered that their presence is intolerable, or is otherwise deemed to be injurious to forest conservancy, their summary eviction from the land will inevitably follow.
11. Divisional Forest Officers when out on inspection duty should make it a point to have at hand the last list in their office, and personally verify the accuracy of the entries in it.
12. As soon as the work of selection is completed in accordance with the foregoing orders, Divisional Forest Officers will have the sites so approved of, as also those that may be fixed upon subsequently, marked on the maps in their and Range Forest offices.
13. Care should be taken to see that *maldars*, etc., are not harrassed, or made to shift from place to place by Police or Forest subordinates, for purposes of their own.”

## (c) Fencing.

80. The erection of hedges was carried out as usual with the aid of the forest population in consideration of the privileges enjoyed by them. The amount of work turned out of cost through this agency is tabulated below :—

Division.	Length of hedges in miles.	Estimated value.
		Rs.
Sukkur ...	270	4,538
Naushahro ...	17	380
Hyderabad ...	166	424
Jerruck ...	92	1,322
<b>Total ...</b>	<b>545</b>	<b>6,664</b>

## (c) Improvement of Forest growth.

## (1) Natural Reproduction.

81. As it was to be expected in a year of normal inundation, natural reproduction as a whole, whether by seed or by coppice, was plentiful in all the riverain forests which are not completely cut off by protective embankments erected by the Irrigation Department, or which are not high-lying. In fact, it was what may be termed a "model" season, the level to which the floods reached being neither too high nor too low, and, combined also, as it was, with effective protection from fires and injurious grazing, it resulted in the general improvement of the growth. Unfortunately, the very heavy frosts of the year did some irreparable damage, chiefly in Upper and Central Sind, not only to the self-sown babul seedlings of the year, but to older growth of the same species as well. \* The frost was so severe in some localities that branches of mature trees exposed to its influence completely dried up and withered away. The injury was confined to the young crop of babul seedlings which were in the open and not under parent or other trees, although in a few instances it was noticed that the young growth even in open ground had escaped damage. The majority of the seedlings which suffered and were nipped to the ground made a fresh start in the spring, and are reported to be doing well. In high-lying lands beyond the influence of the floods, natural reproduction by seed was almost a *minus* quantity, as the rainfall of the Province, scanty as it is, was much more deficient than in ordinary years. In such of the unirrigated forests as were closed to browsers, the coppice growth showed a marked improvement.

82. The character of the inundation of 1896 as compared with that of the previous year, and its consequent effect on the forests, will be gathered from the details given below :—

Division.	Total area of Division.	AREA IRRIGATED DURING THE INUNDATION SEASON OF		Area capable of being irrigated in abnormal inundations.
		1895.	1896.	
	Acres.	Acres.	Acres.	Acres.
Sukkur ...	287,718	84,700	121,455	212,000
Naushahro ...	156,800	15,000	34,659	88,800
Hyderabad ...	118,977	60,000	50,657	100,000
Jerruck ...	117,466	47,000	88,500	95,000
<b>Total ...</b>	<b>680,961</b>	<b>206,700</b>	<b>295,271</b>	<b>495,800</b>

\* Note.—The temperature at night and in the early mornings between the 14th and 24th January was very low' the thermometer having registered from 6 to 14 degrees of frost.

(2) *Artificial Reproduction.*

83. The forests being now worked systematically, the plans for reproduction of the areas felled over require to be considered in detail before they can be given effect to. In coupes which are flooded, the natural reproduction is so good that they present hardly any difficulty. Broad-casting a little seed to cover blanks which may occur here and there is all that is needed to assure their complete regeneration. In such lands, however, if it is intended to substitute a better species in place of that exploited, the cultural operations have to be carried on under a definite scheme. In the year under report, Divisional Forest Officers drew up projects not only for each coupe separately, but also for other lands which required immediate treatment, and issued clear and explicit orders to their subordinates in order that such areas may be reproduced within the shortest time possible. For reclothing high-lying lands to which surface moisture has to be brought from an adjacent canal or the river either by flow or lift, to enable the soil or artificially sown seed to germinate first and the plants to live afterwards till they reach the moisture bearing strata, special arrangements have to be made. The cost of the operations which these arrangements entail is so heavy that the Department can ill afford to spend money on them, and therefore the most economical way is to seek the aid of the nearest zamindar or cultivator to carry them out, whenever it is volunteered. The Kot Sultan plantation referred to in paragraph 83 of last year's report is a case in point, where the preparing of the soil and the irrigation of the land is done by flow. But there are other tracts which can only be irrigated by raising the water by means of Persian wheels. The reproduction of the latter economically has been under my consideration for some time past, and the ways and means of doing so were matured during the year, and the scheme introduced from the 1897 inundation season is briefly as follows :—

## AREAS WATERED BY LIFT.

- (a) One-fourth of the area given out for cultivation annually to be treated as a plantation, and such cultural operations as may be necessary to be carried out by the cultivator.
- (b) The area so treated to be watered during four successive seasons at the cultivator's expense.
- (c) A hedge, 4 feet in height, to be constructed by the cultivator round the planted area, and to be kept in proper repair by him for four years.
- (d) During the first year, the cultivator to pay full assessment on the area planted as well as that cultivated.
- (e) In the second year, no concession to be claimed for watering the plantation.
- (f) In the third and fourth years, an area equal to that planted in the first year to be allowed to be cultivated free of assessment in return for irrigating the plantation during those years.
- (g) For failure on the part of the cultivator to fulfil conditions a, b, and c, as well as for neglect to protect the plantation, the cultivator to pay a penalty of Rs. 100 in the first year; in the second, the penalty to amount to double the assessment levied in the year the plantation is created; and the penalty to be three times the assessment, if he neglects to water or to look after the plantation in the third or fourth year.

84. The cultural operations of the year in the different divisions are briefly described below :—

Cultural operations in the Sukkur Division were carried on in almost every range. The following were the chief works undertaken :—

**KOT SULTAN RANGE.**—To the regular plantation of 201 acres created last year with the aid of field crops in the Kot Sultan Reserve, 687 acres were added and treated on the same lines, 297 maunds of babul were sown and 2,000 tali (*Dalbergia Sissoo*) and 2,000 asri (*Tamarix Articulata*) slips were also planted in this extension. The method of sowing the seed was altered: instead of sowing it in lines, it was broad-casted at the same time as the cereals. The rigour of the frosts, however, retarded somewhat the growth of the seedlings of the year as well as those of the year before. In another Reserve, Bakapur near Jacobabad, a similar project was drawn up, but it could not be successfully carried out, as it depended on the Nurwah for the water-supply, which, being not over sufficient for the needs of the agricultural classes outside forest limits, was cut off just when the plantation required it most.

**ABAD RANGE.**—A regular plantation of 10 acres was created in the Abad Forest, in which 1,839 plants raised in nurseries were transplanted, 1,600 of which were doing well at the end of the year. Besides this, 496 seedlings were transplanted in a small plot in the Kadrapur Forest, but here the number of plants alive was only 156. In the former, the plants were watered by hand throughout the season, whereas in the latter they were left to nature. In old cultivation sites, the level of which had been raised by successive silt deposits, 127 maunds of babul seed were broadcast over 44 acres, the reproduction in which is excellent and has hardly been injured by frosts. 3,240 tali slips were put down in blanks, but only 700 of them survived, and 115 asri out of 1,100.

**MIRPUR RANGE.**—The introduction of tali in some of the reserves was also tried. An area of 4 acres in all was successfully planted with slips and transplants, which varied in growth from 2½' to 3' in height at the end of the year. 48 maunds of babul seed were broadcast in old cultivated sites in which reproduction is assured.

**SADHUJA RANGE.**—The results of the year's work were not so successful as in the other ranges, as only 410 out of the 6,350 tali and asri seedlings laid down survived. The cause of such a large number failing to strike is simply due to the operations having not been undertaken directly the flood water drained off the land. Blanks measuring 150 acres were sown with 148 maunds of babul seed, the reproduction in which is very satisfactory, only 20 per cent. of the seedlings having been killed outright by frost.

**KASHMOR RANGE.**—A tali nursery was started in the Gublo Forest, in which 300 plants are being reared for transplanting next season. Only 300 tali and asri cuttings out of the 4,500 said to have been put down in the several forests were alive on the 30th June 1897. Old fields in these recently acquired reserves were sown broadcast with very encouraging results, an area of 334 acres being covered with a dense growth of babul.

**SUKKUR RANGE.**—Under a special arrangement hereafter described, a babul plantation covering 100 acres was created in the Garhi Halim Reserve. A cultivator volunteered to construct a masonry sluice at his own expense in a branch of the Sind Wah and to lay no claim to it if he were allowed to cultivate 200 acres for two years on payment of *assessment ruling for the adjacent village lands*. His offer was accepted, and by means of this sluice not only 100 acres out of his total grant were successfully sown with babul seed, but a large portion of the forest was irrigated as well.

In addition to the above operations in the Sukkur Division, the work of filling up vacancies as well as that of introducing babul in place of the existing growth of kandi and lye in exploited coupes was also undertaken in all the ranges, and about 500 maunds of seed were scattered over an area of 2,914 acres.

85. A sufficient quantity of babul seed was collected in the Naushahro Division, but all of it was not utilised in the expectation that the inundations would reach a still higher level later on and that it would be better to delay operations, but this expectation was not realised. 155 acres were treated on the Kot Sultan lines, but the soil being inferior the growth is said to be in a sorry plight. 500 maunds were broadcast over an area of 900 acres in the exploited coupes.

86. As reproduction can be assured without, hardly, any artificial aid in most of the forests of the Hyderabad Division, only 83 maunds of babul seed were sown to fill up gaps.

87. The operations in the Jerruck Division were chiefly confined to areas felled over in the preceding cold weather, and 535 maunds of babul seed were used for this purpose as well as for reclothing blanks. One coupe was artificially reproduced with the aid of a cereal crop.

(3) *Early thinnings.*

88. No such operations were carried out in this Circle.

(4) *Other operations for the improvement of the growing stock.*

89. It is very unsatisfactory that the orders mentioned in paragraph 90 of last year's report remained again almost unheeded. In the Hyderabad Division, the work of weeding out the kamu (*Fluggeo leucopyrus*) extended over 1,367 acres only, that is to say, about 8 compartments. The Divisional Forest Officer, Jerruck, reports that "nothing was done, or very little. The subordinates were continually ordered by me in my inspection to attack the kamu shrub, but I am afraid that very little was done."

(5) *Experiments.*

90. The experiments with the rain tree undertaken hitherto in the Jerruck Division cannot be called a success. The few seedlings that have survived are too high and unfit for transplanting. One pound of the seed was sown in prepared seed beds in the Miani Garden (Hyderabad Division) in the last week of April 1897. Almost all of it germinated by the end of that month, and by the beginning of May the seedlings were 13 inches high. 140 of them were thinned out and put down in another place in the same garden, but they were not sufficiently strong at the close of the year to be transplanted on *kalur* lands.

91. Anjan seed (*Hardwickia binata*) procured from Khandesh was sown in several nurseries, but in only two of them—Sadhuja and Gublo—have the seedlings survived, there being 80 in the former and 50 in the latter.

92. The Sabai grass seed obtained from the officer in charge Botanical Survey, Poona, under the orders of Government contained in their Resolution No. 4615, dated 19th June 1895, has failed to germinate wherever it was sown. It is worthy of notice that the *Prosopis glandulosa*, which was experimentally cultivated in all divisions, has now been fairly established and reproduces itself naturally. Several self-sown seedlings are now found in the vicinity of the parent trees.

(d) *Exploitation of major Forest produce.*

93. There is little to add to the details recorded last year (paragraph 94).

94. The following statement shows the area of the coupes set apart for exploitation during the working season, commencing from 1st December 1896 and ending on 30th September 1897 :—

Division.	AREA OF			TOTAL.
	Regeneration fellings.	Coppice fellings.	Selection fellings.	
Sukkur ...	600	11,340	...	11,940
Naushahro ...	267	3,161	1,000	4,428
Hyderabad ...	2,001	1,380	1,500	4,881
Jerruck ...	669	933	...	1,602
Total ...	3,537	16,814	2,500	22,851

95. The area in which felling operations were conducted is less by 5,988 acres than in the previous year, owing chiefly to a revision of the areas under each type of forest having been made, which resulted in the operations being limited accordingly, and partly to some

of the coupes in the Jerruck Division, in which the standing crop was very inferior (936 acres), not finding purchasers.

96. The exploitation of small bahan timber, such as posts, rafters, etc., under the selection method was confined to the Hyderabad and Naushahro Divisions to meet the large demand for such produce in the city of Hyderabad. The area for such operations was curtailed as the fellings in the past had been heavy and some of the forests had been overworked.

(e) *Exploitation of major Forest produce by land and water.*

97. The system of extraction introduced in the year previous was continued, and it has taxed all the energies of the Department to bring it to a successful issue. The disposal of the coupes was effected with an immense deal of trouble and worry. There was hardly any response to the invitation of tenders, and such as were received were very low. Knowing this, the old contractors tried to play fast and loose with the Department in order to secure the contracts on easy terms. It was therefore necessary to remain firm and break the combination amongst them, and disabuse them as well of the idea they had run away with that they were indispensable. It was also currently reported that coercion was being used to dissuade other intending purchasers who had been persuaded to make satisfactory offers. A firm of Borab merchants in Karachi, after obtaining the necessary particulars regarding the contract for one of the divisions and giving me hopes that they would come to an understanding in a couple of days, suddenly withdrew. On enquiry, it was found that the diffidence on their part arose from an apprehension that they would not be able to work the contract, in that the principal wood-cutters and boatmen were indebted more or less to the old contractor, who had enjoyed a monopoly to work in these forests for over a quarter of a century, and the latter would have the means of harassing the former by having recourse to the provisions of Act XIII of 1859 to recover the debts, if he found that his men had taken employment under a new contractor. In fact, all sorts of rumours were circulated by interested parties to the prejudice of the Department, and at one time the situation became very critical, indeed. Finding that the working season was fast approaching and no arrangements for the extraction of major Forest produce had been concluded, the sale of the coupes of the Jerruck Division only by public auction was advertised as a last resource, by way of experiment, with the result that the old contractor was outbidden by three others in very many instances, and all the coupes, except seven, were disposed of at favourable rates. Thus, a beginning was made during the year to create competition. Two out of the three new purchasers are petty contractors with small capital, and have given the Department entire satisfaction. Before this auction was held, the contractors who had purchased the 1895-96 coupes of the other three divisions, fearing to be ousted by new men, as it actually happened afterwards in the case of the Jerruck Division, agreed to the proposal previously made to them to buy the coupes at the Departmental valuation and their offer was accepted, as it was not probable that so very late in the season an auction sale in their case would have given better results.

(f) *Exploitation of minor Forest produce.*

(1) *Extraction of Fodder.*

Extraction of fodder.

98. There is nothing further to be added to the remarks made in former reports.

(2) *Grazing.*

99. The inundation being a normal one, there was sufficient grazing available for the animals admitted into the open portions of the riverain forests.

Grazing.

100. A comparison is made in the following statement of the number of the animals licensed for grazing at full and privileged rates during the years 1895-96 and 1896-97 :—

Division.	No. of animals.	
	1895-96.	1896-97.
Sukkur ...	204,478	134,948
Naushahro ...	123,654	128,245
Hyderabad ...	144,923	204,330
Jerruck ...	95,820	109,793
Total ...	568,875	577,316

101. The decrease in Sukkur is due to cattle disease, insufficient fodder in two sub-ranges, and the closure of a larger area than in the year before to browsers. A larger number of animals availed themselves of the grazing within forest limits in the other three divisions than in 1895-96, hence the increase.

(3) *Miscellaneous.*

102. There is nothing special to record under this head.

### CHAPTER III.

#### GROSS YIELD AND OUTTURN OF FOREST PRODUCE.

##### I.—*Departmental Operations.*

##### (a) *Timber.*

103. A comparative statement showing the outturn of timber extracted by Government agency is given below :—

Year.	TIMBER IN THE ROUGH.		SAWN TIMBER.		
	Logs.	Poles.	Planks.	Sleepers.	Slabs.
	No.	No.	No.	No.	No.
1895-96 ...	3,101	32,610	2,506	2,040	...
1896-97 ...	153	3,706	...	...	...
Decrease ...	2,948	28,904	2,506	2,040	...

104. In the subjoined table is given an abstract of Form No. 59, which exhibits a detailed account of timber cut and collected by Departmental agency and that brought to Sale Depôts or sold locally .—

Description of Timber,	Balance on 1st July 1896.	Outturn of the year.	Total.	Disposed of during the year.	Balance on 30th June 1897.
	No.	No.	No.	No.	No.
<i>Sukkur Division.</i>					
Logs ...	...	151	151	124	27
Poles ...	...	3,706	3,706	1,352	2,354
<i>Naushahro Division.</i>					
Logs ...	...	...	...	...	...
Poles ...	...	...	...	...	...
<i>Hyderabad Division.</i>					
Logs ...	...	...	...	...	...
Poles ...	4,141	...	4,141	4,141	...
<i>Jerruck Division.</i>					
Logs ...	...	2	2	2	...
Poles ...	...	...	...	...	...



105. There is not much to remark under this head. In the Naushahro, Hyderabad and Jerruck Divisions, no fellings were undertaken departmentally, while in Sukkur the 151 logs and 3,705 poles are the result of so much of the erosion operations as were carried on by Forest subordinates. In Jerruck, the 2 logs are the balance of timber cut and disposed of in 1895-96, but through an oversight they were not brought on to stock returns of that year.

106. The supply of timber, as also of other forest produce, to Government Departments and public bodies by direct Departmental agency having practically ceased, the usual statement of the yearly deliveries to them has been omitted.

Supply of timber to public departments.

(b) Firewood and Charcoal.

Outturn of firewood.

107. The following statement gives the yield of firewood and charcoal for two years:—

Year.	Firewood.	Loco. fuel.	Charcoal.
	Maunds.	C. ft.	Maunds.
1895-96 ...	80,362	1,979,103	18,892
1896-97 ...	1,178	3,125	...
Decrease ...	79,184	1,975,978	18,892

108. A marked difference is noticeable in the above figures, which has solely resulted from the introduction of the coupe contract system of working the forests, under which contractors are at liberty to have direct dealings with all the Departments of Government, etc., requiring fuel for their consumption, Departmental fellings being only resorted to when failing other arrangements, material has to be cut on eroding banks, canal banks, *bands* or along boundary paths and compartment lines, or when a special indent from a public department has to be complied with.

(c) Other Minor produce.

109. The collection and removal of minor forest products are works in which the Department has no direct hand, as the most valuable of them are yearly farmed out.

Minor products.

## II.—Removal of Produce by purchasers.

(a) Timber.

110. The quantity of timber cut and removed from the forests by purchasers, other than coupe contractors, during two years is compared below:—

Comparative statement of yield in timber.

Division.	Timber.		Posts.		Rafters.		Sleepers.		Planks.	
	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
	C. ft.	C. ft.	No.	No.	No.	No.	No.	No.	No.	No.
Sukkur ...	1,197	7,355	568	2,390	20,403	15,567	...	...	...	...
Naushahro ...	2,982	10,838	282	...	23,469	12,939	...	...	...	...
Hyderabad ...	2,460	5,038	4,825	4,165	70,879	78,315	...	53	...	...
Jerruck ...	6,399	198	156	...	3,500	4,170	6,815	389	232	...
Total	13,038	23,429	5,931	6,555	118,251	110,991	6,815	442	233	...

111. The increase under "Timber" and "Posts" is accounted for by the sale of wood obtained from erosion fellings, which were heretofore carried on by Departmental agency, while under other heads there is a falling off, brought about by the change in the agency of exploitation, as under the coupe system the requirements of villagers along with those of other people were met by the coupe contractors who had purchased the standing crop in the area situated within their reach in the different localities. To obviate inconvenience or hardship that might be felt by the inhabitants of villages in the neighbourhood of forests by the coupe contractors refusing to comply with their requisitions for domestic purposes, or demanding higher rates from them, a clause has been inserted in the coupe agreement which renders it obligatory on contractors to supply them with the required material at rates not in excess of those hitherto charged by the Forest Department.

## (b) Firewood and Charcoal.

Comparative statement of yield in firewood.

tors :—

112. The following comparative statement exhibits the outturn of firewood and charcoal, exclusive of the quantities extracted by the coupe contractors :—

Division.	Firewood and Charcoal.	Firewood and Charcoal.
	1895-96.	1896-97.
	C. ft.	C. ft.
Sukkur ... ..	2,957,574	2,008,512
Naushahro ... ..	816,217	476,061
Hyderabad ... ..	383,006	573,537
Jerruck ... ..	430,968	93,873
Total ... ..	4,587,765	3,151,983

113. A decrease is noticeable in all the divisions, except in one, and it is mainly due to the outbreak of plague, which, having decimated the population of large towns, such as Shikarpur, Sukkur, Kohri, etc., caused a considerable reduction in the consumption of the two articles so much in request for the daily necessities of life, and partly to the restrictions imposed by the Deputy Commissioner, Upper Sind Frontier, on the disposal of wood from waste lands in his district, which were subsequently withdrawn on a representation having been made to the Commissioner in Sind. In the Hyderabad Division, the increase is attributed to the inclusion of a large quantity of firewood and charcoal, cut under share system in 1895-96, in the figures of 1896-97, as it was disposed of in the latter year.

Realisations from coupe sales.

114. The subjoined table shows, among other details, the value realised by the sale of the coupes selected for exploitation :—

Division.	Number of Coupes.	Area in acres.	Value realised.	Average price per acre.
			Rs.	Rs. a. p.
Sukkur ... ..	96	11,940	56,000	4 11 1
Naushahro ... ..	14	3,428	18,000	5 4 0
Hyderabad ... ..	47	3,381	62,000	18 5 5
Jerruck ... ..	36	1,602	27,248	17 0 2
Total ... ..	193	20,351	1,63,248	8 0 4

A comparison of these figures shows a decided improvement upon those of the preceding year, recorded under paragraph 115. Although the total area sold during the year is less by six thousand acres, the prices obtained are in excess by more than four thousand rupees. The average price has also risen, notably in Hyderabad and Jerruck. The forests of these divisions contain magnificent babul (*Acacia Arabica*), and it is the babul bearing area mostly that brings in such good returns. This is one of the reasons why special attention is being paid to the regeneration of the area under forest in Sukkur and Naushahro, which in course of time will have improved not only the quality of the growing stock, but the amount of the sustained yield as well.

115. Bahan (*Populus euphratica*) was exploited under the selection method in the Naushahro and Hyderabad Divisions only. The following statement shows the minimum quantity of the different descriptions of this class of timber which the contractors

Realisations from bahan timber.

agreed to extract before the 30th September 1897 from the areas shown in column 4 of the statement given under paragraph 94, together with the stipulated rates and other details :—

Description of timber.	Minimum quantity to be extracted.	Rate per 100.	Quantity removed during the fuel year ending 30th September 1897.	Less quantity extracted.
<i>Hyderabad Division.</i>				
	No.	Rs. a. p.	No.	No.
Dasas ...	700	50 0 0	120	580
Posts ...	12,500	20 0 0	8,686	3,814
Rafters ...	257,000	7 8 0	133,950	123,050
Do. (thin) ...	96,875	4 0 0	33,700	63,175
Total ...	367,075	...	173,456	190,619
<i>Naushahro Division.</i>				
Dasas ...	...	...	...	...
Posts ...	2,000	7 8 0	...	2,000
Rafters ...	2,000	5 4 0	...	2,000
Do. (thin) ...	5,000	3 0 0	...	5,000
Total ...	9,000	...	...	9,000

116. It will be observed that the quantities removed and paid for during the year fell far short of the expectations entertained. The scare caused by the outbreak of plague and quarantine restrictions hampered the operations of the contractors to such an extent that sufficient labour could not be procured, even on increased wages, and thus the work of extraction was given up by them as a hopeless task. This accounts for the anticipated outturn being so small.

117. The following statement shows the quantity of wood fuel supplied by coupe contractors to the North-Western Railway and other departments and public bodies, together with the rates charged :—

To whom supplied and at what rate.	Firewood.
	1896-97.
	Maunds.
North-Western Railway ( <i>vide</i> paragraph 118, below) ...	1,096,815
Commissioner's Steamer "Jhelum" (actual expenses of cutting and delivering) ...	9,373
Indus Ferry Steamers (Rs. 22 per 100 mds.) ...	50,420
River Conservancy (Rs. 18 per 100 mds.) ...	2,517
Public Works Department (Rs. 18 and 21 per 100 mds.) ...	700
Commissariat (Rs. 25 per 100 mds. and 10½ annas per 100 lbs.) ...	50,676
Hyderabad Water Works (Rs. 21 per 100 mds.) ...	30,000
Sukkur Municipality (Rs. 48 per 1,000 c. ft.) ...	2,369
Hyderabad Jail (Rs. 25 per 100 mds.) ...	2,400
Government Farm, Hyderabad (Rs. 21 per 100 mds.) ...	1,000
Port Engineer, Karachi (Rs. 30 per 100 mds.) ...	74,000
Total ...	1,320,270

118. For the loco. fuel delivered at stations on the N. W. Railway, different rates are paid. They were settled with the Manager in the year 1894, and have remained unchanged ever since. For facility of reference, they are shown in the following schedule:—

No.	Name of Station.	Charges for cutting and delivery per 1,000 c. ft.	Royalty per 1,000 c. ft.	Total.
		Rs.	Rs.	Rs.
1	Reti	36	12	48
2	Khairpur	24	12	36
3	Mirpur	24	12	36
4	Sarhad	24	12	36
5	Ghotki	24	12	36
6	Mahesar	24	12	36
7	Pano Akil	24	12	36
8	Sangi	24	12	36
9	Rohri	30	12	42
10	Sukkur	36	12	48
11	Bagarji	26	12	38
12	Ruk	25	12	37
13	Jamra	25	12	37
14	Shikarpur	26	12	38
15	Kot Sultan	24	12	36
16	Humayun	30	12	42
17	Abad	24	12	36
18	Jacobabad	30	12	42
19	Alahdadin	26	12	38
20	Madeji	25	12	37
21	Sehwan	28	12	40
22	Bubak	26	12	38
23	Bhan	26	12	38
24	Khudabad	27	12	39
25	Dadu	36	12	48
26	Phulji	25	12	37
27	Purano Dero	36	12	48
28	Piaro	27	12	39
29	Sita	27	12	39
30	Radhan	36	12	48
31	Badra	25	12	37
32	Naundero	27	12	39
33	Kotri	34 & 36	12	46 & 48
34	Gidu Bandar	36	12	48
35	Budhapur	26	12	38
36	Manjhand	34	12	46
37	Amri	32	12	44
38	Gopang	32	12	44
39	Laki	30 & 32	12	42 & 44

Revenue from the sale of wood under the permit pass system.

119. A comparison of the "Ghat" realisations from the sale of dead wood to retail dealers is exhibited below :—

Division.	Name of Ghat.	REVENUE REALISED.	
		1895-96.	1896-97.
		Rs.	Rs.
Sukkur	Rahuja ...	10,633	6,757
	Jhali ...		
	Rohri ...		
	Sadhar ...		
Naushahro	Stewart ...	14,531	11,857
	Khura ...		
	Larkana ...		
	Garhi Yasin ...		
Hyderabad	New Fuleli ...	1,579	1,366
	Old Fuleli ...		
	Hajipur ...		
	Matiari ...		
Jerruck	Miani ...	212	328
	Khathar ...	3,152	2,746
		433	339
	Total ...	33,680	27,089

120. The causes which have in the main contributed to a decrease of Rs. 6,591 from this source of revenue have been explained in paragraph 116 in this chapter. It is only two of the out-lying stations (Larkana and Matiari) where "Ghats" are established that show a little increase, resulting from an influx of people into these places at the commencement of the plague, when the quarantine restrictions and segregation rules were not in operation throughout the Province.

(c) Grazing.

Grazing fees.

121. The revenue realised from grazing fees in the different divisions is compared below :—

Division.	1895-96.	1896-97.
	Rs.	Rs.
Sukkur ...	20,958	18,683
Naushahro ...	9,237	9,549
Hyderabad ...	14,331	17,072
Jerruck ...	12,554	13,166
Total ...	57,080	58,470

122. The receipts under this head exceed those of the two previous years by Rs. 9,889 and Rs. 1,390, respectively. The improvement of the year is very satisfactory, notwithstanding the necessity of excluding browsers from a larger area and of carrying out extensive plantation operations, especially in Upper Sind (paragraph 74).

## (d) Other minor Produce.

123. The proceeds realised by the disposal of farms for the collection and removal of minor forest produce and the right to fish in forest waters are given below for two years :—

Realisations from the sale of farms.

Division.	Babul Pods.		Lac.		Munj and Sur grass, &c.		Fishery.	
	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Sukkur ...	492	583	...	...	976	917	1,537	1,959
Naushahro ...	998	782	...	...	698	870	1,741	1,112
Hyderabad ...	7,953	12,587	7,350	5,410	301	349	1,057	1,045
Jerruck ...	3,245	2,841	367	133	...	...	314	203
Total ...	12,688	16,793	7,717	5,543	1,975	2,136	4,649	4,319

124. A variety of causes was at work affecting adversely or otherwise the sale-proceeds of the minor products as well as their recovery. Under "babul pods," the net increase amounts to Rs. 4,105, which occurs mostly in the Hyderabad Division, in which the sale price of the year was almost the same as that of the one previous; but an outstanding sum of over three thousand rupees on account of the latter year was recovered and credited in the former. In the Hyderabad Division, the "lac" farm fetched much better prices, but an instalment of Rs. 2,730 had unavoidably to stand over unadjusted, owing to the occurrence of plague, which interfered not a little with its collection and disposal; while in the Jerruck Division, the crop of "lac" having failed, a ridiculously low offer was received, which it was not deemed worth while to accept. The sum of Rs. 133 shown in the year 1896-97 is the amount of the third instalment due on account of the preceding year. The slight increase under "Munj and Sur grass, etc.," needs no remarks, as receipts from them often vary with the demand that exists for them in the localities in which they are produced. Under "fishery," the Sukkur Division shows an increase of Rs. 422, due to the better prices obtained, while the revenue has declined in other divisions, especially in Naushahro, where the falling off was caused by the absence of the keen competition which characterised the sale of the year before.

## (e) Cultivation.

125. A statement showing the area given out for cereal cultivation within forest limits and the assessment realised therefrom in two years is given below :—

Area under cereal cultivation.

Division.	AREA UNDER CULTIVATION.				AMOUNT REALISED BY ASSESSMENT.			
	Kharif.		Rabi.		Kharif.		Rabi.	
	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	Rs.	Rs.
Sukkur ...	641	1,358	945	462	1,235	3,945	3,688	2,316
Naushahro ...	229	435	890	973	707	1,258	2,280	1,654
Hyderabad ...	23	20	47	78	86	66	202	236
Jerruck ...	40	602	45	26	329	2,004	71	75
Total ...	933	2,415	1,927	1,539	2,257	7,273	6,241	4,281

126. A larger area under "kharif" is the necessary consequence of the more rapid advancement which is being made towards reclothing the denuded tracts and replacing the rank and stunted growth by more valuable species of trees. In the Kot Sultan Forest alone, 1,153 acres were given out, against 322, in the year before. Under the arrangement in force, 627 acres, a little more than half the area, have been planted with babul and fenced in at the cultivators' expense. Subject to certain modifications to suit the particular localities, etc., a similar system is in operation in other forests, also. The area under "rabi" cultivation has fallen from 4,793 acres in the year 1894-95 to 1,539 in 1896-97, for the reasons that the lands so cultivated in previous years are being taken up by the Department for cultural operations directly they become fit to bear a tree crop, and that fresh grants are confined to depressions and low-lying tracts wherein the water level is still so high in the inundation season as to preclude all possibility of systematic treatment.

127. To calculate the rate per acre from the figures shown in the above statement is by no means a safe course to arrive at the exact rate of assessment charged by the Forest Department, inasmuch as they only exhibit the actual sums realised during the year, while under the terms of agreement executed by cultivators some of the later instalments due on the land let to cultivation in one year do not become payable till the next, and at times some of the revenue remains unadjusted when a year terminates. At the close of the year under report, such sums aggregated Rs. 1,187-7-2. In the year 1895-96. an item of Rs. 424, levied as assessment on "kharif" lands, had not been accounted for by the Divisional Forest Officer, Sukkur, and that year's figure has consequently been altered from Rs. 811 to Rs. 1,235.

### III.—Free grants of Forest produce.

128. The usual table showing the money value of the free grants of timber and other forest produce made to agriculturists, cattle-owners living within forest limits, as well as the people of villages in the vicinity of Forest Reserves is given below for two years :—

Free grants.

Division.		1895-96.	1896-97.
		Rs.	Rs.
Sukkur	...	689	1,019
Naushahro	...	287	231
Hyderabad	...	403	197
Jerruck	...	32	85
Total	...	1,411	1,532

129. The figures in the above statement often vary with the vagaries of the river and the number of fires that break out in a year in villages. The larger the number of huts or houses washed away or burnt, the greater is the demand for forest material. It is satisfactory to note that the orders on the subject of free grants, quoted under paragraph 126 of last year's report, were well attended to, and necessary precautions were taken to prevent unnecessary delay to grantees in the cutting and removal of the material sanctioned in their favour.

130. There is yet another advantage which the coupe contract system of working has been the means of affording to Forest population, inasmuch as the coupe agreement provides that the contractor has no claim to the small materials consisting of branches, tooth brushes, shoots or wood of any sort five inches or less in girth at the thickest part, and that he is not to interfere with the villagers who may be permitted by a Forest Officer at any time after the commencement of felling to cut and remove the said small materials for firewood or fencing from the coupes. The area under exploitation being more or less evenly distributed, such material is available in sufficiently large quantities to meet the daily requirements of the people, and is allowed to be removed free of charge without requiring any preliminary formalities to be observed.

### IV.—Produce removed by right-holders and under privileges.

131. The following statement compares the number of cattle which grazed free in the forests of this Circle as well as the value of grazing enjoyed by them :—

Free grazing.

Division.	NUMBER OF CATTLE.		VALUE OF GRAZING.	
	1895-96.	1896-97.	1895-96.	1896-97.
			Rs.	Rs.
Sukkur	18,268	16,264	25,360	21,327
Naushahro	8,266	8,329	3,776	3,850
Hyderabad	72	58	19	88
Jerruck	1,168	1,536	832	2,367
Total	27,774	26,187	29,487	27,632

132. The statement prescribed in Government Resolution No. 2872, dated 12th April 1897, at the instance of the Inspector General of Forests is given below:—

Division.	Agency by which material removed.	MATERIAL REMOVED.								Total.	AVERAGE OUTPUT PER SQUARE MILE OF ALL FORESTS.			
		Timber.		Fuel.		Total Wood.		Minor produce.	Grazing.		Timber and fuel.	Minor produce.	Grazing.	
		C. ft.	Value—Rs.	C. ft.	Value—Rs.	C. ft.	Value—Rs.	Value—Rs.	Value—Rs.	Value—Rs.	C. ft.	Value—Rs.	Value—Rs.	Value—Rs.
Sukkur	Government	1,623	524	45,819	619	47,442	1,143	198	...	1,341				
	Purchasers	1,23,790	13,535	70,90,221	66,250	72,14,011	79,785	1,957	18,683	1,00,425				
	Free grants	6,729	950	1,148	12	7,877	962	57	...	1,019				
	Right holders	...	...	...	...	...	...	...	21,327	21,327				
	Total	1,32,142	15,009	71,37,188	66,881	72,69,330	81,890	2,212	40,010	1,24,112	16,154	193	5	89
Naushahro	Government	...	...	6,091	498	6,091	498	...	...	498				
	Purchasers	25,120	5,114	8,77,221	19,111	9,02,341	24,225	1,681	9,549	35,455				
	Free grants	2,208	220	...	...	2,208	220	11	536	767				
	Right holders	...	...	1,71,281	1,586	1,71,281	1,586	900	3,314	5,900				
	Total	27,328	5,331	10,54,593	21,195	10,81,921	26,529	2,592	13,399	42,520	4,345	107	10	54
Hyderabad	Government	...	119	...	2,296	...	2,385	51	...	2,436				
	Purchasers	1,17,095	28,577	64,56,843	34,398	65,73,938	62,975	18,823	17,072	98,870				
	Free grants	1,044	128	5,940	50	6,934	178	19	88	285				
	Right holders	...	...	...	...	...	...	...	...	...				
	Total	1,18,139	28,824	64,62,783	36,714	65,80,922	65,538	18,893	17,160	1,01,591	35,381	352	102	92
Jerruck	Government	20	36	26,293	722	26,313	758	33	...	791				
	Purchasers	89,770	8,148	30,97,249	23,233	31,87,019	31,361	3,149	13,166	47,696				
	Free grants	956	85	...	...	956	85	...	206	291				
	Right holders	...	...	...	...	...	...	...	2,161	2,161				
	Total	90,746	8,269	31,23,542	23,955	32,14,288	32,224	3,182	15,533	59,939	17,469	175	17	64
Total Sind Circle.	Government	1,643	679	78,203	4,105	79,846	4,784	282	...	5,066				
	Purchasers	3,55,775	55,374	1,75,21,534	1,42,992	1,73,77,309	1,98,366	25,610	58,470	2,82,446				
	Free grants	10,937	1,383	7,088	62	18,025	1,443	87	830	2,362				
	Right holders	...	...	1,71,281	1,586	1,71,281	1,586	900	26,802	29,288				
	Total	3,68,355	57,436	1,77,78,106	1,48,745	1,81,46,461	2,06,181	26,879	86,102	3,19,162	16,994	193	25	81

Summary of produce.

133. The different descriptions of produce removed from the forests are summarised below:—

Description of material.	Sukkur Division.	Naushahro Division.	Hyderabad Division.	Jerruck Division.	Total.
Timber ... C. ft.	1,32,142	27,328	1,18,139	90,746	3,68,355
Fire-wood and Charcoal ... „	71,37,188	10,54,593	64,62,783	31,23,542	1,77,78,106
Babul and other seed ... Mds.	1,078	...	738	651	2,467
Babul bark ... „	...	...	6	...	6
Lac ... „	...	...	3	...	3
Dab grass ... „	686	...	...	...	686
Tooth brushes ... „	...	...	206	83	289
Sar reed ... Bcls.	...	...	...	...	...
Kanh grass ... „	62	80	954	...	1,096
Thorns ... „	...	14,400	...	...	14,400
Jhau brush wood ... „	741	2,051	182	179	3,153
Branches of trees ... Ft.	55,720	497	...	...	56,217
Do. ... Cart loads.	201	...	...	...	291



## CHAPTER IV.

## FINANCIAL RESULTS.

Revenue and Expenditure of the Forest year.

134. The financial results of the Forest year 1896-97, as well as those of the one preceding it, are compared in the following statement:—

Year.	Receipts.	EXPENDITURE.			Surplus.
		A.	B.	Total.	
		Conservancy and Works.	Establishment.		
	Rs.	Rs.	Rs.	Rs.	Rs.
1895-96 ...	4,65,745	1,28,550	1,06,257	2,34,807	2,30,938
1896-97 ...	3,12,297	24,266	1,09,943	1,34,209	1,78,088
Difference ...	1,53,448	1,04,284	3,686	1,00,598	52,850

Receipts and Charges of the Financial year.

135. A comparison of the figures for the two Financial years is made in the subjoined statement:—

Year.	Receipts.	EXPENDITURE.			Surplus.
		A.	B.	Total.	
		Conservancy and Works.	Establishment.		
	Rs.	Rs.	Rs.	Rs.	Rs.
1895-96 ...	4,95,121	1,76,807	1,06,171	2,82,978	2,12,143
1896-97 ...	3,32,087	24,892	1,07,132	1,32,024	2,00,063
Difference ...	1,63,034	1,51,915	961	1,50,954	12,080

136. The gross receipts and expenditure of the Forest and the Financial year exhibit considerable variations. An exact comparison of the figures is not, however, possible, for the reason that in 1895-96 the Departmental system of exploitation was in force for six months in the Financial year and for three months in the Forest year, whereas in 1896-97 the fellings, having been almost exclusively conducted under a different agency of exploitation, which was introduced from 1st October 1895, that year's accounts, both for the Forest and the Financial period, were not burdened with the heavy cost which the cutting of wood, the manufacture of charcoal and other incidental operations, when carried out through the agency of the Department, usually entail. It is, therefore, necessary to confine the contrast to the state of the surplus revenue only.

137. The net receipts of the Forest as well as that of the Financial year exhibit a decrease of Rs. 52,856 and Rs. 12,080, respectively, which would have been fully covered had it not been for the unforeseen difficulties experienced by the Department in recovering the instalments on the coupe contracts alone on the dates they fell due, the amounts of such outstanding balances of revenue being Rs. 22,500 at the end of March 1897 and Rs. 61,000 at the end of June 1897. The presence of the plague brought about a dearth of labour, which could not be procured in many places, although remunerative wages were offered by the coupe contractors. On the other hand, there was an accumulation of stocks for which there was no market for the time being. Demand for timber sank to the lowest ebb, and, added to this, the North-

Western Railway were not able to utilise the full yield in firewood of the coupes owing to slackness of traffic. Moreover, trade was paralysed and the money market became very tight in consequence. It has been noticed in last year's report (paragraph 97) that the carrying out of an undertaking of the nature of a coupe contract in Sind requires a somewhat large capital to be sunk in it at starting in order to prove remunerative in the end. Having laid out large sums of money at the commencement of the working season, the contractors despaired of realising their expected profits when they found that they could not command labour or capital, nor dispose of their material to enable them to fulfil their monetary engagements with the Department. Such was the state of affairs when the Financial year came to a close, although it had improved just a little by the time the Forest year terminated, but not to such an extent as to dispel all fears altogether.

138. A reference to Form No. 63 for the Financial and the Forest year will show that the outstandings on account of revenue are exceedingly heavy, and amount in the aggregate to Rs. 1,02,599-8-6 in the one and to Rs. 78,533-15-3 in the other. Every pressure was brought to bear upon the contractors, even to the extent of threatening them with the extreme penalty of cancelling their agreements. This had the desired effect in so far that the money which was due before the 1st April 1897 was paid before the 30th June following, but nevertheless the instalments which were payable in the last quarter of the Forest year remained unadjusted. As it was found that they recognised the priority of the claims of the Department and had done their utmost to satisfy them, it was not deemed advisable to subject them to undue hardship, especially as their sources of income had temporarily ceased and money could not be borrowed even at an exorbitant rate of interest. The work of extracting bahan timber also had to come to a stand still, and the expected outturn fell much below the minimum quantities which the area under the selection method was capable of yielding, and with it the revenue anticipated to be realised. Taking the above facts into consideration, the financial position of the Department is not so discouraging as it looks. The exceptional difficulties mentioned above now no longer exist, and it is hoped that against the deficit which has occurred a fair set-off will be shown in the next year.

139. The following statement compares the revenue and expenditure of the two Forest years 1895-96 and 1896-97 according to Divisions:—

Comparison of financial results  
by Divisions.

Division.	Receipts.		Charges.		Surplus.		Deficit.		Percentage of charges on receipts.	
	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Direction ...	11	...	23,820	22,535	...	...	23,809	22,535	...	...
Sukkur ...	1,67,450	1,10,323	80,854	31,011	86,596	79,312	...	...	48	28
Naushahro ...	76,599	41,646	40,643	17,391	35,956	24,255	...	...	53	42
Hyderabad ...	1,43,650	1,03,046	52,852	29,809	90,798	82,237	...	...	37	20
Jerruck ...	66,995	50,994	29,632	25,366	37,363	25,628	...	...	44	50
Thar and Parkar ...	10,952	6,288	6,211	2,821	4,741	3,467	...	...	57	45
Working Plans ...	118	...	795	14,276	...	...	677	14,276	...	...
Total ...	4,65,775	3,12,297	2,34,807	1,34,209	2,39,968	1,78,088	...	...	50	43

**DIRECTION.**—The deficit in 1896-97 is less than that of the previous year by Rs. 1,274. Although the increased rate of pay drawn by the administrative officer now in charge of the Circle during the year was almost covered by the salary drawn by Mr. Deshpande, who was attached to the Circle office for four months of 1895-96, there is a deficit of Rs. 1,274, which is due to an unusual charge on account of mathematical instruments having been debited in the latter year to the Circle accounts as well as to the reduction of expenses under B.—III Contingencies, in view of the orders of Government to observe economy and postpone all avoidable expenditure.

**SUKKUR.**—The expenditure of this Division is much less in the year, both under "A.—Conservancy and Works" and "B.—Establishment," owing to the absence of debits on account of timber and fuel operations, to the cost of demarcation not being so heavy as that of the previous year, and to the reduction in the salaries and travelling allowances drawn by the officers concerned; but the non-payment of instalments due from coupe contractors, reasons for which have been explained in paragraphs 137 and 138, has chiefly affected the surplus revenue not only of this Division but of others as well.

**NAUSHAHRO.**—The net surplus exhibits a falling off of Rs. 11,701, which is accounted for partly by the revenue shown as outstanding at the close of the year and partly by anticipated receipts by sale of bahan timber not having been realised.

**HYDERABAD.**—The remarks against Naushahro apply to this Division also.

**JERRUCK.**—If all the revenue payable during the year had been credited in the accounts, the deficit of Rs. 11,736 would have been counterbalanced.

140. The percentage of charges over the gross revenue realised has further declined, which does not require to be specially explained. In Jerruck, it is somewhat high, the rise having been caused chiefly by the officer now in charge being in receipt of a much higher salary than that of the one whom he succeeded.

Abstract of Financial results.

141. An abstract of annual Form No. 65 is given in the subjoined statement :—

Heads.	RECEIPTS.		CHARGES.		PERCENTAGE OF THE GROSS REVENUE SPENT.	
	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Departmental Operations.	1,70,856	7,617	1,44,592	41,604	31	13
II.—Other Revenue	2,94,889	3,04,680	36,745	42,264	8	14
III.—For mation, protection and improvement of Forests.	...	...	53,470	50,341	11	16
Total ...	4,65,745	3,12,297	2,34,807	1,34,209	50	43

142. Under the first item, there is a marked decrease, which does not call for any remarks, as the heading itself indicates that it has resulted from the abandonment of the system operations in connection with which are no longer carried out through the agency of the Department. The Working Plans Division came into existence in May 1896, and therefore in the accounts of 1895-96 expenditure on establishment only appeared but for a month, while the year 1896-97 includes such charges for twelve months, as also the salaries of chainmen and the cost of demarcation operations. These reasons, coupled with the increased salaries drawn by the administrative as well as controlling officers, have helped to raise somewhat the percentage of the gross revenue spent under the other two heads.

143. The following figures show the value of the balance of timber and other produce on hand at the commencement and close of the forest year :—

Value of the stock on hand.

*Value of Timber.*

On 1st July 1896	...	...	...	Rs.	7,210
On 30th June 1897	...	...	...	„	1,909
Against the year	...	...	...	Rs.	5,301

144. For obvious reasons, the value of the material on hand must decline as there is no accumulation of stocks at present, as was the case under the Departmental system.

145. Outstandings and Liabilities on account of contractors and disbursers for the fuel year ending 30th September 1897 are summarised in the following statement :—

Outstandings on account of advances.

Division.	Advance outstanding on 1st October 1896.	Disbursements made during the fuel year 1896-97 (October 1896 to September 1897).	Total of columns II and III.	Recoveries made during the year.	Balance outstanding on 30th September 1897.
	Rs.	Rs.	Rs.	Rs.	Rs.
Sukkur ...	3,300	18,865	22,165	20,408	1,757
Naushahro ...	723	11,238	11,961	9,775	2,186
Hyderabad ...	1,813	12,020	13,833	12,864	969
Jerruck ...	1,037	9,569	10,606	9,748	858
Total ...	6,873	51,692	58,565	52,795	5,770

146. There has been no slackness in renewing the efforts made last year to effect the recoveries of the outstanding advances, but, as a great portion comprises sums advanced to petty contractors under the old system, it will be necessary to have recourse to law in some cases, while in others they will have to be debited to Profit and Loss Account. For items of the former nature, papers relating to each contractor have been submitted to the Commissioner in Sind, along with the translation of vernacular documents, with a view to the opinion of the Legal Remembrancer being obtained, and for those of the latter kind it will be necessary to approach Government with an application to write them off as irrecoverable, as some of the individuals have absconded and their whereabouts cannot be traced, a few are dead, and the insolvency of the rest has been established. In the Naushahro Division, the increase is due to a special advance having been made to a Range Forest Officer for carrying on erosion fellings, and the whole of it could not be adjusted when the fiscal year came to a close. The Civil suit which was instituted against Saleh Shah *walad* Alim Shah, under the authority of Government Resolution No. 9629, dated 30th November 1896, was decided in favour of the Department after the Forest year terminated.

147. The outstandings on account of revenue of the Forest year in each Division are contrasted with those of the year before in the following statement :—

Division.	OUTSTANDINGS ON ACCOUNT OF REVENUE	
	On 30th June 1896.	On 30th June 1897.
	1895-96.	1896-97.
	Rs. a. p.	Rs. a. p.
Sukkur ...	15,000 0 0	13,932 4 2
Naushahro ...	7,189 9 2	7,639 14 0
Hyderabad ...	24,040 8 0	41,357 10 6
Jerruck ...	9,950 4 8	15,604 2 7
Thar and Parkar ...	.....	.....
Total ...	56,180 5 10	78,533 15 3

148. The causes which combined to let large sums remain as an outstanding revenue were more or less beyond the control of the Department, and as they have been fully explained in paragraph 137, it is not necessary to recapitulate them here.

149. The results of the year's transactions, as contrasted with those of the one preceding, stand as under :—

		1895-96.	1896-97.
Cash surplus ...	...	Rs. 2,30,938	Rs. 1,78,088
<i>Add—</i>			
Value of Stock ...	...	Rs. 7,210	Rs. 1,909
Outstandings of Revenue ...	...	„ 56,180	„ 78,534
		<u>Rs. 2,94,328</u>	<u>Rs. 2,58,531</u>
<i>Deduct—</i>			
Outstandings and liabilities on account of contractors and disbursers ...	...	Rs. 8,966	Rs. 5,850
Total net Profit		<u>Rs. 2,85,362</u>	<u>Rs. 2,52,681</u>

150. The figures of the year 1896-97 do not compare favourably with those of 1895-96, which was to be expected, as the efforts to further improve the surplus from other minor sources of revenue, to make up for the reduction of old stocks on hand, did not meet with the anticipated success owing to the outbreak of the Bubonic plague.

## CHAPTER V.

## FOREST ADMINISTRATION.

151. The charge of the Circle and of the different Divisions was held by the officers mentioned below :—

Officers in charge.			
CIRCLE	...	...	Mr. F. R. Dasai, whole year.
SUKKUR DIVISION	...	...	Mr. Shaukiram Peribdas, whole year.
NAUSHAHRO DIVISION	...	...	Mr. B. G. Deshpande, whole year.
HYDERABAD DIVISION	...	...	Mr. B. H. Dalal, from 1st July 1896 to 17th May 1897. Mr. G. K. Betham, from 18th May to 30th June 1897.
JERRUCK DIVISION	...	...	Mr. G. M. Ryan, from 1st July 1896 to 29th December 1896. Mr. F. R. Dasai, from 30th December 1896 to 5th January 1897. Mr. G. K. Betham, from 6th January 1897 to 30th June 1897.
WORKING PLANS DIVISION	...	...	Mr. O. H. L. Napier, from 1st July 1896 to 16th March 1897. Mr. B. H. Dalal, from 17th March 1897 to 30th April 1897. Mr. O. H. L. Napier, from 1st May 1897 to 6th May 1897. Mr. B. H. Dalal, from 7th to 19th May 1897. Mr. F. R. Dasai, from 20th May to 30th June 1897.

152. I was appointed Conservator of Forests, 3rd Grade, with effect from the 25th November 1896, in consequence of the changes caused by the lamentable death of Mr. J. L. MacGregor, Conservator of Forests, 2nd Grade. Under the orders of Government contained in their Resolution No. 1028, dated 16th December 1896, Mr. G. M. Ryan was transferred to South Thana, Northern Circle, and was relieved of the charge of the Jerruck Division on 30th December 1896 in the forenoon. His place was taken by Mr. G. K. Betham, Deputy Conservator of Forests, 2nd Grade, who joined his duties in Sind on 6th January 1897. Mr. B. H. Dalal, Extra-Assistant Conservator of Forests, having been transferred to the Rajpipla State, made over charge of the Hyderabad Division to Mr. G. K. Betham, Divisional Forest Officer, Jerruck, who continued to hold it, in addition to his own, from 18th May 1897 to the end of the year, as the transfer of Mr. Haripad Mitra, Extra-Assistant Conservator of Forests, who had been posted to this Circle, was suspended, pending completion of the work on which he was then engaged. The services of Mr. O. H. L. Napier, Deputy Conservator of Forests, and Mr. Shaukiram Peribdas, Extra Assistant Conservator of Forests, had to be spared during the year for plague duty. The former handed over the charge of the Working Plans Office to Mr. B. H. Dalal, who was in turn relieved by me on being transferred to foreign service. Mr. Shaukiram Peribdas, who had been entrusted with the arrangements of the Segregation Camps in Sukkur, carried them out in addition to his own duties. Mr. Napier proceeded to England on three months' privilege leave on account of ill-health from 7th May 1897.

153. In the numerical strength of the Executive and Protective-staffs, there was no change. The utter inadequacy of these establishments has formed the subject of comment on various occasions, and the urgency of improving their status and placing them on a better footing is being keenly felt.

154. No new students arrived from Poona during the year, but the two candidates admitted to the Forest Class last year will be coming out in December next, if they undergo successfully the final test. The system of nomination, under which each Conservator had authority to select a certain number of candidates for training in the College, has been done away with and admissions are now made by competitive examination, to be held by the Principal in Poona. An exception has, however, been made in favour of Sind on a representation having been made from the Circle office, pointing out the consequences of the inconvenience and the hardship which the intending candidates from this Province would be subjected to in the event of their being obliged to go to Poona to appear for the competitive examination. This examination will henceforth be conducted simultaneously in Sind, under the superintendence of the Conservator of Forests, after being duly advertised, the examination papers being set by the College staff.

155. The establishments in the Circle, as well as in the Divisional offices remained at the same strength as that of the year preceding. The work in the different offices has increased to such an extent as to loudly call for revision. In response to the directions conveyed in Government Resolution No. 4659, dated 23rd June 1897, separate proposals have been submitted for revising them, and it is earnestly hoped they will be sanctioned ere long.

156. The budget grant as well as the actual expenditure on account of the subordinate Protective and Office establishments is given below for two years for the sake of comparison :—

Establishment.	Sanctioned grant, Financial year.		Actual expenditure, Financial year.	
	1895-96.	1896-97.	1895-96.	1896-97.
Office ...	10,700	10,632	*10,571	10,606
Protective ...	39,000	39,000	*37,586	37,112
Total ...	49,700	49,632	48,157	47,718

\* The figures given in last year's report were incorrect.

157. The conduct of the Executive and the Office staffs continued to be satisfactory on the whole, only one ranger—the senior on the list—having been reduced for the perfunctory manner in which he discharged his duties. There was some improvement in the conduct of the members of the Protective branch also, the number of persons dismissed and reduced being less than that of the year previous; but the number of those fined somewhat increased, as some required a little waking up in the matter of grazing collections, and others were inclined to be indolent and displayed dilatoriness in the execution of orders.

158. The health of the establishments was reported to be good. No subordinate died of plague during the year.

159. The Forest Department lost the services of one of its best Sub-Rangers under most distressing circumstances in the year of report. While on his way to the camp of the Range Forest Officer at Nasri on the 9th January 1897, to deliver the grazing collections made by him, he was set upon by some ruffians and murdered in cold blood in broad day-light. He was also robbed of Rs. 15-10-6 out of the total sum of Rs. 22-10-6, and the balance of Rs. 7

was found on the deceased's person tied up in his waist band. Such an occurrence was the first of its kind in the annals of the Department since its organisation. All efforts to trace the real murderers having failed, the stolen money had to be written off with the sanction of Government.

#### SERVICES OF OFFICERS.

160. In the transfer of Mr. G. M. Ryan, Deputy Conservator of Forests, to the Northern Circle and in the deputation of *Services of officers.* Mr. B. H. Dalal, Extra Assistant Conservator of Forests to foreign service in the Rajpipla State, the Sind Circle has lost the services of two intelligent and zealous officers.

161. Mr. G. K. Betham, Divisional Forest Officer, Jerruck, being new to the Province, had just sufficient time after his arrival in January 1897 to make himself pretty well acquainted with the forests of his charge.

162. The arduous duties pertaining to his dual charge, requiring more than ordinary exertion, Mr. Napier has performed satisfactorily. No little credit is due for the tact and judgment he displayed in effecting the settlement of two long-standing boundary disputes in the Jerruck Division.

163. The management of the Naushahro Division by Mr. B. G. Deshpande has met with my approval.

164. Mr. Shaukiram, Divisional Forest Officer, Sukkur, whose reputation as a hard-working officer has been already established, has during the year under report earned my special thanks for the creditable manner in which he has supervised and carried out the cultural operations in almost all the ranges of his Division.

165. Special mention of the following Range Forest Officers has been made in the Divisional reports:—

#### *Rangers.*

1. Metharam Deumal.
2. Bulchand Parumal.
3. Dalpatrai Jethanand.
4. Vishindas Ram Baksh.

#### *Foresters.*

5. Mangharam Dayaram.
6. Kauromal Nihalsing.
7. Tekchand Kevalram.
8. Bulchand Hasomal.
9. Lakhasing Nihalchand.
10. Dayaram Neribdas.
11. Kundanmal Jhamrai.

166. The Circle and the Divisional office establishments, there can be no doubt, are overworked, and if relief is not afforded soon, some of the members will break down in health completely. The Clerks have all, without an exception, been reported on favourably by the officers under whom they are serving, and it gives me pleasure once again to bring to the notice of Government the care and ability shown by the Head Accountant in the Circle office, Mr. Parmanand Hirdaram, in carrying on the Account work, and the marked intelligence and industry displayed by the Head Clerk, Mr. Parmanand Udham, in the correspondence branch, work in which is increasing day by day.

#### GENERAL REMARKS.

167. In the recess season, I visited Hyderabad and Sukkur, and was absent from head-quarters from the 20th July to the 1st August 1896. During my stay at both these *Tour of inspection.* places, besides inspecting the cultural operations in the forests in their vicinity, I tried to sell the coupes of the Hyderabad, Naushahro and Sukkur Divisions, but the tenders received on the dates fixed were so low that they had to be rejected, and consultations were held with the Divisional Forest Officers concerned as to the best manner of breaking through the combination which was apparent amongst the purchasers.

168. I left Karachi on my cold weather tour on the 8th November, proceeding to Hyderabad, where I made a halt of five days and was successful in disposing of the remaining coupe and other contracts of the year. Leaving Hyderabad on the 14th, I marched through the Miani and Rano Ranges, daily inspecting the timber and other operations on the way with the Divisional Forest Officer, and crossed over to the right bank at Amri on the 6th December, and the camp moved to Sehwan on the 9th. In the Sehwan Range, I stayed up to the 23rd, to minutely examine the results of the cultural operations undertaken in high-lying land with the aid of cereal crops, and was pleased to see that they were encouraging. The office opened on the 4th January 1897 at Sukkur, having marched to that place during the Christmas holidays from Dadu.

169. After inspecting the excellent natural and artificial reproduction of the year in the forests round about Sukkur, camp was moved to Mari, where the outlines of a working plan for the Rohri fuel reserves were discussed and decided on with Mr. O. H. L. Napier, the Divisional Forest Officer. Keeping along the left bank and marching rapidly through the Sadhuja, Gbotki and Mirpur Ranges, in which extensive cultural operation had been carried on during the preceding inundation season, I crossed over to the right bank of the river from Tando Nijabat on the 27th, and, after visiting the forests of the Kashmor and Abad Ranges, reached Shikarpur on the 8th February. The Kot Sultan plantation was carefully examined on the 9th, and it was noticed that, although the unprecedented frosts of the year had checked somewhat the young babul growth, its condition was on the whole satisfactory.

170. Leaving the Sukkur Division on the 13th February, the forests of the Naushahro Abro Range were next inspected, in which the damage by browsers unhappily appeared to have not been checked to the extent I should like to see, and I arrived at Akil near Larkana on the night of the 17th. Here, boats were procured to enable me to move faster, and with the office I went down stream in them, halting wherever necessary to inspect the forests in the Kandiaro and Sehwan Ranges on the left bank as I passed to Butho forest, which was reached on the 28th February.

171. After spending a fortnight in the very important forests of the Unarpur Range, I commenced the inspection of the Jerruck Division with the Veran Range on the 15th March in company of Mr. G. K. Betham, the Divisional Forest Officer, and noticed with satisfaction that the reproduction in the coupes exploited in the preceding working season left nothing to be desired, and was excellent. The Tatta Range was next examined, in which my attention had to be devoted to the selection of coupes for the coming year. Crossing the river by the steam ferry at the Baghyar Canal mouth on the 31st March, I passed by quick stages through the Shahbandar, Penah, Mulchand and Katyar Ranges, and returned to Karachi on the 15th April.

Examination of Divisional records.

172. The records and accounts of all Divisional Forest Officers were examined during the year, and no serious mistakes were discovered.

F. R. DASAI,  
Conservator of Forests,  
Sind Circle.

*Sind Forest Circle Office,  
Camp Miani, 9th November 1897.*



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FORM No. 46.

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FORM No. 46.  
 FOREST DEPARTMENT, SIND CIRCLE.  
 Area of Reserved Forests, 1896-97.

Division or Range.	Civil District or Territory.	Name of Forest.	AREA ON 1ST JULY 1896.		ADDED DURING THE YEAR.	EXCLUDED OR TRANSFERRED TO OTHER HEADS.	AREA ON 30TH JUNE 1897.		No. and date of Notification of addition or transfer.	REMARKS.
			Acres.	Equivalent in square miles.			Acres.	Acres.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Shikarpur ...		Raoti ...	8,129	12,449	.....	.....	8,129	12,449	In last year, the area of waste forest was included in that of the Raoti Forest, but has been now separated.	
		Wasti ...	2,315	3,395	.....	.....	2,315	3,395		
		Daresh ...	1,725	2,445	.....	.....	1,725	2,445		
		Ubauro ...	3,150	4,590	.....	.....	3,150	4,590		
		Mirpur ...	7,251	11,211	.....	.....	7,251	11,211		
		Raharki ...	1,654	2,374	.....	.....	1,654	2,374		
		Reti ...	2,388	3,468	.....	.....	2,388	3,468		
		Rangu ...	972	1,332	.....	.....	972	1,332		
		Nari ...	1,376	2,96	.....	.....	1,376	2,96		
		Sarhad ...	3,696	5,493	.....	.....	3,693	5,493		
		Atal ...	1,171	1,531	.....	.....	1,171	1,531		In previous years, the area of the Atal Forest was included in that of the Sarhad Forest, but has now been separated.
		Islam ...	2,064	3,144	.....	.....	2,064	3,144		
		Jehanpur ...	4,661	7,181	.....	.....	4,661	7,181		
		Bahab ...	8,985	14,25	.....	.....	8,985	14,25		
		Budh ...	1,217	1,577	.....	.....	1,217	1,577		
		Sadhuja ...	7,670	11,630	.....	.....	7,670	11,630		
		Shahpur ...	11,215	17,335	.....	.....	11,215	17,335		
		Husenbeli ...	3,407	5,207	.....	.....	3,407	5,207		
		Pawhari ...	587	587	.....	.....	587	587		
		Azizpur ...	880	1,240	.....	.....	880	1,240		
		Ding ...	1,543	2,263	.....	.....	1,543	2,263		
		Saydpur ...	8,400	13,80	.....	.....	8,400	13,80		
		Rohri ...	13,119	20,319	.....	.....	13,119	20,319		
		Sultanpur ...	1,753	2,473	.....	.....	1,753	2,473		
		Saliani ...	5,014	7,534	.....	.....	5,014	7,534		
		Ghotki ...	6,012	9,252	.....	.....	6,012	9,252		
		Bandh ...	1,060	1,420	.....	.....	1,060	1,420	In past years, the areas of the Bandh and Laluwali Forests was included in that of the Ghotki Forest. It has now been separated.	
		Laluwali ...	835	1,195	.....	.....	835	1,195		
		Adilpur ...	13,757	21,317	.....	.....	13,757	21,317		
		Walu Mahar ...	2,648	4,88	.....	.....	2,648	4,88		
		Samowah ...	2,252	3,332	.....	.....	2,252	3,332		
		Wasir ...	1,417	2,137	.....	.....	1,417	2,137		
	Jarwar ...	2,839	4,279	.....	.....	2,839	4,279			
	Abad ...	5,604	8,484	.....	.....	5,604	8,484			
	Kadurni Bindi ...	2,306	3,386	.....	.....	2,306	3,386			
	Khia Bindi ...	3,118	4,558	.....	.....	3,118	4,558			
Sukkur ...										

Upper Sind Frontier.	Shah ... ..	13,433	20,633	.....	.....	13,433	20,633
	Bindi Dhareja ... ..	6,866	10,466	.....	.....	6,866	10,466
	Kudrapur ... ..	2,564	4,4	.....	.....	2,564	4,4
	Mohro mari ... ..	11,857	18,337	.....	.....	11,857	18,337
	Andal-dal ... ..	12,104	18,584	.....	.....	12,104	18,584
	Bagarji ... ..	13,884	21,444	.....	.....	13,884	21,444
	Lakhi ... ..	3,614	5,414	.....	.....	3,614	5,414
	Garhi Halim ... ..	2,096	3,176	.....	.....	2,096	3,176
	Raiswah ... ..	905	1,265	.....	.....	905	1,265
	Kot Sultan ... ..	17,342	27,62	.....	.....	17,342	27,62
	Abad ... ..	985	1,345	.....	.....	985	1,345
	Mehrabpur ... ..	996	1,356	.....	.....	996	1,356
	Dilawarpur ... ..	925	1,285	.....	.....	925	1,285
	Milkiat Sarkar ... ..	1,923	3,3	.....	.....	1,923	3,3
	Bakapur ... ..	9,839	15,239	.....	.....	9,839	15,239
	Balochabad ... ..	765	1,125	.....	.....	765	1,125
	Gondak ... ..	5,076	7,596	.....	.....	5,076	7,596
	Jangan ... ..	2,291	3,371	.....	.....	2,291	3,371
	Keti Sadhuja ... ..	6,001	9,241	.....	.....	6,001	9,241
	Jamshero ... ..	6,616	10,216	.....	.....	6,616	10,216
	Gihilpur ... ..	4,887	7,407	.....	.....	4,887	7,407
Gandher... ..	1,677	2,397	.....	.....	1,677	2,397	
Badani ... ..	772	1,132	.....	.....	772	1,132	
Makhan Belo ... ..	629	629	.....	.....	629	629	
New Gublo ... ..	7,870	12,190	.....	.....	7,870	12,190	
Sundrani ... ..	2,752	4,192	.....	.....	2,752	4,192	
Daho ... ..	1,361	2,81	.....	.....	1,361	2,81	
Wahidpur ... ..	1,501	2,221	.....	.....	1,501	2,221	
Total, Sukkur Division ... ..		287,718	449,358	.....	.....	287,718	449,358
Naushahro ... Shikarpur ...	Garhi Yasin ... ..	25,328	39,368	.....	.....	25,328	39,368
	Madeji ... ..	4,213	6,373	2,071	.....	6,284	9,524
	Dosu ... ..	5,138	8,18	.....	.....	5,138	8,18
	Keti Ubhuro ... ..	5,575	8,455	.....	.....	5,575	8,455
	Kanuri ... ..	3,630	5,430	.....	.....	3,630	5,430
	Sharifpur ... ..	1,027	1,387	.....	.....	1,027	1,387
	Bahman... ..	1,547	2,267	.....	.....	1,547	2,267
	Nao-abad ... ..	2,205	3,285	.....	.....	2,205	3,285
	Amrot ... ..	11,684	18,164	.....	.....	11,684	18,164
	Muso ... ..	4,755	7,275	.....	.....	4,755	7,275
	Abrepota ... ..	1,309	2,29	.....	.....	1,309	2,29
	Kacho Beli Gaji ... ..	1,127	1,487	.....	.....	1,127	1,487
	Kacho Akil ... ..	271	271	.....	.....	271	271
	Kasim Shah ... ..	2,056	3,136	.....	.....	2,107	3,187
	Nari ... ..	1,419	2,139	.....	.....	1,419	2,139
Budho-dero ... ..	1,555	2,275	.....	.....	1,555	2,275	
Soi ... ..	5,108	7,628	.....	.....	5,108	7,628	
Gajidero ... ..	4,238	6,398	.....	.....	4,333	6,493	
Ghangharko ... ..	5,849	9,89	.....	.....	5,849	9,89	

G. R. No. 4501 A of  
8th June 1896.

Division or Range.	Civil District or Territory.	Name of Forest.	AREA ON 1ST JULY 1895.		ADDED DURING THE YEAR.	EXCLUDED OR TRANSFERRED TO OTHER HEADS.	AREA ON 30TH JUNE 1896.		No. and date of Notification of addition or transfer.	REMARKS.	
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.			
Naushahro continued.	Hyderabad ...	Khairo-dero ...	13,073	20.273	.....	.....	13,073	20.273	G. R. No. 3779 of 11th May 1897. Do.		
		Lalia ...	4,192	6.352	.....	.....	4,192	6.352			
		Bhour and Musodero ...	10,902	17.22	.....	.....	10,902	17.22			
		Mohbatdero and Lundi ...	8,796	13.476	.....	.....	8,796	13.476			
		Samtia ...	3,390	5.190	.....	.....	3,390	5.190			
		Karnaldero ...	1,365	2.85	.....	.....	1,365	2.85			
		Bhorti ...	10,790	16.550	.....	.....	10,790	16.550			
		Dalipota ...	867	1.227	.....	.....	867	1.227			
		Bhand Mari Bindi Sono and Abad ...	3,149	4.589	.....	.....	3,149	4.589			
		Karainpur ...	2,924	4.364	.....	.....	2,924	4.364			
		Kandi Baghban ...	1,947	3.27	.....	.....	1,947	3.27			
		Bhan ...	1,138	1.498	.....	.....	1,138	1.498			
		Phaka ...	2,207	3.287	.....	.....	2,207	3.287			
		Kalu-bori ...	748	1.108	.....	.....	748	1.108			
	Pipri ...	925	1.285	.....	.....	925	1.285				
	Total, Naushahro Division ...			154,447	241.207	2,353	.....	156,600			245.0
	Karachi ...	Lakhat ...	6,380	9.620	.....	.....	6,380	9.620			
		Kot Dhingano ...	123	.123	.....	.....	123	.123			
		Lakhat ...	295	.295	.....	.....	295	.295			
		Kacho Lakha ...	590	.590	.....	.....	590	.590			
		Bahawal Shah ...	1,518	2.238	.....	.....	1,518	2.238			
		Nasri ...	1,556	2.276	.....	.....	1,556	2.276			
		Mad ...	2,642	4.82	.....	.....	2,642	4.82			
		Kacho Mad ...	583	.583	.....	.....	583	.583			
		Kacho Mahrabpur ...	1,028	1.388	.....	.....	1,028	1.388			
		Mahrabpur ...	3,338	5.138	.....	.....	3,338	5.138			
		Mari ...	14,753	23.33	.....	.....	14,753	23.33			
Pai ...		5,130	8.10	.....	.....	5,130	8.10				
Keti Jurio ...		2,125	3.205	.....	.....	2,125	3.205				
Nakur ...	331	.331	.....	.....	331	.331					
Rano ...	1,627	2.347	.....	.....	1,627	2.347					
Amin Lakho ...	578	.578	.....	.....	578	.578					
Kumar ...	1,695	2.415	.....	.....	1,695	2.415					
Kari ...	3,239	5.39	.....	.....	3,239	5.39					

	Hyderabad ...	Rishal ...	682	142	.....	.....	682	142	
		Nur Ketl ...	4,061	6221	.....	.....	4,061	6221	
		Bhanot ...	2,021	3101	.....	.....	2,021	3101	
		Shorki ...	2,283	3363	.....	.....	2,283	3363	
		Keti Sidik	8,666	13346	.....	.....	8,666	13346	
		Khanot							
		Keti Khasai	2,735	4175	.....	.....	2,735	4175	
		Kacho Khanot	1,409	2129	.....	.....	1,409	2129	
		Ghotana	1,536	2256	.....	.....	1,536	2256	
		Salaro ...	2,948	4388	.....	.....	2,948	4388	
		Murid Rais	760	1120	.....	.....	760	1120	
		Khebrani	2,080	3160	.....	.....	2,080	3160	
		Sekhat ...	1,926	36	.....	.....	1,926	36	
		Jakhri ...	5,354	8234	.....	.....	5,354	8234	
		Matiari ...	3,694	5494	.....	.....	3,694	5494	
		Ghali ...	4,917	7437	.....	.....	4,917	7437	
		Mhani ...	756	1116	.....	.....	756	1116	
		Kadri ...	2,150	3230	.....	.....	2,150	3230	
		Gundi ...	181	181	.....	.....	181	181	
		Muhammed Khan	101	101	.....	.....	101	101	
		Hingorani	187	187	.....	.....	187	187	
		Elchi ...	292	292	.....	.....	292	292	
		Jamshoro	314	314	.....	.....	314	314	
		Shah Makai	5,523	8403	.....	5,523	.....	.....	
		Keti Mehrani	855	1215	.....	.....	855	1215	
		Giderji ...	7,748	1268	.....	.....	7,748	1268	
		Butho ...	250	250	.....	.....	250	250	
		Lakha ...	1,539	2259	.....	.....	1,539	2259	
		Manjhand	10,705	16465	.....	.....	10,705	16465	
		Unarpur	1,296	216	.....	.....	1,296	216	
		Ghag ...	1,701	2421	.....	1,701	.....	.....	
		Karokho			.....				
		Total, Hyderabad Division	126,301	197,121	.....	7,224	118,977	185,577	
		Viran ...	9,142	14182	.....	.....	9,142	14182	
		Sonda ...	2,114	3194	.....	.....	2,114	3194	
		Hilnya ...	2,898	4338	.....	.....	2,898	4338	
		Lalang ...	5,151	831	.....	.....	5,151	831	
		Ali Ganj	723	183	.....	6	729	189	
		Shah Lonko	1,690	2410	.....	.....	1,690	2410	
		Kach Shah Lonko	313	313	.....	.....	313	313	
		Keti Mehrani	.....	.....	.....	5,523	.....	8403	
		Karokho	.....	.....	.....	1,701	.....	2421	
		Bao Purandas	6,413	1013	.....	14 + 82	6,509	10109	
		Bijora ...	6,075	9315	.....	.....	6,075	9315	
		Garko ...	4,079	6239	.....	.....	4,079	6239	
		Chbachh...	3,556	5356	.....	.....	3,556	5356	
		Sadnani...	863	1223	.....	.....	863	1223	

Transferred to Jerruck Division.

Do.

G. R. No. 7031 of 22nd August 1894. Omitted from Form No. 46 of 1894.

G. R. No. 6275 of 10th August 1896. Transferred from Hyderabad Division.

G. R. No. 7031 of 22nd August 1894. Vide remarks against Ali Ganj Forest.

Division or Range.	Civil District or Territory.	Name of Forest.	AREA ON 1ST JULY 1895.		ADDED DURING THE YEAR.	EXCLUDED OR TRANSFERRED TO OTHER HEADS.	AREA ON 30TH JUNE 1897.		No. and date of Notification of addition or transfer.	REMARKS.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
Jerruck— <i>continued.</i>	Karachi— <i>continued.</i>	Mulir ... ..	24	24	.....	.....	24	24		
		Kotri Alahrakhio Shah ...	2,000	3.80	.....	.....	2,000	3.80		
		Marho Kotri ... ..	2,409	3.489	.....	.....	2,409	3.489		
		Dhand Shakraani ... ..	56	56	.....	.....	56	56		
		Khanani ... ..	2,551	3.631	.....	.....	2,551	3.631		
		Achl Marho and Kacho Alah- bakhsh.	3,392	5.192	.....	.....	3,392	5.192		
		Kacho Ali Bahar ... ..	4,000	6.160	.....	.....	4,000	6.160		
		Ganj ... ..	2,228	3.308	.....	.....	2,228	3.308		
		Hazari ... ..	2,483	3.563	.....	.....	2,483	3.563		
		Makhulo ... ..	496	496	.....	.....	496	496		
		Kacho Pawhar ... ..	723	1.83	.....	.....	723	1.83		
		Kacho Surjani ... ..	3,818	5.618	.....	.....	3,818	5.618		
		Kot Ahno ... ..	2,335	3.415	.....	.....	2,335	3.415		
		Penah ... ..	6,169	9.409	.....	.....	6,169	9.409		
	Susati ... ..	43	43	.....	.....	43	43			
	Khirsar ... ..	1,389	2.190	.....	.....	1,389	2.190			
	Huderani ... ..	5,511	8.391	.....	.....	5,511	8.391			
	Surjani ... ..	1,387	2.107	.....	.....	1,387	2.107			
	Jorar ... ..	6,613	10.213	.....	.....	6,613	10.213			
	Khadi ... ..	4,500	7.20	.....	.....	4,500	7.20			
	Phatah ... ..	258	258	.....	.....	258	258			
	Mulchand ... ..	5,454	8.334	.....	.....	5,454	8.334			
	Budka Takar ... ..	975	1.335	.....	.....	975	1.335			
	Husri ... ..	420	420	.....	.....	420	420			
	Khatro ... ..	416	416	.....	.....	416	416			
	Hyderabad ...	Khatthar ... ..	2,975	4.415	.....	.....	2,975	4.415		
Katiar ... ..		952	1.312	.....	.....	952	1.312			
Khirdahi ... ..		290	290	.....	.....	290	290			
Tikhar ... ..		1,709	2.429	.....	.....	1,709	2.429			
Khokhar ... ..		1,556	2.276	.....	.....	1,556	2.276			
	Total, Jerruck Division ...	110,140	172.60	7,326	.. ..	117,466	183.346			
	GRAND TOTAL ...	678,506	1,060.106	9,679	7,224	680,961	1,064.1			

F. R. DASAI,  
 Conservator of Forests,  
 Sind Circle.

FORM No. 46-A.

FOREST DEPARTMENT, SIND CIRCLE.

Area of Protected Forests, 1896-97.

Division.	Civil District or Territory.	Name of Forest.	AREA ON 1ST JULY 1896.		ADDED DURING THE YEAR.	EXCLUDED OR TRANSFERRED TO OTHER HEADS.	AREA ON 30TH JUNE 1897.		No. and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
		<i>I. Protected Forests.</i>								
Sukkur ...	Upper Sind Frontier ...	Dickinson ...	585	585	...	...	585	585		
Naushahro ...	Karachi... ..	{Karampur ... Shahgar Dhandhan.}	2,347	3,427	...	2,347	...	...		As this area has not been notified as Protected Forest under the Indian Forest Act, it has been shown under Unclassed Forests. Vide above remarks.
		<i>II. Unclassed Forests.</i>								
Naushahro ...	Karachi... ..	{Karampur ... Shahgar Dhandhan.}	...	...	2,347	...	2,347	3,427		
		Total ...	2,932	4,372	2,347	2,347	2,932	4,372		

47

F. R. DASAI,  
Conservator of Forests,  
Sind Circle.

FORM No. 48.

FOREST DEPARTMENT, SIND CIRCLE.

*Record of Demarcation and Maintenance of Boundaries, 1896-97.*

Division. (1)	Lenth of boundaries artificially demarcated during the year. (2)		Length of previously existing boundaries repaired. (3)		Length of previously existing boundaries not repaired. (4)		Total length of artificially marked boundaries at the close of the year. (5)		Length of boundaries not demarcated at the close of the year. (6)		Length of natural boundaries not requiring artificial marks. (7)		Total length of boundaries at the close of the year. (8)		EXPENDITURE ON DEMARCATON DURING THE YEAR.	
	On new work. (9)	On repairs. (10)											Rs.	Rs.		
Sukkur ... ..	...	...	964	825	...	...	964	825	...	...	142	468	1106	1293	...	...
Naushahro ... ..	1	4620	19	3308	425	2582	446	5230	28	4290	96	201	571	4441	3	...
Hyderabad ... ..	47	1510	196	4892	...	...	244	1122	26	0	163	150	433	1272	79	...
Jerruck ... ..	32	0	194	440	...	...	226	440	9	0	155	1760	390	2200	158	...
	81	850	1374	4185	425	2582	1881	2337	63	4290	556	2579	2501	3926	240	...

43

*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.

F. R. DASAI,  
Conservator of Forests,  
Sind Circle.



**ANNUAL FORM No. 52.**  
**FOREST DEPARTMENT, SIND CIRCLE.**  
*Prosecutions for breaches of Forest Rules during 1896-97.*

Forest Division and Civil District.  (1)	Cases pending from 1895-96. (2)	NEW CASES OF THE YEAR.					Total Cases. (8)	DISPOSED OF DURING THE YEAR.						Cases pending at close of year. (15)
		Injury to forest by fire. (3)	Unauthorised felling or appropriation of wood and minor forest produce. (4)	Grazing without permission or in tracts in which grazing is prohibited. (5)	Other offences. (6)	Total new cases of the year. (7)		Convictions.		Acquittals.		Total.		
								Cases. (9)	Persons. (10)	Cases. (11)	Persons. (12)	Cases. (13)	Persons. (14)	
Sukkur ...	{ A ... 9 B ... 1 C ... 1	3	6	7	15	31	40	19	22	9	49	28	71	12
	...	...	50	1,151	3	1,204	1,204	1,204	0	...	...	1,204	1,204	...
	...	25	26	...	...	51	51	...	...	...	...	...	...	...
Total ...	9	28	82	1,158	18	1,286	1,295	1,223	1,226	9	49	1,232	1,275	12
Naushahro ...	{ A ... 8 B ... 1 C ... 1	1	3	155	10	14	22	11	20	4	6	15	26	7
	...	...	83	...	...	238	238	238	238	...	...	238	238	...
	...	12	...	...	...	12	12	...	...	...	...	...	...	...
Total ...	8	13	86	155	10	264	272	249	258	4	6	253	264	7
Hyderabad ...	{ A ... 4 B ... 1 C ... 1	...	8	1	2	11	15	2	2	3	22	5	24	10
	...	...	50	405	1	456	456	456	456	...	...	456	456	...
	...	...	14	...	...	14	14	...	...	...	...	...	...	...
Total ...	4	...	72	406	3	481	485	458	458	3	22	461	480	10
Jerruck ...	{ A ... 1 B ... 1 C ... 1	1	1	240	2	4	5	2	3	2	3	4	6	1
	...	...	24	...	...	264	264	264	264	...	...	264	264	...
	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	1	1	25	240	2	268	269	266	267	2	3	268	270	1
Total of the Circle ...	{ A ... 22 B ... 1 C ... 1	5	18	8	29	60	82	34	47	18	80	52	127	30
	...	...	207	1,951	4	2,162	2,162	2,162	2,162	...	...	2,162	2,162	...
	...	37	40	...	...	77	77	...	...	...	...	...	...	...
GRAND TOTAL ...	22	42	265	1,959	33	2,299	2,321	2,196	2,209	18	80	2,214	2,289	30

N.B.—A means cases taken into Court.  
 B means cases disposed of under Section 67 of the Indian Forest Act.  
 C means undetected cases.

**F. R. DASAI,**  
 Conservator of Forests,  
 Sind Circle.

FORM No. 53.

FOREST DEPARTMENT, SIND CIRCLE.

*Area of Forest tracts protected from Fire during 1895-96.*

Division.	Forest tracts.	Year in which protection commenced.	Area protected during 1894-95.	Area attempted to be protected.	Failures.	Area actually protected.	REMARKS.
			Acres.	Acres.	Acres.	Acres.	
Sukkur ...	Mirpur ...	Not known ...	44,476	45,625	934	44,691	
	Ghotki ...		30,726	30,820	42	30,778	
	Sadhuja ...		59,437	63,790	409	63,381	
	Abad ...		45,154	45,748	3	45,745	
	Kashmor ...	1895-96 ...	36,171	36,357	.....	36,357	
	Sukkur ...	Not known ...	31,421	21,698	27	31,671	
Naushahro ...	Kot Sultan ...	1885-86 ...	34,265	34,265	1	34,264	
		1887-88 ...					
	Kandiaro ...	Not known ...	39,250	39,395	9	39,386	
	Sehwan ...		27,003	27,153	183	26,970	
	Larkana ...		38,177	38,268	87	38,181	
	Naushahro Abro	1894-95 ...	29,186	31,612	2	31,610	
Tigir ...	1895-96 ...	20,196	20,474	.....	20,474		
Hyderabad ...	Sakrand ...	Not known ...	9,660	10,160	226	9,934	The old Rano and Miani Ranges have been split up into three Ranges, viz., Sakrand, Hala and Miani.
	Hala ...		3,731	5,103	139	4,964	
	Miani ...		1,100	1,100	.....	1,100	
	Unarpur ...		12,329	13,050	876	12,174	
Jerruck ...	Viran ...	Do. ...	2,265	2,265	.....	2,265	The Viran, Ghorabari, Tatta and Shahbandar Ranges have been re arranged.
	Ghorabari ...		4,802	4,802		713	
	Penah ...		4,844	4,844	115	4,729	
	Shahbandar ...		2,107	2,107	188	1,919	
	Mulchand ...		3,441	3,441	21	3,420	
	Katiar ...		1,603	1,603	.....	1,603	
	Total ...		481,611	493,680	3,975	489,705	

F. R. DASAI,  
 Conservator of Forests,  
 Sind Circle.

FORM No. 54.

FOREST DEPARTMENT, SIND CIRCLE.

Area closed and open to Grazing during 1896-97.

Division.		AREA IN SQUARE MILES											
		Closed to all animals.				Closed to browsers (camels, goats or sheep).				Open to all animals.		Total Area.	
		Whole year.		Part of year.		Whole year.		Part of year.		Whole year.			
I		2		3		4		5		6		7	
		Sqr. miles acres.		Sqr. miles acres.		Sqr. miles acres.		Sqr. miles acres.		Sqr. miles acres.		Sqr. miles acres.	
<i>I Reserved Forests.</i>													
Sukkar	...	34	18	22	267	225	46	...	...	168	27	449	358
Naushahro	...	10	113	...	...	99	480	...	...	135	47	245	0
Hyderabad	...	29	298	...	...	36	188	...	...	120	91	185	577
Jarruck	...	12	112	...	...	12	361	...	...	158	513	183	346
	<b>Total</b>	85	541	22	267	373	425	...	...	562	38	1,064	1
<i>II Protected Forests.</i>													
Sukkar	...	...	...	...	...	...	...	...	...	0	585	0	585
<i>III Unclosed Forests.</i>													
Naushahro...	...	...	...	...	...	...	...	...	...	3	427	3	427

10

F. R. DASAI,  
 Conservator of Forests,  
 Sind Circle.

## FORM No. 55.

## FOREST DEPARTMENT, SIND CIRCLE.

*Return of Grazing in the State Forests during 1895-96.*

Division.	GRAZING ON PAYMENT.						NUMBER OF ANIMALS.						
	At full rates.						At privileged rates.						
	Buffaloes.	Cows & Bulls.	Goats and Sheep.	Camels.	Other animals.	Fees received.	Buffaloes.	Cows and Bulls.	Goats and Sheep.	Camels.	Other animals.	Fees received.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Rs.						Rs.	Rs.
Sukkur ...	15,042	18,113	35,108	1,076	600	14,371	10,134	22,980	31,212	531	152	4,312	9,377
Naushahro ...	11,649	13,659	99,352	1,934	1,651	9,549	...	...	...	...	...	...	...
Hyderabad ...	15,025	23,659	162,960	2,655	31	17,072	...	...	...	...	...	...	...
Jerruck ...	11,690	16,795	72,558	3,965	147	12,619	2,133	1,955	402	148	...	547	1,253
Total ...	53,406	72,226	369,978	9,630	2,429	53,611	12,267	24,935	31,614	679	152	4,859	10,630

Division.	GRAZING FREE.						NUMBER OF ANIMALS.							
	By right under Settlement.						During pleasure of Government or otherwise than under Settlement.							
	Buffaloes.	Cows and Bulls.	Goats and Sheep.	Camels.	Other animals.	Value of fees at full rates.	Buffaloes.	Cows and Bulls.	Goats and Sheep.	Camels.	Other animals.	Value of fees at full rates.	Total value of fees at full rates.	Grand Total of value at full rates.
1	15	16	17	18	19	20	21	22	23	24	25	26	27	28
						Rs.						Rs.	Rs.	Rs.
Sukkur ...	2,600	13,133	...	...	531	21,327	...	...	...	...	...	...	21,327	45,075
Naushahro ...	1,460	5,431	...	...	36	3,314	62	336	485	...	519	536	3,850	13,399
Hyderabad ...	...	...	...	...	...	...	20	38	...	...	...	88	88	17,160
Jerruck ...	535	836	...	...	18	2,161	36	111	...	...	...	206	2,367	16,239
Total ...	4,595	19,400	...	...	585	26,802	118	485	485	...	519	830	27,632	91,873

F. R. DASAI,  
 Conservator of Forests,  
 Sind Circle.

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FORM No. 56.

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FORM No. 56.  
FOREST DEPARTMENT, SIND CIRCLE.  
*Area of Plantations, 1895-96.*

Division.	Name of Plantation.	AREA IN ACRES.				RECEIPTS	CHARGES	REMARKS.	
		On 1st July 1896:	Added during the year.	Excluded during the year.	Area on 30th June 1897.	Of the year.			
						Rs.	Rs.		
Sukkur ...	<i>Regular Plantations.</i>								
	Rahuja Nursery ...	10	...	...	10	69	705		
	Sadhuja Plantation ...	34	...	34	...	...	...		
	Sadhuja Nursery ...	...	2	...	2	...	...		
	Ghotki do. ...	3	...	...	3	...	...		
	Adilpur do. ...	...	1	...	1	...	...		
	Naushahro ...	Phaka Nursery ...	9	...	...	9	...	...	
	Hyderabad ...	Divi-Divi Plantation ...	13	...	...	13	26	115	
		Bamboo do. ...	13	...	...	13	...	...	
		Miani Bungalow, Mango and Monument Gardens ...	12	...	...	12	254	738	
Jerruck ...	Malir Plantation ...	24	...	...	24	32	84		
	Sonda Nursery ...	5	...	...	5	...	...		
	Total ...	123	3	34	92	381	1,642		
	<i>Cultural Operations.</i>								
Sukkur ...	Bindi Dhareja ...	1,825	384	...	2,209	...	...		
	Shah ...	218	51	...	269	...	...		
	Keti Shah ...	535	320	...	855	...	...		
	Mohro Mari ...	430	743	815	358	...	...	815 acres opened to grazing.	
	Khia Bindi ...	80	130	80	130	...	...	80 " do. do.	
	Kadrapur ...	1,020	336	400	956	...	...	400 " do. do.	

Abad ...	...	240	182	85	337	...	...	85	"	"	"
Sayadpur	...	673	2,234	...	2,907	...	...				
Sadhuja	...	650	260	...	910	...	...				
Bahab	...	696	150	...	846	...	...				
Shahpur	...	948	146	320	774	...	...	320	"	"	"
Budh	...	276	89	160	205	...	...	160	"	"	"
Keti Shahu	...	303	157	...	460	...	...				
Azizpur	...	20	5	...	25	...	...				
Ding	...	218	82	128	172	...	...	128	"	"	"
Rohri	...	619	...	...	619	...	...				
Saliani	...	476	...	...	476	...	...				
Sultanpur	...	...	161	...	161	...	...				
Adilpur	...	2,048	658	1,800	906	...	...	1,800	"	"	"
Ghotki	...	824	220	160	884	...	...	160	"	"	"
Wasir	...	...	165	...	165	...	...				
Raoti	...	80	643	...	723	...	...				
Jehanpur	...	176	399	176	399	...	...	176	"	"	"
Sarhad	...	576	343	276	643	...	...	276	"	"	"
Mirpur	...	1,216	500	...	1,716	...	...				
Islam	...	40	118	...	158	...	...				
Jhanwar	...	170	230	160	240	...	...				
Keti	...	150	100	...	250	...	...				
Narli	...	40	94	40	94	...	...	40	"	"	"
Raharki	...	4	225	4	225	...	...	4	"	"	"
Gondak	...	...	316	...	316	...	...				
Atal	...	...	50	...	50	...	...				
Gublo, old	...	561	3	428	136	...	...				
Gublo, new	...	...	155	...	155	...	...				
Gandher	...	...	180	...	180	...	...				
Badani	...	...	17	...	17	...	...				
Makhan	...	...	50	...	50	...	...				
Sundrani	...	...	184	...	184	...	...				
Gibilpur	...	...	84	...	84	...	...				
Wahidpur	...	...	25	...	25	...	...				

Division.	Name of Plantation.	AREA IN ACRES.				RECEIPTS	CHARGES	REMARKS.
		On 1st July 1895.	Added during the year.	Excluded during the year.	Area on 30th June 1896.	Of the year.		
						Rs.	Rs.	
Sukkur— <i>contd.</i>	Garhi Halim ... ..	225	27	...	252	...	...	
	Lakhi ... ..	463	27	...	490	...	...	
	Andaldal ... ..	1,542	85	...	1,627	...	...	
	Bagarji and Keti Bagarji ...	1,519	355	...	1,874	...	...	
	Kot Sultan ... ..	201	627	...	828	...	...	
	Bakapur ... ..	2	35	...	37	...	...	
	Milkiat Sarkar ... ..	3	10	...	13	...	...	
	<b>Total, Sukkur Division ...</b>	<b>19,067</b>	<b>11,355</b>	<b>5,032</b>	<b>25,390</b>	...	...	
Naushahro ...	Mohbatdero ... ..	1,605	13	595	1,023	...	...	595 acres opened to grazing.
	Bhour ... ..	2,094	22	...	2,116	...	...	
	Kamaldero ... ..	100	30	50	80	...	...	50 do.
	Samtia ... ..	410	...	100	310	...	...	100 do.
	Bhorti ... ..	749	169	220	698	...	...	220 do.
	Dalipota ... ..	125	...	...	125	...	...	
	Sino Bindi and Band Mari and Abad.	...	28	...	28	...	...	
	Karampur ... ..	222	63	...	285	...	...	
	Khairodero No. I and II ...	480	143	...	623	...	...	
	Lalia and Keti Lalia ... ..	5	116	...	121	...	...	
	Bhan ... ..	58	40	...	98	...	...	
	Kandi Baghban ... ..	...	8	...	8	...	...	
	Kalubori ... ..	...	25	...	25	...	...	
Phaka ... ..	...	36	...	36	...	...		



Naoabad and Agani	...	218	...	...	218	...	...
Keti Ubhuro	...	121	36	...	157	...	...
Amrot	...	110	...	...	110	...	...
Bahman	...	10	...	...	10	...	...
Dosu	...	80	200	...	280	...	...
Kanuri	...	47	10	...	57	...	...
Abrepota	...	25	15	...	40	...	...
Muso	...	...	25	...	25	...	...
Beli Gaji	...	...	20	...	20	...	...
Nari	...	5	...	3	2	...	...
Budhodero	...	4	...	4	...	...	...
Ghangherko	...	8	...	7	1	...	...
Soi	...	...	7	...	7	...	...
Madeji	...	...	50	...	50	...	...
<b>Total, Naushahro Division</b>	...	<b>6,476</b>	<b>1,056</b>	<b>979</b>	<b>6,553</b>	...	...
Hyderabad ...	Lakhat	...	4	...	4	...	...
	Nasri	740	155	...	895	...	...
	Mad	1,231	85	...	1,316	...	...
	Mahrabpur	950	209	...	1,159	...	...
	Mari	2,433	1,296	...	3,729	...	...
	Keti Jurrio	590	238	...	828	...	...
	Pai	...	430	...	430	...	...
	Amin Lakho	...	20	...	20	...	...
	Rano	190	47	...	237	...	...
	Kunar	...	99	...	99	...	...
	Rishal	...	65	...	65	...	...
	Nurketi	490	200	...	690	...	...
	Bhanot, No. I	...	74	...	74	...	...
	Kari	...	39	...	39	...	...
	Bhanot, No. II	...	41	...	41	...	...
	Khanot	490	200	...	690	...	...
	Ghotana	...	49	...	49	...	...

3 acres opened to grazing.

4 " " "

7 " " "

Division.	Name of Plantation.	AREA IN ACRES.				RECEIPTS	CHARGES	REMARKS.
		On 1st July 1895.	Added during the year.	Excluded during the year.	Area on 30th June 1896.	Of the year.		
						Rs.	Rs.	
Hyderabad— <i>continued.</i>	Salaro ... ..	150	38	...	188	...	...	
	Murid Rais ... ..	80	67	...	147	...	...	
	Sekhat and Khebrani ... ..	50	55	...	105	...	...	
	Matiari and Jakhri ... ..	2,010	414	...	2,424	...	...	
	Miani ... ..	976	115	...	1,091	...	...	
	Muhammad Khan ... ..	181	...	...	181	...	...	
	Kathri ... ..	380	3	...	383	...	...	
	Ghali ... ..	40	...	...	40	...	...	
	Butho ... ..	1,916	212	...	2,128	...	...	
	Lakha ... ..	...	27	...	27	...	...	
	Manjhand ... ..	186	58	...	244	...	...	
	Unarpur ... ..	414	78	...	492	...	...	
	Ghagh ... ..	140	40	...	180	...	...	
	Keti Kbasai ... ..	161	165	...	326	...	...	
	Giderji ... ..	268	102	...	370	...	...	
	Shah Makai ... ..	106	...	...	106	...	...	
Jam Shoro ... ..	61	...	...	61	...	...		
	Total ... ..	14,233	4,625	...	18,858	...	...	
Jerruck ... ..	Khadi ... ..	367	165	79	453	...	...	79 acres opened to grazing.
	Budka Takar ... ..	58	10	...	68	...	...	
	Mulchand ... ..	400	337	90	647	...	...	90 " " "
	Phatah ... ..	9	...	...	9	...	...	
	Viran ... ..	316	40	236	120	...	...	236 " " "

Sonda	...	318	30	268	80	...	...	268	..	..	..
Hilaya	...	248	88	...	336	...	...	...	...	...	...
Lalang	...	130	20	...	150	...	...	...	...	...	...
Keti Mehrani	...	...	6	...	6	...	...	...	...	...	...
Karokhao	...	40	10	...	50	...	...	...	...	...	...
Ali Ganj	...	30	30	...	60	...	...	...	...	...	...
Shah Lonko	...	239	...	...	239	...	...	...	...	...	...
Khokhar	...	630	32	630	32	...	...	630	..	..	..
Khathar	...	580	75	...	655	...	...	...	...	...	...
Katiar	...	212	19	...	231	...	...	...	...	...	...
Khatro	...	12	...	...	12	...	...	...	...	...	...
Tikhur	...	377	30	377	30	...	...	377	..	..	..
Husri	...	...	28	...	28	...	...	...	...	...	...
Marho Kotri	...	...	41	...	41	...	...	...	...	...	...
Garko	...	411	67	...	478	...	...	...	...	...	...
Bijora	...	80	46	...	126	...	...	...	...	...	...
Bao Purandas	...	605	224	...	829	...	...	...	...	...	...
Kacho Surjani	...	504	112	162	454	...	...	162	..	..	..
Kot Almo	...	533	70	403	200	...	...	403	..	..	..
Huderani	...	381	...	36	345	...	...	36	..	..	..
Surjani	...	91	...	...	91	...	...	...	...	...	...
Penah	...	415	...	53	362	...	...	53	..	..	..
Susati	...	2	...	...	2	...	...	...	...	...	...
Khirsar	...	40	...	...	40	...	...	...	...	...	...
Hazari	...	385	...	...	385	...	...	...	...	...	...
Ali Bahar	...	56	...	...	56	...	...	...	...	...	...
Ganj	...	230	...	...	230	...	...	...	...	...	...
Kacho Pawhar	...	...	20	...	20	...	...	...	...	...	...
Kacho Alah Baksh	...	...	40	...	40	...	...	...	...	...	...
Achh Marho	...	...	100	...	100	...	...	...	...	...	...
Total	...	7,699	1,640	2,334	7,005	...	...	...	...	...	...
Total of Cultural Operations...	...	47,475	18,676	8,345	57,806	...	...	...	...	...	...
Total of Regular Plantation...	...	123	3	34	92	381	1,642	...	...	...	...
GRAND TOTAL	...	47,598	18,679	8,379	57,898	381	1,642	...	...	...	...

F. R. DASAI,  
Conservator of Forests,  
Sind Circle.

FORM No. 57.

FOREST DEPARTMENT, SIND CIRCLE.

*Outturn (in cubic feet, solid) of Timber and Fuel during the year 1896-97 and Agency of Exploitation.*

Division.	TIMBER IN THE ROUGH: LOGS.					TIMBER IN THE ROUGH: POLES.					SAWN OR SQUARED TIMBER.					MISCELLANEOUS.					FUEL.					TOTAL. Outturn.
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	
<b>I. Reserved Forests.</b>																										
Sukkur ... ..	937	94,728	2,101	...	97,650	51	5,541	134	...	5,720	...	...	...	...	635	51,480	4,404	...	58,510	45,819	7,000,221	1,149	...	7,137,189	7,269,389	
Naushahro ... ..	...	16,084	147	...	16,231	...	9,036	2,091	...	11,007	...	...	...	...	...	...	...	...	...	6,001	6,77,221	...	171,281	1,051,693	1,081,821	
Hyderabad ... ..	...	20,250	892	...	20,632	...	40,104	602	...	40,700	...	47,741	...	47,741	...	...	...	...	...	...	6,150,843	5,940	...	6,462,783	6,580,928	
Jerruck... ..	20	71,660	164	...	71,804	...	14,200	792	...	14,992	...	3,800	...	3,800	...	...	...	...	...	26,208	3,097,240	...	...	3,123,648	3,314,388	
Total ... ..	957	1,72,742	2,894	...	1,70,583	51	77,841	3,649	...	81,541	...	51,631	...	51,631	635	51,480	4,404	...	58,519	78,203	17,821,694	7,098	171,281	17,776,100	18,146,420	
<b>II. Protected Forests.</b>																										
Sukkur ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	41	...	...	41	...	...	...	...	...	...	41

Charcoal should be shown by its equivalent in fuel, the quantity of wood consumed in producing it being entered in cubic feet, solid.

F. R. DASAI,  
Conservator of Forests,  
Sind Circle.

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FORM No. 58.

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**FORM No. 58.**  
**FOREST DEPARTMENT, SIND CIRCLE.**  
*Outturn of minor Forest produce.*

Division.	Description of Produce.	PRODUCE REMOVED OR UTILISED									
		By Government agency.		By Purchasers.		By free grants.		By Right-holders.		Total.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.		Rs.		Rs.		Rs.
<b>Sukkur</b>	Mango fruit	...	196	...	...	...	...	...	...	...	196
	Babul seed	2 Mds.	2	...	...	...	...	...	...	2 Mds.	2
	Babul pods	...	...	Contract.	583	...	...	...	...	Contract.	583
	Munj reed	...	...	Do.	917	...	...	...	...	Do.	917
	Kanh grass	...	...	Bdles. 8	1	Bdles. 54	3	...	...	Bdles. 62	4
	Dabh grass	...	...	Mds. 686	43	...	...	...	...	Mds. 686	43
	Jhau brushwood	...	...	Bdles. 683	43	Bdles. 58	4	...	...	Bdles. 741	47
	Branches of trees	...	...	C. ft. 55,720	278	...	...	...	...	C. ft. 55,720	278
	Do. do.	...	...	Cart Ls. 201	50	...	...	...	...	Cart Ls. 201	50
	Compensation for damage done to trees	...	...	...	42	...	...	...	...	...	42
	Grazing fees	...	...	...	18,683	...	...	...	...	...	18,683
	<b>Total</b>	...	198	...	20,640	...	7	...	...	...	20,845
<b>Naushahro</b>	Babul pods	...	...	Contract.	767	...	...	...	...	Contract.	767
	Fruit	...	...	Do.	18	...	...	...	...	Do.	18
	Sar reed	...	...	Do.	738	...	...	...	...	Do.	738
	Kanh grass	...	...	...	...	Bdles. 80	5	...	...	Bdles. 80	5
	Jhau brushwood	...	...	Bdles. 1,961	123	Do. 90	6	...	...	Do. 205	129
	Branches of trees	...	...	Do. 497	35	...	...	...	...	Do. 497	35
	Thorns	...	...	...	...	...	...	Bdles. 14,400.	900	Bdles. 14,400	900
	Grazing fees	...	...	...	9,549	...	...	...	...	...	9,549
	<b>Total</b>	...	...	...	11,230	...	11	...	900	...	12,141

Hyderabad	Babul bark	...	...	Mds.	6	1	...	...	...	...	Mds.	6	1
	Tooth brushes	...	...	Do.	206	77	...	...	...	...	Do.	206	77
	Jhau brushwood	...	...	Bdles.	182	11	...	...	...	...	Bdles.	182	11
	Lac	...	...	Mds.	3	6	...	...	...	...	Mds.	3	6
	Reed and Kanh grass	...	...	Bdles.	726	46	Bdles. 228	14	...	...	Bdles.	954	60
	Compensation for damage done to trees	...	...	...	...	72	...	...	...	...	...	...	72
	Grapes	...	...	...	...	49	...	...	...	...	...	...	49
	Babul pods	...	...	Contract.	...	12,587	...	...	...	...	Contract.	...	12,587
	Kanh grass	...	...	Do.	...	349	...	...	...	...	Do.	...	349
	Lac	...	...	Do.	...	5,410	...	...	...	...	Do.	...	5,410
	Mangoes	...	...	Do.	...	215	...	...	...	...	Do.	...	215
	Babul seed	...	Mds. 75	51	...	...	...	...	...	...	Mds. 75	...	51
	Grazing fees	...	...	...	...	17,072	...	...	...	...	...	...	17,072
	Total	...	51	...	35,895	...	14	...	...	...	...	35,960	
Jerruck	Babul seed	...	Mds. 265	33	Mds.	2	1	...	...	...	Mds.	267	34
	Grass	...	...	...	Contract.	...	32	...	...	...	Contract.	...	32
	Lac	...	...	...	Do.	...	133	...	...	...	Do.	...	133
	Mangoes	...	...	...	Do.	...	19	...	...	...	Do.	...	19
	Babul pods	...	...	...	Do.	...	2,841	...	...	...	Do.	...	2,841
	Tooth brushes	...	...	...	Mds.	83	31	...	...	...	Mds.	83	31
	Jhau brushwood	...	...	...	Bdles.	179	12	...	...	...	Bdles.	179	12
	Compensation for damage done to trees	...	...	...	...	80	...	...	...	...	...	...	80
	Grazing fees	...	...	...	...	13,166	...	...	...	...	...	...	13,166
		Total	...	33	...	16,315	...	...	...	...	...	...	16,348

F. R. DASAI,  
 Conservator of Forests,  
 Sind Circle.

## FORM No. 59.

## FOREST DEPARTMENT, SIND CIRCLE.

Account of Timber and other Produce cut or collected by Government agency and brought to Sale Depôts or sold locally during the year 1896-97.

Particulars.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD.		Particulars.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD.		
			No. or quantity.	Cubic feet.				No. or quantity.	Cubic feet.	
<b>TIMBER.</b>				<b>TIMBER.</b>						
<b>BALANCE AT COMMENCEMENT OF THE YEAR.</b>				<i>Removed by purchasers from Sale Depôts.</i>						
Sukkur Division.	Sale Depôts.				Babul logs ... ..	2	20			
	Nil.				Bahan logs ... ..	6	38			
	Forest Depôts.				Bahan posts ... ..	82	...			
					Bahan rafters... ..	602	...	1,360	58	
					Juan rafters ... ..	668	...			
					<i>Sold locally.</i>					
					Babul logs ... ..	26	263			
					Bahan logs ... ..	49	307			
					Tali logs ... ..	33	251			
					Babul props ... ..	4,141	...	4,249	821	
					<i>Confiscated wood sold locally.</i>					
					Tali logs ... ..	8	53		8 53	
					<i>Used by the Department.</i>					
					Tali logs ... ..	2	25		2 25	
					<i>Balance at close of the year.</i>					
					<i>Sale Depôts.</i>					
					Bahan logs ... ..	27	109			
					Bahan posts ... ..	154	...			
					Bahan rafters... ..	2,200	...	2,381	109	
					<i>Forest Depôts.</i>					
					Nil.					
					<i>Sale Depôts.</i>					
					Nil.					
					<i>Forest Depôts.</i>					
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					<i>Forest Depôts.</i>					
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FORM  
FOREST DEPARTMENT,  
*Abstract showing the value of Timber and*

Description of timber and other produce.	ON HAND AT COMMENCEMENT OF THE YEAR.			ON HAND AT CLOSE OF THE YEAR.			DIFFERENCE IN VALUE.	
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.
<i>Sale Depôts.</i>								
Bahan logs ... ..	...	...	...	27	109	54	...	...
Bahan posts ... ..	...	...	...	154	...	39	...	...
Bahan rafters ... ..	...	...	...	2,200	...	264	...	...
Total ... ..	...	...	...	2,381	109	357	357	...
<i>Forest Depôts.</i>								
Nil.	...	...	...	...	...	...	...	...
<i>Sale Depôts.</i>								
Firewood ... .. Mds.	5,025	...	904	...	...	...	...	...
Loco. fuel ... .. C. ft.	...	775	36	...	775	36	...	...
Total ... ..	5,025	775	940	...	775	36	...	904
<i>Forest Depôts.</i>								
Firewood ... .. Mds.	3,650	...	438	2,350	...	282	...	...
Loco. fuel ... .. C. ft.	...	...	...	...	...	...	...	...
Babul and other seeds Mds.	544	...	272	147	...	73	...	...
Total ... ..	4,194	...	710	2,497	...	355	...	355
<i>Sale Depôts.</i>								
Firewood ... .. Mds.	1,900	...	190	...	...	...	...	190
<i>Forest Depôts.</i>								
Firewood ... .. Mds.	5,239	...	943	3,068	...	265	...	...
Babul seed ... .. Mds.	569	...	355	231	...	145	...	...
Total ... ..	5,808	...	1,298	3,299	...	410	...	888

Net difference against

## SIND CIRCLE.

other produce at Sale Depôts for the year 1896-97.

Description of timber and other produce.	ON HAND AT COMMENCEMENT OF THE YEAR.			ON HAND AT CLOSE OF THE YEAR.			DIFFERENCE IN VALUE.	
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.
			Rs.			Rs.	Rs.	Rs.
<i>Sale Depôts.</i>								
Nil	...	...	...	...	...	...	...	...
<i>Forest Depôts.</i>								
Babul props... .. No.	4,141	...	186	...	...	...	...	186
<i>Sale Depôts.</i>								
Firewood ... .. Mds.	29	...	7	...	...	...	...	...
Loco. fuel ... .. C. ft.	...	823	378	...	823	37	...	...
Total ...	29	823	385	...	823	37	...	348
<i>Forest Depôts.</i>								
Firewood ... .. Mds.	2,569	...	257	...	...	...	...	...
Loco. fuel ... .. C. ft.	...	114,394	2,059	...	...	...	...	...
Babul seed ... .. Mds.	362	...	181	156	...	78	...	...
Total ...	2,931	114,394	2,497	156	...	78	...	2,419
<i>Sale Depôts.</i>								
Firewood ... .. Mds.	...	...	...	...	...	...	...	...
<i>Forest Depôts.</i>								
Firewood ... .. Mds.	4,088	...	552	875	...	91	...	...
Loco. fuel ... .. C. ft.	...	7,835	188	...	...	...	...	...
Charcoal ... .. Mds.	201	...	62	25	...	4	...	...
Babul seed ... .. "	405	...	202	1,082	...	541	...	...
Total ...	4,694	7,835	1,004	1,982	...	636	...	368

the year, Rs. 5,301.

F. R. DASAI,  
Conservator of Forests,  
Sind Circle.

FORM No. 61.

FOREST DEPARTMENT, SIND CIRCLE.

Summary of Revenue and Expenditure of the different Divisions for the Forest year 1896-97 (1st July 1896 to 30th June 1897).

Budget Heads.	Direction.	Hyderabad	Naushahro	Sukkur	Jerruck	Thar and Par-	Working	Total for the
		Division.	Division.	Division.	Division.	kar Division.	Plans	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	1896-97.
<b>REVENUE.</b>								
<b>I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—</b>								
a. Timber	...	118 8 6	...	523 11 9	35 15 11	...	...	678 4 2
b. Firewood and charcoal	...	2,265 13 1	497 14 11	619 12 0	722 1 6	2,551 10 11	...	6,857 4 5
c. Grass and other minor produce	...	51 7 10	...	197 14 11	32 8 0	...	...	281 14 9
TOTAL I	...	2,435 13 5	497 14 11	1,341 6 8	790 9 5	2,551 10 11	...	7,617 7 4
<b>II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS—</b>								
a. Timber	...	23,576 13 7	5,113 14 6	13,535 9 9	8,148 6 8	281 11 0	...	55,656 7 6
b. Firewood and charcoal	...	34,397 10 11	19,111 1 1	66,249 11 4	23,233 3 0	6 2 0	...	1,42,997 12 4
d. Grazing and fodder grass	...	17,071 10 1	9,549 1 3	18,683 1 9	13,165 11 3	2,585 1 0	...	61,054 9 4
e. Other minor produce	...	18,823 0 2	1,890 12 0	1,966 12 2	3,149 1 0	781 3 0	...	26,390 12 4
TOTAL II	...	98,869 2 9	35,454 12 10	1,00,425 3 0	47,696 5 11	3,654 1 0	...	2,86,099 9 6
<b>III.—DRIFT AND WAF WOOD AND CONFISCATED FOREST PRODUCE</b>								
TOTAL III	...	...	...	96 12 2	1 0 0	...	...	97 12 2
<b>V.—MISCELLANEOUS—</b>								
a. Fines and forfeitures	...	100 0 0	...	30 0 0	...	...	...	0 0 0
b. Refunds	...	...	19 9 0	...	59 10 9	52 4 0	...	131 7 9
c. Other sources	...	1,641 4 4	5,673 5 8	8,429 15 5	2,445 15 1	30 7 0	...	18,220 15 6
TOTAL V	...	1,741 4 4	5,692 14 8	8,459 15 5	2,505 9 10	82 11 0	...	18,482 7 3
<b>GRAND TOTAL REVENUE</b>	...	1,03,046 4 6	41,645 10 5	1,10,323 5 3	50,993 9 2	6,288 6 11	...	3,12,297 4 3
<b>EXPENDITURE.</b>								
<b>A.—Conservancy and Works.</b>								
<b>I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—</b>								
a. Timber	...	89 10 9	...	88 6 3	...	...	...	178 1 0
b. Firewood and charcoal	...	517 1 6	181 7 8	575 0 7	278 0 5	1,834 1 4	...	2,898 10 0
c. Grass and other minor produce	...	...	...	25 6 0	...	...	...	542 7 6
TOTAL A I	...	606 12 3	181 7 8	688 12 10	278 0 5	1,834 1 4	...	3,589 2 6
<b>II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS</b>								
TOTAL A II	...	70 12 0	39 5 3	9 4 0	148 2 0	...	...	267 7 3
<b>III.—DRIFT AND WAF WOOD AND CONFISCATED FOREST PRODUCE</b>								
TOTAL A III	...	...	5 4 0	...	...	...	...	5 4 0
<b>VI.—LIVE STOCK, STORES, TOOLS AND PLANT—</b>								
a. Purchase of cattle	...	...	...	69 0 0	...	...	...	69 0 0
b. Feed and keep of cattle	...	...	...	143 3 4	...	...	...	146 3 4
c. Purchase of stores, tools and plant	150 12 0	198 6 8	48 8 0	159 5 6	144 3 0	...	1,062 12 1	1,768 15 3
TOTAL A VI	150 12 0	198 6 8	41 8 0	364 8 10	144 3 0	...	1,062 12 1	1,969 2 7
<b>VII.—COMMUNICATIONS AND BUILDINGS—</b>								
a. Buildings	...	90 2 4	18 4 0	207 5 1	141 8 0	...	...	457 3 5
b. Other works	...	...	...	700 1 0	...	...	...	700 1 0
TOTAL A VII	...	90 2 4	18 4 0	907 6 1	141 8 0	...	...	1,157 4 5
<b>VIII.—ORGANISATION, IMPROVEMENT, AND EXTENSION OF FORESTS—</b>								
a. Demarcation	...	...	3 0 0	...	49 1 0	...	188 5 0	240 6 0
b. Working plans	...	315 0 2	27 10 4	152 10 0	79 14 11	...	...	4,186 6 8
c. Sowing and plantings	...	853 5 6	79 6 6	2,708 4 5	789 10 10	...	3,619 3 3	4,430 11 4
f. Protection from fire	...	...	...	...	2 0 0	...	...	2 0 0
g. Other works	...	2,251 1 1	858 4 0	543 12 8	2,458 9 4	...	...	6,111 11 1
TOTAL A VIII	...	3,419 6 9	988 4 10	3,404 11 1	3,370 4 1	...	3,807 8 3	14,970 3 0
<b>IX.—MISCELLANEOUS—</b>								
b. Other charges	...	1,030 3 11	542 0 3	409 13 9	324 15 0	...	...	2,307 0 11
TOTAL A IX	...	1,030 3 11	542 0 3	409 13 9	324 15 0	...	...	2,307 0 11
<b>TOTAL A.—CONSERVANCY AND WORKS</b>	180 12 0	5,415 11 11	1,803 2 0	5,784 8 7	4,407 0 6	1,834 1 4	4,870 4 4	24,268 8 8
<b>B.—Establishments.</b>								
<b>I.—SALARIES—</b>								
a. Conservators	7,601 15 0	...	...	...	...	...	...	7,601 15 0
b. Superior officers	5,220 0 0	3,250 0 0	3,600 0 0	4,200 0 0	8,087 13 7	...	6,438 4 5	30,796 2 0
c. Subordinate forest and depot establishments	...	7,558 2 4	7,438 11 8	14,797 7 9	7,310 2 5	238 0 0	...	37,312 8 2
d. Office establishments	4,202 2 5	1,886 0 2	1,289 7 8	1,778 9 2	1,326 4 1	400 2 7	18 0 0	10,666 10 1
e. Deputation and special allowances	...	78 1 6	134 13 5	600 0 0	...	...	...	812 14 11
f. Exchange Compensation Allowance—	...	...	...	...	...	...	...	...
2. Deputy Conservators	...	...	...	...	480 8 0	...	333 14 5	814 6 5
3. Assistant Conservators	...	...	...	...	...	...	419 6 3	419 6 3
TOTAL B I	17,084 1 5	12,472 4 0	12,483 0 9	21,346 0 11	17,204 12 1	644 2 7	7,209 9 1	88,423 14 10
<b>II.—TRAVELLING ALLOWANCES—</b>								
a. Conservators	1,240 0 0	...	...	...	...	...	...	1,240 0 0
b. Superior officers	1,177 4 6	856 4 0	900 0 0	931 2 0	1,440 2 6	...	1,784 9 2	7,089 6 2
c. Subordinate forest and depot establishments	...	659 0 7	773 10 3	1,052 0 9	923 15 3	330 4 6	...	3,735 15 4
d. Office establishments	1,763 1 6	554 14 9	424 3 4	681 0 5	446 1 5	...	9 5 8	3,878 11 1
TOTAL B II	4,180 6 0	2,067 3 4	2,097 13 7	2,664 3 2	2,810 3 2	330 4 6	1,793 14 10	15,944 0 7
<b>III.—CONTINGENCIES—</b>								
a. Stationery	6 4 3	86 5 0	83 7 4	181 14 0	89 0 0	7 4 0	...	454 2 7
b. Carriage of tents and records	362 14 8	173 7 0	179 0 2	172 8 0	222 3 7	...	157 12 0	1,297 13 5
c. Rents, rates and taxes	360 0 0	220 0 0	240 0 0	163 7 3	252 0 0	...	126 7 3	1,301 14 6
d. Official postage	150 3 9	233 11 6	354 7 6	485 8 0	253 14 0	5 0 0	...	1,541 15 9
f. Sundries	220 8 8	140 0 9	168 11 2	212 12 4	127 4 0	...	59 5 0	929 10 2
TOTAL B III	1,110 15 4	853 8 3	1,026 10 2	1,216 1 7	944 5 10	12 4 0	402 11 3	5,876 8 5
<b>TOTAL B.—ESTABLISHMENTS</b>	22,394 6 9	15,392 15 7	15,587 8 8	25,226 5 8	20,959 5 1	986 11 1	9,408 3 2	1,09,943 7 10
<b>GRAND TOTAL OF EXPENDITURE</b>	22,535 2 9	20,808 11 6	17,390 10 6	31,010 14 3	25,366 5 7	2,820 12 5	14,276 7 6	1,84,209 0 6

Acc of the Accountant General, Bombay,  
Dated 3rd September 1897.

E. LAWRENCE,  
Accountant General.

FORM No. 61.

FOREST DEPARTMENT, SIND CIRCLE.

Summary of Revenue and Expenditure of the different Divisions for the Financial year 1896-97.

Budget Heads.	Direction.	Hyderabad Division.	Nasrharro Division.	Sukkur Division.	Jerruck Division.	Thar and Parkar Division.	Working Plans Division.	Total for the Financial year 1896-97.	Total Budget Estimate
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs.
<b>REVENUE.</b>									
<b>I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—</b>									
a. Timber	...	147 13 2	...	351 12 8	7 13 0	1,116 14 1	...	507 6 10	55
b. Firewood and charcoal	...	2,406 1 5	893 2 3	922 7 9	1,044 5 8	...	...	82 15 2	11,75
c. Grass and other minor produce	...	43 15 0	...	161 10 5	32 8 0	...	...	238 1 5	30
TOTAL I	...	2,597 13 7	893 2 3	1,435 14 10	1,084 10 8	1,116 14 1	...	7,128 7 5	12,00
<b>II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS</b>									
a. Timber	...	32,035 11 2	6,288 1 4	10,593 14 10	6,508 2 9	98 3 0	...	55,527 1 1	59,80
b. Firewood and charcoal	...	44,069 10 10	24,790 4 7	61,382 11 3	29,906 11 11	6 2 0	...	1,60,155 8 7	1,96,80
c. Grazing and fodder grass	...	16,314 13 1	9,513 2 3	19,198 5 8	12,918 0 9	2,957 6 11	...	60,896 12 8	59,30
d. Other minor produce	...	18,836 7 2	1,773 6 0	1,545 11 8	5,696 3 8	745 14 0	...	28,697 10 6	25,50
TOTAL II	...	1,11,356 10 3	42,364 14 2	92,715 11 5	55,029 3 1	3,807 9 11	...	3,05,277 0 10	3,40,40
<b>III.—DRIFT AND WAIIF WOOD AND CONFISCATED FOREST PRODUCE</b>									
TOTAL III	...	...	0 12 0	99 12 2	10 0 0	...	...	110 8 2	...
<b>V.—MISCELLANEOUS—</b>									
a. Fines and Forfeitures	...	100 0 0	...	30 0 0	...	...	...	130 0 0	...
b. Refunds	...	3 2 1	18 14 4	...	...	55 9 4	118 1 4	255 5 9	...
c. Other sources	...	1,551 13 3	5,506 12 7	9,635 14 6	2,491 1 8	...	...	19,185 10 0	20,80
TOTAL V	...	1,654 15 4	5,525 10 11	9,665 14 6	2,550 12 4	55 9 4	118 1 4	19,670 15 9	26,80
<b>GRAND TOTAL REVENUE</b>	...	1,15,612 7 2	48,784 7 4	1,03,917 4 11	59,674 10 1	4,980 1 4	118 1 4	3,32,087 0 2	3,73,80
<b>EXPENDITURE.</b>									
<b>A.—Conservancy and Works.</b>									
<b>I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—</b>									
a. Timber	...	89 10 9	...	46 12 1	...	1,148 5 2	...	136 6 10	1,12
b. Firewood and charcoal	...	13 1 0	205 0 1	589 8 7	325 13 5	...	...	2,281 12 3	8,22
c. Grass and other minor produce	...	529 5 4	...	25 0 0	...	...	...	534 5 4	60
TOTAL A I	...	632 1 1	205 0 1	661 4 8	325 13 5	1,148 5 2	...	2,972 8 5	9,20
<b>II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS</b>									
TOTAL A II	...	43 6 0	35 3 0	9 4 0	148 2 0	...	...	235 15 0	10
<b>VI.—LIVE-STOCK, STORES, TOOLS AND PLANT—</b>									
a. Purchase of cattle	...	...	...	59 0 0	...	...	...	59 0 0	25
b. Feed and keep of cattle	...	135 12 0	182 6 8	49 6 0	165 12 0	144 11 0	861 5 7	1,538 6 3	1,82
c. Purchase of stores, tools and plant	...	...	...	...	...	...	...	...	...
TOTAL A VI	...	135 12 0	182 6 8	49 6 0	360 2 10	144 11 0	861 5 7	1,733 12 1	1,70
<b>VII.—COMMUNICATIONS AND BUILDINGS—</b>									
a. Roads and bridges	...	...	...	...	...	...	...	419 8 10	1,29
b. Buildings	...	90 2 4	18 4 0	159 2 6	122 0 0	...	...	750 0 0	76
c. Other works	...	...	...	750 0 0	...	...	...	...	...
TOTAL A VII	...	90 2 4	18 4 0	939 2 6	122 0 0	...	...	1,109 8 10	2,10
<b>VIII.—ORGANISATION, IMPROVEMENT, AND EXTENSION OF FORESTS—</b>									
a. Demarcation	...	...	392 10 2	451 6 11	97 1 0	...	188 5 0	1,129 7 1	1,20
b. Working plans	...	573 2 2	172 4 0	421 4 0	176 12 8	...	2,786 14 1	4,130 4 11	6,70
c. Sowing and planting	...	799 1 0	79 6 6	2,671 1 0	501 2 8	...	...	4,050 11 2	4,40
d. Protection from fire	...	...	...	...	2 0 0	...	...	2 0 0	...
e. Other works	...	2,177 3	8	405 12 2	2,584 15 2	...	...	6,162 13 6	8,20
TOTAL A VIII	...	3,549 6 8	3 4	4,039 8 1	3,361 15 6	...	2,975 3 1	15,465 4 8	20,50
<b>IX.—MISCELLANEOUS—</b>									
b. Other charges	...	2,042 5 7	12 3	396 6 6	328 14 6	...	...	3,314 6 10	2,05
TOTAL A IX	...	2,042 5 7	546 13 3	396 6 6	328 14 6	...	...	3,314 6 10	2,05
<b>TOTAL A.—CONSERVANCY AND WORKS</b>	...	135 12 0	6,539 12 4	2,393 12 8	6,405 12 7	4,431 8 5	1,148 5 2	3,836 8 8	24,891 7 10
<b>B.—Establishments.</b>									
<b>I.—SALARIES—</b>									
a. Conservators	...	5,576 10 8	3,000 0 0	4,050 0 0	4,730 10 4	7,531 2 11	4,875 6 0	5,576 10 8	33,00
b. Superior officers	...	6,270 0 0	7,989 0 7	7,58 4 5	14,661 3 9	7,042 13 2	238 0 0	37,112 5 11	39,00
c. Subordinate forest and depot establishments	...	4,261 14 10	1,547 13 6	1,581 8 9	1,780 2 10	1,320 4 4	396 0 0	10,605 12 3	10,6
d. Deputation and special allowances	...	...	78 1 6	243 8 9	600 0 0	...	...	921 10 3	1,0
e. Exchange compensation allowance—	...	...	...	...	...	...	...	...	...
(2) Deputy Conservators	...	...	...	12 8 3	261 4 4	...	171 4 4	445 0 7	...
(3) Assistant Conservators	...	...	59 13 4	59 13 4	...	...	479 3 7	598 14 3	...
TOTAL B I	16,108 9 6	13,214 15 7	13,216 3 3	21,944 6 6	16,155 8 5	634 0 0	5,643 13 11	85,817 9 2	84,45
<b>II.—TRAVELLING ALLOWANCES—</b>									
a. Conservators	...	1,008 10 8	...	...	...	...	...	1,006 10 8	...
b. Superior officers	...	1,410 9 10	698 5 7	991 15 0	1,136 1 7	1,319 2 6	1,559 9 2	7,110 11 8	3,70
c. Subordinate forest and depot estabts.	...	1,692 14 6	555 1 4	427 9 9	1,029 1 3	883 15 3	273 4 6	3,652 12 3	3,4
d. Office establishments	...	...	...	...	676 8 8	436 1 5	9 5 8	3,797 9 4	3,90
TOTAL B II	4,110 3 0	1,903 12 2	2,230 10 9	2,841 11 6	2,639 3 2	273 4 6	5,568 14 10	15,567 11 11	16,00
<b>III.—CONTINGENCIES—</b>									
a. Stationery	...	3 10 0	83 9 3	82 14 10	199 7 6	90 4 0	9 0 6	457 14 1	6
b. Carriage of tents and records	...	360 8 8	185 1 3	189 14 0	175 2 8	249 13 11	103 11 0	1,204 3 4	1,2
c. Rents, rates and taxes	...	360 0 0	240 0 0	240 0 0	164 3 3	252 0 0	7 7 3	1,382 10 6	1,4
d. Official postage	...	181 3 9	264 11 6	339 15 0	487 11 6	279 12 0	5 0	1,597 3 9	1,6
e. Sundries	...	276 15 4	142 10 6	194 15 7	222 5 5	159 6 4	4 13	1,045 2 11	...
TOTAL B III	1,182 5 7	916 0 6	1,047 11 5	1,237 14 4	1,031 4 3	18 13	...	...	...
<b>TOTAL B.—ESTABLISHMENTS</b>	21,401 2 1	15,034 12 3	16,494 9 5	25,924 0 4	19,825 15 10	926 2	...	...	...
<b>GRAND TOTAL OF EXPENDITURE</b>	21,536 14 1	21,574 8 7	16,989 6 1	32,329 12 11	24,257 8 3	2,074 7	...	...	...

Forwarded to the Conservator of Forests, Sind Circle.

Office of the Accountant General, Bombay, }  
Dated 10th August 1897.

FORM No. 62.

FOREST DEPARTMENT, SIND CIRCLE.

Annual Account Current for the Forest year 1896-97 (July 1896 to June 1897).

	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To opening Balance ... ..	...	201 6 2	1. Refunds and Drawbacks—Refunds— Divided Heads, Forest ... ..	...	1,654 8 0
VIII. Assessed Taxes—Income Tax— Deductions by Government from Salaries and Pensions ... ..	...	1,102 12 6	11. Forest (as per summary) ... ..	...	1,34,209 0 0
IX. Forest (as per summary) ... ..	...	3,12,297 4 3	Savings Banks Deposit— Interest on Forest Officers' Provident Fund ... ..	...	24 9 5
XXV. Miscellaneous— Sale-proceeds of Stores and Materials (Provincial) ... ..	...	0 6 0	Revenue Deposits (Forests) ... ..	...	17,639 15 6
Bombay Uncovenanted Service F. P. Fund— Widows' Branch ... ..	...	77 13 4	Advances Recoverable— Forest Advances ... ..	48,642 14 7	
Revenue Deposits (Forest) ... ..	...	16,400 1 10	Tentage Advances ... ..	...	
Advances Recoverable— Forest Advances ... ..	51,768 13 4		Objection Book Advances... ..	507 0 0	49,149 14 7
Tentage Advances ... ..	...		Cash Recoveries ... ..	...	2,656 1 0
Objection Book Advances ... ..	817 0 0		Cheques and Bills (Forests Cheque cancelled) ... ..	...	1,291 4 1
Cash Recoveries ... ..	...	52,575 13 4	Forest Remittances— Remittances to Treasuries ... ..	3,21,829 8 4	3,21,829 8 4
Cheques and Bills (Departmental cheques), Forest ... ..	...	1,40,909 6 4	Inter-Departmental Transfers ... ..	...	
Forest Remittances— Remittances to Treasuries ... ..	85 14 7		Accounts Current— Account between Bombay and Military, Bombay— IV. Items adjustable by Military ... ..	...	7 7 2
Inter-departmental Transfers ... ..	744 14 0	830 12 7	Account between Bombay and P. W. D., Bombay (Ordinary Branches)— IV. Items adjustable by P. W. D.— Inter-departmental Transfers ... ..	806 3 3	825 13 7
Account between India and Bombay— III. Items adjustable by India—	...		Miscellaneous ... ..	19 10 4	
Account between Bombay and P. W. D., Bombay— IV. Payments into Treasuries by Civil Officers on account of P. W. D. ... ..	...	212 15 3	Account between Bombay and P. W. D. (Railway Branch), N.-W. Railway— IV. Items adjustable by P. W. D. ... ..	...	
Miscellaneous ... ..	...		Closing Balance ... ..	...	274 1 7
Forest Officers' Provident Fund ... ..	...	2,294 7 9	Total ... ..	...	5,29,562 4 4
Total ... ..	...	5,29,562 4 4	Total ... ..	...	5,29,562 4 4

No.  $\frac{F}{15455}$

Forwarded to the Conservator of Forests, Sind Circle, under Sections 265, 267 and 268 of the Forest Department Code.

Accountant General's Office,  
Bombay, 3rd September 1897. }

E. LAWRENCE,  
Accountant General.

FORM No. 62.

FOREST DEPARTMENT, SIND CIRCLE.

Annual Account Current for the Financial year 1896-97.

	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To opening Balance ... ..	...	161 12 11	1. Refunds and Drawbacks—Refunds— Divided Heads, Forest ... ..	...	1,654 8 0
WILL. Assessed Taxes—Income Tax— Deductions by Government from Salaries and Pensions ... ..	...	1,055 6 11	11. Forest (as per summary) ... ..	...	1,32,023 15 6
XX. Forest (as per summary) ... ..	...	3,32,087 0 2	14. Interest—Interest on other obligations— Savings Bank Deposits ... ..	...	...
XXI. Interest— Interest on arrears of Revenue ... ..	...	...	Interest on Forest Officer's Provident Fund Revenue Deposits (Forests) ... ..	...	24 9 5
XXII. Miscellaneous— Sale proceeds of Stores and Materials ... ..	0 6 0	...	Cheques and Bills (Forest cheques cancelled) ... ..	...	17,613 5 8
Unclaimed deposits. Other deposits ... ..	...	0 6 0	Advances Recoverable— Forest Advances ... ..	44,113 10 1	1,233 0 0
Revenue Deposits (Forest) ... ..	...	16,695 4 2	Tentage Advances ... ..	...	...
Cheques and Bills (Departmental cheques), Forests ... ..	...	1,36,972 7 7	Objection Book Advances ... ..	523 0 0	44,635 10 1
Advances Recoverable— Forest Advances ... ..	40,865 15 5	50,688 15 5	Cash Recoveries ... ..	...	2,642 13 0
Tentage Advances ... ..	823 0 0	...	Forest Remittances— Remittances to Treasuries ... ..	3,42,063 14 11	3,42,063 14 11
Objection Book Advances ... ..	...	...	Inter-departmental Transfers ... ..	...	...
Cash Recoveries ... ..	...	2,642 13 0	Account Current— Account between Bombay and Military, Bombay— IV. Items adjustable by Military ... ..	...	7 7 9
Forest Remittances— Remittances to Treasuries ... ..	83 11 7	828 9 7	Account between Bombay and P. W. D., Bombay (Ordinary Branches)— IV. Items adjustable by P. W. D. ... ..	780 11 2	...
Inter-departmental Transfers ... ..	744 11 0	62 10 0	Inter-departmental charges ... ..	19 10 4	...
Miscellaneous ... ..	...	...	Miscellaneous ... ..	...	...
Account between India and Bombay— III. Items adjustable by India— Miscellaneous ... ..	9 6 0	9 0 0	Account between Bombay and P. W. D. (Railway Branch), N.-W. Railway— IV. Items adjustable by P. W. D. ... ..	...	600 5 6
Bengal Military Orphan Fund ... ..	...	...	...	...	...
Bengal U. S. F. Pension Fund ... ..	...	...	Closing Balance ... ..	...	93 5 1
Account between Bombay and P. W. D., Bombay— IV. Payments into Treasuries by Civil Officers on account of P. W. D. ... ..	...	264 7 9			
Forest Officers' Provident Fund ... ..	...	1,529 1 5			
Total Rs...	...	5,42,997 14 11			5,42,997 14 11

No. <sup>F.</sup>  
13372

Forwarded to the Conservator of Forests, Sind Circle, under Section 267 of the Forest Code.

Accountant General's Office,  
Bombay, 15th August 1897.

E. LAWRENCE,  
Accountant General.

FORM No. 63.

FOREST DEPARTMENT, SIND CIRCLE.

Revenue received and Outstandings on account of Revenue during the Forest year 1896-97.

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realised during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Sudder	I.—Timber and other produce removed from the forests by Government agency—						The outstandings under V.C. at the close of the year amount to Rs. 1,048-8-0.
	(a) Timber ... ..	.....	523 11 9	523 11 9	523 11 9	.....	
	(b) Firewood and charcoal ... ..	.....	619 12 0	619 12 0	619 12 0	.....	
	(c) Grass and other minor produce ... ..	.....	197 14 11	197 14 11	197 14 11	.....	
	II.—Timber and other produce removed from the forests by consumers or purchasers—						
	(a) Timber ... ..	3,000 0 0	13,535 9 9	16,535 9 9	13,535 9 9	3,000 0 0	
	(b) Firewood and charcoal ... ..	12,000 0 0	63,694 2 6	75,694 2 6	66,249 11 4	9,444 7 2	
	(d) Grazing and fodder grass ... ..	.....	18,683 1 9	18,683 1 9	18,683 1 9	.....	
	(e) Other minor produce ... ..	.....	2,396 1 2	2,396 1 2	1,956 2 2	439 5 0	
	III.—Drift and waif wood and confiscated forest produce ... ..	.....	96 12 2	96 12 2	96 12 2	.....	
Total ...	15,000 0 0	99,747 2 0	1,14,747 2 0	1,01,863 5 10	12,883 12 2		
Mausahro	I.—Timber and other produce removed from the forests by Government agency—						The outstandings under V.C. at close of the year amount to Rs. 1,309.
	(a) Timber ... ..	.....	.....	.....	.....	.....	
	(b) Firewood and charcoal ... ..	21 14 2	489 1 9	510 15 11	497 14 11	13 1 0	
	(c) Grass and other minor produce ... ..	.....	.....	.....	.....	.....	
	II.—Timber and other produce removed from the forests by consumers and purchasers—						
	(a) Timber ... ..	1,100 0 0	5,013 14 6	6,113 14 6	5,113 14 6	1,000 0 0	
	(b) Firewood and charcoal ... ..	4,400 0 0	19,711 1 1	24,111 1 1	19,111 1 1	5,000 0 0	
	(d) Grazing and fodder grass ... ..	.....	9,549 1 3	9,549 1 3	9,549 1 3	.....	
	(e) Other minor produce ... ..	695 11 0	1,362 14 0	1,998 9 0	1,680 12 0	317 13 0	
	III.—Drift and waif wood and confiscated forest produce ... ..	.....	.....	.....	.....	.....	
Total ...	6,217 9 2	36,066 0 7	42,283 9 9	35,952 11 9	6,330 14 0		
Hyderabad	I.—Timber and other produce removed from the forests by Government agency—						The outstandings under V.C. at close of the year amount to Rs. 927.
	(a) Timber ... ..	.....	118 8 6	118 8 6	118 8 6	.....	
	(b) Firewood and charcoal ... ..	30 0 0	2,235 13 1	2,265 13 1	2,265 13 1	.....	
	(c) Grass and other minor produce ... ..	.....	51 7 10	51 7 10	51 7 10	.....	
	II.—Timber and other produce removed from the forests by Government agency—						
	(a) Timber ... ..	6,100 0 0	34,876 13 7	40,976 13 7	28,576 13 7	12,400 0 0	
	(b) Firewood and charcoal ... ..	9,150 0 0	43,847 10 11	52,997 10 11	34,397 10 11	18,600 0 0	
	(d) Grazing and fodder grass ... ..	.....	17,087 4 7	17,087 4 7	17,071 10 1	15 10 6	
	(e) Other minor produce ... ..	7,851 8 0	29,386 8 2	28,238 0 2	18,823 0 2	9,415 0 0	
	III.—Drift and waif wood and confiscated forest produce ... ..	.....	.....	.....	.....	.....	
Total ...	23,131 8 0	1,18,604 2 8	1,41,735 10 8	1,01,305 0 2	40,430 10 6		

72



87-88

Jerruck ...	I.—Timber and other produce removed from the forests by Government agency—						
	(a) Timber	...	...	...	...	35 15 11	35 15 11
	(b) Firewood and charcoal	...	...	...	...	722 1 6	722 1 6
	(c) Grass and other minor produce	...	...	...	...	32 8 0	32 8 0
	II.—Timber and other produce removed from the forests by consumers or purchasers—						
	(a) Timber	...	...	...	...	8,148 6 8	8,148 6 8
	(b) Firewood and charcoal	...	...	...	7,750 0 0	27,134 5 7	34,884 5 7
	(d) Grazing and fodder grass	...	...	...	...	13,165 11 3	13,165 11 3
	(e) Other minor produce	...	...	...	2,174 0 0	4,928 1 0	7,102 1 0
	III.—Drift and waif wood and confiscated forest produce						
	...	...	...	...	1 0 0	1 0 0	
	Total	...	...	...	9,924 0 0	54,168 1 11	64,092 1 11
Thar and Parkar.	I.—Timber and other produce removed from the forests by Government agency—						
	(a) Timber	...	...	...	...	.....	.....
	(b) Firewood and charcoal	...	...	...	...	2,551 10 11	2,551 10 11
	II.—Timber and other produce removed from the forests by consumers or purchasers—						
	(a) Timber	...	...	...	...	281 11 0	281 11 0
	(b) Firewood and charcoal	...	...	...	...	6 2 0	6 2 0
	(d) Grazing and fodder grass	...	...	...	...	2,585 1 0	2,585 1 0
	(e) Other minor produce	...	...	...	...	781 3 0	781 3 0
	III.—Drift and waif wood and confiscated forest produce						
		...	...	...	...	.....	.....
	Total	...	...	...	.....	6,205 11 11	6,205 11 11
Total of the Circle.	I.—Timber and other produce removed from the forests by Government agency—						
	(a) Timber	...	...	...	...	.....	.....
	(b) Firewood and charcoal	...	...	...	51 14 2	6,618 7 3	6,670 5 5
	(c) Grass and other minor produce	...	...	...	...	281 14 9	281 14 9
	II.—Timber and other produce removed from the forests by consumers or purchasers—						
	(a) Timber	...	...	...	10,200 0 0	61,856 7 6	72,056 7 6
	(b) Firewood and charcoal	...	...	...	33,300 0 0	1,54,393 6 1	1,87,693 6 1
	(d) Grazing and fodder grass	...	...	...	...	61,070 3 10	61,070 3 10
	(e) Other minor produce	...	...	...	10,721 3 0	29,794 11 4	40,515 14 4
	III.—Drift and waif wood and confiscated forest produce						
	...	...	...	...	97 12 2	97 12 2	
	Total	...	...	...	54,273 1 2	3,14,791 3 1	3,69,064 4 3

The outstandings under V.  
C. at close of the year  
amount to Rs. 3,284-8-0.

73

F. R. DASAI,  
Conservator of Forests,  
Sind Circle.

FORM No. 63.

FOREST DEPARTMENT, SIND CIRCLE DIVISION.

Revenue received and Outstandings on account of Revenue during the Financial year 1896-97.

Division.	Particulars.	Outstandings	Value of sales	Total.	Amount re-	Balance	Remarks.
		at commence- ment of year.	and other Revenue during year.		alised during year.	due to the Department at end of year.	
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Bakur ...	I.—Timber and other produce removed from the forests by Government agency—						
	(a) Timber ... ..	.....	351 12 8	351 12 8	351 12 8	.....	The outstandings under V. C. at close of the year amount to Rs. 136-2-3.
	(b) Firewood and charcoal ... ..	261 4 6	661 3 3	922 7 9	922 7 9	.....	
	(c) Grass and other minor produce ... ..	.....	161 10 5	161 10 5	161 10 5	.....	
	II.—Timber and other produce removed from the forests by consumers or purchasers—						
	(a) Timber ... ..	5,000 0 0	13,593 14 10	18,593 14 10	10,593 14 10	8,000 0 0	
	(b) Firewood and charcoal ... ..	24,000 0 0	66,716 0 7	90,716 0 7	61,382 11 3	29,333 5 4	
	(d) Grazing and fodder grass ... ..	.....	19,193 5 8	19,193 5 8	19,193 5 8	.....	
	(e) Other minor produce ... ..	.....	1,667 1 8	1,667 1 8	1,545 11 8	121 6 0	
	III.—Drift and waif wood and confiscated forest produce ... ..	.....	99 12 2	99 12 2	99 12 2	.....	
Total ... ..	29,261 4 6	1,02,444 13 3	1,31,706 1 9	94,251 6 5	37,454 11 4		
Manshahro.	I.—Timber and other produce removed from the forests by Government agency—						
	(a) Timber ... ..	.....	.....	.....	.....	.....	The outstandings under V. C. at close of the year amount to Rs. 724.
	(b) Firewood and charcoal ... ..	471 5 1	523 13 4	995 2 5	893 2 3	102 0 2	
	(c) Grass and other minor produce ... ..	.....	.....	.....	.....	.....	
	II.—Timber and other produce removed from the forests by consumers or purchasers—						
	(a) Timber ... ..	2,200 0 0	5,088 1 4	7,288 1 4	6,288 1 4	1,000 0 0	
	(b) Firewood and charcoal ... ..	8,892 9 6	20,897 11 1	29,790 4 7	24,790 4 7	5,000 0 0	
	(d) Grazing and fodder grass ... ..	.....	9,513 2 3	9,513 2 3	9,513 2 3	.....	
	(e) Other minor produce ... ..	543 0 0	2,025 6 0	2,568 6 0	1,773 6 0	795 0 0	
	III.—Drift and waif wood and confiscated forest produce ... ..	.....	0 12 0	12 0	12 0	.....	
Total ... ..	12,106 14 7	38,048 14 0	50,155 12 7	43,258 12 5	6,897 0 2		
Hyderabad.	I.—Timber and other produce removed from the forests by Government agency—						
	(a) Timber ... ..	27 0 8	120 12 6	147 13 2	147 13 2	.....	The outstandings under V. C. at close of the year amount to Rs. 927.
	(b) Firewood and charcoal ... ..	36 0 0	2,388 1 5	2,424 1 5	2,406 1 5	18 0 0	
	(c) Grass and other minor produce ... ..	.....	43 15 0	43 15 0	43 15 0	.....	
	II.—Timber and other produce removed from the forests by consumers or purchasers—						
	(a) Timber ... ..	12,200 0 0	32,238 11 2	44,438 11 2	32,038 11 2	12,400 0 0	
	(b) Firewood and charcoal ... ..	18,300 0 0	44,369 10 10	62,669 10 10	44,069 10 10	18,600 0 0	
	(d) Grazing and fodder grass ... ..	.....	16,330 7 7	16,330 7 7	16,314 13 1	15 10 6	
	(e) Other minor produce ... ..	12,504 0 0	20,230 7 2	32,734 7 2	18,936 7 2	13,798 0 0	
	III.—Drift and waif wood and confiscated forest produce ... ..	.....	.....	.....	.....	.....	
Total ... ..	43,067 0 8	1,15,722 1 8	1,58,789 2 4	1,13,957 7 10	44,831 10 6		

Jerruck ...	I.—Timber and other produce removed from the forests by Government agency—					
	(a) Timber	...	...	...	...	...
	(b) Firewood and charcoal	...	...	...	...	...
	(c) Grass and other minor produce	...	...	...	...	...
	II.—Timber and other produce removed from the forests by consumers or purchasers—					
	(a) Timber	...	...	...	...	...
	(b) Firewood and charcoal	...	...	...	...	...
	(d) Grazing and fodder grass	...	...	...	...	...
	(e) Other minor produce	...	...	...	...	...
	III.—Drift and waif wood and confiscated forest produce					
Total ...						
Thar and Parkar.	I.—Timber and other produce removed from the forests by Government agency—					
	(a) Timber	...	...	...	...	...
	(b) Firewood and charcoal	...	...	...	...	...
	(c) Grass and other minor produce	...	...	...	...	...
	II.—Timber and other produce removed from the forests by consumers or purchasers—					
	(a) Timber	...	...	...	...	...
	(b) Firewood and charcoal	...	...	...	...	...
	(d) Grazing and fodder grass	...	...	...	...	...
	(e) Other minor produce	...	...	...	...	...
	III.—Drift and waif wood and confiscated forest produce					
Total ...						
Total, of the Sind Circle.	I.—Timber and other produce removed from the forests by Government agency—					
	(a) Timber	...	...	...	...	...
	(b) Firewood and charcoal	...	...	...	...	...
	(c) Grass and other minor produce	...	...	...	...	...
	II.—Timber and other minor produce removed from the forests by consumers or purchasers—					
	(a) Timber	...	...	...	...	...
	(b) Firewood and charcoal	...	...	...	...	...
	(d) Grazing and fodder grass	...	...	...	...	...
	(e) Other minor produce	...	...	...	...	...
	III.—Drift and waif wood and confiscated forest produce					
Total ...						

The outstandings under V. C. at close of the year amount to Rs. 1,787-2-3.

F. R. DASAI,  
Conservator of Forests,  
Sind Circle.

FORM No. 64.

FOREST DEPARTMENT, SIND CIRCLE.

*Outstandings and Liabilities on account of Contractors and Disbursers for the Forest year 1896-97 (July 1896 to June 1897).*

Division.	DEPARTMENT DEBTOR.			DEPARTMENT CREDITOR.			BALANCE DUE.		Remarks.
	At commencement of Forest year July 1895 to June 1896.	Recoveries in cash and value of supplies and work done during Forest year 1896-97.	At close of Forest year 1896-97.	At commencement of Forest year 1896-97.	Payments made during Forest year 1896-97.	At close of Forest year 1896-97.	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.	
<i>Contractors.</i>									
Direction ... ..	.....	50 0 0	50 0 0	.....	50 0 0	50 0 0	.....	.....	
Naushahro ... ..	.....	15 0 0	15 0 0	.....	15 0 0	15 0 0	.....	.....	
Jerruck ... ..	.....	84 4 0	84 4 0	110 4 0	.....	110 4 0	26 0 0	.....	
Working Plans ... ..	.....	100 0 0	100 0 0	.....	100 0 0	100 0 0	.....	.....	
Total Contractors ... ..	.....	249 4 0	249 4 0	110 4 0	165 0 0	275 4 0	26 0 0	.....	
<i>Disbursers.</i>									
Hyderabad ... ..	.....	18,079 15 3	18,079 15 3	1,827 13 3	12,208 1 2	14,085 14 5	955 15 2	.....	
Naushahro ... ..	.....	9,075 1 0	9,075 1 0	1,263 11 10	9,540 8 11	10,804 4 9	1,729 3 9	.....	
Sukkur ... ..	.....	22,064 6 8	22,064 6 8	4,444 12 10	19,325 12 6	23,770 2 4	1,715 11 8	.....	
Jerruck ... ..	.....	6,804 9 5	6,804 9 4	1,319 2 7	6,658 6 0	7,977 8 7	1,172 15 2	.....	
Thar and Parkar ... ..	.....	445 9 0	445 9 0	.....	695 9 0	695 9 0	250 0 0	.....	
Working Plans ... ..	.....	50 0 0	50 0 0	.....	50 0 0	50 0 0	.....	.....	
Total Disbursers ... ..	.....	51,509 9 4	51,509 9 4	8,855 8 6	48,477 14 7	57,333 7 1	5,823 13 9	.....	
GRAND TOTAL ... ..	.....	51,758 13 4	51,758 13 4	8,965 12 6	48,642 14 7	57,608 11 1	5,849 13 9	.....	

94

Forwarded to the Deputy Conservator of Forests, Sind Circle, under Section 267 of the Forest Department Code.

Accountant General's Office, }  
Bombay, 3rd September 1897. }

E. LAWRENCE,  
Accountant General.

FORM No. 64.

FOREST DEPARTMENT, SIND CIRCLE.

Outstandings and Liabilities on account of Contractors and Disbursers for the Financial Year 1895-96.

Division.	DEPARTMENT DEBTOR.			DEPARTMENT CREDITOR.			BALANCE DUE.		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during year 1895-96.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (outstandings).	By Department (liabilities).	
<i>Contractors.</i>	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Direction ... ..	.....	50 0 0	50 0 0	.....	50 0 0	50 0 0	.....	.....	
Hyderabad ... ..	.....	1,026 8 8	1,026 8 8	1,026 8 8	.....	1,026 8 8	.....	.....	
Naushahro ... ..	.....	15 0 0	15 0 0	.....	15 0 0	15 0 0	.....	.....	
Jerruck ... ..	.....	311 0 0	311 0 0	376 4 0	.....	376 4 0	65 4 0	.....	
Working Plans ... ..	.....	.....	.....	.....	100 0 0	100 0 0	100 0 0	.....	
Total Contractors ...	.....	1,402 8 8	1,402 8 8	1,402 8 8	165 0 0	1,567 12 8	165 4 0	.....	
<i>Disbursers.</i>									
Hyderabad ... ..	.....	10,667 2 6	10,667 2 6	1,682 15 1	9,292 1 2	10,975 0 3	307 13 9	.....	
Naushahro ... ..	.....	10,444 9 3	10,444 9 3	1,554 7 8	9,659 1 7	11,213 9 3	769 0 0	.....	
Sukkur ... ..	.....	22,167 5 11	22,167 5 11	3,738 1 0	20,093 13 6	23,831 14 6	1,664 8 7	.....	
Jerruck ... ..	.....	4,738 12 1	4,738 12 1	1,038 5 8	4,408 0 10	5,446 6 6	707 10 5	.....	
Thar and Parkar ... ..	.....	445 9 0	445 9 0	.....	445 9 0	445 9 0	.....	.....	
Working Plans ... ..	.....	.....	.....	.....	50 0 0	50 0 0	50 0 0	.....	
Total Disbursers ...	.....	43,463 6 9	43,463 6 9	8,013 13 5	43,948 10 1	51,962 7 6	3,499 0 9	.....	
TOTAL ... ..	.....	49,865 15 5	49,865 15 5	9,416 10 1	44,113 10 1	53,530 4 2	3,664 4 9	.....	

44

Forwarded to the Deputy Conservator of Forests, Sind Circle, under Section 267 of the Forest Department Code.

Accountant General's Office, }  
Bombay, — August 1897. }

E. LAWRENCE,  
Accountant General.

FORM No. 65.

FOREST DEPARTMENT, SIND CIRCLE.

*Financial Results of the Forest year 1896-97.*

Division.	TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY.		OTHER REVENUE.		FORMATION, PRO- TECTION AND IM- PROVEMENT OF FORESTS.	TOTAL.		REMARKS.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Sukkur ... ..	1,341	12,245	1,08,982	11,561	15,165	1,10,323	38,971	
Naushahro ... ..	498	6,413	41,148	6,512	7,471	41,646	20,396	
Hyderabad ... ..	2,436	8,354	1,00,610	8,209	11,682	1,03,046	28,245	
Jerruck ... ..	791	8,613	50,203	8,561	11,872	50,994	29,046	
Thar and Parkar ... ..	2,551	2,313	3,737	479	483	6,288	3,275	
Working Plans ... ..	...	3,666	...	6,942	3,668	...	14,276	
Total ... ..	7,617	41,604	3,04,680	42,264	50,341	3,12,297	1,34,209	

79

F. R. DASAI,  
Conservator of Forests,  
Sind Circle.

FORM No. 65.

FOREST DEPARTMENT, SIND CIRCLE.

Financial Results of the Financial year 1896-97.

Division.	TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY.		OTHER REVENUE.		FORMATION, PROTECTION AND IMPROVEMENT OF FORESTS.	TOTAL.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Sukkur ... ..	1,436	12,048	1,02,481	11,393	15,028	1,03,917	39,069	
Naushahro ... ..	893	6,792	47,892	6,860	8,401	48,785	22,053	
Hyderabad ... ..	2,598	8,272	1,13,014	8,589	12,211	1,15,612	29,072	
Jerruck ... ..	1,085	8,320	57,590	8,222	11,520	58,675	28,062	
Thar and Parkar ... ..	1,117	1,564	3,863	416	418	4,980	2,398	
Working Plans ... ..	.....	2,512	118	2,942	5,916	118	11,370	
<b>Total ...</b>	<b>7,129</b>	<b>39,508</b>	<b>3,24,958</b>	<b>38,422</b>	<b>54,094</b>	<b>3,32,087</b>	<b>1,32,024</b>	

79

F. R. DASAI,  
Conservator of Forests,  
Sind Circle.

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**ANNUAL REPORT**

**OF**

**No. 17 PARTY, BOMBAY FORESTS,**

**FOR**

**1896-97.**

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*Annual Report of No. 17 Party (Bombay Forests) Survey of India  
for 1896-97.*

The charge of this party remained in the hands of Major W. J. Bythell,

*Personnel.*

Major W. J. Bythell, R. E., Deputy Superintendent, 1st Grade, in charge.			
Mr. C. E. Tapsell, Extra Assistant Superintendent, 3rd Grade.			
Mr. S. F. Norman, do.	do.	6th Grade.	
Mr. C. A. Norman, do.	do.	do.	

R. E., throughout the year, with the exception of the periods 1st October to 2nd November 1896, when he was on privilege leave; and

*Surveyors and Sub-Surveyors.*

Gopal Vishnu (up to 30th June 1897), G. R. Bhopatkar, R. V. Joshi, Govind Gopal, N. V. Bhopatkar, and 39 others.

8th to 30th September 1897, when he was deputed on service with the Mohmand Field Force, as Survey Officer, when Mr. Tapsell held temporary charge.

The period now reported on is from 1st October 1896 to 30th September 1897.

As in previous years, the party continued the survey of forest areas on various scales in the three circles of the Bombay Presidency.

These operations comprised :—

*1.—In the Northern Circle.*

Advance triangulation in the Mándvi Táluka of the Surat Collectorate.  
Detail survey on the 8-inch scale of the teak reserves in the Máhim Táluka.

*2.—In the Central Circle.*

Completion of the 4-inch detail of ordinary forest reserves (mentioned in the programme contained in last year's report) in the Bhimthadi and Purandhar Tálukas, Poona District. Detail survey on the 8-inch scale of the teak reserves, and on the 4-inch scale of the ordinary forest reserves, in the Akola Táluka of the Ahmednagar District, completing the survey of that táluka. In this táluka an area of 161 square miles of supplementary triangulation was carried on by Mr. C. A. Norman *pari passu* with the detail survey, chiefly with a view to furnishing extra heights for plane-tablers. Detail survey on the 16-inch scale of bábul reserves in the Nevása and Ráhuri Tálukas of the Ahmednagar District.

*3.—In the Southern Circle.*

Advance triangulation in the Roha Táluka of the Kolába District.

Advance triangulation and traversing in the Kumta, Sirsi, Siddápur and Honávar tálukas of the North Kánara District, by which the area remaining for triangulation in that district has been completed, *viz.*, 830 square miles.

Detail survey on the 4-inch scale of the forest areas in portions of the Ankola, Kumta and Sirsi tálukas, and completion of small areas left unsurveyed last year in the Yellápur Táluka.

In addition it was found necessary to carry out a small amount of revision work over a section adjoining one of the small areas mentioned above and to add certain boundaries and other details to work done during a previous season in the Alibág Táluka of the Kolába District, when the surveyors were unprovided with revision survey village maps.

The party left Poona for the field between the 15th and 20th November 1896, and survey operations were closed between the end of May and 10th of June 1897, when it returned to recess quarters.

Duration of Field Season.

The following table gives the total cost of the party for the year under report with the apportionment of charges to each of the three Circles :—

Circle.				Financial year ending 31st March 1897.	Forest year ending 30th June 1897.	Survey year ending 30th September 1897.
				Rs. a. p.	Rs. a. p.	Rs. a. p.
Northern	...	...	...	10,507 6 3	10,615 4 7	10,766 6 1
Central	...	...	...	31,035 8 7	31,355 15 0	31,802 3 9
Southern	...	...	...	39,279 4 3	39,684 13 6	40,249 11 1
Total				80,822 3 1	81,656 1 1	82,818 4 11

The cost rates as usual are based on the total expenditure during the survey year, *i.e.*, on the actual cost of a survey and of the mapping pertaining thereto.

The Statements A, B and C at the end of this report show the total areas completed in each Circle, of each description of survey with their respective cost rates.

The following table shows the total areas surveyed in square miles, as compared with the outturn for 1895-96 :—

Description of Survey.				1895-96.			1896-97.		
				4"	8"	16"	4"	8"	16"
Triangulation	...	...	...	280	225	...	1,041	335	...
Traversing	...	...	...	344	...	...	234	10	...
Topography	...	...	...	829	108	15	522	168	33

These figures show a considerable increase in the triangulation for both 4" and 8" work. An area of 880 square miles was triangulated in North Kánara, thus completing that class of work in that district. A small area still remains for traversing. The outturn of 4" topography is considerably below that of last year, chiefly owing to the fact that only one division of plane-tables was employed throughout the field season in North Kánara. Both the 8" and 16" topography show a considerable increase over the outturn for last year.

The cost rates for the different classes of survey, as compared with those of the two previous years (1894-95 and 1895-96), are shown in the following table :—

Description of Survey.				1894-95.			1895-96.			1896-97.		
				Cost rate per square mile.			Cost rate per square mile.			Cost rate per square mile.		
				4"	8"	16"	4"	8"	16"	4"	8"	16"
Triangulation	...	...	...	8.8	15.0	...	7.1	3.5	...	9.5	5.3	...
Traversing	...	...	...	29.5	4.8	...	12.3	...	...	11.3	4.8	...
Topography	...	...	...	81.0	139.5	116.5	66.8	122.5	130.0	77.6	135.7	156.06

The above table shows throughout an increase in the cost rates for Topography, as compared with the figures for 1895-96, and is due primarily and solely to the fact that the expenditure in supervision for 1895-96 was less by Rs. 7,700 owing to Colonel Hobday's absence on furlough for over 4 months of the year and Mr. Tapsell's holding charge of the party in addition to his other duties during that period.

The cost rates of the 4" and 8" scale surveys not only bear comparison with the figures of previous years, excluding 1895-96, but are actually cheaper; with regard to the 16" work, where the largest increase occurs, *viz.*, Rs. 26-1-7 per square mile, as compared with the figures for 1895-96, the only apparent reason is that the hands employed on it throughout the season were very junior sub-surveyors. Considering the rugged and hilly nature of the country under survey on the 4" and 8" scales, it was found impossible to depute men of experience in hill delineation to the 16" work, as they could be more profitably employed elsewhere, and so junior sub-surveyors and apprentices were put on this work, which has been found to be an excellent training ground for such men. It may be remarked that Major Bythell, in his report for 1895-96, anticipated the enhancement of cost rates and had a clause to the effect that these figures "may be said to have here reached the minimum, which it will hardly be possible to maintain during the future."

The increase in the cost of triangulation, both for the 4" and 8" scales, is accounted for by the fact that European Agency was employed in the Central Circle, whereas last season Native Agency was entirely used; on the other hand, the traversing was executed at a cheaper rate.

The Surveyor-General, during his late inspection of this office, on reviewing the Annual Report for 1896-97, has appended a remark that "Native Agency should always be employed on triangulation if possible" which will be attended to in future.

The accompanying table shows the total area of forests—both Reserved, Protected and Proposed—in each Circle, as it stood on the 30th June 1896, and the aggregate actual forest area surveyed by this party up to the same date:—

Circle.	Total forest area on 30th June 1896 in square miles.	Total of actual forest area surveyed up to 30th June 1896 in square miles.	Remaining to be surveyed.
Northern ... ..	1,619	751	868
Central ... ..	6,351	1,461	4,890
Southern ... ..	5,246	2,267	2,979

The above table does not include an area of 673½ square miles of leased forest in the Dangs, in the Northern Circle, the survey of which has been completed.

The detail survey was checked by 146·70 linear miles of check lines as well as by *in situ* fixings whilst the work was in progress. Examination of work and tours of Superintendent.

Early in December the Superintendent left Poona and marched *via* Ráhuri and Sangamner to Akola in the Ahmednagar District, where the camps of Messrs. S. and C. Norman were engaged on the 8" detail survey. Most of the plane-tables were seen at their work. After a hurried visit to Poona from 2nd to 8th January to settle pay-bills, reports, &c., the Superintendent returned to the Akola Táluka *via* Ghoti and Wáki and continued the inspection of the 8" and 4" work. With two exceptions, all the men were seen whilst at work and their plane-tables tested by *in situ* fixings. At the end of February orders were received by the Superintendent to hold himself in readiness to join the Mohmand Boundary Demarcation Commission under Mr. Udney at Pesháwar. As these orders were confirmed, he thought it advisable to return to Poona and await further instructions there. He accordingly remained in Poona until the end of March, when orders were received to cancel arrangements, as the Commission was postponed. The Superintendent then proceeded to the Ráhuri Táluka, where he inspected the 16" work in progress there, under the charge of Surveyor Gopal Vishnu, and remained there until the middle of April, when he proceeded *via* Poona to Haveri on the Southern Marátha Railway, whence he marched into

the North Kánara District *viá* Alúr to Sirsi. Several of the men of Mr. Tapsell's camp were seen at work in the Ankola and Kumta talukas, and the Superintendent remained in the district until the end of May, when he marched *viá* Yellápur to Hubli, reaching Poona on the 4th of June.

Mr. Tapsell left Poona on the 18th of November and embarked at Bombay on the 20th, reaching Kárwár on the 22nd idem. Work was fairly started before the end of the month and Mr. Tapsell remained in the district, inspecting and checking the work of his men until the end of May, when he returned to recess quarters at Poona.

Work of Assistants.—  
Mr. C. Tapsell.

The country immediately along the coast in the Ankola Táluka of the North Kánara District consists of undulating ground and low hills covered with scrub jungle, paddy being largely cultivated on the low-lying lands; but only a few miles inland there are high ridges of hills emanating from the main mass of gháts, with long projecting spurs, covered with dense forest, extremely difficult to survey. The River Gangávalli runs through the breadth of the country surveyed during the season, from north-east to south-west, and has a belt of high bamboo jungle on either bank.

The work was carried on principally in the Ankola Táluka, the survey of which, with the remaining portion of the Kárwár Táluka, was completed. Small bits of the Kumta and Sirsi talukas, which come into sheets 248 and 280, were also surveyed, as also the remaining portions of sheet 280 in the Yellápur Táluka. Owing to the early and sudden cessation of the rain during the monsoons, there was a great drought of water as early as the beginning of March, which was at its worst in April and the first two weeks in May. Most of the wells and springs were dry, and the surveyors had to undergo great hardship for the want of water and to go long distances to work.

The Superintendent reports with regret the death of two of the best sub-surveyors of this detachment (Kánara), Virappa Piráji and Raghunáth Náráyen, the former from pneumonia, the latter from cholera, which took place at Poona shortly after the return of the party to recess quarters. Virappa Piráji had served in the Bombay Sappers and Miners prior to being employed in the Survey Department. He was an accurate plane-tablet and an able draftsman. Raghunáth Náráyen was a comparatively young hand, but had become a most efficient plane-tablet and a good draftsman.

There was a great deal of dysentery and fever among the men during the latter half of the season.

Mr. S. Norman, who was in charge of No. 2 camp, left Poona on the 18th November 1896 by rail for Ghoti Station near Igatpuri and from thence marched into the Akola Táluka of the Ahmednagar District, where he started the survey of the teak-bearing forests on the 8" scale. He superintended this work till its completion early in February, covering 96.14 square miles. He next, in conjunction with his brother, supervised the work of the remaining area on the 4" scale up to the 15th March of 117.77 square miles. The survey of the whole of the forest area of Akola Táluka has now been completed. The country under survey comes under the appellation of Dang and is inhabited by a race of Kólis: it is all more or less hilly, but in the vicinity of the gháts there are several ranges, which rise to heights between 4 and 5,000 feet and include the highest point in the Bombay Presidency, known as Kalsubai, of which the height is 5,415 feet above sea level.

On or about the 20th March, No. 2 camp, under Mr. S. Norman, moved down by rail to the Máhim Táluka of the Thána District, where work was undertaken on the scale of 8" = 1 mile, the members of No. 3 camp (Mr. C. Norman's) moving down into this taluka as the work approached completion in the Akola Táluka and after the 1st May both camps were fully at work. An area of 51.7 square miles was completed by the end of the season, when the camps returned to Poona for recess. At the request of the Conservator of Forests, Northern Circle, the demarcation of the sub-blocks was again undertaken, as in the Vadá Táluka, of which mention was made in last year's report; 246 coupes were laid out on the ground and 903 cairns were erected at a total cost of Rs. 227-11-6, giving an average cost of Re. 0-4-1 per cairn.

The country under survey in the Thána District included two ranges of hills divided by the Vaitarna River, which forms a tidal creek beyond the limits of the work undertaken. The old hill fort of Tandulvádi occupies a central position on the range west of the creek, the highest point of the range being 1,547 feet above sea level. The whole area under survey is covered with a dense forest of teak, and, compared with the work in the Akola Táluka, presented a great many more difficulties to the surveyor.

The general health of both camps was good throughout the season.

Mr. C. Norman left Poona about the middle of November and proceeded *via* Igatpuri to the town of Rájur, where he spent a few days computing the co-ordinates of points belonging to the old triangulation on which the supplementary triangulation, which it was found necessary to carry out in certain parts of the area under survey, would be based. After visiting 2 or 3 plane-tablers *en route*, he began his triangulation at Ghoti H. S. on the 2nd December, and by the 16th *idem* had covered an area of 43 square miles, and computed and plotted points furnishing data for 8 plane-table sections on the scale of 8"=1 mile. He next examined the plane-table sections of 3 sub-surveyors. He returned to Rájur about the 6th January and resumed triangulation in sheet 194, and by the end of the month observed and computed points for 11 sections on the 8" scale, having had to cover an area of 88 square miles to do so. Leaving the Samrad Valley in sheet 194, he proceeded to the Ambit Valley in sheet 195, south of the above. Here, owing to the almost inaccessible nature of many of the peaks, the narrowness of the valley and the great height of the hill ranges confining it, rising as they do from 2 to 3 thousand feet above the valley, he had considerable difficulty in supplying some of the sections with points. The triangulation was brought to a close on the 16th February, adding about 30 square miles to the area previously accounted for.

From that time he was employed on visiting the camps and examining the work of the 10 surveyors attached to his camp.

Some of the men experienced great hardship through the deficiency of water in parts of the country, making it necessary for them to encamp long distances away from their ground and to work under the trying heat of the months of March and April, without a drop of water to relieve their thirst for several hours of the day. Added to this was the fear of dacoits, who raided and robbed Sub-Surveyor S. S. Joshi's camp.

Surveyor Gopál Vishnu was placed in charge of the 16 surveys in the Shri-gonda, Ráhuri and Nevása Tálukas of the Ahmednagar District. Three junior sub-surveyors were told off to assist him. As in previous years, Gopál Vishnu in every case ran the plane-table circuit around each detached piece of work and the interior detail was completed by his assistants. An area of 32.90 square miles was completed, and this area was checked by 42 linear miles of check line run by Major Bythell and Gopál Vishnu. In addition to the above, 16.7 and 5.6 square miles were surveyed by this detachment on the 4 and 8-inch scales respectively in the Purandhar and Bhimthadi Tálukas of the Poona District. The Superintendent would here take the opportunity of mentioning that Gopál Vishnu has been permitted to retire from the service from 1st July 1897. He has served the Department well and faithfully for 30 years, receiving the commendation of all the officers under whom he has served for good and steady work, conscientiously performed, and it is with regret that we part from him now.

Surveyor R. V. Joshi was deputed to finish the triangulation that remained to be done in the Kánara District. He left Poona on the 14th November by the Southern Marátha Railway for Haveri, then proceeded by marches to Sirsi, where he began operations on the eastern margin of sheet 281, working westwards to the coast, and then south to the extreme limits of the Kánara District contiguous to the Mysore Territory and Madras Presidency. He was assisted by Sub-Surveyor P. R. Vaidya, who did the traversing in sheets 248 and 280, covering an area of 234 square miles.

Sub-Surveyor N. R. Patwardhan was employed on supplementary triangulation and traversing in the Mándvi Táluka of the Surat District from the 15th November 1896 to the end of February 1897, where he completed an area of 141 square miles of triangulation and 44 linear miles of traversing. He then moved down into the Roha Táluka of the Kolába District and by the end of May completed an area of advance triangulation of 194 square miles.

With one or two exceptions, the sub-surveyors in the three camps worked well throughout the field season and gave satisfaction to their Camp Officers.

The computations pertaining to last field season's triangulation and traversing have been completed during recess, excepting those of sheets 281 and 282 in the Kánara District, which will not be needed during the coming season, there being sufficient work in advance to keep the surveyors fully occupied, and also that of sheet 155 in the Mándvi Táluka, which is likewise not required immediately. In the Northern Circle 18 sections on the 8" scale in Táluka Máhim, District Thána, have been drawn.

In the Central Circle 39 sections on the 8" scale in Akola Táluka, Ahmednagar District, and 28 sections on the 16" scale in the Ahmednagar District.

In the Southern Circle 13 sections in sheet 247, 4 sections in sheet 248 and 8 sections in sheet 279, North Kánara District, scale 4" = 1 mile have been drawn and the arrears brought up, and are awaiting final examination before being sent to press; 12 sections on the scale of 8" = 1 mile, Kolába District, have also been prepared for publication.

The small staff of draftsmen left in Poona during the field season to bring up the arrears of mapping of the 4" scale sections in the Poona District have completed 14 sections, which are ready for examination, 13 still remaining to be done. It may here be said that the number of draftsmen in the party are unable to cope with the large quantity of field work that is brought in each year; it is proposed, therefore, to prevent an accumulation of arrears, to divide the year equally between the field and recess seasons, giving 6 months to each instead of 6½ months to field and only 5½ to recess duties as heretofore. The office was inspected in person by Major-General C. Strahan, R.E., the Surveyor-General, during the second week in September, who most carefully examined every branch of the work.

The programme for the ensuing field season is as follows:—

*Northern Circle.*

Advance triangulation in Dahánu Táluka, sheet 135.

Completion of 8" detail in Máhim Táluka in sheets 135 and 136.

*Central Circle.*

Advance triangulation in Igatpuri and detail survey on 8" scale in the same Táluka.

Continuation of detail survey on 16" scale of bábul reserves along the banks of the Godávári River.

*Southern Circle.*

Advance triangulation in the Mángaon and Mahád Tálukas of Kolába District, in sheets 168 and 290.

Traversing in Sirsi Táluka, North Kánara District, in sheet 280.

Commencement of 8" detail in Roha Táluka, Kolába District, in sheet 167.

Continuation of 4" detail in Sirsi Táluka of North Kánara District, in sheet 280.

C. E. TAPSELL,

Poona, 1st October 1897.

Acting Superintendent, Bombay Forest Survey.

## A.

Statement showing the Forest Survey Work and its Cost during Survey year 1896-97  
in the Northern Circle.

Description of Survey.	Scale.	District.	Area in square mile.	Total cost for Survey year.	Cost rate per square mile.	Remarks.
				Rs. a. p.	Rs. a. p.	
Triangulation ...	8" = 1 mile	Surat ...	141	916 5 1	6 11 4	In Mándvi Táluka.
Traversing ...	Do.	Do. ...	10	47 8 0	4 12 0	44 linear miles in Mándvi Táluka.
Detail Survey...	Do.	North Thána ...	51.7	9,772 9 0	188 15 10	In Máhim Táluka.
			Total ...	10,766 6 1		

## B.

Statement showing the Forest Survey Work and its Cost during Survey year 1896-97  
in the Central Circle.

Description of Survey.	Scale.	District.	Area in square mile.	Total cost for Survey year.	Cost rate per square mile.	Remarks.
				Rs. a. p.	Rs. a. p.	
Triangulation ...	4" = 1 mile	Ahmednagar ...	161	2,898 10 3	18 0 0	In Akola Táluka.
Detail Survey...	Do.	Poona ...	16.7	12,339 14 11	91 9 11	In Purandhar and Bhimthadi Tálukas.
Do. ...	Do.	Ahmednagar ...	117.77			
Do. ...	8" = 1 mile	Poona ...	5.62	11,428 14 9	112 4 10	In Bhimthadi Táluka.
Do. ...	Do.	Ahmednagar ...	96.14			
Do. ...	16" = 1 mile	.....	32.90	5,134 11 10	156 1 7	In Shrigonda, Ráhuri and Nevása Tálukas.
			Total ...	31,802 3 9		

## C.

Statement showing the Forest Survey Work and its Cost during Survey year 1896-97  
in the Southern Circle.

Description of Survey.	Scale.	District.	Area in square miles.	Total cost for Survey year.	Cost rate per square mile.	Remarks.
				Rs. a. p.	Rs. a. p.	
Triangulation...	8" = 1 mile	Kolába ...	194	828 3 0	4 4 4	In Roha Táluka.
Do. ...	4" = 1 mile	North Kánara ...	880	6,956 11 10	7 14 7	In Kumta, Siddápur, Bhatkal and Honávar Tálukas.
Traversing ...	Do.	Do. ...	234	2,650 3 0	11 5 2	In Sirsi and Ankola Tálukas.
Detail Survey...	8" = 1 mile	Kolába ...	15	1,656 5 10	110 6 11	In Alibág Táluka.
Do. ...	4" = 1 mile	North Kánara ...	387.50	28,158 3 5	72 10 8	In Kárvár, Kumta, Ankola and Sirsi Tálukas.
			Total ...	40,249 11 1		

C. E. TAPSELL,

Acting Superintendent, Bombay Forest Survey.

Poona, 1st October 1897.

**ANNUAL REPORT OF THE BOMBAY FOREST SURVEY PARTY  
FOR THE YEAR ENDING 30TH SEPTEMBER 1897.**

No. <sup>S.</sup><sub>1923-A.</sub> OF 1897.

*Poona, 11th November 1897.*

Submitted to Government. As required by the Standing Orders, copies of the report will be furnished to the Conservators of the three Forest Circles and to the Divisional Commissioners, together with copies of this office review.

2. The party remained under the control of Major W. J. Bythell, R.E., throughout the year, with the exception of the periods (1) 1st October to 2nd November 1896, when he was on privilege leave, and (2) 8th to 30th September 1897, when he was deputed on service with the Mohmand Field Force as Survey Officer, during which period Mr. Tapsell was placed in temporary charge in addition to his own duties.

3. As mentioned in paragraph 3 of this Office No. <sup>S.</sup><sub>2238.</sub>, dated 16th October 1896, reviewing last year's report, an additional grant of Rs. 4,000 was

\* G. R. No. 2419, dated 27th March 1897, R. D. sanctioned \* by Government to meet the requirements of the additional hands employed in the party for the year under report.

4. The following table compares the total cost of the party and the distribution of it among the three Circles during the year with that of the previous year :—

Year.				Northern Circle.	Central Circle.	Southern Circle.	Total.
1895-96	...	...	...	6,963	22,436	47,969	77,388
1896-97	...	...	...	10,766	31,802	40,250	82,818

The cost in the Southern Circle should be reduced by Rs. 10,000, being the estimated cost of the Topographical Survey in Kánara carried out by the party for the Survey of India, as has been explained in previous reports.

5. The Superintendent has compared in detail the results of the year's operations with those of the previous year, and has explained the causes which led to the increase of the cost rate under each item. It may, however, be observed that the Superintendent has not explained why it was necessary to employ European Agency during the year under report on triangulation in the Central Circle, which has resulted in an increase in the cost rate, when the same kind of work was done last year by Native Agency exclusively. The point has already attracted notice of the Surveyor-General at his recent inspection of the office, and the Superintendent proposes to carry out the instructions of the Surveyor-General in future. The increase in the cost rate of the 16" work also invites comment. The work was done by junior men and should have been more closely supervised. The point will, no doubt, receive the Superintendent's attention, and it is hoped that the current year's outturn will show better results.

6. The work done during the year under report is shown below :—

*Northern Circle.*

The operations in this Circle consisted in triangulation, traversing and detail survey on the 8" scale, the first two in the Mándvi Táluka of the Surat Collectorate, completing 141 and 10 square miles at an average cost of Rs. 6 $\frac{3}{4}$  and 4 $\frac{3}{4}$  per square mile, respectively, and the last covering an area of 51.7 square miles in the Máhim Táluka of the Thána District, at an average cost of Rs. 189 per square mile, a rate higher than that (Rs. 168) of similar work in the Váda Táluka last year.



*Central Circle.*

The survey under this head was confined to Shrigonda, Ráhuri and Nevása Bábul Reserves, 16" Scale. Tálukas of the Ahmednagar District, and covered an area of 32.90 square miles. Its cost was Rs. 156 per square mile. Besides the above, 134.47 square miles of survey of ordinary forest on the 4" scale were completed in Purandhar and Bhimthadi Tálukas of the Poona District, and in Akola in Ahmednagar, at a cost of about Rs. 92 per square mile, a rate comparatively higher than that (Rs. 62) in the previous year. In addition to this, 101.76 square miles of survey on an 8" scale of teak reserves were carried out in Bhimthadi in Poona, and in Akola in Ahmednagar, at a cost of Rs. 112 per square mile. Of this, only 5.62 square miles were surveyed in Bhimthadi, the remainder being in Akola Táluka alone, thus completing the Forest Survey operations in that táluka. The cost rate is comparatively higher than that during the previous year. An area of 161 square miles of supplementary triangulation was completed in Akola Táluka of the Ahmednagar District, at an average cost of Rs. 18 per square mile.

*Southern Circle.*

Advance triangulation to the extent of 194 square miles, at a cost Rs. 4, and of 880 square miles, at a cost of about Rs. 8 for 8" and 4" detail surveys, respectively, was carried out, the former in Roha in Kolába and the latter in Kumta, Siddápur and Honávar in Kánara. Besides the above, the supplementary traversing on the 4" scale to the extent of 234 square miles, at a cost of Rs. 11, was effected in Sirsi and Ankola Tálukas in Kánara. In addition to this, detail survey to the extent of 387.50 square miles, at a cost of Rs. 73, was completed in the above two tálukas as also in Kárwár and Kumta Tálukas of the same district. Detail survey on 8" scale of 15 square miles, at an average cost of Rs. 110 per square mile, was also carried out in Alibág Táluka of the Kolába District. The cost rates of traversing and triangulation compare favourably with those of similar work in the previous year, while the rate of detail survey is in excess of that of similar work done last year.

7. The excess work of the party in respect of mapping is still not kept up to date. To prevent accumulation of arrears, the Superintendent proposes in future to divide the year equally between the field and recess seasons in this branch, and it is hoped that the arrangement will secure the end in view.

8. The health of the men who were employed in the Northern and Central Circles was good, notwithstanding the fact that in the latter Circle they had to work in the trying heat of the sun during March and April, and had to encamp long distances from the scene of their work owing to deficiency of water. The men employed under Mr. Tapsell in Kánara in the Southern Circle, however, suffered from sickness, resulting in the death of one of the efficient hands. There was another casualty among the men, which occurred at Poona from cholera. Notwithstanding these difficulties, the party appears to have worked creditably.

9. The Superintendent's inspection tour does not appear to have extended to all the parts of his charge, inasmuch as the work done in the Northern Circle seems to have been not tested by him. This is probably owing to his having lost one month by his stay at Poona awaiting instructions to join the Mohmand Boundary Demarcation Commission, the orders being subsequently cancelled.

10. The Superintendent intimates that copies of coloured index maps showing the progress made up to date will be supplied when received from Calcutta, where the originals have been sent for printing. These, when received, will be distributed as usual to the officers concerned.

E. H. HEARN,

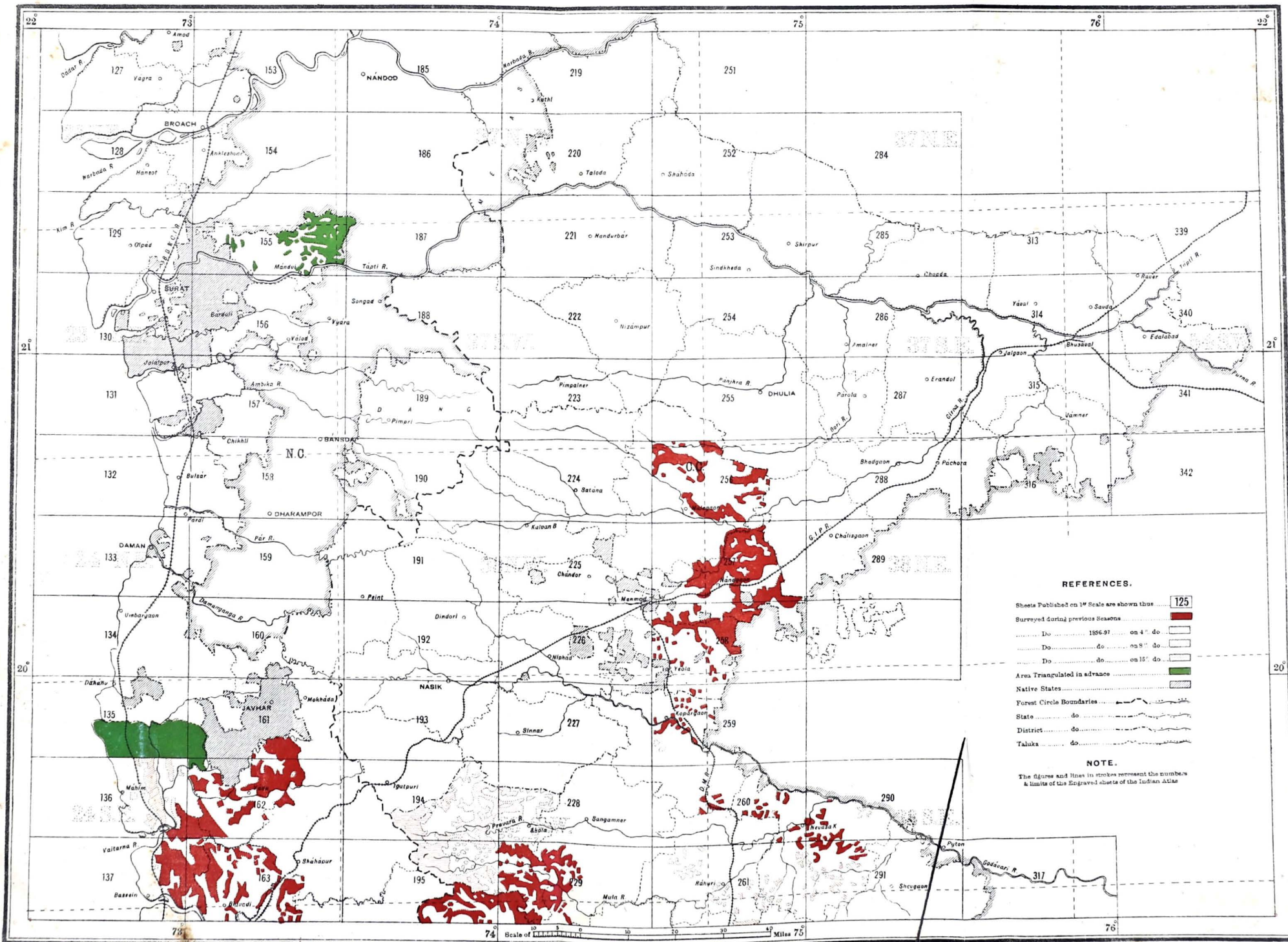
Acting Survey Commissioner and Director,  
Land Records and Agriculture.

# BOMBAY SURVEY.

INDEX TO THE FOREST SURVEYS IN PORTIONS OF THE NORTHERN & CENTRAL CIRCLES.

1896-97.

No. 17 PARTY.



### REFERENCES.

- Sheets Published on 1" Scale are shown thus 125
- Surveyed during previous Seasons
- ..... Do ..... 1896-97 on 4" do
- ..... Do ..... do on 8" do
- ..... Do ..... do on 15" do
- Area Triangulated in advance
- Native States
- Forest Circle Boundaries
- State do
- District do
- Taluka do

### NOTE.

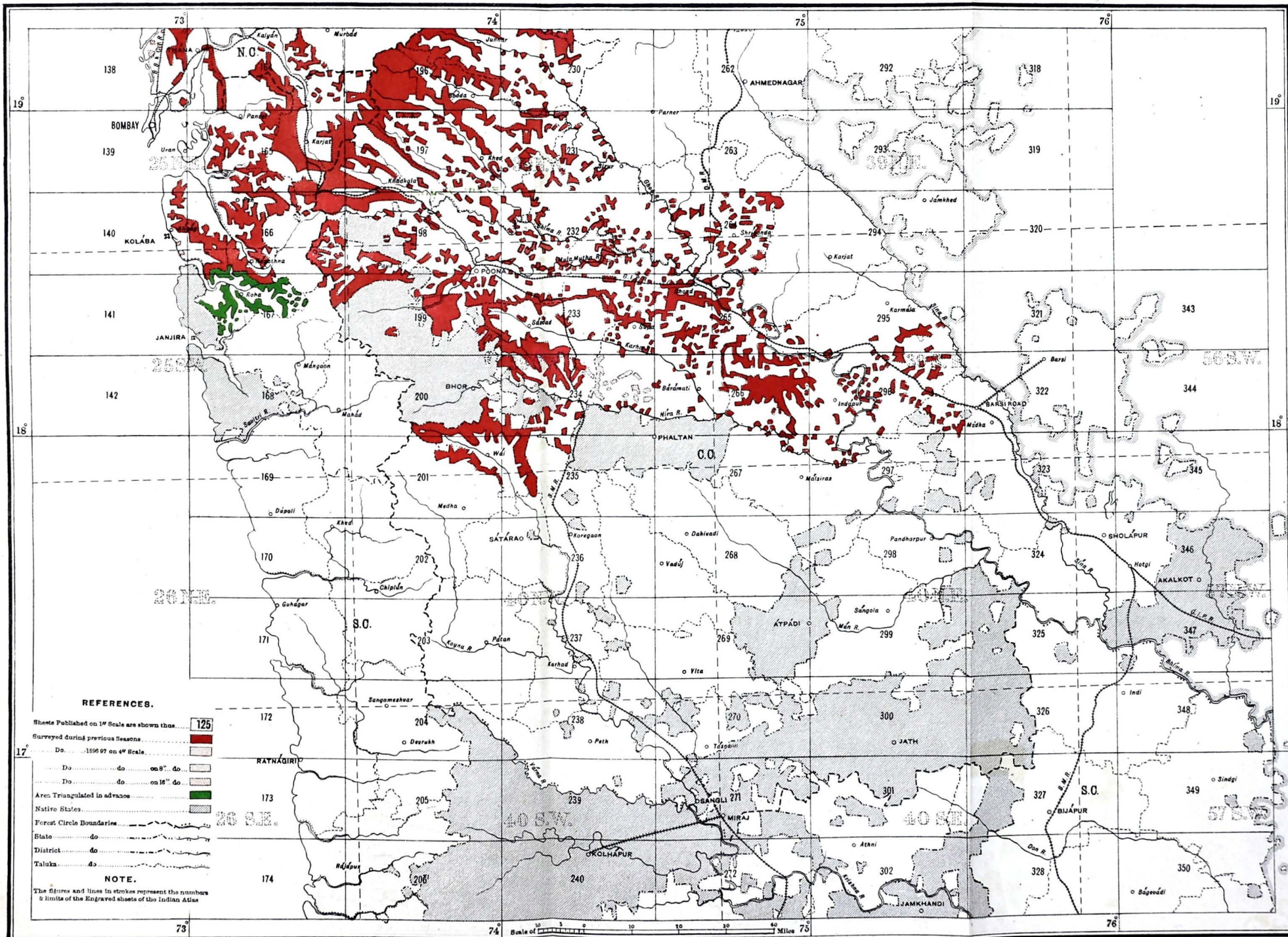
The figures and lines in strokes represent the numbers & limits of the Engraved sheets of the Indian Atlas

# BOMBAY SURVEY.

1896-97.

INDEX TO THE FOREST SURVEYS IN PORTIONS OF THE NORTHERN, CENTRAL, & SOUTHERN CIRCLES.

No 17 PARTY.



## REFERENCES.

- Sheets Published on 1" Scale are shown thus 125
- Surveyed during previous Seasons
- Do. . . . . 1896-97 on 4" Scale.
- Do. . . . . do. . . . . on 8" do.
- Do. . . . . do. . . . . on 16" do.
- Area Triangulated in advance
- Native States
- Forest Circle Boundaries
- State
- District
- Taluka

## NOTE.

The figures and lines in strokes represent the numbers & limits of the Engraved sheets of the Indian Atlas

