

**Administration report of the
forest circles in the Bombay
Presidency including Sind for the
year 1916-1917**

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ADMINISTRATION REPORT OF THE FOREST CIRCLES IN THE BOMBAY PRESIDENCY, INCLUDING SIND, FOR THE YEAR 1916-1917.

CONSERVATORS IN CHARGE OF CIRCLES DURING THE YEAR.

Northern Circle.

W. F. D. Fisher, Esquire.

Central Circle.

O. H. L. Napier, Esquire.

Southern Circle.

T. R. Bell, Esquire.

Sind Circle.

G. R. Duxbury, Esquire.

CHAPTER I.

CONSTITUTION OF STATE FORESTS.

1.—ALTERATION IN AREA.

Northern Circle.

Class of forest.	Area on 1st July 1916.		Added during the year.		Excluded during the year.		Area on 30th June 1917.		Remarks.
	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	
Reserved ...	2,688	195	0	55	*1	279	2,686	611	*Of which 589 acres 88 gunthas were assigned to a milk farm at Pálghar in North Thána and 184 acres of forest land given up for cultivation in North Násik.
Protected ...	488	269	0	64	0	53	488	280	
Leased . {	Reserved .	330	595	...	...	...	330	595
	Protected.	325	13	...	...	...	325	13
Total ...	3,832	432	0	119	1	332	3,831	219	

During the year, as set forth in Government Orders Nos. 11646 and 11786 dated 28th and 30th November 1916, the Násik and Thána forest divisions were reorganized, resulting in greatly increased efficiency of the executive staff without additional expenditure.

Central Circle.

The forest area at the close of the year was 5,400 square miles 239 acres as against 5,436 square miles 431 acres at its commencement. Alterations in areas in charge of the department were trifling, 1 square mile 541 acres being added to reserved forest and 201 acres deducted. The main cause of the net reduction in area of 36 square miles 192 acres lay in the disforestation for cultivation of 37 square miles 526 acres of pasture forests in charge of the Revenue Department in the Poona and Ahmednagar districts. Six acres of protected forest were disforested and leased forests remained unchanged. Eight square miles 280 acres of pasture forest in the Poona division were handed over to the Revenue Department after clearance of the tree growth, and this operation is now practically completed, one village alone remaining. Areas in charge of the Forest Department now total 3,731 square miles 217 acres, in charge of the Revenue Department 1,669 square miles 22 acres.

Southern Circle.

The total area of forest was reduced by 5 square miles and 212 acres during the year as follows:—

Class of forest.	Area on 1st July 1916.		Added during the year.		Excluded during the year.		Area on 30th June 1917.		Remarks.
	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	
Reserved ...	4,456	228	4	103	0	134	4,449	473	Changes due to rectifications of errors intimated by the Forest Settlement Officer on a comparison of forest registers with survey papers and on remeasurement of areas in Kánara and Dhárwár.
	...		0	*495	*11	219	...		
Protected ...	132	103	{	*0 2	...		133	286	
				1 181	...				
Total ...	4,588	331	{	4 105	0 134		4,583	119	
				*2 36	*11 219				

The real additions to, and the exclusions from, the area were 4 square miles and 105 acres, and 134 acres, respectively.

The additions to reserved forest occur mainly in the Kánara Northern and Belgaum divisions and are mostly from Government assessed waste lands relinquished by occupants and from scattered waste lands not in demand for cultivation. A few more in other divisions, wedged in between existing patches of jungles, were afforested. Disforestments in Kánara, Dhárwár and Bijápur were in the interests of agriculture.

In completion of the rearrangements of divisions in Kánara, Dhárwár and Bijápur as per Government Order No. 11396 of 27th October 1915 and in continuation of the readjustments, referred to in the last Annual Report as introduced from 1st February and 1st May 1916, the following changes were effected in Kánara Eastern, Central and Western divisions from 1st July 1916:—

- (a) portions of the Bhartnalli and Katur ranges of the Kánara Eastern division were transferred to the Sirsi range of the Kánara Central division—resulting in the sub-division of this range into two others styled the Sirsi East and Sirsi West ranges;
- (b) a bit of the Yellápur range of the Kánara Eastern division was similarly transferred to the Kádra range of the Kánara Western division.

These interchanges have not affected the total area of the circle.

An area of 7 square miles and 133 acres of pasture forests of the Paragad taluka in the Belgaum division was transferred from the management of the Revenue Department to that of the Forest Department to complete the blocks of the Gokák working plan, sanctioned in Government Order No. 7352 dated 25th July 1916.

Sind Circle.

The alterations in area were:—

Class of forest.	Area on 1st July 1916.		Added during the year.		Excluded during the year.		Area on 30th June 1917.	
	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.
Reserved ...	1,159	141	32	433	18	346	1,173	228
Protected ...	0	585	...	...	...	...	0	585
Total ...	1,160	86	32	433	18	346	1,174	173

The additions comprise—

	Sq. m.	Acres.
Alluvial accretion	31	592
Reservation by notification	...	481
Rectification on resurvey	...	...
Total	32	433

The exclusions were—

Erosions	18	346
Disforestation or transfer	...	...
Rectification by resurvey	...	...
Total	18	346

The eroded area is thus classified—

	Acres.
Growing valuable timber	1,562
New alluvium without trees	3,840
New alluvium with young growth	4,077
Coupes under regeneration	565
Blanks	1,822
Total	11,866

In the previous year the total erosion was 16,180 acres.

The value of the material exploited from eroded areas (*vide* Government Resolution No. 804 of 2nd February 1900) was—

	Acres.	Rs.	a.	p.
Approximate area eroded after exploitation	740			
Average value per acre	...	6	12	0
Estimated value of timber before exploitation	...	4,996	7	9
Actual receipts	...	4,996	7	9

Contractors agreed to pay the price asked by the department.

Eight hundred and twenty-two acres, 800 of which were in Alláhbox, Bahádipur and Achámárho forests containing growth valued at Rs. 6,910 were eroded before exploitation was possible owing to a sudden change in the course of the river during the inundation season.

One thousand seven hundred and sixty acres threatened with erosion were exploited. The resultant material was sold for Rs. 12,494.

Acquisition of kachas adjoining forest—

	Acres.
Kacha claims pending at the end of last year	12
New claims made during the year	31
Decided in favour of the Forest Department	31
Decided against the Forest Department	Nil.
Claim withdrawn	Nil.
Still undecided	12

Two thousand three hundred and eighty-two acres and 2 gunthas were temporarily alienated to other departments; of these 2,353 acres were handed over to the military farm near Ruk.

2.—FOREST SETTLEMENTS.

Northern Circle.

These are complete.

Central Circle.

Settlement work consisted of the notification under section 19 of the Forest Act of 1 square mile 541 acres, comprising small areas taken up for inclusion in forest or for buildings. Under section 4 of the Act notifications regarding 22 square miles 405 acres of waste lands in West Khándesh, and of 331 acres in other divisions were issued by Forest Settlement Officers.

Outstanding work as mentioned in last year's report consists of the acquisition of teak bearing lands within the demarcation line in Sátara and Poona, and a report on the subject will shortly be submitted to Government. Minute examination of these lands has been found necessary in order to determine which are really required for forest purposes and which can be excluded for good and all, and this has delayed the submission of proposals in this important matter.

Southern Circle.

Four square miles and 105 acres were notified under section 19, and 2 square miles and 154 acres under section 4, of the Forest Act.

The proposals for the appointment of special Forest Settlement Officers for Kánara and Belgaum having been negatived by Government, the arrear work, detailed in the Annual Report for 1914-15, will have to be cleared in the usual way by the Assistant Collectors in the order of urgency. Proposals for afforestation of assessed waste lands in the Dhárwár and Bijápúr districts were submitted to the respective Collectors during the year.

Rs. 9,674 were spent on "Forest Settlements" as under:—

	Rs.
Acquisition of land for forest in Belgaum ...	1,044
Acquisition of land for forest in Kánara S. D. ...	26
Acquisition of land for a fuel depôt in Kánara C. D. ...	380
Compensation for a building acquired for Range Forest Officer's residence at Ankola in Kánara C. D. ...	2,000
Cost of the Wild Tribes (Berads) settlement at Khánápur in the Belgaum division (G. R., J. D., No. 7784, dated 30th November 1916) chargeable to "exploitation of fuel—A-I-b" but shown under the above head by the Accountant General ...	6,224
Expenditure in 1915-16 ...	2,594

Sind Circle.

	Acres.
Area awaiting settlement at the commencement of the year ...	677
Area added by notification under section 4 of the Indian Forest Act ...	89
Total ...	766
Area actually settled under section 19 of the Indian Forest Act ...	480
Balance awaiting settlement ...	286
Expenditure ...	Nil.

The need for more riverain forest in Upper Sind has been pointed out to the Commissioner in Sind.

3.—DEMARCATION.

Northern Circle.

Of the 109 miles remaining to complete the demarcation of the circle, 3 miles out of the 42 in Igatpuri range and 3 miles out of the 66 in the Dindori and Peint ranges were demarcated during the year, leaving 103 in all to be completed.

Central Circle.

In the 1915-16 report outstanding work was said to consist of 162 miles in Kolába, and 658 in the Akola and Rajur ranges, Nagar district, but forming part of the Poona division. The former figure was an underestimate, as actually 192 miles have been demarcated during the year, which completes the work in Kolába. The latter figure was largely overestimated; Akola has been completed by the demarcation of 68 miles, and 124 miles only in Rajur now remain to be taken in hand, the error in last year's figures being due to

the two ranges having only a short time before been transferred to the circle, and to accurate estimation not having been made of the lines which required demarcation. In West Khándesh 26 miles of boundary of the lands under afforestation were completed.

The final results of the year were 286 miles of new boundaries costing Rs. 3,096 and 5,124 miles of existing boundaries repaired at a cost of Rs. 2,591.

Southern Circle.

The details of work done, and expenditure incurred, under this head are shown in Form No. 9.

New demarcation amounted to 37 miles of external boundaries as detailed below and 510 miles of internal boundaries:—

	Line demarcated.	Cost.	Cost per mile.
	Miles.	Rs.	Rs.
The Mysore State frontier line in the Kánara Southern division.	6	281	47
The Portuguese territory frontier line in the Kánara Western division.	24	1,301	54
The Sávantwádi State frontier line in the Belgaum division.	6	419	70
Boundary between two inam villages and British territory in the Kalghátgi range of the Kánara Northern division.	1	4	4

The cost of demarcation of these frontier boundaries varies with the nature of the country according as it is covered with thick jungle and hilly or otherwise. The cost of the Mysore frontier line, for instance, which was the heaviest in 1915-16, viz., Rs. 131 per mile, came down to Rs. 47 or about one-third in 1916-17. About three miles now remain to be cut of this line and about 14 miles of the Portuguese frontier line, both of which will be completed in 1917-18.

The internal lines are boundaries of betta lands, 30 miles in Kánara Central division and 480 miles in Kánara Southern division. The cost of these amounted to Rs. 223 or Rs. 0·4 per mile, being easy work. Betta demarcation is reported to be complete now and the Divisional Forest Officer, Kánara Southern division, states that the Betta Officer's establishment may be discharged from October 1917.

In the Dhárwár-Bijápur division much work of clearing old lines was done as usual with the help of villagers on the concession of removing for their own use the wood and thorns cut. It is understood that the Collector of Dhárwár has issued orders requiring inamdars to clear the common boundaries between their lands and Government forests. The Collectors of the other districts will be required to issue similar orders in their districts.

Sind Circle.

Internal boundaries.—The forests are divided into half-mile squares by rides 20 feet wide.

Fifty-two and one-fourth miles of new compartment lines were cut during the year by the free labour of herdsmen except in Lárkána where the 9 miles cut through thick growth cost Rs 150.

Two thousand seven hundred and seventy miles of previously cut rides were kept clear by free labour valued at Rs. 5,541.

Ninty-eight thousand one hundred and fifty-nine acres remain round which rides have still to be cut. Most of this area contains very young lai (*Tamarix gallica*) growth in kachas, which in the course of time will be replaced by babul, and the work will then be taken in hand. The Deputy Conservator found arrears of demarcation work in the Hyderabad division especially in the mature Bāhan forest of Ketí Khasai, and this work will be commenced at once.

External boundaries.—Fifteen miles and 4,224 feet were demarcated with 241 new boundary marks. Nineteen thousand and seven old boundary marks on 2,022 miles 1,787 feet of line were repaired free of cost.

4.—FOREST SURVEYS.

Northern Circle.

None were carried out.

The total expenditure under the heading "Constitution of State Forests" was Rs. 2,200 as against Rs. 3,269 in 1915-16.

Central Circle.

None were carried out.

The total expenditure on "Constitution of State Forests" was Rs. 8,625 as against Rs. 6,630 last year.

Southern Circle.

There were none.

The total expenditure on the "Constitution of State Forests" was Rs. 12,586 as against Rs. 6,630 last year.

Sind Circle.

The work done by the Working Plans Assistant and his staff and the surveyors attached to each division is given below separately:—

By whom.	Division.	River course surveyed.		Forest boundaries surveyed and checked.		No. of test trees measured.	Measurement of compartment lines.		No. of maps prepared.	No. of coupes marked and their area.		Levelling of bunds and drainage projects.
		Sq. m.	Feet.	Sq. m.	Feet.		Sq. m.	Feet.		No.	A. g.	Miles.
Working Plans Assistant and his staff.	Sukkur ...	65	1,848	725	3,300	995	776	2,772	.....	44 = 3,606	6	.....
	Hyderabad...	.....	.....	.....	.....	.....	.....	.....	.....	26 = 1,877	0	.....
Divisional surveyors.	Sukkur ...	10	0	7	0	.....	27	0	41	.....	.....	.....
	Hyderabad...	125	0	.....	.....	.....	.....	.....	275	59 = 3,366	0	.....
	Lárkána ...	.....	.....	2	0	.....	.....	.....	21	34 = 2,876	29	.....
	Jerruck ...	96	0	.....	.....	.....	.....	.....	20	37 = 2,273	6	15

The survey of river frontages and marking of coupes was carried out as usual by Range Forest Officers, the number of miles surveyed being 97½. Fifty-four tracings were prepared in the Lárkána division. Two sets of coupes were laid out during the year, both in the Hyderabad and Jerruck divisions, as a precaution in case the amount of firewood available was not sufficient for the military contract and the markets of Lower Sind, and to enable the selection of reserves for large babul timber to be done with greater care during the ensuing working season.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

1.—REGULATION AND MANAGEMENT.

(a) Preparation and Control of Regular Working Plans.

Northern Circle.

A plan for the hitherto unorganized forests of the South Dángs was sanctioned by Government Order No. 4726 dated 16th April 1917. The only forests remaining to be brought under working plans are those of the Central Dángs (267 square miles) and some 13 square miles of protected forests in West Thána division.

Owing to the transfer of the former Divisional Forest Officer, Panch Maháls, to the Indian Army Reserve of Officers, the revised working plan for the Eastern Maháls was left undrafted, but its provisions, as laid down by the Superintendent of Working Plans, were applied, and the same principles are being extended to the Western Maháls forests of Godhra and Kálol. These provisions hinge mainly on the introduction of clear cutting in the place of coppice with standards, the rotation being suitably lengthened.

All the Thána forest working plans, after scrutiny, approval and suggestions on the spot by the Inspector-General of Forests in the months of January-February 1917, are being similarly revised under one plan, the draft of which is still in hand, and as the matter is urgent, its provisions are being introduced in anticipation of Government sanction.

It is satisfactory to note that in each of the above cases the result has been more conservative exploitation, together with more intense management, greater economy in working, and a higher revenue—though this last has been due to continued rise in prices of all material.

The revision of the working plan of the teak forests of the Násik divisions will, if possible, be considered in the coming year, but the reduced Imperial staff makes the matter difficult. In other forests the prescriptions of existing plans were duly carried out.

Central Circle.

Preparation.—The Inspector-General of Forests having been invited by Government to visit the Presidency and advise regarding the revision of existing and the preparation of new working plans, he was shown the Sátputa forests of East Khándesh for which a plan had been drawn up in the previous year, but not submitted, the Sátputa forests of North Khándesh on the revision of which the Working Plans Officer was at the time engaged, and the teak and babul forests in Poona which were under revision by the Divisional Officer. In the East Khándesh plan he recommended radical alterations, as also its combination with the North Khándesh plan, the forests of both being contiguous, of the same nature, and requiring similar treatment; in Poona he approved the lines on which the plans were based, but advised the adoption of the practice prevailing in other Provinces of having one plan for a whole division, with separate working circles for areas containing species requiring separate treatment, such practice making much for convenience and also for economy in printing. His advice on the above points is being followed and the results will reach Government during the current year. Naturally the taking in hand of the revision of all the plans of a division as a whole, instead of piecemeal as has hitherto been done, has caused delay in submission of the reports, but the delay is well worth while, and many of the Inspector-General's recommendations in matters of detail have already been brought into force.

The Working Plans Officer completed his plan for the Jávli, Wái and Sátára ranges of the Sátára division during the year, and this will shortly reach Government. It did not in all respects meet the Conservator's views and was held back for further consideration and alteration.

Control.—The prescriptions of existing plans were duly carried out subject to minor deviations resulting from shortage of labour, inferiority of growth, or inaccessibility of coupes. On the other hand, the keen demand for forest material resulted in these causes being less marked than usual and to coupes being more thoroughly worked.

Southern Circle.

Preparation.—Three working plans were sanctioned during the year :—

	System of working.	Area.	Total cost.	Cost per square mile.
		Sq. m.	Rs.	Rs.
(1) The Gokák fuel working plan in the Belgaum division.	Coppice with standards.	149	None but a sum spent for a few photos illustrative of the plan.	a trifling
			(23)	
(2) A revised plan for Bhagvati forests—Blocks VIII, IX and XX in Kánara N. D.	High forest selection system.	61	7,198	118
(3) A revised plan for Kirwatti teak pole area—Blocks XIV and XV in Kánara E. D.	Coppice with standards with a long rotation.	80	1,359	45

The first plan was compiled by Mr. Hodgson, Divisional Forest Officer, Belgaum, in the course of his ordinary duties with no extra cost, for which he was granted a special allowance of Rs. 500 by Government. The other two plans were done by Mr. Miller, Divisional Forest Officer, Working Plans.

Control.—The provisions of existing plans were carried out as far as the supply of labour and demand for the produce would admit. Some work is in arrears, particularly in Kánara Western and Eastern divisions, as will be seen from the detailed statement annexed to Form No. 11 in accordance with Government Order No. 9358 of 28th September 1916.

The work of improving the beds of the Kálinadi and Káni for floating timber was continued but no definite results have yet been obtained. The work was done by Mr. Pipe, deputed from the Public Works Department and cost Rs. 12,997 (*vide* remarks under Chapter VI, 'General').

The survey of the Dándeli-Alnávar railway line (Dándeli-Távargátti in last year's report) was actually carried out this year but nothing has yet transpired as to when it is to be built. It is badly wanted.

If the railway line from Hubli to Sirsi *via* Kalghátgi and Mundgod, the survey of which has recently been sanctioned, is soon constructed and opened for traffic, the difficulties of forest transport, experienced in Kánara Eastern and Central divisions, will be much lessened.

Sind Circle.

The special work taken in hand during the year under report was in connection with the revision of the existing working plan of the forests of the Sukkur division. The field work was begun in November 1916 and completed at the end of April 1917.

The work comprised—

- (a) Resurvey of external boundaries where inaccuracy had been revealed on comparison with forest maps;
- (b) Resurvey of the course of the river Indus to ascertain and define its present position, and the changes effected by it in forest areas;
- (c) Re-measurement of compartment lines;
- (d) Measurement of sample trees;
- (e) Detailed examination of compartments with a view to ascertain the composition and condition of the growing stock, and prepare stock maps accordingly.

The total cost incurred on the field work, inclusive of the pay of the Working Plans Assistant, Sind Circle, and his staff amounted during the year to Rs. 11,575.

The data collected during the previous working season was put on paper, and a revised plan for the Lárkána division is ready for criticism by the Deputy Conservator during the ensuing touring season.

(b) Preliminary Working Plans.

Northern Circle.

There were none.

Central Circle.

None were submitted, but in Sátára data were collected by the Sub-Divisional Officer for an extension of the areas now included in the Mahábleshwár plan, a work necessitated by the ever increasing consumption of fuel at that hill-station and the importance of checking illicit cuttings to meet the demand. In Poona the Divisional Officer will include in his general plan for the division fresh areas in Máwal and elsewhere, the organization of which appeared a short time back to be quite unnecessary, but which are now readily taken up by contractors; all data for the purpose were collected by him during his tour.

Southern Circle.

The following plans were sent to press during the year:—

- (1) The Kalghátgi range plan;
- (2) The Bankápur and Hangal forest plan.

Plans under preparation :—

- (1) Revised plan for Yellápur slopes—completed ;
- (2) Revised plan for Mundgod high forest ;
- (3) Revised plan for Mundgod teak pole area ;
- (4) The Honávar-Bhátka fuel plan ;
- (5) The working plan for Bijápur forests ;
- (6) The Belgaum range plan ;
- (7) Revised Khánápur fuel plan. (Has been submitted to the Conservator) ;
- (8) Revised Golihali-Godoli teak pole plan.

Nos. 1 to 5 are being prepared by Mr. Miller, Divisional Forest Officer, Working plans, and Nos. 6 to 8 by Mr. Hodgson, Divisional Forest Officer, Belgaum ; but owing to the deputation of the latter as Deputy Controller of Timber Supplies under the Munitions Board to Bombay during the year and the appointment of Mr. Miller as Divisional Forest Officer, Belgaum, further progress with these plans is hardly possible until Mr. Miller is relieved of the charge of the Belgaum division or at least an independent Imperial officer becomes available for the Working Plans division.

The field work done by the Working Plans party during the year was confined to Kánara N. D. and Bijápur ; the expenditure on field work was :—

Inspection of Bijápur forests ...	Rs. 4,223 or 5'8 pies per acre.
Revision of Supa Blocks III, IV and V ...	Rs. 3,881 or 15 pies per acre.

Total ... Rs. 8,104

Sind Circle.

Nil.

(c) *Plans of Operations.*

Northern Circle.

These were duly prepared and submitted by the Divisional Forest Officers. There was no important deviation from them during the year.

Central Circle.

These were duly prepared and carried out.

Southern Circle.

Plans of operations were submitted by all the Divisional Forest Officers and carried out as far as possible, expenditure on unremunerative works, such as buildings and wells, being postponed with a view to economy as in last year. In Kánara N. D., owing to the prevalence of plague and cholera and the crossing over the Kálinadi river at Bailpár being out of repair, some of the contractors in the high forest could not extract as much timber to the Tavargatti depôt as was expected. In the Belgaum division also, contractors' work has hindered to a certain extent owing to plague and cholera and the late heavy rains—which last item delayed work everywhere else also.

Sind Circle.

These were prepared in all divisions and carried out as far as possible.

2.—COMMUNICATIONS AND BUILDINGS.

(a) *Roads and Bridges.*

Northern Circle.

New roads were constructed in :—

Surat division (Dángs)—

	Ra.
Mahal-Dulda, 1 mile ...	1,000
Borkhal-Bhawandagad, 2 miles ...	1,000
Galkund-Pandwa, $\frac{1}{2}$ mile ...	1,500
Málegaon-Zaria, 6 miles ...	5,000
Málegaon-Chip ghát, 2 miles ...	1,500

<i>North Thána—</i>	Rs.
Káse-Udhwa, 5½ miles	... 3,410
<i>West Thána—</i>	
Potgaon-Badlápúr, 1 mile	... 677
	<hr/> 14,087
Cart tracks in East Thána and South Násik	... 2,926
	<hr/>
Total, New works	... 17 013
Total repairs in the circle, 196 miles	... 7,816
	<hr/>
Grand total, Roads	... 24,829
	<hr/>

Central Circle.

The total expenditure under this head was Rs. 9,378 as against Rs. 8,277 in 1915-16, 10 miles of new roads being constructed or partially so, or surveyed, at a cost of Rs. 2,071, and 144 miles of existing roads and paths repaired at a cost of Rs. 7,307.

In North Khándesh the final 3 miles of the Hisála-Bhoiti road, 10 miles long in all, were cut and levelled; though open to carts and already giving increased facilities for exploitation of coupes, this section still requires to be metalled before being fit to carry heavy traffic. On the Wásardi-Kodit road consolidation was continued, and extension towards Malkátar will be taken up. Other work consisted of conversion of bullock tracks into cart tracks, and of repairs to bridle paths. The advantage of pushing road communications deeper into the Sátputa hills and of opening out areas from which at present none but the most valuable material is removable, is being kept in mind, and the work will be pushed on as quickly as funds and labour are available. The Conservator discussed these matters on the spot with the Divisional Forest Officer, and also inspected the alignment proposed by the Forest Department for the road into the Akráni, as an alternative to that proposed by the Public Works Department. From the forest point of view the former is incomparably the better, and Government have already ordered the Public Works Department to consider the point in detail.

In East Khándesh no work was carried out beyond improvement of difficult gradients on the rough cart tracks that alone exist in the Sátputas. The country is difficult in the extreme, and careful surveys were the first essential. For this purpose a special surveyor was engaged, and 36 miles carefully aligned and pegged out. Systematic construction for a number of years can now commence; until these hills are properly opened up, the forests can never yield their full value.

In West Khándesh existing roads were repaired and improved. The Local Board road from Nawápur to Borzár is now almost finished, a work of great utility to the Forest Department, and, to the maintenance of which on completion the latter has undertaken to contribute for a period of ten years.

In Poona 1 mile of ghát crest bridle path was converted into a cart track, giving access to a village 9 miles from Lonávla, a locality where there are considerable prospects of an increase in forest exploitation. Existing roads and bridle paths were kept in repair.

In Sátára the question of the partial abandonment of the Koyna valley road scheme referred to in last year's report is now before Government. The Vang valley road was repaired, and improved by the construction of Irish bridges, but further work in this direction is still required; the full utility of this road is somewhat detracted from by the bad state of repair in which its continuation towards the east is kept by the Local Board, and the Forest Department is proposing to take over this section if the Board will contribute the amount they now allot for repairs. Further extensions to the west into teak-bearing areas are contemplated.

In Kolába the few existing tracks were repaired.

Southern Circle.

Rs. 18,460 were spent on the construction of the undermentioned roads and bridges during the year as against Rs. 12,846 last year:—

Division.	Name of work.	Distance.		Cost.
		Miles.	Furlongs.	
Kánara N. D. ...	Fansoli-Bavlázára road .	3	4	Rs. 1,196
	Dabinkol road .	1	6	264
	Kalghátgi-Kudalgi road .	...	6	443
	Haliyál-Kávalgad road .	3	...	1,117
	Kalkeri road .	7	...	1,395
	Cycle paths .	3	...	80
	Special repairs. }			
Kánara E. D. ...	5 bridges on Gunjávati-Kyatnalli road.	...	...	500
	2 bridges on Katur-Bomanhalli road.	...	...	524
	Dowginalla-Lalguli and Lalguli-Ghosemani roads.	7	...	1,180
	Katur-Bomanhalli road .	2	4	
	Baildundur-Basyánpur road .	3	4	
	Armáne-Hakkal road .	1	1	
	Venkátápur-Arekep road .	2	...	
	Chitgeri-Kurli road .	4	...	
Kánara C. D. ...	Mundgod-Dhundshi road .	5	...	
	Hattikeri-Gule road .	2	...	377
Kánara W. D. ...	Kadra-Shivpur road—extension with 48 culverts on the road.	9	...	8,818
	Cycle paths .	18	...	74
Belgaum ...	Gunji-Shiroli road .	7	3	960
	Kanbárgi-Muchandi road .	...	...	1,582
	Completion of bridges on local fund roads.	...	...

Of the above, the last five only are new constructions. The Kádra-Shivpur road, costing in difficult places up to the present Rs. 1,000 and over per mile, will be one of the most important in Kánara as it will ensure the extraction of heavy timber from Gund and the Kálinadi valley. When the six extra miles aligned up to the Hologádda slide during the year is constructed and made fit for cart traffic, the whole road will be very useful and remunerative. The expenditure of Rs. 560 on the Kanbárgi road has raised the fuel revenue of the fellings affected from Rs. 1,930 in 1915-16 to Rs. 5,980 in 1916-17, or by Rs. 4,050.

A detailed scheme of forest roads was submitted to the Commissioner, S. D., in connection with the measures to be taken for obtaining additional revenue and orders thereon are awaited.

About 304 miles of forest roads and paths, besides the above, were repaired at a total cost of Rs. 25,205, compared with 252 miles repaired for Rs. 26,770 in the previous year.

The usual contribution of Rs. 5,000 was paid by each of the Kánara Northern and Western divisions for repairs of Local Board roads.

Sind Circle.

In Sind water carriage is usually resorted to, there is no metal for permanent forest roads, but the 20 feet rides throughout the forest are used to convey the material to the river banks, etc. These were repaired free of cost in all divisions.

(b) *Buildings.*

Northern Circle.

The following buildings were constructed in :—

	Rs.
<i>Surat—</i>	
Dharamshala at Fort Songad to accommodate timber merchants during auction sale period ...	3,750
Additional ward to Ahwa jail ...	500
<i>North Thána—</i>	
Offices and quarters for the Range Forest Officers of the three newly created ranges ...	13,107
<i>East Thána—</i>	
Guards' posts (kachha) ...	60
Total, New works ...	17,417
Repairs ...	2,734
Grand total, Buildings ...	20,151

Central Circle.

Expenditure under this head was Rs. 250 only on new works, Rs. 200 being spent on the completion of a guard's post in Sātāra and Rs. 50 on temporary guard's quarters in Kolāba. Elsewhere for financial reasons no buildings could be undertaken. Repairs to existing buildings cost Rs. 2,188. The provision of inspection bungalows in North Khándesh is very necessary; tent life there in the hot weather with no shade available does not conduce to an officer's health and efficiency, and it is hoped to start on a definite programme as soon as circumstances admit. On the housing of the subordinate establishment also there is much to be done in all divisions.

Southern Circle.

The cost of new buildings was Rs. 2,227 as under :—

	Rs.
Kánara S. D.—Guards' quarters at Bhatkal ...	827
Dhárwār-Bijápur.—Guards' quarters at Makarwalli. ...	619
Belgaum.—Guards' temporary huts, six ...	52
Rest-house at Nagargali completed ...	490
Kánara N. D.—Minor fittings to rest-houses ...	84
Paving the floor of the Divisional Forest Office with stones ...	48
Guard's naka at Kambarganvi—special repairs ...	107
Total for 1916-1917 ...	2,227
Total for 1915-1916 ...	12,439
Total for 1914-1915 ...	29,981

The above comparison shows how expenditure has to be curtailed from year to year for the sake of economy, though many buildings are urgently required.

Repairs to buildings cost Rs. 6,017 against Rs. 4,127 last year.

Sind Circle.

Rs. 580 were spent on new buildings or portions of buildings as under :—

Sukkur—

Rs. 125 on paving with pacca brick the floors of the office, record room and verandah of the Range Forest Officer, Abad; Rs. 197 on paving with pacca brick the floor of the quarters of the Range Forest Officer, Abad, including verandah.

Lárkána—

Rs. 258 on building a new compound wall round the depôt at Lárkána.

Repairs to existing buildings cost Rs. 2,214.

The Public Works Department spent Rs. 177 on repairs to buildings in Sukkur.

*(c) Miscellaneous.**Northern Circle.*

	Rs.
The partial sinking of five wells in the Dángs of Surat and one each in North Thána and South Násik ...	1,540
Deepening and cleaning of existing wells in several districts ...	833
Total, Miscellaneous ...	2,373

Central Circle.

Rs. 622 were spent on wells including repairs in all divisions and one new work in West Khándesh. In Kolába wire fencing of a casuarina plantation cost Rs. 449.

Southern Circle.

	Rs.
Kánara W. D. ... Construction of a waterway in the Káni and Kálinadi rivers for floating timber from the Gund plateau forests to the Kodibág depôt—preliminary operations ...	12,997
1 tank at Tinaighát ...	885
Belgaum ... 1 well at Chigule ...	500
1 well at Nágargali—commenced ...	132
Dhárwár-Bijápur ... 1 well at Hangal—nearly finished ...	400
Kánara C. D. ... 1 well at Andle ...	350
Kánara E. D. ... 1 well at Chitgeri ... } commenced ...	306
1 well at Kálkeri ... }	
Kánara N. D. ... 1 tank at Kulai ... } special repairs ...	155
1 tank at Ambgaon ... }	
Total for 1916-17 ...	15,725
Total for 1915-16 ...	393

The telephone connections between Yellápur and Kirwatti (Kánara E. D.) and between Tavargatti and Dándeli (Kánara N. D.) were maintained at annual rentals of Rs. 335 and Rs. 450, respectively.

Sind Circle.

New minor irrigation works were undertaken by the department as follows at a cost of Rs. 788 :—

Lárkána—

	Rs.
Construction of a new bund in Hassanwahan forest to keep forest irrigation water off local fund road ...	155
Construction of a culvert for local fund road in Hassanwahan forest ...	397

This work was carried out under the orders of the Deputy Conservator as forest irrigation water had damaged the local fund road, and was likely to damage it in the future.

Sukkur—

Bund in Shergarh forest, Abad range ... 236

Repairs to existing irrigation works cost Rs. 2,593.

The Public Works Department constructed the following sluices during the year :—

Rs.

Jerruck—

Repairs to bund in Penah and Huderani forests ...	85
Construction of a sluice for irrigation of Penah and Huderani forests ...	5,070
Excavation of karia <i>ex</i> the sluice in Mulchand-Shahbunder bund and rebuilding of sluice (Shikar wah) ...	2,406
Repairing of Gharko forest bund ...	150
Construction of pacca sluice Taki 46 right side Kalri wah...	157

Sukkur—

Constructing a pacca sluice <i>ex</i> -Mahesro wah ...	211
Repairs to sluices and bunds ...	40

Total ... 8,119

3.—PROTECTION OF FORESTS.

(a) General Protection.

Northern Circle.

Statement of offences by nature and treatment and comparison with former years.

Division.	A Cases taken into Court.				B Cases compounded.				C Cases undetected.				Total.				Grand total.	
	Injury to forests by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	Injury to forests by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	Injury to forests by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	Injury to forests by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.		
Panch Mahals	1916-17...	5	16	18	1	6	550	824	18	50	256	1	...	61	822	843	19	1,745
	1915-16...	6	2	10	...	7	571	853	76	43	275	1	6	55	848	864	82	1,849
Surat ...	1916-17...	3	1	...	3	16	21	36	10	2	3	...	...	21	25	36	13	95
	1915-16...	4	2	...	...	4	19	20	8	4	1	...	2	12	22	20	10	64
North Thana	1916-17...	...	21	1	...	...	191	228	27	55	151	...	...	55	363	229	27	674
	1915-16...	1	13	1	1	4	142	197	31	57	135	...	2	62	290	198	34	584
West Thana...	1916-17...	6	27	9	1	4	197	362	26	31	115	2	3	41	339	373	30	788
	1915-16...	3	9	13	2	1	259	368	35	71	131	2	1	75	449	383	38	945
East Thana ...	1916-17...	5	18	6	4	9	329	240	48	64	113	7	1	78	460	253	53	844
	1915-16...	4	17	12	4	5	315	248	60	66	124	1	...	75	456	261	65	857
South Nasik...	1916-17...	1	7	9	2	5	163	123	33	41	36	...	...	47	206	132	40	425
	1915-16...	1	3	7	3	7	142	128	22	42	41	...	...	50	186	135	25	396
North Nasik...	1916-17...	1	8	3	1	1	180	334	46	6	14	...	1	8	202	337	48	595
	1915-16...	1	6	2	1	3	239	314	53	22	37	...	...	26	282	316	54	677
Nasik Sub-Division.	1916-17...	...	3	5	...	1	301	278	11	13	36	...	...	14	340	283	11	648
	1915-16...	1	5	7	1	1	229	351	22	13	23	...	1	15	257	358	24	654
Total of 1916-17 ...	21	101	51	12	42	1,932	2,425	224	262	724	10	5	825	2,757	2,486	241	5,809	
Total of 1915-16 ...	20	57	52	12	32	1,916	2,479	307	318	817	4	12	370	2,790	2,535	331	6,026	
Average of the past three years.	52	63	58	13	40	2,014	2,061	258	370	870	5	12	462	2,946	2,124	283	5,816	

The circle figures for the year are unremarkable. Protection generally was as satisfactory as can be reasonably hoped for in view of the steadily increasing state of inefficiency and shortage of staff, especially the former. The forest protective staff is the guard of an otherwise open treasury and requires greater immunity from common want. The uncertainty of prospects under a graded cadre of appointments accentuates present hardship.

Protection against theft.—The total number of cases of illicit fellings reported was approximately the same as last year, being 2,757 against 2,790. The number of cases prosecuted rose from 57 to 101—every division showing an increase owing to the need for deterrent action. Compounded cases rose from 1,916 to 1,932 and undetected cases fell from 817 to 724, which are tendencies in the right direction. The number of unreported cases is legion, but if adequate notice were taken of these the staff would be so reduced as to make work impossible.

Panch Maháls.—The return from this division shows little diminution from the excessive figure of last year, then attributed to scarcity. It is hoped that the Divisional Forest Officer's remark about increased vigilance is the real explanation. More energy is required throughout.

Surat.—This is the only division in which protection is really satisfactory. It is so *in spite* of difficulty with establishment which is chronic, and due to the extensive privileges of a small population and the paramount position of the Divisional Forest Officer. The inefficiency of the staff is chiefly felt in silvicultural matters to the detriment of the future crop.

North Thána.—The Divisional Forest Officer writes that theft of the best young teak is on the increase owing to the absence of the large bamboo which died six or seven years ago. He hopes to mitigate the evil by supply from thinnings under the revised working plan introduced this year. The worst of it is that in the absence of an efficient staff these casual misfortunes show the people our helplessness and give rise to temptations which threaten to assume the form of habit.

West Thána.—In recording a decrease of unauthorized fellings reported in all ranges except Kalyán the Divisional Forest Officer says: "To my mind the improvement is more apparent than real. I am afraid in some rounds the offences are not correctly reported." It is satisfactory to note that in the last three years a reduction of offences in Bassein from 172 to 89 is attributable to the satisfactory working of special depôts in that taluka. The monetary loss to Government by such arrangements is considerable but is deemed justified and similar depôts are suggested for Thána, Bhiwandi and Murbád. The matter will be considered, but each case must rest on its merits or the whole country side will demand Government usurping the place of the retail trader.

East Thána.—The Divisional Forest Officer mentions an increase in the number of offences in Igatpuri and South Sháhápur ranges but hopes the newly started firewood depôt at the former place will improve matters especially when he starts one at Ghoti also. There is justification for both these depôts. The increase in South Sháhápur was anticipated and is due to better reporting since the creation of the new range.

South Násik.—The protection in the above-ghát portions of the Dindori range is, as usual, the worst in all respects, in spite of repeated warnings and communal punishments. It is bad also in Násik. In Dindori four villages have been reported to the Collector with the recommendation for the levying of double grazing fees and twenty-two villages are reported for warnings; while in Násik range two villages have been reported for double grazing fees and fourteen for warnings. The firewood depôt at Trimbak was carried on with some effect but, as usual, much difficulty was experienced in obtaining labour.

North Násik.—A decrease from 282 to 202 cases is reported. This is undoubtedly a false picture and as the Divisional Forest Officer remarks regarding reduction in reported offences generally "...indicates slackness on the part of subordinates especially in Kálwan". An able Ranger has recently been appointed in Kálwan in the place of the late man who was long past for active work and it is hoped things will now improve.

Násik Sub-Division.—The figures in this charge show a considerable increase, doubtless due to its consisting of an area which up to date has had little inspection from superior officers. These are early days to say more.

Central Circle.

The following table classifies the number of offences reported during the year as compared with those of 1915-16 and with the average of the three preceding years :—

Division.	A Cases taken into Court.				B Cases compounded and warned.				C Cases undetected.				Total.				Grand total.	
	Injury to forests by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	Injury to forests by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	Injury to forests by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	Injury to forests by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	1916-1917.	1915-1916.
East Khándesh.	7	17	16	16	7	238	318	162	47	64	3	3	61	319	337	181	898	793
West Khándesh.	9	5	5	1	1	199	395	32	55	75	3	...	65	279	403	33	780	693
North Khándesh	6	2	1	3	12	171	144	64	43	103	2	...	61	276	147	67	551	590
Poona	4	25	26	8	33	767	878	194	83	128	6	1	120	920	910	203	2,153	1,905
Sátára	3	22	11	2	26	455	476	121	56	46	...	6	85	523	487	129	1,224	1,021
Kolába	23	128	35	13	12	314	380	65	35	286	4	6	71	728	419	84	1,302	1,273
Total of 1916-17.	52	199	94	43	91	2,144	2,591	638	320	702	18	16	463	3,045	2,703	697	6,908	...
Total of 1915-16.	30	235	84	79	64	1,960	2,326	449	282	727	20	19	376	2,922	2,430	547	...	6,275
Average of the three preceding years 1912-13 to 1914-15	52	251	116	52	82	2,577	2,225	549	267	787	12	9	402	3,609	2,353	610	6,974	...

The total shows an increase of 633 as compared with 1915-16, every class of offence contributing, fires by 87, fellings by 123, grazing by 273 and other offences by 150. Comparing results with the previous three year average, fires increased by 61, felling decreased by 564, and grazings and other offences increased respectively by 350 and 87, giving a total decrease of 66.

Fires and grazing are dealt with in detail later; as regards illicit fellings the variations, whether increase or decrease, are hardly of sufficient importance to call for much comment; the main point is that no serious thefts took place. As is only to be expected, the divisions that show an increase are Poona, Sátára and Kolába, those where there is least growth outside forest limits, and where temptation to commit depredations on forest to meet petty requirements is greatest; in this connection the evacuation of villages in several talukas of Poona on account of plague is said to have led villagers to steal forest material for erection of temporary huts. Other offences mostly consisted of encroachments on forest boundaries and breaches of the rules for control of forest material in transit.

Cases of the year taken into court numbered 388 as against 428. Including cases pending from 1915-16, 390 involving 956 persons, were disposed of. Of these 3 were withdrawn, and of the remaining 387, 344 or 88·8 per cent., involving 843 persons, resulted in convictions, and 43 or 11·2 per cent., with 113 persons in acquittals. North Khándesh for the second year in succession had 100 per cent. of convictions. Prosecution was only resorted to in comparatively serious cases or where offenders refused to compound, for every case taken into court means that the time of forest officials is wasted when it could be far more profitably employed elsewhere. In one case only had a Divisional Officer to make representations to the District Magistrate regarding an inadequate sentence.

The number of cases compounded rose from 4,230 to 4,966; those in which offenders were merely warned fell from 569 to 498, and undetected cases rose from 1,048 to 1,056. The amount of compensation taken was Rs. 33,833, or an average of Rs. 3-13-11 from 8,741 persons.

Offences are summarized below according to the jurisdictions of two Commissioners.

	Divisions in the Central Division :— East, West and North Khándesh, Poona and Sátára.			Divisions in the Southern Division :— Kolába.		
	1915-16.	1916-17.	Plus or minus.	1915-16.	1916-17.	Plus or minus.
Total offences ...	No. 5,002	No. 5,606	+ 604	No. 1,273	No. 1,302	+ 29
Fires ...	333	392	+ 59	43	71	+ 28
Fellings ...	2,191	2,317	+ 126	731	728	— 3
Grazing ...	2,091	2,284	+ 193	339	419	+ 80
Other offences ...	387	613	+ 226	160	84	— 76
Cases taken into Court	214	189	— 25	214	199	— 15
Cases disposed of ...	208	188	— 20	217	199	— 18
Percentage of convictions.	95.6	92.2	...	94.9	85.9	...
Cases compounded ...	3,776	4,441	+ 665	454	525	+ 71.
Compensation taken, Rs. ...	30,356	32,408	+ 2,052	1,617	1,425	—192
Cases warned No. ...	258	252	— 6	311	246	— 65
Offenders not traced .	754	72	— 30	294	332	+ 38

Communal punishment in the shape of enhancement of grazing fees or suspension of privileges was inflicted by the Collectors of Poona and Kolába on twenty-one villages where persistent damage by cutting or grazing had taken place; on the other hand in the former division in five villages where such punishment had resulted in improved behaviour, grazing fees were again reduced to the normal rate. In Kolába the system was continued of working selected coupes for the supply of timber, firewood and agricultural implements to the coast towns and villages; previously these people having no other source from which their wants could be met, and seeing the outturn from the forests all exported to Bombay, were driven to purchase from Katkaries and Thakurs who in their turn had to manufacture dead wood to keep up the supply. The system while of great convenience to the public is of equally great benefit to the forests in that it does away with the main incentive to abuse of the dead wood privilege by the wild tribes. From 15 dépôts established for the above purpose 1,874 agricultural implements and 8,830,976 lbs. of fuel were sold by the coupe contractors.

A further indirect measure which is no less in the interests of forest protection than of the public is the tahal campaign carried on in Kolába by Revenue and Forest officers; for an increase in the supply available from private lands must cause a corresponding decrease in depredations on the forests. While a noticeable improvement is apparent in methods of cutting, it cannot be said that there is as yet any inclination on the part of landholders to increase the supply by artificial propagation. For breaches of tahal rules three villages were punished by doubling of grazing fees or suspension of privileges, and for notably good work one village had its grazing fees remitted.

Southern Circle.

The following table gives the number and classification of forest offences reported during the year, as compared with those of 1915-16 and with the average of the past three years:—

Nature of offence.	A Taken into court.			B Compounded.			C Undetected.			Total.		
	1916-17.	1915-16.	Average of past 3 years.	1916-17.	1915-16.	Average of past 3 years.	1916-17.	1915-16.	Average of past 3 years.	1916-17.	1915-16.	Average of past 3 years.
I.—Injury by fire ...	27	28	28	125	66	81	969	890	736	1,141	976	815
II.—Unauthorized felling ...	96	57	120	2,364	2,455	2,601	351	376	473	2,833	2,836	3,194
III.—Unauthorized grazing ...	32	21	46	1,341	1,333	1,314	16	13	15	1,369	1,367	1,375
IV.—Other offences ...	18	5	9	261	302	331	3	9	11	289	316	351
Total ...	175	111	203	4,111	4,148	4,337	1,359	1,278	1,235	5,645	5,537	5,765

The total number of offences reported exceeded those of the previous year by 108 but were less than the average of the past three years by 120.

There was an increase in the number of fires, due to a larger number detected in betta lands of Kánara C. D., as per new betta rules introduced from February 1917 and to the several fires in the Siddápur range of Kánara S. D., purposely set by people to manufacture dead wood.

The offences of unauthorized grazing also slightly increased in Kánara N. D. and E. D. and Belgaum. The increase is ascribed to greater vigilance on the part of the staff and to more systematic reporting rather than to any actual increase of cases.

Unauthorized felling and other offences decreased notably in Kánara S. D.

The policy of rewarding forest subordinates and villagers for detecting forest offences and punishing them for neglect was continued.

The results of cases tried by courts are compared in the following table:—

Division.	1916-17.		1915-16.		Percentage of acquittals.	
	Convictions.	Acquittals.	Convictions.	Acquittals.	1916-17.	1915-16.
Kánara N. D. ...	11	2	13	2	15.4	13.3
Kánara E. D. ...	5	1	4	4	16.7	50.0
Kánara C. D. ...	23	9	8	4	23.0	33.3
Kánara S. D. ...	41	11	36	17	21.2	32.1
Kánara W. D. ...	20	2	6	5	9.1	45.4
Belgaum ...	27	2	16	3	6.9	15.8
Dhárwár-Bijápur.	8	2	21	3	20.0	12.5
Ratnágiri ...	1	...	1	...	...	...
Total ...	136	29	105	33	17.6	26.6

The percentage of acquittals has decreased by 9 per cent. and is shared by all divisions except Kánara N. D. and Dhárwár-Bijápur.

Cases sent to court were largely those in which the offenders refused to compound; only 2.9 per cent of the total cases of the year were thus dealt with.

There was formerly a bad practice in Kánara which caused a lot of trouble to both the Magistrates and the forest staff. The fines levied by subordinate Magistrates from offenders were generally much less than the compensation originally fixed by the Forest Department with the result that offenders naturally refused to compound and preferred to go to courts. The Collector has, however, suitably dealt with such instances and they are not likely to give further trouble.

There were four important cases during the year, one in Kánara E. D. and three in Kánara C. D. In the Yellápur range of the former a serious case of theft of timber was detected, in which heavy compensation was recovered from offenders. In the latter a certain Mahomedan of Isloor in the Sirsi

range who systematically committed forest offences in the past was caught in two cases of theft of timber and fined Rs. 513 by the Sub-Divisional Magistrate, Sirsi. In another case of illicit cutting the offender was fined Rs. 300 by the court but, owing to some error in the legal procedure, the case was ordered to be re-tried and is pending disposal. The person who gave false evidence in the case of assault on a guard of the Badāmi range in the Bijāpur sub-division, referred to in the last report, was tried and convicted.

The number of cases compounded and the compensation recovered are compared in the following table:—

1916-17.		1915-16.		Average of past three years.	
No. of cases.	Compensation.	No. of cases.	Compensation.	No. of cases.	Compensation.
	Rs.		Rs.		Rs.
3,785	23,873	3,809	21,397	3,906	20,975

Nine-hundred and ninety-five offenders involved in 379 cases were let off with simple warning.

The number of undetected offences rose from 1,278 last year to 1,359 during the year, the increase being due to fires which are always difficult to trace.

Sind Circle.

The classification of forest offences detected during the year is given in the following prescribed form:—

Division.	Cases taken into Court.				Cases compounded.				Cases undetected.				Total.				Grand total.
	Fires.	Unauthorized felling.	Illicit grazing.	Other offences.	Fires.	Unauthorized felling.	Illicit grazing.	Other offences.	Fires.	Unauthorized felling.	Illicit grazing.	Other offences.	Fires.	Unauthorized felling.	Illicit grazing.	Other offences.	
Sukkur	2	52	11	2	...	598	808	6	50	404	...	...	52	1,054	819	8	1,933
Larkāna ... ..	...	9	6	1	...	917	250	5	22	61	...	...	22	287	256	6	571
Hyderabad ... ..	...	31	6	1	...	248	731	20	8	22	1	...	8	801	737	21	1,062
Jerruck	1	5	...	...	1	87	160	1	5	7	...	...	7	99	180	1	267
Total of 1916-17 ...	3	97	22	4	1	1,150	1,949	32	85	494	1	...	89	1,741	1,972	36	3,838
Total of 1915-16 ...	8	97	53	22	1	1,153	2,699	23	158	592	...	...	167	1,642	2,752	45	4,005
Average of past three years.	4	80	28	18	1	878	2,407	31	135	343	...	4	140	1,300	2,436	52	3,923

The total number of cases is less by 90 than the average of the past three years and is less under every head but that of unauthorized fellings. There is a great increase in the number of cases of unauthorized fellings reported; this number varies directly with the amount of walking done by the administrative officers.

Rain in the Kohistán hills during the month of March kept the number of illicit grazing cases down considerably, the total number being 1,972 compared with 2,752 during the previous year, and 2,436 the average of the past three years.

Undetected cases increased from 550 to 580 as compared with a three-yearly average of 482, but the increase was entirely under the head of unauthorized fellings. The form itself gives all statistical details.

The 3,132 cases compounded produced Rs. 11,937 in compensation as compared with 3,876 cases and Rs. 12,919 of last year.

Eighty-one cases were let off with a warning against 153 of the previous year.

The offences taken into court are detailed below :—

Pending from last year	...	54
Cases of the year	...	126
Total	...	180

Of these 122 were decided during the year, three cases pending last year in the Jerruck division were withdrawn, and two compounded. Of the 122 cases 94 resulted in conviction and 28 in acquittal: the percentage of acquittals being as follows :—

	1916-17.	1915-16.
Sukkur	34·8	13·7
Larkana	27·2	20·0
Hyderabad	...	7·69
Jerruck	16·6	6·9

Out of the 23 cases lost in Sukkur no less than 16 were in the Kot Sultan range alone where they were tried by the Honorary Second Class Magistrate.

The two fire cases taken to court in the Sukkur range were not decided by the end of the year.

A case of obstructing a forest guard in the performance of his duty was successfully prosecuted in the Larkana division, and a similar result was obtained in the Hala range of Hyderabad division. In the latter case the accused was sentenced to one month's rigorous imprisonment. In another case in which the services of the Public Prosecutor were obtained the nine accused were fined Rs. 40 each. It is satisfactory to note that all the eight cases reported pending in the Hyderabad division last year ended in conviction.

(b) Protection from Fire.

Northern Circle.

On the whole the fire protection of the circle was satisfactory there being 317 fires burning 24,119 acres as against 362 fires burning 38,576 in the last year, a reduction of $12\frac{1}{2}$ per cent. in number and 37 per cent. in the area and last year showed a marked improvement on former years. Circumstances in different districts vary very much and it is difficult to find any common cause for the improvement recorded. That rainy weather continued till the end of November and began again at the end of April doubtless reduced the area burnt in many instances. There is also little doubt that the people generally are steadily acquiescing to a greater extent in the undesirability of firing the forests. The disappearance of dead bamboos has relieved the forests of much inflammable material in many localities. Incendiarism continued in the old centres but was less extensive and continued to show an absence of malice towards the department, hunting and local jealousies among those interested in grass being the motives.

Panch Mahals.—Actual fires (neglecting mere breaches of rules) were 53 burning 5,573 acres as against 47 burning 4,874 acres in the last year. The Divisional Forest Officer's explanation that last year being a year of scarcity taught the people to protect their grass is a little difficult to accept. The figures of both years are about half the normal and when it is found that in spite of a normal season grazing offences maintained famine proportions it is feared that the reduction of fires was partly due to the absence of grass, which cannot be eaten and burnt.

Surat.—Results were as good as usual.

North Thana.—There were 55 fires burning 4,465 acres against an average of 59 fires burning 4,645. Half the area burnt is closed forest. The Dahanu range showed by far the worst result but it is noted that the Range Forest Officer was very short of roundguards owing to sickness. Results are satisfactory.

West Thana.—There were only 41 fires burning 1,544 acres as against 75 burning 5,126 acres last year. The decrease is attributed to a very wet season. Eight fires are stated to have been cases of incendiarism of which

six were made cases of prosecution. Only three were disposed of during the year and three were pending at the close which shows very undesirable delay in disposal. Of those disposed of, punishments varying from a fine of Rs. 2 to Rs. 10 were given, displaying a lack of appreciation of the gravity of the offence by the trying magistrates.

East Thána.—There were 78 fires burning 7,732 acres as against 75 burning 9,992 acres in the last year. Except in the Tansa catchment area fires were not serious and in this centre of incendiarism the area burnt has been reduced by 50 per cent. in the last three years—a very satisfactory result.

South Násik.—There were 47 fires burning 3,231 acres as against 50 burning 4,469 acres in the last year. Dindori range was answerable for 26 fires burning 2,419 acres and Násik for 15 burning 549 acres. The valuable forests of Peint are almost immune from fires. There was only one fire in these ranges, viz., of 215 acres in North Peint. Some cartmen who were responsible were caught and punished.

North Násik.—A decrease from 26 fires burning 5,404 in the last year to 8 fires burning 250 acres is at first rather startling, but last year showed a big increase over the former years, and the average of the last three years is still only 16 fires, so that coupled with a wet season the result is not so surprising. The Divisional Forest Officer describes it as a 'lucky' year in fire conservancy. The Conservator fears it is largely 'luck' where slackness among subordinates is recognized.

Násik Sub-division.—This sub-division shows one fire less than last year but a reduction of two-third of the area burnt. No reason is given.

The following statement required by Government Resolution No. 248 of 12th January 1904 shows the area protected :—

Division.	Total forest area of the division in charge of the Forest Department.	Extent of valuable forest for which continuous protection from fire is desirable.	Proportion of valuable forest which has been continuously protected from fire for five years.	Extent of forest naturally immune from fire.	Extent of forest burnt.		
					Open forest.	Closed forest.	Total.
	Acres.	Acres.	Percentage.	Acres.	Acres.	Acres.	Acres.
Panch Maháls ...	2,12,152	2,12,152	74·7	...	1,679	3,894	5,573
Surat ...	4,63,507	4,63,507	99·3	...	42	81	73
North Thána ...	2,08,206	2,08,206	90·8	...	2,373	2,092	4,465
West Thána ...	2,05,974	1,97,778	88·4	1,500	914	630	1,544
East Thána ...	2,94,530	2,80,531	70·2	4,356	2,869	4,863	7,732
South Násik ...	2,17,860	2,17,860	95·9	49,920	2,105	1,126	3,231
North Násik ...	3,16,214	2,75,102	97·9		100	150	250
Násik Sub-division ...	1,65,133	1,65,133	78·6		367	884	1,251
Total ...	20,83,576	20,20,269	89·0	55,776	10,449	13,670	24,119

Central Circle.

The number of fires increased by 75, from 432 in 1915-16 to 507 in the year under report, and the area burned by 48,741 acres, from 1,55,471 to 2,04,212. Separating the figures for the Commissioners' jurisdictions, the Central Division has 431 fires and 2,02,815 acres, as against 385 and 1,54,638 in 1915-16, and the Southern Division has 76 fires and 1,397 acres, as against 47 and 833. Results, therefore, must be put down as unsatisfactory.

East Khándesh, it is true, shows a decrease in the area burned of a few thousand acres, though an increase of nine in the number of fires; but it has to be admitted that it is little more than chance whether the acreage is more or less, for in the Sátputas, where the bulk of the fires occur, conditions and arrangements for the fire protection are not at present such that the Forest Department can ascribe success or failure to any one measure that it carried

out or failed to carry out. The difficulties that are experienced, and the measures that it was proposed to take to counteract them, were dealt with at some length last year, and Government having called for a special report, which has been submitted, it is unnecessary to go into the matter in detail now. But the problem may be stated briefly to be firstly, the introduction into these now uninhabited hills of a resident population, dependent on the forests for their livelihood and available at any season for preventive and protective fire measures; secondly, the exaction from forest villagers living near the forests of the help which it is their duty to give in return for the generous privileges they enjoy, but which help they now sedulously refrain from giving; thirdly, greater control, both as to place and season, over the movements of the casual fire-causing non-forest villager who now visits the forests for the sole purpose of taking something from them, but who has no interest whatever in their protection.

West Khándesh calls for no special comment other than that the area burned was slightly less than last year even though the number of fires was greater. The favourable results as regards area are ascribed partly to the effect of communal punishment in the previous year, partly to energetic work by the forest staff, and several of the fires were in comparatively valueless areas recently transferred from pasture to forest proper.

North Khándesh shows a decided setback, the number of fires rose from 44 to 72 and the area burned from 61,261 acres to 1,24,004, the division being thus responsible for more than the whole net increase shown for the circle. The greater part of the area burned was in the Akráni where the forests are unorganized, and if the 92,884 acres accounted for in this way be deducted from the total, there remain 31,120 acres of organized forest burned, a figure which is practically the same as that of last year for the corresponding areas. For the disappointing results in the Akráni the Divisional Officer gives two explanations, one that three fires started almost simultaneously and the population is too limited for such an emergency to be successfully met, the other that some patils and villagers showed gross negligence in fire matters, negligence which it may be mentioned was promptly punished.

Poona and Sátára are divisions which call for few remarks, the total burned area of the two amounting to no more than 7,089 acres. In numbers fires are comparatively large 124 in the former 86 in the latter, but partly because grass is so valuable a commodity, mainly because it is so scanty and confined to limited and isolated areas, no fire that breaks out is allowed to or can spread far; the anxieties that confront Khándesh officers are unknown here.

Kolába also presents a simple problem with a total area burned of but 1,397 acres, that is, an average of 18 acres for the 76 fires that broke out. Here the careless rab-burner is the main source of danger, and 35 of the 76 fires originated in this way; in 23 cases the offender being prosecuted.

Communal help rendered to Government in extinguishing fires lies very much on lines that might be expected. In Khándesh where no villager cares whether the grass is burned or not, and where work on a fire involves extremes of exertion and discomfort, much pressure, moral and material, is required to keep the people up to the mark. Thus in one division alone, North Khándesh, communal punishment had to be inflicted on 23 villages, four only being found to deserve reward for good help. In East Khándesh, a report has recently been made to Government asking for permission to substitute individual for communal punishment, the peculiar conditions and status of the privilege holders of the Sátputa ranges making the latter form impracticable for successful application. In Poona, Sátára and Kolába, on the other hand, extinguishing a fire is not only a comparatively simple matter but one in which, as a rule, villagers in their own interests readily help; in Poona, however, exceptions to this as usual occurred in areas in temporary charge of the Military Department, the villagers' personal interest in such being less, and they, no doubt, having a score to pay off against the Military rakhawaldars for impounding of illicitly grazed cattle; four villages had their grazing fees doubled as a result.

For the whole circle the area under special protection was 23,88,058 acres and the cost incurred Rs. 16,819; 21,83,846 acres, or 91·4 per cent., were saved. Of the 2,04,212 acres burned 23,259 acres or 11·3 per cent. which is only half of last year's percentage were closed forest.

As regards origins of fires North and East Khándesh both show 11 cases due to carelessness in burning fire lines, though it is only fair to state that all these cases were not the result of departmental work, but that a large proportion were due to negligence of coupe contractors; it is satisfactory to note that the latter division has not to be pilloried this year, as has been the case for several years past, for the bad work of the forest staff in this respect. Eighty-nine cases occurred through fires crossing external boundaries, careless rab-burning in Kolába being the chief cause of offence in this respect. In 47 cases malicious firing is said to have been the cause, though proof of the same is generally wanting. In 188 cases the cause was unknown.

Fifty-four cases were taken into court, and in 31 of them convictions were obtained, in two the offenders were acquitted, three were withdrawn and 18 were pending at the close of the year. Seventy-one cases, either trivial ones in which little or no damage occurred, or rab-burning cases where the offenders made every effort to prevent damage occurring, were disposed of by compounding.

Southern Circle.

The area attempted to be protected from fire was 4,085 square miles as compared with 3,603 square miles in the preceding year. The percentage of failures was 2·0 against 8·7 which is satisfactory. The cost of protection was Rs. 5·6 per square mile against 5·3 in the previous year. Fire protection was, on the whole, much better this year than ever before, because of chiefly the late heavy rains in November, which kept the forests green longer than usual, and the special measures taken as a result of the disastrous fires of the previous year. The detailed results are compared with those of the previous year in the following statement :—

Division.	Area attempted to be protected.		Area burnt.		Area actually protected.		Percentage of success.		Cost.		Cost per square mile protected.	
	1916-17.	1915-16.	1916-17.	1915-16.	1916-17.	1915-16.	1916-17.	1915-16.	1916-17.	1915-16.	1916-17.	1915-16.
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.	Rs.
Kánara N. D.	420	405	10	116	410	289	97·6	71·5	4,945	3,426	12·1	11·8
Kánara E. D.	537	641	5	71	532	570	99·1	90·0	4,899	4,662	8·4	8·2
Kánara C. D.	779	235	20	38	759	247	97·4	86·6	1,026	889	1·4	3·6
Kánara S. D.	708	708	11	5	697	703	98·4	99·3	357	508	·5	·8
Kánara W. D.	829	837	8	36	821	801	99·0	95·7	2,838	1,493	3·5	1·8
Belgaum	636	627	20	35	616	592	96·9	94·5	7,934	6,030	12·8	10·2
Dhárwár-Bijápúr	107	81	9	14	98	67	91·6	83·3	768	528	7·8	7·9
Ratnágiri	19	19	...	...	19	19	100·0	100·0	30	28	1·5	1·5
Total	4,085	3,603	83	315	4,002	3,238	98·0	91·3	22,797	17,564	5·7	5·3

It will thus be seen that fire protection was satisfactory in all divisions except the Kánara S. D., where the increase of six square miles noticeable in the area burnt was due to fires in betta lands. Under the betta rules, introduced during the year, the holders of betta lands are responsible for any fires in their bettas. In all the divisions the usual fire-protection measures of clearing fire traces were systematically followed. In three blocks of organized forests (Maingini, Goyar and Nagi) in Kárwár range, Kánara W. D., the fire protection was entrusted completely to the villagers and they were paid lump sums by the Divisional Forest Officer in person, and the headmen awarded turbans in cases of good work; the three blocks are reported to have been thus kept immune from fire during the whole year at a small cost of Rs. 65. Besides money rewards and presents, liberal free

grants of timber and free grazing were also given for good protection. Communal rewards and punishments were given as under :—

Division.	Number of villages			
	Rewarded with free or concession grazing for good general protection.		Punished for bad protection by enhanced grazing fees.	
	1916-17.	1915-16.	1916-17.	1915-16.
Kánara N. D. ...	2	58	28	21
Kánara E. D. ...	54	63	25	70
Kánara C. D. ...	16	1	16	16
Kánara S. D. ...	.....	.....	25	19
Kánara W. D. ...	33	6	27	80
Belgaum ...	98	77	166	239
Dhárwár-Bijápur ...	2	14	17	37
Total ...	205	219	304	482

Form No. 15 shows the number and origin of fires. The particulars of detection and disposal, compared with those of last year, stand as under :—

	1916-17.	1915-16.
Total number of fires reported ...	1,141 (100 per cent.)	976 (100 per cent.)
Number detected ...	152 (13·3 ")	96 (9·8 ")
Number compounded ...	125 (10·9 ")	68 (7·0 ")
Number prosecuted ...	27 (2·4 ")	28 (2·8 ")

Of the 27 cases prosecuted conviction was obtained in eight, the rest remaining pending in Magistrates' courts. The percentages of detection and disposal show much improvement over the previous year, and the Divisional Forest Officers report that detected cases were all suitably dealt with.

The statement showing areas enjoying continuous immunity from fire for a period of seven years, prescribed in Government Resolution No. 248 of 12th January 1904, is given below :—

Division.	Total forest area of the division in charge of the Forest Department.	Extent of valuable forest for which continuous protection from fire is desirable.	Proportion of valuable forest which has been continuously protected from fire for seven years.	Extent of forest naturally immune from fire.	Extent of forest burnt during the year.		
					Open forest.	Closed forest.	Total.
	Acres.	Acres.	Percent. Acres.	Acres.	Acres.	Acres.	Acres.
Kánara N. D. ...	2,72,843	2,72,843	58,030 or 21·3	500	1,448	4,998	6,441
Kánara E. D. ...	3,75,223	3,75,223	3,24,775 or 86·5	6,000	2,539	346	2,885
Kánara C. D. ...	5,33,496	Accurate	figures not	available	...	...	12,986
Kánara S. D. ...	4,53,055	4,11,045	2,00,000 or 48·6	1,09,180	7,149	2	7,151
Kánara W. D. ...	5,80,398	1,30,808	1,11,127 or 85·0	52,994	1,813	3,151	4,964
Belgaum ...	4,07,138	4,07,138	48,500 or 11·9	48,500	6,079	6,703	12,782
Dhárwár-Bijápur ...	1,85,712	1,83,407	1,32,638 or 72·3	2,297	4,231	1,379	5,610
Ratnágiri ...	12,054	2,546	.....	9,508	...	25	25
Total ...	27,69,919	.....	.....	...	...	...	52,794

Sind Circle.

Form No. 15 shows the number and origin of fires. It will suffice here to contrast results of the present year under report and the previous year :—

Division.	1916-17.		1915-16.	
	Number of fires.	Area burnt.	Number of fires.	Area burnt.
		Acres.		Acres.
Sukkur ...	52	1,285	55	3,644
Lárkána ...	22	375	47	1,247
Hyderabad ...	8	270	7	242
Jerruck ...	6	58	54	1,318
Total ...	88	1,988	163	6,451

The general improvement is due chiefly to a good inundation, there was less firing of forests for grazing, and the rain in March 1917 kept hill graziers from bringing their cattle to the riverain forests.

At the same time, as the figures show, there were other causes contributing to the successful fire protection of the year.

In Sukkur the average area per fire dropped from 66 to 25 acres; this is stated to be due to prompt action taken to extinguish fires. In Jerruck the average area decreased from 25 to 10 acres; the Divisional Forest Officer attributes this success to the value of the fire breaks supplied by traces cleared in all dangerous areas. New fire tracing work was carried out in the Lárkána, Hyderabad and Jerruck divisions. In Jerruck 9 miles 792 feet of jungle were cleared at a cost of Rs. 235 or Rs. 40 per mile for 50 feet wide traces and Rs. 20 per mile for 25 feet wide traces; 10 miles were traced free of cost.

In Lárkána fire lines 100 feet wide totalling three miles long were cut free of cost in the Lárkána, Sehwan and Kandiáro ranges.

In Hyderabad three-half mile lengths 100 feet wide were cut free of cost in the Hála and Sakrand ranges.

Firewatchers were entertained in the Mulchand, Sháhbunder and Tatta ranges of the Jerruck division.

The statement required by Government Resolution No. 248 dated 12th January 1904, regarding areas enjoying continuous immunity from fires for a period of seven years is given below for 1910-11 (*vide* Government Resolution No. 4081 of 22nd April 1908):—

Division.	Total forest area.	Area of valuable forest for which continuous protection from fire is desirable.	Proportion of valuable forest which has been continuously protected from fire for seven years.	Extent of forest naturally immune from fire.	Extent of forest burnt during the year.		
					Open.	Closed.	Total.
	Acres.	Acres.	Acres. Per. cent.				Acres.
Sukkur ...	2,94,018	2,94,018	2,73,145 or 92.9	Newly formed kachas.	1,212	73	1,285
Lárkána ...	1,47,938	1,47,938	1,46,060 or 98.7		875	...	875
Hyderabad ...	1,65,035	1,65,035	1,64,435 or 99.6		231	89	270
Jerruck ...	1,44,542	1,04,229	87,809 or 83.8		86	22	58
Total ...	7,51,533	7,11,220	6,70,949 or 94.8		1,854	134	1,988

(c) Protection from Cattle.

Northern Circle.

The following statement shows the number and kind of animals impounded from open and closed forests respectively compared with previous years :—

Division.	Cows and bullocks.		Buffaloes.		Goats.		Sheep.		Other animals.		Total.		Grand total for 1916-17.	Grand total for 1915-16.
	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.		
Panch Mahals ...	785	10,544	388	3,321	29	13	3,208	1,251	13	7	4,423	15,141	19,564	23,261
Surat ...	731	78	52	72	206	145	52	50	...	...	1,041	345	1,386	416
North Thána ...	...	1,507	...	418	925	504	22	...	...	...	947	2,429	3,376	2,987
West Thána ...	274	2,258	...	655	475	189	...	...	...	...	749	3,102	3,851	3,424
East Thána ...	193	3,439	35	349	459	383	...	...	...	...	687	4,171	4,858	4,097
South Násik ...	129	3,225	7	434	981	184	9	...	...	2	1,126	3,845	4,971	5,105
North Násik ...	...	4,153	...	515	3,494	868	1,234	1,060	...	95	4,728	6,691	11,419	12,790
Násik sub-division ...	...	1,947	...	148	4,209	477	1,735	...	...	23	5,944	2,595	8,539	8,893
Total, 1916-17 ...	2,112	27,151	482	5,912	10,778	2,768	6,260	2,361	13	127	19,645	38,319	57,964	...
Total, 1915-16 ...	1,283	27,985	347	5,010	12,546	8,499	3,557	1,466	69	211	17,802	43,171	...	60,973
Average for the past three years ...	1,314	23,466	346	4,037	12,535	6,440	4,230	1,835	66	120	18,491	35,898	54,399	...

Panch Mahals.—The number of grazing offences was 843 involving the impounding of 19,564 cattle as compared with 864 involving 23,261 in the last year. But last year's figures were double those of the previous year and were excused on the two-fold ground that it was a year of scarcity causing an influx of outside cattle with turbulent owners and that to save fodder-grass strict protection was necessary. The Divisional Forest Officer is being asked to explain his figures of offences under all heads as this seems an instance in which lawlessness under exceptional circumstances threatens to become a habit unless promptly checked. It may be the increased figures indicate the necessary checking process.

Surat.—Figures are only remarkable for an unusual amount of trespass in Mándvi in June and July when all jungles are closed. The Conservator doubts the necessity of such a rule, but it is said to be of long standing and the number of cattle involved is not very great. The matter will receive attention in the coming season, change towards laxer control being undesirable without good reason.

North Thána.—Returns from this division are fairly normal showing an increase of 12 per cent. above the comparatively small average total of 3,000 cattle impounded, which was also the total of the last year. Of the total something over 50 per cent. are cows and bullocks from closed forest and 43 per cent. were goats from all forests. Of the increased number impounded 50 per cent. were buffaloes from closed forest and 50 per cent. cows and bullocks and goats, all from closed forest. The result is satisfactory, though as the Divisional Forest Officer points out better results are likely to accrue under the revised working plan.

West Thána.—The figures of this division correspond very nearly with those of North Thána; with more open country the total impoundings are slightly larger, viz., 3,851 which is an increase of $10\frac{1}{2}$ per cent. on last year's figure. Of the total 60 per cent. are cows and bullocks from closed forests while buffaloes from closed forests and goats from all forests each form 17 per cent. Of the $10\frac{1}{2}$ per cent. increased impoundings, 6 per cent. are buffaloes from closed forests and $4\frac{1}{2}$ per cent. are goats from all forests, representing an increase of 50 per cent. in the number of buffaloes impounded and 33 per cent. in the case of goats. These results taken in connection with materially improved fire protection are very satisfactory, and as mentioned under North Thána the revised working plan should show improved protection.

East Thána.—This division shows much the same conditions, but Igatpuri being open country swells the total impoundings which are 4,858, showing an increase of about 12 per cent. on last year's figures. Seventy-one per cent. of the total are cows and bullocks from closed forest, 17 per cent. are goats from all forests and $8\frac{1}{2}$ per cent. are buffaloes, chiefly from closed forest. Eighty-seven per cent. of the increased impoundings are cows and buffaloes from closed forest. The Divisional Forest Officer explains the increase as due to cultural operations for which guards are yearly being made more responsible. In self-defence they become keener on keeping the closed forest free of cattle.

The reason is logical and probably correct. The revised working plan will increase this tendency.

South Násik, North Násik and Násik Sub-division.—All these charges show slightly improved results and call for no remark except that the present arrangement of closure in the Násik district handicaps any effort to protect the forests from cattle. As soon as possible the system of closure will be revised as part of the general revision of the working plan. Igatpuri, as formerly under Násik, is similarly afflicted.

Central Circle.

One thousand six hundred and seventy square miles, representing pastures and protected forests in charge of the Revenue Department, were open to all animals throughout the year. Of the 3,730 square miles in charge of the Forest Department, 616 square miles or 17 per cent. being organized areas under regeneration, were permanently closed to all animals, and 119 square miles or 3 per cent. of kurans were kept closed during the grass-cutting season but opened to grazing of horned cattle in the hot weather; 2,995 square miles or 80 per cent. were open to all animals but browsers throughout the year.

The following statement compares the numbers and kinds of cattle impounded from open and closed forests, the total impoundings for the jurisdiction of the Commissioner, Central Division, being 43,087 as against 46,820 in the previous year; from open areas the figure is 16,680 as against 14,491, from closed areas 26,407 as against 32,329 :—

Division.	Cows and bullocks.		Buffaloes.		Goats.		Sheep.		Other animals.		Total.		Grand total.
	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	
East Khándesh ...	529	5,537	156	1,878	414	377	1,927	410	26	35	3,052	8,237	11,289
West Khándesh ...	111	5,163	9	857	1,569	...	2,699	...	66	128	4,454	6,148	10,602
North Khándesh ...	32	4,957	22	721	171	121	...	...	...	3	225	5,802	6,027
Poona ...	653	2,905	61	319	3,297	654	1,946	230	14	67	5,971	4,165	10,136
Sátára ...	5	1,682	...	321	743	50	2,330	2	...	...	2,978	2,055	5,033
Kolába ...	5	2,536	32	661	452	166	...	...	...	...	470	3,363	3,842
Total, 1916-17 ...	1,335	22,780	280	4,757	6,646	1,368	8,602	642	106	223	17,159	29,770	46,929
Total, 1915-16 ...	2,131	27,859	341	4,050	7,706	1,208	4,947	1,949	117	258	15,242	35,324	50,566
Average of past three years.	1,491	23,489	195	3,516	9,802	2,002	7,352	1,094	219	253	19,061	30,356	49,417

The net decrease in impoundings for the circle is 3,637, those from open forest having risen by 1,917, those from closed forest fallen by 5,554. The only points that call for remark are that in every division but Kolába there has been a considerable decrease in the number of horned cattle impounded, while sheep and goat trespass, these animals being forbidden in any forest in charge of the department, has largely increased in Poona and West Khándesh and slightly increased in East Khándesh. That impoundings of horned cattle from closed areas should have been less than those of the previous year, may be put down partly to the abundance of grass after a favourable monsoon, partly to efficient protection by the forest staff, while the fact of the same animals having had to be impounded in less numbers from open forest indicates that their owners realized that it was better to pay the fees at once with a good grace than to refuse to do so, and thereby have to pay pound fees and compensation for each occasion of trespass, and inevitably the grazing fees as well later on; at the same time there are still many attempts on the part of the people to evade payment, for in Poona no less than 17,708 animals had to be charged for at double rates, they being caught in the forests after the prescribed date and their owners having declined to pay until they were actually caught. In the same division it is estimated that quite 10 per cent. of the cattle for which fees were eventually paid were caught trespassing, and had to be taken to villages before payment took place; the owners, of course, when the trespass was in open forest, could avoid impoundment by paying, but the unnecessary labour thrown on the forest staff was enormous. The effect would be salutary if the rules could be so amended that owners who pay voluntarily within the prescribed date be charged the single fee, while those who evade payment until caught be charged double.

Comparison of the number of horned cattle impounded with the number admitted to graze in forests free or on permit is interesting, the figures being 29,160 and 8,59,337, or slightly over 3 per cent., proof positive that no excessive hardship is caused to the public by the protective measures enforced. The hardship is all on the State, for in this circle most of the forests are hopelessly overgrazed and that too by useless animals; were none but such as are of value kept and stall feeding adopted, the advantage to both sides would be great, impoundings would decrease and the forests be more quickly regenerated. The grazing rules, it is true, allow of limitation of numbers of cattle to be admitted to given areas, but so long as the cattle exist in such quantity facilities have to be provided somehow, and the rules remain a dead letter. The whole question is now before Government in the form of a suggestion made by the Inspector General of Forests as to the possible superiority of the Central Provinces' system, and under which differentiation of fees according as the cattle are kept for agricultural purposes or for profit tends both to reduction of useless animals and to less pressure on the forests, and that too with no decrease in revenue obtained.

Southern Circle.

The details of area open and closed to grazing are given in Form No. 16. An abstract is given below :—

Year.	Closed to all animals for whole year.	Closed to all animals for part of year.	Open to all animals (except browsers) for whole year.	Open to all animals for whole year.
	Per cent.	Per cent.	Per cent.	Per cent.
1916-17 ...	20.9	0.3	73.2	5.6
1915-16 ...	15.3	0.3	78.8	5.6

The above figures do not, however, furnish an accurate comparison, as the numbers furnished by the Divisional Forest Officers in previous years were not quite accurate.

The number of cattle that grazed in the forests during the past three years are compared below :—

Year.	Horned cattle.	Sheep and goats.	Other animals.	Total.
1916-17 ...	488,167	1,386	477	490,030
1915-16 ...	468,991	6,328	704	476,023
1914-15 ...	462,441	2,135	739	465,315

The following table prescribed in Government Resolution No. 4081 of 22nd April 1908 gives the comparative details of cattle impounded for illicit grazing :—

Division.	Cows and bullocks.		Buffaloes.		Goats.		Sheep.		Other animals.		Total.		Total open and closed for 1916-17.	Total open and closed for 1915-16.
	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.		
Kánara N. D. ...	58	1,768	19	471	...	37	...	...	...	...	70	2,261	2,331	1,975
Kánara E. D. ...	...	897	...	195	28	121	...	1	...	...	28	1,504	1,232	986
Kánara C. D. ...	12	120	...	21	...	190	...	9	...	...	12	340	352	833
Kánara S. D. ...	71	49	6	14	63	...	8	...	...	...	148	63	211	433
Kánara W. D. ...	...	255	...	45	...	...	...	...	...	...	...	301	301	430
Belgaum ...	...	1,408	...	948	...	...	...	758	...	9	...	3,118	3,118	5,208
Dhárwar-Bijapur...	89	1,468	10	235	...	1,240	4	1,080	...	25	103	4,098	4,201	3,823
Ratnágiri ...	...	6	...	...	...	...	...	...	...	...	...	6	6	41
Total, 1916-17 ...	230	6,946	28	1,975	91	1,568	19	1,848	...	24	361	11,391	11,752	...
Total, 1915-16 ...	300	6,283	109	2,741	530	2,370	1	920	...	19	940	12,333	...	13,273
Average of past three years.	897	6,990	149	2,527	559	2,449	97	1,132	8	24	1,207	13,123	...	...

The impoundings have on the whole decreased in all divisions except Dhárwár-Bijápur, where those of sheep in closed areas rose from 222 last year to 1,080 this year on account of persistence in contravention of rules. The people are, however, beginning to learn that cattle are not to be grazed in closed forest.

Sind Circle.

93.9 per cent. of the forest area was open to the grazing of cattle except goats and camels. The latter animals were admitted to 561.72 square miles of forest or 64.8 per cent.

Impoundings.—There has been a general decrease in the number of impoundings in the forests of the province as compared with the figures of last year and those of the past three years; the table at the end of this paragraph shows details. In Lower Sind this was due to the exceptionally favourable condition of rainfall in the Kohistán hill tract, which resulted in large numbers of cattle remaining away from the forests throughout the year. In Lárkána the decrease is ascribed to the energy displayed by subordinates in reporting illicit grazing cases previously, while in Sukkur it is stated that the herdsmen found the yearly grazing fees much cheaper than those levied under the bi-monthly system and registered most of their cattle. Temporary cattle pounds for the control of gormal (semi-wild cattle) were opened in certain forests frequented by these animals.

In Sukkur 155 cattle were caught, the revenue from fees being Rs. 171 and the expenditure Rs. 115. In Lárkána 12 cows were caught in the Amrot forest, fees being Rs. 12 and expenditure *nil*, while in Hyderabad 126 cows and calves were caught in nine pounds in the Hála and Sakrand ranges and Rs. 134 recovered from their owners, the pounds having been managed without expense by literate sub-rangers or guards in addition to their own duties.

The result is still not very satisfactory. The animals, though easy to approach are shy and difficult to catch. They are animals for which no grazing fees are paid, and their condition of gor or semi-wildness is brought about by their being turned loose by their owners to live in the forests night and day. The remedy is to insist that all cattle should be driven by herdsmen at night to their folds by their owners, the people avoid this in order to avoid paying fees during the period when their animals are out of milk. The help of the Revenue Department must, and will be sought. Injury is chiefly done to the young coppice shoots by browsing, and to seedlings by trampling.

Newly exploited coupes were fenced with waste branchwood. The total length of new fences put up amounted to 349½ miles.

Repairs to existing fences were carried out over 692¾ miles. This work was done by forest guards free of cost with the help of maldars and coupe contractors. Special effort was made this year to start fencing coupes containing coppicing species directly felling operations began.

The animals impounded during the year compared with those of the preceding year are shown in the subjoined table as required by Government Resolution No. 4081, dated 22nd April 1908:—

Impoundings.

Division.	Cows and bullocks.		Buffaloes.		Sheep.		Goats.		Camels.		Other animals.		Total.		Total of open and closed.	
	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	1915-16.	1916-17.
Sukkur	606	883	371	509	76	...	1,687	1,629	387	481	52	166	3,179	3,047	7,201	6,825
Lárkána	129	387	225	185	...	39	166	1,152	104	420	...	15	624	2,198	4,113	2,822
Hyderabad	138	554	197	463	...	...	296	394	65	186	8	141	704	1,738	2,796	2,442
Jerruck	397	479	215	372	21	39	83	390	83	393	95	153	894	1,826	4,048	2,720
Total, 1916-17.	1,270	2,303	1,008	1,529	97	78	2,232	3,565	639	1,480	147	475	5,401	9,409	...	14,810
Total, 1915-16.	1,575	3,549	595	1,589	4	366	2,796	4,636	537	1,954	185	372	5,692	12,466	18,158	...
Average of the past three years.	1,266	3,246	512	1,591	175	212	3,391	4,152	528	1,282	123	260	5,994	11,079	...	...

(d) *Protection against Injuries from Natural Causes.*

Northern Circle.

In Surat Rs. 343 were spent by employing parties for creeper cutting. Perhaps special circumstances of the locality justify this, but careful check is required; for, as in the case of broad-casting seed, the amount of work done is very susceptible of exaggeration. Generally the cut creepers are a valuable criterion that the protective officer has passed that way, and it is extraordinary the amount of creepers that can be cut in that way, making extra expense undesirable.

In the Dahisar range of North Thána and the Bassein range of West Thána small contracts were given to men who cut the creepers for the resulting firewood. In the latter range Rs. 1,388 were realized in this way. In all divisions creepers are reported to have been cut by guards.

In the Umbergaon casuarina plantation 20,000 healthy seedlings were destroyed by a small moth. Specimens were sent to Dehra Dun for identification and advice.

Central Circle.

In all divisions cutting of climbers was carried out by guards. In Kolába coupe contractors were made to clear out *Euphorbia* or other growth that interfered with regeneration. In Poona eradication of prickly-pear from babul coupes took place at Government expense, 20,250 cubic feet being removed at cost of Rs. 36; and a further useful work consisted in the freeing of some 15,000 seedlings in teak coupes which were in danger of being suppressed or choked by surrounding growth. Both in Poona and Sátára construction of 'tals' went on; in the former over one running mile being built at a cost of Rs. 101, in the latter 211 new 'tals' were built for Rs. 45; the value of the work in preventing erosion and in forming suitable plots for artificial plantations behind the 'tals' was very apparent.

Southern Circle.

In Kánara W. D., a strip varying from 15 to 40 feet wide along the greater length of the Kodibág casuarina plantation was eroded by the heavy tides of June. Over 100 trees came down. The Public Works Department are taking steps to prevent further erosion by putting up "groins" in the sea and a dam of sand and dry stones inside the plantation at the most dangerous spot, where also, further in, a large area of rice land is threatened. Wild elephants and pigs did some damage to forests in the Supa and Dándeli ranges. Defoliating insects (*Eupterote castanea* and *Hyblaea puera*) again attacked the teak over a considerable area in the Kánara Northern and Central Divisions. In some of the teak nurseries in Kánara E. D., many of the largest plants were attacked and destroyed by the larvæ of beetles. In Kánara S. D., the casuarina trees in Kasarkod and Haldipur suffered to a certain extent from caterpillars of *Arbela quadrinotata*; the damaged trees were cut and sold. Prickly-pear, which is a pest in the Bijápur forests, was removed by villagers as far as possible without extra cost to Government. *Lantana* continues to spread in the Haliyál teak pole area in Kánara N. D., and in parts of Dhárwár, and it is difficult to check its growth. The floods of the Krishna and other rivers of Bijápur, which were very high this year, did some damage to babul kurans by uprooting the trees on the banks. The planting of zili (*Sesbania ægyptiaca*) along the banks is being continued with a view to check erosion as far as possible.

Sind Circle.

The weather in the cold season was not severe on the whole and young plantations were not seriously injured by frost in any division. Rats were troublesome, and did some damage by gnawing the stems of young trees below the ground. Porcupines also gave trouble in the plantations of tali (*Dalbergia Sisoo*) in the Sukkur division where they tore the bark off young stems; a spring trap is being experimented with a view to get rid of these animals which usually do damage at night. The defoliating caterpillars appeared in enormous numbers in the southern forests of the Jerruck division, and the damage done by them was considerable. Large trees as

well as the smallest seedlings were attacked, but the injury caused actual loss only in the case of the latter. Kamo creeper cutting was carried out by the staff, and in the Jerruck division also by contractors in a large area under thinning operations in all ranges. Small contracts were also given for the removal of creepers in some areas in this division.

4.—SYLVICULTURE.

(a) *Natural Reproduction.*

Northern Circle.

(i) *From seed.*—While most divisions made good efforts, by tending, at establishing natural seedlings which otherwise would have perished, only the three Thana Divisional Officers record exact extent of operations and results. These were very encouraging, percentages of successes varying from 25 to 50 per cent. as a rule, and occasionally as high as 90 per cent. All Divisional Forest Officers are being asked to record similar data in future.

(ii) *By coppice.*—This is everywhere good, though naturally less vigorous above than below ghâts. Everywhere more or less tending is necessary for its success.

Central Circle.

Conditions as regards rainfall were favourable, and reproduction by seed, that is to say in so far as germination and the first appearance of seedlings was concerned, left little to be desired. The difficulty is to ensure the seedlings withstanding the effects of drought, weeds, fires and grazing, and that is where artificial measures come in. Reproduction by coppice also, so far as nature is concerned, is entirely satisfactory, though in this respect too heavy toll is taken by fires and grazing. The one exception to good natural reproduction either by seed or coppice is found in the case of the anjan in Khândesh, where not only can a good seeding not be counted on more than once in three years, but also a very large proportion of felled trees fail to coppice at all. The absence of regeneration in coupes was much commented on by the Inspector-General, who in the light of Central Provinces experience gave valuable advice as to experiments which should be carried out, both as regards preparation of the soil to form a more favourable seed bed, and as regards season of felling which may possibly affect coppicing, and adoption of the system of felling the trees at varying heights above ground instead of as is now done flush with it, for, as he pointed out, the standing growth afforded ample evidence that pollarding the anjan almost invariably produced good results.

In Poona and Sátara the natural extension of sandalwood is very noticeable in some localities, affording the promise of good revenue in years to come from this most valuable species.

Southern Circle.

(i) *From seed.*—The year was again very good for teak, the other valuable species such as matti, honni and sissum also seeding well. As the year 1915 was excellent for teak seed, the vast number of seedlings, which lay dormant in 1916, have come up in the rains of 1917. The work of weeding and mulching the natural seedlings has been receiving special attention with satisfactory results everywhere.

(ii) *By coppice.*—Regeneration by coppice was, as usual, good in all the forests worked under this system, though, unfortunately, fires again devastated many of the old coupes in the the Khánápur Central and East ranges and destroyed both seedlings and coppice. Where the young growth gets a fair chance, it does splendidly and with a little help soon establishes itself. In Kánara W. D. it was noticed that jamba coppice was very susceptible to fires, in some places whole groups of it being completely burnt. The stumps, however, are again coppicing. Mr. Hodgson, Divisional Forest Officer, Kánara N. D., is experimenting with regard to his observations on the effect of fire on teak seedlings, mentioned in the last annual report, and his report is awaited.

Sind Circle.

(i) *State of existing reproduction.*

The area flooded was 4,47,753 acres compared with 2,71,093 acres of the previous year. The rains in Lower Sind were also plentiful. In consequence natural regeneration from seed was good everywhere. Seed had been scattered profusely throughout the forests of Lower Sind by the large number of famine-stricken cattle which grazed in them and on the babul pods prior to the inundation season of 1916, and in Jerruck division the forests of Viran, Sonda and Hillaya were entirely closed to browsers in order to take full advantage of the extensive natural seeding above referred to. The only setback in Lower Sind was due to the fact that some areas under regeneration received such a depth of flood water that both natural seedlings and coppice shoots died.

(ii) *Measures for inducing or aiding reproduction.*

There was no felling or girdling of inferior species with a view to open the canopy as this is not necessary under the system adopted, scorched trees not yet dead were cut back in three divisions for fresh coppice shoots. All debris left in coupes after felling was burnt where this could be done without endangering the forest, in order to provide a good seed bed for future babul regeneration, and areas not fully stocked naturally were broad-casted with seed after the inundation season.

Thinnings in natural crops were carried out in all divisions in babul areas; the details are as follows:—

<i>Division.</i>	<i>Material.</i>	<i>Price realized.</i>
Larkana ...	390 trees.	Rs. 310.
Hyderabad ...	19,030 c. ft. 223 pieces.	Not yet sold.
Jerruck ...	Over 765 acres.	Rs. 9,255.

(b) *Artificial Reproduction.*

Northern Circle.

Regular plantations.

The only regular plantations are of casuarina in North and West Thana, all under the Divisional Forest Officer, North Thana. Rs. 2,458 were spent on four plantations and planting up 27 acres; 10,000 plants were put out and are doing well.

Cultural operations.

Panch Mahals.—A statement shows that 385 maunds of seed, chiefly *Terminalia tomentosa* and *Tectona grandis*, were dibbled in blanks in all ranges at a cost of Rs. 206 but the only result recorded is that the germination of teak was not satisfactory. From the Godhra nursery 10,745 teak and 2,155 plants of other trees were transplanted into exploited coupes. They were subsequently mulched and shaded with recorded good result.

Surat.—In the Bulsar range 69,500 plants were raised in the Welwach nursery and 32,025 in the Delwada nursery at a cost of Rs. 319 and Rs. 50 respectively and 24,175 teak, 8,700 tanach, 4,500 shisam and 100 beo were transplanted to old coupes without recorded result. In the North Dangs 15,000 teak and 2,300 shisam were planted out, of which 9,845 teak and 1,500 shisam were living in the month of May, when there were as many more seedlings ready to plant out.

All three Thana divisions showed even better results but detailed record conveys very little and abbreviated record must fail to do justice. It is rightly recorded in the divisional reports and is appreciated there.

South Nasik division has not had a chance owing to the constant change of officers, but will probably do well though under a climate less favourable for such operations.

North Nasik and Nasik Sub-divisions have a yet more difficult task and will probably do well to limit themselves to natural seedlings or those raised

by dibbling. For instance, in the present monsoon Málegaon had little over one inch of rain up to the end of August. Not much can be done on that.

Central Circle.

Regular plantations comprise the restocking of casuarina coupes in Kolába by planting out seedlings grown in nurseries, and by sowing of seed in the babul coupes in Poona and East Khándesh. Results were generally satisfactory.

Cultural operations received much attention in Poona, Sátara and Kolába, and it is clear that a system has now been found which shows the possibility of obtaining definite results, which has never been the case in the past, and of greatly adding to the value of these forests in the future. The work which had its inception in Kánara lies in the mulching and tending of young plants, either the natural ones which spring up with the monsoon, or artificial ones put out from nurseries. The system being more or less in its infancy, precisely the best methods of work are at present a matter of experiment, one division, Poona, maintaining that raised mounds and beds are essential for success, while Sátara and Kolába claim equally good results from level beds or pits; probably the main factors are the thorough working of the soil before planting and the amount of tending that the plants receive in the ensuing hot weather. What can be said with certainty is that the work has been taken up with enthusiasm in all three divisions with so far much success, that there is enormous scope for its extension, and that it has reached a stage at which considerable expenditure on it in future will be justified. Kolába records the successful establishment of 55,000 plants at the close of the year, while in Poona it is said that of 80,000 seedlings, mostly teak, 70 per cent. survived including many which had been temporarily cut back by fire; both most creditable results. Sátara gives no actual figures, but the Conservator himself saw the good work done in several places in that division. Khándesh at present has not been uniformly so successful in the matter, nor is there so much scope for it there as for other measures of regeneration; still of 65,000 seedlings treated in North Khándesh 25 per cent. are said to have survived.

Southern Circle.

Regular plantations.

The *casuarina* plantations on the Kánara and Ratnágiri coast were extended by 37 and 3 acres, respectively, at a total cost of Rs. 4,464. All the plantations were doing well except the one at Harwáda in Kánara C. D., where a number of plants, planted two to four years ago, have died.

Cultural operations.

Kánara N. D.—In the pole forest area thousands of natural seedlings found in the newly exploited coupes, were weeded and mulched. Jungleground species were planted in areas where only pure teak seedlings were found, as teak thrives better mixed with other species. Some three lakhs of plants were transplanted in the Kulgi range with good results. In the high forest about 30 acres were planted up with teak, honni and sissum.

Kánara E. D.—The planting and tending of teak and jungleground seedlings was carried on as usual in the coupes newly exploited. Teak and jungleground seed were dibbled in on patches where rubbish had previously been burnt, with fairly good results.

Kánara C. D.—About 230 acres of forest were sown with teak seed. Thousands of teak and matti seedlings were planted in felled areas.

Kánara S. D.—The *casuarina* coupe cut in 1915-16 was planted up with seedlings raised in the nursery. Teak and jungleground seed was dibbled in in suitable places in the newly exploited coupes.

Kánara W. D.—Natural seedlings were all successfully tended as usual by mulching and freeing them from interfering growth. Teak and jungleground seed were sown in suitable patches. A big nursery was made at Rengani in Gund range, whence teak seedlings were transplanted. The matti plantations made in flat blank areas in the Kadra range last year have survived in about 85 per cent. of cases where the soil was mulched and in every case where this was not done the plants died.

Belgaum.—Natural teak seedlings were weeded, mulched and shaded, and replanted in the case of failures. Teak, junglewood and sandal seed was collected and sown in different places and seedlings of all species were transplanted from nurseries.

Dhárwār-Bijápur.—Seeds of different kinds were sown in all the five ranges of the division. Sandal seed, sown broadcast and dibbled in under the shelter of bushes, was successful in a few cases. Sowing and planting was continued in conjunction with, and supplementary to, natural reproduction by coppice. A few of the seedlings raised last year were destroyed by fire. The agriculture—combined with—forestry operations could not be carried out in the Chickgulbal, Ingalgundi and Mamdápúr coupes of the Bijápur sub-division as the area was under water for several months.

Ratnágiri.—The nurseries and plantations at Harnai, Dápoli, Dhámápur and Tondavli were maintained with due care at a total cost of Rs. 412.

Sind Circle.

Regular plantations.—The regular plantations in Sind are those of tali. There were 301 acres under regular plantation at the commencement of the year, to these 2 acres were added in Larkána and 1 in Hyderabad, making a present total of 304 acres. The details are:—

Sukkur.—Kot Sultan plantation irrigated by Persian wheel. Six plants of *Eucalyptus Stuartiana* were added during the year of which three died; there were few casualties among the tali plants. Expenditure Rs. 293.

Zarkhel plantation irrigated by a water channel with distributaries from the Sherwáh. Expenditure nil.

Rahuja garden.—Many plants of species of citrus were put out this year, and orders issued to graft varieties of orange on to these. The whole garden has been well weeded, and some of the old tali trees thinned to make room for other trees not indigenous to Sind. All fruit trees did well except the vines which have got old. A corner of the garden has been cleared at the Collector's request for the introduction of the wild hill olive (*Olea cuspidata*). If this species thrives on the plains it is proposed by this department to graft on to it the European olive (*Olea Europea*) which has a much better yield of oil and which having failed to ripen its fruits at Siálkot in the Punjab is not likely to succeed from seed in Sind. Grafts can, it is believed, be obtained from Kashmir. The expenditure on the Rahuja garden during the year was Rs. 1,529.

Hyderabad.—In Hyderabad one acre was added to the Shah Makai plantation for tali; the area now stands at six acres and the yearly expenditure was Rs. 86.

The Monument, Miani bungalow and the small gardens of mango and divi divi in the Miani range were maintained at a cost of Rs. 1,069.

Jerruck.—The regular plantation for tali in the Jerruck division is at Khatro, the area being 23 acres. The plants are doing well and were pruned during the year. Means have been devised to secure irrigation in future for most of the plantation by flow from a small canal *ex* the Fuleli. In this plantation tarwad (*Cassia auriculata*) was sown in 1912; the plants are at present some 20 feet in height in this alluvial soil, and specimens of bark have been sent to Maihar to be tested for tannin.

Cultural operations.—One thousand five hundred and fifty-six acres of uplands were treated under the system of agriculture with forestry in all divisions, the assessment paid being Rs. 2,981 which was credited to the Revenue and Public Works Departments by book transfer. Only in the Jerruck division where in the Katiar range Mr. Nenumal has shown good supervision can the results be called really satisfactory. Tarwad seed germinated in the Bahman forests of Larkána and the seedlings are said to be doing well.

In exploited coupes 11,777 acres were broadcasted with 3,126 maunds of babul and kandi seeds; results in riverain areas after a good inundation were on the whole good, but a second flood late in August rather upset the calculations of some of the Rangers and covered up the germinated seeds. These

were resown except in a few arrears which will be sown up this year. Attention was paid to the resowing of coupes where germination had not succeeded and kachas, high enough to keep the resultant seedlings, which had silted sufficiently above flood water, were also broadcasted with seed especially in the Larkana and Jerruck divisions.

(c) *Operations for the Improvement of the Growing Stock.*

Northern Circle.

Panch Mahals.—In two blocks of Godhra, one in Kalol and one in Halol, badly grown teak were cut back in formerly exploited coupes and branches of other species threatening teak were cut back.

North Thana.—Seventy-nine coupes formerly exploited were thinned in favour of teak at a cost of Rs. 2,333. The pick of the material was sent to railway and bunder depôts while the inferior material was sold locally. The total amount thus realized was Rs. 4,825.

East Thana.—Similar thinning was done in 40 coupes at a cost of Rs. 950. The best injaili and teak went to the Military and the balance sold locally. Gross realization amounted to Rs. 3,096.

Central Circle.

It is under this heading that the teak bearing forests of Khândesh come into prominence, not so much to give a record of work carried out as to emphasize its necessity in future. The forests are now full of stunted, unsound, misshapen trees of neither present nor future value, and their removal and replacement by sound coppice was a point on the need for which the Inspector-General of Forests laid great stress; in theory removal in the past has been supposed to be done by contractors, at any rate so far as the larger trees are concerned; in practice contractors knowing the material to be unsaleable have left the trees standing; the new working plan will provide for each coupe being taken in hand after the contractor has finished with it, and for all unsound growth large or small being cut back at departmental expense. Needless to say, if the work is to be of full value fires must be kept down.

Southern Circle.

In all divisions the usual operations were conducted on a larger scale than ever before: creepers were cut, broken trees cut level with the ground, inferior species girdled and improvement fellings made; the bamboos interfering with the growth of teak were also cut; thinnings, cleanings and prunings were carried out in all the *casuarina* plantations on the Kanara and Ratnagiri coast.

Sind Circle.

Kamo creepers (*Phyllanthus reticulatus*) were cut in all divisions and the khabar creeper (*Salvadora Persica*) also in the Jerruck division. Thinnings were undertaken in all divisions this year and in Jerruck on a fairly large scale, the operations extending over 765 acres and the amount realised being Rs. 9,255.

In Hyderabad mutilated trees were cut back under the orders of the Deputy Conservator.

5.—EXPLOITATION.

(a) *System of Management.*

(i) *Major Forest Produce.*

Northern Circle.

Statement of area of various systems of exploitation in force with percentages:—

Division.	Method of clear felling by compartment.		Uniform Method.		Group Method.		Selection Method.		Simple Coppice.		Coppice with standards.		Method of Improvement.		Unworkable area and area not under Working Plan.	
	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.
Panch Maháls ...	...	...	114	34.4	...	...	...	...	...	...	164	49.4	26	7.8	28	8.4
Surat ...	...	...	...	...	...	...	...	...	...	...	68	9.4	159	22.0	497	68.6
North Thána ...	...	...	307	94.4	...	...	16	5	...	...	...	...	...	...	2	0.6
West Thána ...	...	...	309	95.9	...	...	...	...	...	...	...	...	...	...	13	4.1
East Thána ...	...	...	396	87.3	...	...	...	...	...	...	...	...	68	12.7	1	...
North Násik ...	...	...	...	...	...	...	...	...	...	...	244	49.5	47	9.6	203	40.9
South Násik ...	...	...	...	...	...	...	247	71.6	...	...	71	20.6	...	...	27	7.8
Násik sub-division.	4	1.6	...	...	...	...	...	...	...	...	29	11.2	...	...	225	87.2
Total ...	4	...	1,128	34.6	...	...	263	8.1	...	...	576	17.7	290	9.0	996	30.6

Clear fellings.—These were limited to ten babul coupes of Násik sub-division in the first instance. Subsequently, with the approval of the Inspector-General of Forests, the standards in the coupes of the year in the three Thána divisions were felled in anticipation of the introduction of the revised plan which is under preparation and will introduce the uniform system. Therefore, in the statement the whole of these Thána forests are carried from the heading "Coppice with standards" to that of "Uniform method". A similar change in treatment of the forests of the Eastern Maháls under the authority of the Superintendent of Working Plans should have been shown in the statement in last year's Administration Report.

Selection fellings.—These were confined to the below-ghát forests of the South Násik division.

Coppice with standards.—The forests of the Western Maháls were still included under this method but its application on sylvicultural lines so approximates to clear cutting that the uniform method will be introduced in the coming season except in the Hálol range, the conditions of which require further study. The forests of the Mánvi range of the Surat district and the above-ghát teak forests of North and South Násik divisions and Násik sub-division come under this heading.

Method of improvement.—This is prescribed in the North and South Dangs and Bulsar-Chikhli of the Surat division also the anjan forests of North Násik.

Unregulated fellings.—These, chiefly, for revenue, take place in the Central Dangs of Surat, but must shortly give place to some method for improvement.

Central Circle.

Clear fellings were undertaken in babul and casuarina forests only, 22 babul coupes aggregating 319 acres being felled in Poona and East Khándesh, and 1 coupe of 1 acre of casuarina in Kolába.

Improvement fellings comprising mainly a system of selection of over-mature and unsound trees, were carried out in the Sátputa forests of East and North Khándesh, in the Umarpata, Deomogra, Dhulia and Pimpalner forests of West Khándesh, on the Mahábleshwar and Mátherán plateaux of Sátára and Kolába, and in the Akola and Lonávla forests of Poona. The selection system, pure and simple, is nowhere in force in the circle.

Coppice fellings took place in the teak forests of Poona, Sátára and Kolába, and of the Edlábád forests in East Khándesh.

Of the total organized areas of the circle amounting to 2,301 square miles, 33 square miles are under clear fellings, 1,516 under improvement fellings, and 752 under coppice with standards.

Unregulated fellings in forests consisted solely of extraction of material for free grants in all divisions, of clearance of dead and dying trees in babul forests, and of clearance of rides and views at Mahābleshwar and Mātherān; outside forests, of the sale of royalty trees in occupied lands in all divisions and of reserved trees in unassessed Government waste in West Khāndesh.

Southern Circle.

The systems of management were the same as before.

Clear fellings.—These were carried out in the coast casuarina plantations of Kānara on an area of 17 acres realizing Rs. 147 per acre and in babul forests of Bijāpur, where two coupes measuring 19 acres in all were exploited, realizing Rs. 72 per acre.

Selection fellings.—The following operations were carried out in the Kānara divisions in accordance with the provisions of the sanctioned working plans:—

Division.	Number of trees cut.		
	Teak.	Blackwood.	Junglewood.
<i>Organised Area.</i>			
Kānara Northern	1,831	73	863
Kānara Eastern	3,267	.....	1,119
Kānara Central	107	60	1,300
Kānara Western	687	19	219
Total, 1916-17 ...	5,892	152	3,506
Total, 1915-16 ..	9,501	469	3,794

Exploitation in Gund range of Kānara W. D. is somewhat in arrears in respect of junglewood for want of a road but, in view of the progress made in road construction up the Kālinadi valley, the girdling operations this year have been extended to nandi and matti in the hope that, by the time the felling is due, it will be possible, and will pay, to bring these timbers down to Kodibāg depôt. In Kādra range high forests, besides teak, the usual junglewood species were exploited.

Improvement fellings.—These were carried out as under:—

Division.	Number of trees cut.		
	Teak.	Blackwood.	Junglewood.
Kānara Northern	10,373	1,749	3,081
Kānara Eastern	3,424	.....	56
Kānara Western	439	.....	3
Total, 1916-17 ..	14,236	1,749	3,140
Total, 1915-16 ..	11,321	750	573

Coppice fellings.—This method of exploitation, which is most common, was adopted in all the divisions except Ratnágiri as under :—

was adopted in all the divisions except...				
Division.	Area in acres.	Revenue per acre.		Quality.
		1916-17.	1915-16.	
<i>Organized area.</i>				
Kánara N. D. ...	1,710	Rs. 94	Rs. 118	Teak poles, timber and fuel.
Kánara E. D. ...	1,368	19	20	Teak poles and fuel.
Kánara C. D. ...	258	23	22	Do. do.
Kánara W. D. ...	681	22	25	Do. do.
Belgaum ...	{ 78	68	202	Logs, poles and fuel.
	{ 2,200	71	85	Railway fuel.
Total, 1916-17 ...	6,295	59	...	
Total, 1915-16 ...	5,833	...	65	
<i>Unorganized area.</i>				
Kánara S. D. ...	538	12	17	Timber and fuel.
Kánara W. D. ...	356	37	8	Railway fuel.
Belgaum ...	3,501	5	4	Local fuel.
Dhárwár-Bijápur ...	1,672	5	22	Poles and fuel.
Total, 1916-17 ...	6,067	7	...	
Total, 1915-16 ...	6,768	...	10	

The revenue realized per acre shows a decrease below that of last year owing to dislocation of business caused by the war and consequent want of bidders for standing coupes.

Unregulated fellings.—In all the divisions, except Kánara Western division and Ratnágiri, dead sandalwood trees exploited from various jungles were converted into billets of different sorts, which fetched a revenue of Rs. 46,482 as against Rs. 36,761 in the previous year.

In the Kánara Eastern and Southern divisions and Dhárwár-Bijápur, 721 junglewood trees exploited in various jungles fetched Rs. 741.

In the Kánara Western and Belgaum divisions extraordinary fellings were made in the most suitable areas for supplying the following material to the Military Department, Bombay, for war purposes :—

Junglewood poles	... 21,131 No.
Junglewood logs	... 9,593 c. ft.
Mango planks	... 4,620 running feet.
Bamboos of sorts	... 201,150 No.

The value of the material was not fully credited during the year.

Sind Circle.

Clear fellings with some reserves to provide large timber.—Seventeen thousand four hundred and eighty-eight acres of forest were exploited under this system in accordance with the provisions of the working plans, as compared with 16,691 acres during the previous year. After exploitation, the branchwood not required for the fences was burnt where feasible and advisable, and the soil resown with babul and kandi seed either broadcast or in drills. With the permission of Government the maximum girth of babul reserves was increased from 25" to 36", it having been found that there were few small trees and that these could not attain the girth of 60" (the minimum required for a

good log by the Gun Carriage Factory at Jubbulpore) during the short rotation of 30 years. The stools of kandi and bahan were carefully coppiced everywhere.

Improvement fellings.—These include the cutting back of material in burnt areas, and the levelling of stumps of trees illicitly cut.

The statistics are as follows :—

In Sukkur 204 acres of burnt area were worked over, the material realizing Rs. 600;

In Larkana 348 acres of burnt area were exploited, the material realizing Rs. 4,400;

In Hyderabad the cutting back of mutilated trees yielded 1,061 maunds of fuel which will be sold during the ensuing year;

In Jerruck 82 acres containing a little burnt wood were worked over, this burnt material yielding Rs. 80.

Unregulated fellings.—These include the removal of wood in erosion fellings, all wood actually dead whether standing or fallen, free grants, and wood cut to meet the urgent demands of the Public Works and other departments. Statistics are as follows :—

In Sukkur 4,829 acres were cleared against 1,292 acres in the previous year; this included the site of the Quetta Military Farm near Ruk and a little area cleared for the central passage of the Indus.

In Larkana owing to good competition 803 dead and fallen trees yielded Rs. 3,525. The area cleared for fear of erosion was only 35 acres against 247 acres of the previous year.

In Hyderabad the area cleared was 141 acres against 107 acres of the previous year.

In Jerruck 85 dangerous trees along the river frontage of Budka realised Rs. 100. Forty-two dead stumps in Khatro and 120 dead stumps in Hillaya yielded Rs. 60, and 374 acres threatened with erosion were exploited in the forests of Ach Marho and Allahbux in Shah Bunder range (being coupes prescribed for 1917-18) and yielded Rs. 4,070. Two thousand seven hundred and fifteen babul and 6,945 lye stakes were cut by the Public Works Department at a cost to them of Rs. 956.

(ii) *Minor Forest Produce.*

Northern Circle.

This is worked without fixed plan as public demand requires consistently with the well-being of the forests:

Central Circle.

This is disposed of as occasion demands by departmental collection and sale, or by farming the right of collection, or on permit. Under the first method mhowra seed and hirda form the main items, yielding respectively Rs. 4,938 and Rs. 5,159; under the two latter hirda yielded Rs. 11,001 and grass and grazing Rs. 2,79,661. Other minor products, roshagrass, leaves, pods and fruits, bamboos, earth and stone, brought the total revenue to Rs. 3,38,845 as against Rs. 2,97,381 in 1915-16.

Southern Circle.

The systems of exploitation as detailed in Form No. 20 were the same as last year except that a large number of bamboos were departmentally extracted for supply to the Military Department; a small quantity of hirda was also collected by departmental agency in Kinará E. D. for experimental purposes. The total revenue from minor forest produce was Rs. 1,95,789 against Rs. 1,89,089 during 1915-16.

Sind circle.

Form No. 20 gives details.

Minor produce was farmed out to contractors. This includes lac, babul pods, grasses. Fishery rights produced Rs. 44,104. Of these there was a great demand for lac, the contracts rising from Rs. 675 to Rs. 17,100. Efforts were made to induce the insect to spread to fresh compartments by cutting the topmost branches of suitable trees to obtain succulent shoots on which alone the young larvæ can exist, while branches of seed-lac were tied in close proximity on the leeward side. The results will be noted during the ensuing year. It was noticed that the insects from seed-lac which had swarmed on old branches had died.

Revenue from grazing realized Rs. 37,950.

(b) Agency of Exploitation.

(i) Departmental Agency.

Northern Circle.

This was confined to the North Dāngs by which 5,359 logs of teak measuring 3,787½ khandies (of 12½ cubic feet) and of other species 963 logs totalling 811½ khandies were felled and taken to the sale dépôt at Fort Songad station (Tapti Valley Railway). The Subir saw-mill also prepared the following:—

12,006 narrow guage sleepers	} All teak.
16,326 sizes of scantlings	
1,34,668 battens.	
10,345 boards.	

Central Circle.

Fellings under this heading are confined to as small limits as possible, nearly all coupes being sold standing to contractors; for the supply of fuel to Mahāleshwar Rs. 5,537 were spent on the departmental extraction of 3,64,326 cubic feet, the resulting price being Rs. 11,518; at Mātherān 65,676 cubic feet were extracted, the cost being Rs. 4,818 and the revenue Rs. 7,037. From the Poona babul forests, 1,08,861 cubic feet, the results of floods, windfalls, erosion, and dead and dying trees, were cut by the department and sold for Rs. 8,453. As regards minor produce mhowra seed was collected departmentally in North and West Khāndesh, the net revenue being Rs. 1,354, and hirda collected on the share system in the Rājūr and Akola ranges of the Poona division realized Rs. 3,732.

Southern Circle.

The works carried out under this head comprise timber and sandalwood brought to depôts for annual sales, fuel supplied to the Madras and Southern Mahrāttā Railway for locomotives, other produce cut or collected experimentally to create a market for departmental use or for supply to other Government departments. Details are given in the following table:—

	Average of three preceding years.						1916-17.					
	Balance.	Exploited during the year.	Total.	Disposed of during the year.	Cost.	Re-ceipts.	Balance.	Exploited during the year.	Total.	Disposed of during the year.	Cost.	Re-ceipts.
<i>Major.</i>	C. ft.	C. ft.	C. ft.	C. ft.	Rs.	Rs.	C. ft.	C. ft.	C. ft.	C. ft.	Rs.	Rs.
Timber ...	6,21,636	9,98,381	16,20,017	9,38,904	4,21,799	10,80,200	3,79,744	10,93,661	18,33,405	11,42,748	4,96,663	14,30,055
Fuel ...	8,64,708	35,93,023	44,58,331	36,50,019	1,24,387	2,46,353	7,80,258	41,15,014	48,95,272	37,76,369	1,59,546	2,31,120
Sandalwood, Value Rs.	86	34,333	34,949	34,199	2,353	34,199	2,005	44,997	47,002	46,482	2,978	46,482
<i>Minor.</i>												
Pamboos, Value Rs.	...	49	49	49	34	49	...	11,712	11,712	1,483	9,915	1,483
Grass and other minor produce, Value Rs.	713	2,433	3,146	2,203	2,140	2,332	510	625	1,135	822	463	556

The quantity of timber exploited during the year was 10,93,661 cubic feet against 9,80,423 in the previous year, an increase of 1,13,238 cubic feet. This increase is mainly due to a larger quantity of teak brought to Kodibág depôt from Gund and the Kálinadi slopes in Kánara W. D. and to the extraction of poles and other material for war purposes in Kánara W. D. and Belgaum. Though considerable progress in communications was made between Gund and Kadra they have not yet reached the stage where they can affect the outturn from that (Gund) range. A scheme for the improvement of communications from Gund to Kodibág depôt is being drawn up by Mr. Pipe, the Engineer specially deputed to make preliminary investigations during the year. The percentage of timber exploited departmentally to the total outturn was 47 against 55 in the previous year.

The quantity of fuel extracted departmentally during the year was 4,115,014 cubic feet against 3,660,641 cubic feet in the previous year, an increase of 454,373 which is due to larger quantities of railway fuel extracted in Kánara W. D. and to the departmental exploitation of fuel from coupes for retail sale to the public at the Honávar, Bhatkal and Shiráli fuel depôts in Kánara S. D. owing to want of contractors to run the depôts. The percentage of fuel extracted by Government agency to the total outturn was 44 against 31 in 1915-16.

The outturn of sandalwood was slightly greater in quantity than that of the previous year, but the revenue therefrom increased considerably, the prices obtained during the year being on an average nearly 50 per cent. higher all round. The revenue from this source was Rs. 46,482 against 30,675 in the previous year.

The departmental exploitation of bamboos worth Rs. 11,712 is an unusual operation and was undertaken in Kánara N., E. and W. divisions and Belgaum for supply to the Military Department.

In the Belgaum division, grass was cut departmentally and sold. Experiments in ensilage were not made as there is no demand for fodder of this description. In Kánara E. D. a small quantity of hirda was collected for experiment. In the Dhárwár-Bijápur division some gum was collected departmentally and sold for Rs. 202 at a net profit of Rs. 71.

The Government buffaloes (11) in Kánara N. D. carted firewood for the use of the Government saw-mills in that division and helped to cart sawn material from the mills to the railway station. The cart depôts in Kánara N. and E. divisions, established in the year 1915 as per Government Resolution No. 2198 dated 9th March 1914, are independent of the above buffaloes and they worked at a net profit of Rs. 516 during the year as separately reported to Government shortly after the close of the year.

The monorail in the Belgaum division was again not used owing to frequent breakages and inexperience of the contractor's men to repair them.

The work turned out by the two Government saw-mills in Kánara N. D. was as under:—

Material.			Outturn.	
			1916-17.	1915-16.
6 feet teak sleepers	...	... Number.	24,172	7,472
7 "	...	...	3,190	144
2½ "	...	...	.....	200
Planks (teak)	...	... C. ft.	4,234	2,118
Scantlings (teak)	...	...	6,303	16,065
Battens (teak)	...	...	11,672	6,655
Scantlings (junglewood)	...	...	4,269	.....
Battens (junglewood)	...	...	589	.....
Value of the outturn, estimated	...	Rs.	96,286	57,360
Charges for running mills, estimated	...	"	74,182	49,987
Net income, estimated	...	"	22,104	7,373

The results of the year show a satisfactory improvement over the previous year. Three new saw-mills were purchased at the close of the year as per Government Order, Financial Department, No. 1250 of 21st April 1917 :—

One 10 horse-power mill with accessories and fittings complete for use in Kánara E. D., cost Rs. 10,222 ;

One 12 horse-power mill with accessories and fittings complete for use in Kánara C. D., cost Rs. 16,600 ;

One 14 horse-power mill with accessories and fittings complete for use in Kánara W. D., cost Rs. 20,110.

A contractor's saw-mill operating in Kánara E. D. is reported to have done the following work for this department :—

6 feet teak sleepers	...	...	No. 14,891
7 "	...	...	" 626
Planks	...	...	C.ft. 2,800
Battens	...	...	" 3,389
Scantlings	...	...	" 3,140

For sleepers the contractor gets the usual wages fixed in his contract agreement ; for all other material he is paid a $\frac{5}{8}$ th share on the sale price of the material, the remaining $\frac{3}{8}$ th share going to the department ; the Government share during the year amounted to Rs. 4,515.

Sind Circle.

With the exception of the extraction of wood from Budka coupe in the Jerruck division which has been mentioned under Chapter IV—Research and Experiments, departmental operations were confined to the supply of fuel to Government steamers on the Indus. The quantity supplied totalled 1,04,717 cubic feet, the value being Rs. 2,911 and the expenditure Rs. 2,679.

(ii) Purchasers.

Northern Circle.

All forest produce except that mentioned above, that removed by privilege holders and free grants was removed by purchasers (under contract). For quantities and value see statement under "(c) Outturn and sources of forest produce".

Central Circle.

By this agency is removed the greater part of the produce of the circle. Two hundred and fourteen coupes in all divisions were sold, less by 19 than in the previous year, but the price realized rose from Rs. 2,32,849 to Rs. 2,54,209 as a result of keen demand for timber and fuel. In Khándesh large quantities of dead wood were removed by purchasers either on permit or by sale of the right to collect in definite areas.

Disposal of royalty trees from revenue lands in accordance with the policy of Government that occupants should become the owners of such trees at a moderate price, and clearance of growth in revenue waste in West Khándesh, brought in Rs. 1,40,037 from 1,74,774 trees as against Rs. 1,00,661 from 1,23,768 in 1915-16.

Grass and grazing receipts both showed a steady increase, the former from Rs. 1,02,433 to Rs. 1,11,398, the latter from Rs. 1,43,083 to Rs. 1,68,263 or a total increase from Rs. 2,45,516 to Rs. 2,79,661. The number of animals on which grazing fees were paid was 9,47,862 as against 8,68,069, and 65,395 animals belonging to privilege holders grazed free of charge.

Bamboo revenue rose from Rs. 8,301 to Rs. 11,086 ; rosha-grass from Rs. 2,617 to Rs. 5,469, but hirda and shikekai fell slightly. On the other hand, the demand for tanning materials such as tarwad bark and ghatbor fruits rose to such an extent that miscellaneous revenue increased from Rs. 11,948 to Rs. 21,237.

Southern Circle.

The value of produce removed by purchasers was :—

Produce.		Average of past three years.		1916-17.	
		Quantity.	Value.	Quantity.	Value.
<i>Major.</i>		C. ft.	Rs.	C. ft.	Rs.
Timber	...	7,87,879	2,72,464	12,17,000	2,92,950
Fuel	...	66,07,829	97,079	51,51,000	1,06,152
Total		73,95,708	3,69,543	63,68,000	3,99,102
<i>Minor.</i>		Number.		Number.	
Bamboos	...	41,02,448	53,228	56,28,731	65,484
Grass and grazing	...	.....	67,746	.....	75,740
Other minor produce	...	.....	57,286	.....	54,565
Total		.....	1,78,260	.....	1,95,789
Grand total		.....	5,47,803	.....	5,94,891

The increase in the area of coupes sold accounts for the increase in the revenue from the major produce.

The increase in the number and value of bamboos is due to the increased demand as a result of the extensive destruction of houses in Dhárwár district by floods in November 1916; a considerable number was also purchased by Mr. Strickland of Shimoga from Kánara W. D. for sale to the Military Department.

The increase in the amount of grazing fees collected is due to the larger number of animals that grazed in the forests.

The decrease in the value of other minor produce is trivial and it is due to the fall in the prices for hirda farms.

Sind Circle.

Receipts from the sale of coupes and deadwood at the annual sales are shown below :—

Division.	Description of area exploited.	Acreage.	Value realised.
			Rs.
Sukkur	Coupes ...	10,908	82,125
	Deadwood ...		1,751
	Irregular fellings ...		22,046
Lárkána	Coupes ...	3,579	36,221
Hyderabad	Coupes ...	3,448	1,02,201
Jerruck	Coupes ...	3,095	64,051
	Deadwood ...		80
Total, 1916-17		21,030	3,08,475
Total, 1915-16		20,736	2,53,113

To the above must be added the revenue from all irregular fellings and thinnings amounting to Rs. 26,791 received during the rest of the year. It will be noticed that there is a rise in the receipts of Rs. 55,362 or a 22 per cent. increase on last year's figures; this is chiefly due to the rise in the price of fuel. The excess yield from the Hyderabad coupes alone was Rs. 33,246, the sales being held for the first time at Karáchi.

The revenue realized by the sale of fuel under the permit system was Rs. 7,095 against Rs. 6,704 of the previous year. There were increases in

Sukkur and Hyderabad divisions and a slight decrease at Tatta in Jerruck. Prospects for the coupe revenue during the coming year as also the permit revenue in the Hyderabad division are excellent.

The grazing fee collection was as under :—

Division.	1915-16. Rs.	1916-17. Rs.
Sukkur	13,136	13,748
Larkana	6,797	6,991
Hyderabad	14,815	9,994
Jerruck	11,435	7,217
Total	46,183	37,950

The fall in grazing revenue in Lower Sind is due to the unusual rains in the Kohistan hills which resulted in the herdsmen staying at home and in Kutch, outside the forests.

Minor forest produce.—The revenue derived from minor forest produce farmed out and assessment levied on lands leased out for cultivation as compared with last year's results is detailed below :—

Produce.	1915-16. Rs.	1916-17. Rs.
Lac	645	17,100
Babul pods	24,284	19,107
Grasses	3,888	3,253
Fishery	4,341	4,644
Cultivation	13,325	13,482
Paban and bih	...	450
Total	46,483	58,036

As the figures show there was a drop in the revenue from babul pods owing to the absence of many of the hill herdsmen, and a large increase in lac revenue.

(iii) *Rights and Privileges.*

Northern Circle.

These were as usual. There were no complaints. Full details are given in Forms 19 and 20 and statement under “(c) Outturn and sources of forest produce” below.

Central Circle.

The value of the produce removed under this head was :—

	Rs.
Timber	15
Fuel	11,039
Grass and grazing	28,481
Minor produce	2,531
Total	42,066

the major part representing privileges in Khándesh exercised under the Tápti Codes. In addition Rs. 11,032 were paid in cash as khoti shares on the forest revenue in the Kolába division.

Southern Circle.

There are no right-holders in this circle. Privileges are many and they are abused, though endeavours are made to check the abuse by enhancement of grazing fees and curtailment of free grants of forest produce ordinarily allowed by rules. It is difficult to give accurate figures under this head and the following is but a repetition of the figures returned in previous years :—

Produce.		Quantity.	Value.
<i>Major.</i>		C. ft.	Rs.
Timber	...	3,00,000	72,000
Firewood	...	30,41,686	6,46,353
<i>Minor.</i>		Number	
Bamboos	...	30,00,000	15,000
Grazing	...	.....	3,00,387
Minor produce	...	.....	1,80,000

Sind Circle.

The extent and value of forest produce and grazing enjoyed free under privileges amounted to:—

		Value Rs.
Grazing, 9,989 animals	...	3,859
Firewood, 18,642 cubic feet	...	179

(io) Free Grants.

Northern Circle.

Timber and other produce to the value of Rs. 4,503 as against Rs. 4,883 in 1915-16 was granted free. These grants were normal.

Central Circle.

These were made to a value of Rs. 3,631, as against Rs. 5,008 in 1915-16, and for the usual objects such as rewards for fire protection, rebuilding houses, schools, temples, tals and wells.

Southern Circle.

The value of forest produce granted free, compared with the average of the past three years, is as under:—

Produce.		Average of past three years.		1916-17.	
		Quantity.	Value.	Quantity.	Value.
<i>Major.</i>		C. ft.	Rs.	C. ft.	Rs.
Timber	...	33,617	10,028	43,000	10,138
Fuel	...	31,229	305	22,000	212
Total	...	64,846	10,333	65,000	10,350
<i>Minor.</i>					
Bamboos	...	46,602	418	84,220	398
Grazing	...	.....	4,916	.....	2,245
Other minor produce	...	.....	1,478	.....	1,901
Total	...	.....	6,812	.....	4,544
Grand total	...	.....	17,145	.....	14,894

Free grants of timber worth Rs. 2,449 were made to poor villagers in the Bijapur district for repairing or rebuilding their houses damaged by the heavy rains of November 1916, which brought down thousands of tenements and caused much damage in the country. The increase in the number of bamboos is due to grants made to two villages partially destroyed by fire in Kánara Northern division. The decrease in the value of free grazing is due to the reason that this concession was curtailed or stopped in several cases for forest fires. On the whole the grants made were normal.

Sind Circle.

Free grants are shown below :—

Produce.	Extent.	Value.	
		1915-16.	1916-17.
Grazing	2,611 animals.	Rs. 1,960	Rs. 1,091
Minor produce	460 bundles.	42	19
Timber firewood	4,798 c. ft.	597	359

In addition to the above free grazing was allowed to forest contractors to the value of Rs. 2,051.

(c) Outturn and Sources of Forest Produce.

Northern Circle.

The outturn from all sources of forest produce for the year 1916-17 compared with that of the previous year was as follows :—

Agency of exploitation.		Material.								
		Timber.		Fuel.		Total wood.		Bam- boos.	Grass and grazing.	Minor produce.
		Cubic feet in solid.	Value in Rupees.	Cubic feet in solid.	Value in Rupees.	Cubic feet in solid.	Value in Rupees.	Value in Rupees.	Value in Rupees.	Value in Rupees.
Government	1916-17	1,09,233	1,25,538	67,969	2,293	1,77,202	1,27,831	48	—	4,949
	1915-16	89,250	1,57,529	98,744	5,023	1,87,994	1,62,552	...	68,120	8,799
Purchasers	1916-17	23,33,828	16,86,782	61,79,820	12,338	85,13,648	16,99,120	33,348	98,502	39,216
	1915-16	26,39,965	11,91,533	54,41,809	11,755	80,81,774	12,03,288	34,427	1,02,887	35,924
Free grantees	1916-17	8,591	3,365	8,840	55	15,431	3,420	470	...	618
	1915-16	8,722	2,466	80	2	8,802	2,468	...	...	6
Privilege holders.	1916-17	76,220	2,28,660	86,58,571	3,00,635	87,34,791	5,29,295	11,695	3,65,197	36,240
	1915-16	76,220	2,28,660	76,21,903	2,64,641	76,98,123	4,93,301	5,048	2,96,780	57,000
Total, 1916-17 ...		25,27,872	20,44,345	1,49,13,200	3,15,321	1,74,41,072	23,59,666	45,561	4,63,699	81,018
Total, 1915-16 ...		28,14,157	15,80,188	1,31,62,536	2,81,421	1,59,76,693	18,61,609	39,475	4,67,787	1,01,729

Central Circle.

Comparison for two years is made in the following statement :—

Agency of exploitation.		Material.									
		Timber.		Fuel.		Total wood.		Bamboos.		Grass and grazing.	Minor produce.
		Cubic ft. solid.	Value. Rupees.	Cubic ft. solid.	Value. Rupees.	Cubic ft. solid.	Value. Rupees.	Number.	Value. Rupees.	Value. Rupees.	Value. Rupees.
Government	1915-16	7,147	1,387	2,86,283	22,504	2,93,430	23,891	1,567	94	26	19,403
	1916-17	10,808	2,320	3,42,920	28,812	3,53,728	30,632	155	1	—	10,389
Purchasers	1915-16	7,50,773	3,09,469	80,08,501	70,934	87,59,274	8,80,403	8,43,634	8,301	2,45,516	24,044
	1916-17	8,22,184	3,86,849	23,47,144	55,206	37,69,328	4,42,055	10,80,050	11,086	2,79,661	37,708
Free grantees	1915-16	19,804	3,266	29,091	903	48,895	4,169	10,000	85	—	609
	1916-17	17,719	2,732	957	47	18,676	2,779	2,485	38	—	814
Privilege hold- ers.	1915-16	1,427	165	5,02,913	10,666	5,04,340	10,831	—	—	27,688	4,659
	1916-17	316	15	5,06,819	11,039	5,07,135	11,054	1,200	8	28,481	2,528
Total	1915-16	7,79,151	3,14,287	88,26,788	1,05,007	46,05,939	4,19,294	8,55,201	8,479	2,73,230	48,775
	1916-17	8,51,027	3,91,916	37,97,840	94,604	46,48,867	4,86,520	10,83,890	11,128	3,08,142	51,439

Southern Circle.

The total outturn of the year is summarized in the following table :—

Agency of exploitation.	Timber.		Fuel.		Total wood.		Bamboos.		Sandal-wood Value.	Minor forest produce, value	Grazing, value.
	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	Number.	Value.			
		Rs.		Rs.		Rs.		Rs.	Rs.	Rs.	Rs.
Government ...	10,93,661	14,30,055	41,15,014	2,31,120	52,08,675	16,61,175	22,694	1,483	46,483	...	556
Purchasers ...	12,17,000	2,92,950	51,51,000	1,06,153	63,68,000	3,99,102	56,28,731	65,484	...	54,565	75,740
Free grantees ...	43,000	10,138	22,000	212	65,000	10,350	84,220	398	...	1,901	2,245
Privilege holders ...	3,00,000	72,000	30,41,686	6,46,353	33,41,686	7,18,353	30,00,000	15,000	...	1,80,000	3,00,357
Total, 1916-17 ...	26,53,661	18,05,143	1,23,29,700	9,83,837	1,49,83,361	27,88,080	87,35,845	82,365	46,483	2,36,466	3,78,928
Total, 1915-16 ...	20,54,281	14,66,968	1,46,59,010	9,77,421	1,67,18,921	24,44,389	52,63,841	63,128	36,761	2,51,927	3,76,347

The number of cattle for which grazing was allowed during the past two years is as under—

	1916-17.	1915-16.
Free ...	30,569	33,085
On fee ...	4,59,461	4,42,938
Total ...	4,90,030	4,76,023

The total expenditure incurred under "Management of State Forests" was Rs. 8, 24,635 against Rs. 7,28,850 in the preceding year.

Sind Circle.

The outturn from all sources of forest produce is compared with that of 1915-1916 in the following statement :—

	Material removed.								
	Timber.		Fuel.		Total wood.		Minor produce.	Grazing.	Total.
	C. ft.	Value.	C. ft.	Value.	C. ft.	Value.			
		Rs.		Rs.		Rs.	Rs.	Rs.	Rs.
Government ...	11,118	1,796	289,384	13,246	3,00,502	15,042	2,468	...	17,510
Purchasers ...	3,53,557	1,04,882	1,84,89,686	2,99,309	1,68,43,243	4,04,392	40,821	37,950	4,83,163
Free grantees ...	3,191	351	67	7	3,258	358	19	2,048	2,425
Privilege holders ...	...	...	18,642	179	18,642	179	...	3,859	4,038
Total, 1916-17 ...	3,67,866	1,07,029	1,87,97,779	3,12,741	1,91,65,645	4,19,971	43,308	43,857	5,07,136
Total, 1915-16 ...	2,15,039	67,223	1,60,15,512	2,01,603	1,62,30,541	2,68,825	34,428	54,887	3,58,140

The quantity and value of material removed by the Public Works Department from the areas temporarily alienated to it along bunds and canal banks were as follows :—

Material.	Quantity.	Value. Rs.
Timber—Timber pieces ...	18,636	1,675
Branch wood bundles ...	3,550	473
Earth ...cubic feet	29,05,928	726
Total ...		2,874

CHAPTER III.

FINANCIAL RESULTS.

Northern Circle.

Financial results of the year as compared with those of last year and the average of the past five years are given in the following statement :—

Head..	1916-17.	1915-16.	Average of five preceding years.
Revenue ...	Rs. 20,40,421 (deduct) 642 (net) 20,39,779	Rs. 16,57,003 (deduct) 68,120 (net) 15,88,883	Rs. 15,75,50 Famine fodder.
Expenditure ... { A ..	1,99,549	3,55,694 (deduct) 1,53,330	3,29,800 Famine fodder.
... { B ...	1,99,549 3,83,804	(net) 2,02,364 4,18,045	3,88,083
Total, Expenditure ...	5,83,353	6,10,409	7,17,883
Surplus ...	14,56,426	9,78,474	8,57,767

N.B.—The above figures include the following on account of royalties on forest produce from lands outside forests :—

		Rs.
Revenue ...	...	3,65,091
Expenditure ...	...	2,996

Classification of Revenue and Expenditure of the year 1916-1917:—

I.—REVENUE.

Particulars.	Receipts.	Percentage.
Major produce ...	18,26,951	89.5
Minor produce ...	2,12,828	10.5
Famine fodder ...	642	.....
Total ...	20,40,421	100

II.—EXPENDITURE A.

	Rs.	Percentage.
Extension and constitution.	2,200	1.1
Improvement ...	92,630	46.4
Exploitation ...	1,04,719	52.5
Total ...	1,99,549	100

III.—EXPENDITURE B.

Particulars.	Charges.	Percentage.
	Rs.	
Administration ...	33,567	5.7
Executive ...	1,44,195	24.6
Protective ...	4,05,590	69.7
Total ...	5,83,352	100

Figures of the various divisions compared with those of last year are as follows :—

Division.	Year.	Receipts.	Expenditure.			Net results.
			A	B	Total.	
		Rs.	Rs.	Rs.	Rs.	Rs.
Panch Mahals	{ 1915-16 ... 1916-17 ...	1,14,023 1,58,060	10,927 7,825	48,650 43,245	59,577 51,071	+54,446 +1,06,939
Surat	{ 1915-16 ... 1916-17 ...	2,32,603 2,01,657	1,12,293 1,05,786	62,734 52,385	1,75,032 1,58,178	+57,571 +43,479
North Thána	{ 1915-16 ... 1916-17 ...	5,54,098 8,04,419	28,281 38,110	54,539 55,718	82,820 93,868	+4,71,218 +7,10,551
West Thána	{ 1915-16 ... 1916-17 ...	2,56,086 3,51,174	14,317 14,195	49,756 56,819	64,073 71,014	+1,92,013 +2,80,160
East Thána	{ 1915-16 ... 1916-17 ...	2,03,488 2,89,209	14,924 16,183	63,525 60,933	78,449 76,516	+1,25,039 +2,12,693
South Násik	{ 1915-16 ... 1916-17 ...	1,68,442 1,61,437	16,123 9,070	54,046 38,666	70,169 47,736	+98,273 +1,13,701
North Násik	{ 1915-16 ... 1916-17 ...	59,819 68,428	2,463 5,885	31,051 28,775	33,514 31,460	+26,305 +33,968
Násik sub-division (newly created)...	{ 1915-16 ... 1916-17 ...	... 4,057	... 761	... 13,183	... 13,944	..... -9,987
Total*	{ 1915-16 ... 1916-17 ...	16,57,003 20,43,421	3,55,694 1,99,549	4,08,045 3,83,804	7,63,739 5,83,353	+8,93,264 +14,57,068
Average of past five years	.....	15,75,650	3,23,800	3,88,093	7,17,883	+8,57,767

* This is inclusive of the figures for the Direction office, Working Plans division and Famine fodder.

Panch Mahals.—An increase of Rs. 55,118 was due to a fairly normal agricultural year and war demands, resulting in seventy coupes being sold for Rs. 1,16,366 as against 47 coupes for Rs. 71,248 in the last year. A decrease of Rs. 2,192 in receipts from teak in malki fellings was due to a smaller number of trees being sold, though prices were considerably higher. A decrease of Rs. 5,279 occurred under grass, owing to the prices returning to normal on the disappearance of scarcity in neighbouring districts.

Surat.—The growing surplus of this division on which we have been priding ourselves received a slight setback due firstly to the May sale of timber at Fort Songad estimated to realize Rs. 20,000 being postponed owing to lack of trucks which had prevented the removal of material sold last February; and secondly to last year's receipts from the saw-mill being unduly inflated by the inclusion of a bill amounting to Rs. 13,771 for sleepers supplied in 1914-15, so that the saw-mill surplus revenue for last year's working was really Rs. 16,246 and not Rs. 30,017 as then shown. Compared with the former figure this year's surplus from the saw-mill working of Rs. 18,916 compares very favourably, especially in view of the fact that working expenses were Rs. 4,958 higher. Against this we have a saving on total expenditure of Rs. 18,200 made up of Rs. 10,600 under "B—Establishment" and Rs. 7,660 under "A—Conservancy and Works". This last figure includes a bill for cartage amounting to Rs. 4,600 which ought to have been paid before the end of the forest year and now remains a charge against the coming year. Prices of timber were higher. The total financial results were very satisfactory.

North Thána.—The dullness in the timber trade due to war continued, chiefly by rendering the supply of trucks difficult, but selling of standards in the coupes of the year (as elsewhere recorded) produced an extra Rs. 80,000, thus giving a net increase of Rs. 58,777 in coupe prices over last year's figure. An increase of Rs. 2,00,674 was realized by a greater number of trees being sold from gurcharans and malki lands. Both of these increases must be regarded more in the light of 'windfalls' than anything else. An increase of Rs. 10,000 in the total expenditure was due to providing accommodation for Rangers and their offices in the newly constituted ranges, and to the part construction of the Saiwan-Udhwa road.

East and West Thánas.—These two divisions are taken together as not separately comparable with last year's returns owing to the reorganization of charges already alluded to, and they must be compared with the joint results of Central and South Thána of last year's report. There was a net increase

of Rs. 96,491 over last year's joint receipts chiefly due to the sale of standards in coupes and, as in North Thana, this must be regarded in the nature of a 'windfall'. A demand for timber stimulated by the war was negated by a shortage of wagons due to the same cause and resulted in general dullness in trade though abnormally high prices were realized where transport was available.

available.

North and South Násik and Násik sub-division.—As in the case of East and West Thánas, and for a similar reason, it is impossible to compare each charge with last year's returns. They are, therefore, grouped together. There was an increase of Rs. 27,928 in total net revenue as compared with last year, due entirely to better prices received for coupes.

General.—Financial results were very satisfactory, and if it had not been for the lack of railway transport due to the war, results would have been far better still.

Central Circle.

Excluding famine fodder operations, the financial results of the past two years and the average of the five preceding years are as follows:—

Year.	Revenue.	Expenditure.	Surplus.
	Rs.	Rs.	Rs.
1916-17 ...	8,83,598 { A. B. }	1,14,897 { 4,06,741 }	5,21,638
1915-16 ...	7,72,218 { A. B. }	1,04,365 { 4,00,991 }	5,05,356
Average of 1911-12 to 1915-16.	7,69,567 { A. B. }	1,32,242 { 3,93,283 }	5,25,525
			2,44,042

and separating the jurisdictions of the two Commissioners the figures are:—

Central Division.

Year.	Revenue.	Expenditure.	Surplus.
	Rs.	Rs.	Rs.
1916-17 ...	7,16,800	4,24,601	2,92,199
1915-16 ...	5,93,549	4,13,867	1,79,682
Average of 1911-12 to 1915-16.	6,31,841	4,26,027	2,05,814

Southern Division.

1916-17	...	1,66,798	97,037	69,761
1915-16	...	1,78,669	91,489	87,180
Average of 1911-12 to		1,37,727	99,499	38,228
1915-16.				

Thus the net revenue, in spite of an increase in expenditure of Rs. 16,282 has risen by Rs. 95,098, a satisfactory state of affairs which is mainly due to two divisions, North and West Khándesh, though East Khándesh and Sátára also showed better results than in the previous year. The Poona surplus showed a slight decrease and that in Kolába a considerable one. Looking to gross receipts which are a better index of a season's working than is the surplus, for the latter may be affected by establishment and other varying charges, it is found that every division but Kolába showed a rise, North and West Khándesh a most noticeable one, and Sátára to a substantial degree which is all the more qualifying in view of the fact that the division has been worked at a deficit for some years past. Comments on each division follow.

East Khândesh.—Gross receipts increased by Rs. 9,625 due to good demand for timber coupes and bamboos and to increased royalty on forest material imported into the district from adjacent States. Grass and grazing receipts also improved. Establishment charges fell with the transfer of an Imperial officer to the Indian Army Reserve and his replacement by a Provincial officer. The surplus accordingly rose from Rs. 73,102 to Rs. 88,815.

North Khándesh.—The stagnation in the timber and fuel market which so adversely affected revenue in 1915-16 entirely disappeared, and gross

receipts increased by Rs. 46,615 as compared with that year, and by Rs. 18,879 as compared with the average of the five preceding years. Prices paid for coupes were excellent, and grass and grazing and rosha-grass revenue also increased. Expenditure showed a slight rise, and the net surplus was Rs. 51,570 as against Rs. 10,008.

West Khândesh.—Similar conditions prevailed as in North Khândesh. Gross receipts rose by Rs. 50,829 and the surplus by Rs. 50,710, the result of great demand for timber and fuel, both from coupe and from revenue lands under clearance by the department; and grazing receipts also showed an increase of Rs. 10,000, partly due to the transference of large areas from pasture to forest proper.

Poona.—Though the surplus showed a small decrease of Rs. 3,460, this was entirely due to establishment charges, there having been for half the year a second sub-divisional officer on high pay attached to the division. The gross receipts were the highest ever recorded, and what is more to the point is that they were obtained entirely from lands in charge of the department, and were not swollen, as was the case in 1915-16, by Rs. 24,000, the sale proceeds of babul on lands under transfer to the Revenue Department. These highly satisfactory results were due to increasing demand for all forest material, to careful supervision of grazing collections and to the high price realized for tarwad bark.

Satdra.—This division, in spite of increased expenditure, showed a surplus of Rs. 1,407 instead of the deficit of Rs. 9,329 which occurred in 1915-16, and of the continual deficits of many years past. Better prices for coupes, and the growth of demand for fuel at Mahábleshwar, to which must be added better arrangements, both sylvicultural and financial, for meeting the latter, were the cause of the improvement, and it is an improvement which may be expected to continue looking to the absence of material outside, and the dependence of the district on local resources which can only be met from the forests.

Kolaba.—A rise in expenditure of Rs. 5,548, combined with a decrease in receipts of Rs. 11,871, resulted in a surplus decreased by Rs. 17,419 as compared with that of 1915-16, but still well above the average of the five previous years. The decreased revenue was due partly to less being received for coupes, not it may be said owing to poor demand but to inferior quality of several of the coupes, to fewer royalty trees in occupied lands being disposed of, and to grazing revenue falling owing to prevalence of cattle disease; the increased expenditure was mainly owing to payment of khoti shares for two years in one, the khots in 1914-15 having in 1915-16 refused to sign their agreements. Thus the setback may confidently be said to be purely temporary.

Further classification of the revenue and expenditure is as follows:—

I.—REVENUE.

Head.	Receipts.	Percentage.
	Rs.	
Major produce ...	4,72,541	53·5
Minor produce ...	4,11,057	46·5
Total ...	8,83,598	100

II.—EXPENDITURE.

A.

Head.	Charges.	Percentage.
	Rs.	
Extension and constitution ...	8,625	7·5
Improvement ...	69,049	60·1
Exploitation ...	37,222	32·4
Total ...	1,14,896	100

B.

Head.	Charges.	Percentage.
	Rs.	
Administration ...	56,114	13.8
Executive ...	1,42,464	35.0
Protective ...	2,08,163	51.2
Total ...	4,06,741	100

Southern Circle.

The gross revenue and the surplus have beaten all previous records. The following table compares the revenue and expenditure with those of the previous year and with the average of the preceding five years :—

Year.	Revenue.	Expenditure.	Surplus.	Percentage of surplus to gross revenue.
	Rs.	Rs.	Rs.	
1916-17 ...	23,57,731	{ A 8,37,221 B 4,08,185 } 12,45,406	11,12,325	47
1915-16 ...	19,95,685	{ A 7,35,480 B 4,04,419 } 11,39,899	8,55,786	43
Average of 1910-11 to 1914-15.	17,52,274	{ A 6,59,727 B 3,60,335 } 10,20,062	7,32,212	42

The above shows that there was an increase in the receipts and surplus as compared with the corresponding figures of the previous year and the average of the five preceding years. Though the expenditure increased by about a lakh over the last year for reasons stated below, the percentage of net to gross revenue also increased from 43 to 47 mainly on account of curtailment of all sorts of expenditure with a view to economy.

The following statement compares the revenue and expenditure in details of budget heads with those of 1915-16 :—

Budget heads.		Amount		Difference.
		1915-16.	1916-17.	
Receipts		Rs.	Rs.	Rs.
I ...	...	13,74,332	17,09,697	+ 3,35,365
II ...	...	5,68,738	5,94,890	+ 26,152
III ...	...	459	253	- 206
IV ...	...	11	11	.....
V ...	...	52,145	52,880	+ 735
Total, Receipts	...	19,95,685	23,57,731	+ 3,62,046
Expenditure A.				
I ...	...	5,91,151	6,69,562	+ 78,411
II ...	...	7,050	6,463	- 587
III ...	...	62	73	+ 11
VI ...	...	12,475	10,175	- 2,300
VII ...	...	71,701	78,442	+ 6,741
VIII ...	...	48,171	55,591	+ 12,420
IX ...	...	9,870	16,915	+ 7,045
Total, A.	...	7,35,480	8,37,221	+ 1,01,741
Expenditure B.				
I ...	...	3,45,766	3,51,387	+ 5,621
II ...	...	45,216	43,192	- 2,024
III ...	...	13,437	13,606	+ 169
Total, B.	...	4,04,419	4,08,185	+ 3,766
Total, Expenditure	...	11,39,899	12,45,406	+ 1,05,507

The gross receipts rose by 3·6 lakhs over those of the previous year mainly under the revenue head I. Notwithstanding the general dislocation of trade and business due to war, prices for all classes of timber kept up in a wonderful way, teak realizing record prices at the Tavargatti sales in Kánara Northern division. Larger quantities of timber, brought for sale from the Gund and Sulgeri forests in Kánara Western division, and larger amounts of arrear revenue collected also contributed to the increase. A larger number of coupes sold account for the increase under II.

The increase of Expenditure A by 1·01 lakh occurred as under :—

Under I.—Due to the purchase of saw-mill machinery worth about Rs. 47,000 for the four Kánara divisions and to payments of wages for larger quantities of timber exploited from forests.

Under VII.—Due to increased expenditure on road construction and development of river communications in Kánara Western division.

Under VIII.—Due to the unusual cost of Wild Tribes (Berad) Settlement in the Khánápur taluka of the Belgaum division (Rs. 6,224), to larger amount of cultural operations undertaken during the year and to the cost incurred in protecting burnt areas in all divisions.

The deputation of a Special Engineer, Mr. Pipe, for the improvement of river communications in Kánara Western division contributed to the increase of expenditure under B—I—Salaries.

The following table exhibits the proportion of revenue and expenditure under the different heads :—

Particulars.	Total.	Percentage.
<i>Revenue.</i>		
Major produce	Rs. 21,09,062	89·5
Minor produce	1,95,789	8·3
Miscellaneous	52,880	2·2
Total	23,57,731	100·
<i>Expenditure A.</i>		
Extension and constitution	12,586	1·5
Improvement	1,21,446	14·5
Exploitation	7,03,189	84·0
Total	8,37,221	100·
<i>Expenditure B.</i>		
Administration	59,549	14·6
Executive	1,71,807	42·1
Protective	1,76,829	43·3
Total	4,08,185	100·

The outstandings of revenue at the opening and close of the year were Rs. 4,92,395-9-8 and Rs. 5,93,907-7-9 respectively. Eleven items amounting to Rs. 1,477-8-3 were written off as irrecoverable revenue under the orders of the Conservator.

The outstandings due to the department by contractors and disbursers stood at Rs. 2,22,837-15-10 against Rs. 2,02,267 at the end of the preceding year.

The estimated value of timber and other produce in depôts rose from Rs. 10,85,650 to Rs. 11,84,170 on account of the larger quantities of material on hand at the close of the year.

The value of live and dead-stock shows a net difference of Rs. 38,027 in favour of the year, being part value of the three new saw-mills and other

machinery purchased for use in Kánara Northern, Eastern, Central and Western divisions at the close of the year.

Sind Circle.

The financial results of the year as compared with those of the preceding year and with the average of the past five years are contrasted below :—

Year.	Revenue.	Expenditure.	Surplus.	Percentage of surplus to gross revenue.	
	Rs.	Rs. Rs.	Rs.		
1916-17 ...	5,34,270	{ A 34,933 B 1,82,170 }	2,17,103	3,17,167	59.3
1915-16 ...	3,79,875	{ A 32,511 B 1,83,151 }	2,15,662	1,64,213	43.2
Average of five years—1910-11 to 1914-15.	4,10,937	{ A 43,575 B 1,65,801 }	2,09,376	2,01,561	49.0

The collection of coupe revenue tendered in any particular year in Sind is spread over two years; the revenue as shown for the present year includes therefore half that due for the year 1915-16. The figures show an increase in revenue, expenditure and surplus. This increase in surplus of revenue is shared in by all divisions, the greatest increase being in Hyderabad where it is Rs. 68,084, the total surplus Rs. 1,24,327 being greater than last year's gross revenue of Rs. 96,612.

The percentage of net to gross revenue increased from 43.2 to 59.3 per cent. Even including a normal programme of expenditure under "Conservancy and Works" which has at present been curtailed owing to the war, the percentage of surplus would be 52.9 per cent. if average figures are used under head A of expenditure.

The following table compares the receipts and charges of the year in detail according to budget heads with those of 1915-16 :—

Budget heads.			1915-16.	1916-17.	Difference.
			Rs.	Rs.	Rs.
Receipts	I	...	6,082	16,678	+ 10,596
	II	...	3,45,431	4,87,933	+ 1,42,502
	III	...	1,105	871	— 234
	IV	...	.....	.....	.....
	V	...	27,257	28,788	+ 1,531
Total, Receipts			3,79,875	5,34,270	+ 1,54,395
Expenditure A.	I	...	4,217	7,948	+ 3,731
	II	...	64	848	+ 784
	III	...	1	.....	— 1
	VI	...	1,896	1,143	— 753
	VII	...	5,662	6,172	+ 510
	VIII	...	15,788	14,497	— 1,291
	IX	...	4,883	4,325	— 558
Total, A.			32,511	34,933	+ 2,422
Expenditure B.	I	...	1,50,352	1,51,375	+ 1,023
	II	...	22,400	20,333	— 2,067
	III	...	10,399	10,462	+ 63
Total, B.			1,83,151	1,82,170	— 981
Total, Expenditure			2,15,662	2,17,103	+ 1,441

Revenue.—The total revenue of the year shows an advance of Rs. 1,54,395 over that of the previous year and Rs. 1,18,994 over the average of the preceding five years. The increase was due to the following causes:—

- (i) Better prices obtained by the sale of coupes, and wood from thinnings.
- (ii) Increase in the Sukkur division due to the clearing of forest on an area temporarily alienated to the Military Department for a farm.
- (iii) Better revenue from minor forest produce, especially lac.
- (iv) Departmental exploitation of one coupe in the Jerruck division.

Expenditure.—The slight increase in expenditure under “Conservancy and Works”, viz., Rs. 2,422, was entirely owing to the money spent on the departmental exploitation of the coupe referred to under the head of revenue. There is a decrease under “B.—Establishments”, this is wholly due to economy under head of travelling allowances B-II, the increase under B-I was due to the privilege leave allowance paid to the retiring Deputy Conservator.

The following statement shows the proportion of revenue and expenditure under the different heads:—

Particulars.	Total.	Percentage.
<i>Revenue.</i>	Rs.	Rs.
Major produce	4,22,349	79
Minor produce	1,11,921	21
	5,34,270	100
<i>Expenditure A.</i>		
Extension and constitution ... ..	.....	.....
Improvement	24,995	71
Exploitation	9,938	29
	34,933	100
<i>Expenditure B.</i>		
Administration	29,372	16
Executive	82,829	46
Protective	69,969	38
	1,82,170	100

The revenue outstanding on 30th June 1917 was Rs. 24,900 against Rs. 77,510 on the same date last year. This represents instalments payable by coupe contractors and others which are not due or recoverable until after the close of the year.

Bhai Jethmal has still to pay Rs. 2,214 on account of the lac contract of the Jerruck division for the year 1908-09. He has filed an appeal in the Court of the Judicial Commissioner of Sind which will shortly be heard.

The financial prospects for the ensuing year are excellent.

CHAPTER IV.

Research and Experiments.

Northern Circle.

In *Panch Mahals* and *North Násik* experiments in tapping *Boswellia serrata* were carried out with considerable success. They will be continued in the coming year in the light of much valuable information gained.

Central Circle.

Mr. Thomson in Poona continued his experiments on germination of hirda and confirmed the results obtained in the previous year, namely, that removal of the dried up fleshy covering of the seed has a marked effect.

The cultivation of lac was carried out on a small scale, but with no better results than before; propagation is simple enough, but protection of the insects from ants has completely failed.

Eucalyptus of various species, *grevillea* and *casuarina* are under experiment on the Toranmal plateau in North Khándesh, and offer promise of successful introduction.

A most important work was carried out by Mr. Starte in North Khándesh at the instance of the Indigenous Industries Committees and on lines suggested by the Forest Economist, with the tapping of *salai* (*Boswellia serrata*) which tree exists in great numbers in the Sátpuda hills but is of no present economic value. It is unnecessary here to give details of the work, for all results have been communicated to the Committee and to the Forest Economist, but the latter's reply to Mr. Starte may be partly quoted:—

"The results you have obtained are by far the most important as yet available, as the method of carrying out the experiments was all that could be desired. I recently sent small samples of gum, turpentine and resin to the Conservator suggesting that he should forward them to you to see; we have also sent bulk samples to various firms for valuation, and I will send you copies of their reports in due course. I trust now that as the experiments both as regards tapping and the preparation of bulk samples have reached an advanced state, we shall be able to induce a firm seriously to consider the proposition of starting this industry."

There the matter stands at present, and all that can be said is that in raw material the Khándesh forests offer a practically unlimited field for such an industry. The following remark is taken from the Inspector-General of Forests' Note:—Of the three products obtainable from the *Boswellia* crude resin, turpentine, gum, and rosin, the first two "have been reported on favourably for commercial purposes, and when the problem of making the gum suitable for commercial mucilage has been solved, there is every hope of the commencement of a new forest industry which may expand to large dimensions: with its favourable situation and large supplies of *salai* Khándesh should be able to take an important part in the development of this industry, when it comes."

Southern Circle.

(i) Research.

Survey of Tanning Products.—At the beginning of the year, Mr. J. A. Pilgrim, Tannin Expert to the Government of India, paid a visit to the Belgaum division with a view to making enquires into the relative value of the various tan stuffs used by local tanners. He visited the principal tanneries in the district and drew up a short note of his enquiries. He was of opinion that there existed an urgent necessity of testing the various products locally and advocated the establishment of a tannery at Khánápur. Nothing further was done in this direction during the year.

Fruits of kumbia (*Careya arborea*), ayia (*Phyllanthus emblica*) and lantana were sent to the Imperial Forest Research Institute, Dehra Dun, from the Belgaum division, with a view to ascertain their commercial uses, if any. The first two were declared useless as tanning materials, as they contained very little tannin. The lantana seeds were found to contain no colouring agent in sufficient quantity to be of any economic value.

Charcoal making and wood distillation.—Further experiments of charcoal manufacture were made in the Khánápur central range, Belgaum division, during the year. It is understood that contractors in the Belgaum and Gokák ranges have now regularly taken to charcoal making and supplying it to the Poona market. The details of charcoal making experiments in the Belgaum division up to date are given below:—

Year.	Amount expended.	Quantity sold.	Revenue realized.	Remarks.
	Rs. a. p.	Mds. lbs.	Rs. a. p.	
1912-13	41 0 0	137 12	58 7 8	Charcoal worth Rs. 1,212 on hand at the close of the year.
1913-14	58 7 3			
1914-15	2,716 3 6	14,876 25	2,335 6 3	
1915-16	23 9 0	8,789 14	1,650 6 9	
1916-17	855 1 3	2,089 16	590 6 5	
Total	3,694 5 0	25,893 11	4,634 11 1	

The Divisional Forest Officer reports that under the present primitive conditions of manufacture it is almost impossible to produce charcoal at a low enough rate to compete with the supply from other sources, and advocates the introduction of a proper plant for the dry distillation of wood; the bye-products of charcoal, now wasted, would then become the main items of value, leaving charcoal as a residue of pure profit.

One hundred cubic feet fuel of the marginally noted species were sent at the suggestion of the Commissioner, S. D., from the Belgaum division to Mr. Shaligram, Industrial Inspector, Kolhápúr, to be tested for charcoal and bye-products. The result of his experiments is awaited.

Teak (*Tectona grandis*).
 Hela (*Terminalia belerica*).
 Jamba (*Xylia dolabriformis*).
 Kharsing (*Steeospermum xylocarpum*).
 Biba (*Semecarpus anacardium*).

In Kánara Southern division, a coupe contractor was instructed in the manufacture of charcoal and the Divisional Forest Officer estimates the contractor's net profit at one rupee per maund of 56 lbs.

Rosha-grass.—A sample of grass, suspected to be "rosha" grass and sent to Dehra Dun for identification from the Belgaum division, was pronounced to be a different species (*Cymbopogon martini*).

Burrs on trees.—A consignment of "burrs" of casuarina, kindal, matti-heddi and savar was sent to Dehra Dun from Kánara Western division, for trial in veneering work and a report thereon is awaited.

(ii) Experiments.

Timber seasoning.—The Forest Economist, Dehra Dun, visited the experimental seasoning shed at Kodibág (Kánara Western division) and the experiments of seasoning different timbers under different methods undertaken by him in the Dándeli range (Kánara Northern division) and at Kodibág were continued, the seasoned logs at Kodibág having been sawn up into scantlings. The results of the experiments will be known next year.

Wood blocks for street pavement.—The teak and jamba paving blocks sent to the Bombay Municipality for trial in 1915 from Kánara Northern division were put down on an area of about 7,522 square feet of Frere Road—a road most heavily subjected to cart-traffic—and successfully passed through one complete monsoon according to the report received from the Municipal Engineer. Such wooden pavings ought to prove most advantageous in big cities like Bombay both from a financial and sanitary point of view and it is open to the public bodies and corporations to take due notice of the experiment tried with success in Bombay.

Junglewood sleepers for railway line.—The trial lot of matti (*Terminalia tomentosa*) sleepers supplied from Kánara Western division to the North-Western Railway and laid on 1st August 1911 was thus reported on:—

"With bearing plates—Fifty-eight laid down of which 52 are in good order, 4 cracked at one end, not serious, 1 surface cracks, 1 badly cracked.

"Without bearing plates—Fifty-eight laid down. 50 in good order, 4 cracked at one end, not serious, 3 surface cracks; in some cases somewhat serious, 1 seriously cracked but not sufficiently so to cause rejection."

In Kánara Western division, at the Conservator's suggestion, the experiment was made of cutting jamba (*Xylia dolabriformis*) sleepers from green trees of large size and then seasoning in shade, with a view to ascertaining whether this will overcome the difficulties of (i) heart-shake and (ii) cracking. Twenty sleepers of the usual measurements of teak sleepers that are annually supplied to the M. & S. M. Railway (6' x 8" x 4½") were sawn out of one tree and are now seasoning in the forest bungalow at Gund. The Divisional Forest Officer reports that six of them show heart-shake more or less and the remaining 14 appear sound; none, however, showing any tendency to crack since cutting four months ago. Further observation is necessary before arriving at any definite conclusion.

Sylviculture Experiments.

Camphor seed.—In Kánara Central division, camphor seed was obtained from Formosa by Mr. Tuggurse, Extra Assistant Conservator, in charge Ankola range, and seedlings were successfully raised. They are to be planted out in selected areas in 1917-18.

In Kánara Western division, 50 camphor plants were put out round the Gudalli forest naka and are doing very well.

Junglewood seed.—The Divisional Forest Officer, Dhárwár-Bijápur, reports that the old unproductive method of sowing seed in piths several inches deep in vogue in Bijápur forests was ordered to be abandoned and one of sowing in pits refilled with earth and dibbling seed under shelter of bushes was substituted coupled with tending of seedlings by weeding, soil-mulching and providing artificial shade wherever necessary. This change of method is reported to be productive of good results. Sowing of nim (*Melia indica*) seed was also tried in small ploughed plots in the Mandihal naka compound and in a last year's coupe in the Badámi range, and from the successful results obtained the Divisional Forest Officer is of opinion that a thorough breaking up of soil is essential for raising good seedlings.

In Kánara Eastern division, measurements of teak coppice were continued with a view to finding out whether the thinnings of clumps of shoots had a beneficial effect on the growth of the remaining shoots. The Divisional Forest Officer, Mr. Edie, states that so far as the experiment has gone the indication is that early thinnings of shoots are not beneficial and that thinnings should be made when the shoots are about ten years old.

Lantana, effective method of its destruction.—In connection with the attempts made in all divisions for the destruction and removal of lantana wherever it occurred, Mr. Dodgson, Divisional Forest Officer, Kánara N. D., reports:—

“The lantana which had been burnt and uprooted in a coupe in the Haliyal range in the previous year came up very, very sparsely. The new shoots which did appear were again pulled up and teak and honni plants introduced which promise well. The experiment of burning and uprooting lantana was carried out in other areas during the year under report.”

Sind Circle.

The following exotics were tried in the Ráhuja garden:—

(1) *Acacia Farnesiana*, (2) *Butea frondosa*, (3) *Acer oblongum*, (4) *Bauhinia alba*, (5) *Cedrela toona*, (6) *Celtis australis*, (7) *Diospyros Embryopteris*, (8) *Terminalia belerica*.

Out of these (3), (6) and (7) failed to germinate. No. 8 germinated but subsequently the seedlings died. The rest are doing well. *Dendrocalamus strictus* planted last year along the water channels is flourishing.

In Lárkána nim (*Melia indica*) and bamboo seedlings are doing well, but the former plant failed in Hyderabad. In Jerruck tali was transplanted into the Kháthár forests and its average height is 8½ feet at two years from seed. Plants of 1915 and 1916 were still thriving in Kháthár, Ghárko and Khánáni forests. The experiment has shown that tali needs only care in its initial raising to enable it to take its chance in suitable parts of the forests of Sind with reasonable hope of success. It has been decided not to extend the cultivation of bamboos, as without prohibitive expense in watering they are not likely to reach marketable dimensions.

In Budka forest a greenwood coupe of 1916-17, measuring about 22 acres, was exploited semi-departmentally, i. e., a contractor worked for a half share in the proceeds. The material was auctioned for Rs. 6,628. The outturn of the coupe was 258 timber pieces (3,913 cubic feet) and 77,229 cubic feet of fuel. The experiment was valuable both as serving as a guide to the normal yield per acre and as demonstrating the financial advantage obtainable under departmental working as opposed to the contract system. The Karáchi contractors had offered half the net price obtained for the coupe in question at the annual sales, though it must be conceded that the price of firewood rose between August 1916 and March 1917, the dates of the respective sales.

An experiment was made in order to test the wood of asri (*Tamarin articulata*) and bahan (*Populus Euphratica*) for making bobbins for cotton mills, but has been held up for the present as it is impossible to get these reinforced with metal according to the patterns furnished by the Secretary, Indigenous Industries Committee.

Tarwad seed has been obtained by the Deputy Conservator from Káthiáwár and Deccan and distributed to all Divisional Forest Officers to sow up in inland areas.

CHAPTER V.

ADMINISTRATION.

Northern Circle.

The circle was in charge of Mr. W. F. D. Fisher throughout the year.

Divisional charges were held as follows :—

Panch Maháls.—Till 26th July 1916, Mr. W. C. Milne; from 27th July 1916 to 30th June 1917, Mr. B. J. Patel.

Surat.—Till 28th August 1916, Mr. R. W. Inder; from 29th August 1916 to 23rd November 1916, Mr. R. K. Kanitkar; from 24th November 1916 to 30th June 1917, Mr. A. C. Hiley.

North Thána.—Throughout the year, Mr. W. E. Copleston.

West Thána.—Throughout the year, Mr. B. H. Dalal.

East Thána.—Throughout the year, Mr. P. E. Aitchison.

South Násik.—Till 25th July 1916, Mr. D. R. S. Bourke; from 26th July 1916 to 30th October 1916, Mr. W. F. D. Fisher (in addition); from 1st November 1916 to 30th June 1917, Mr. J. B. Brooks.

North Násik.—Throughout the year, Mr. H. A. Bhadbhade.

Working Plans.—Throughout the year, Mr. P. E. Aitchison (in addition).

All officers worked well. The changes noted were necessitated by Messrs. Bourke, Inder and Milne being taken for the Indian Army Reserve of Officers.

Sub-divisional Officers.

Mr. L. S. Koppikar acted as Personal Assistant to the Conservator till 30th October 1916 when he assumed charge of the new independent charge of the Násik sub-division.

Mr. D. N. Damle was on leave till 18th February 1917 when he joined the Northern Circle and from the 2nd March to the 30th June he was Sub-divisional Officer, North Thána.

Mr. R. K. Kanitkar was Sub-divisional Forest Officer, Surat, from 24th November 1916 till 5th March 1917 when he was transferred to East Thána.

Mr. K. E. Kotwal served as Sub-divisional Forest Officer, East Thána, till 30th March 1917 when he was transferred to Surat sub-division.

Mr. V. G. Bhalerao was Sub-divisional Forest Officer, West Thána, throughout the year.

Extra Assistant Conservators on probation :—

Mr. N. C. Ramchandani was in charge of the South Godhra range (Panch Maháls division).

Mr. Y. R. Divekar was in charge of the Galkund range (Surat division).

Messrs. Koppikar, Kotwal, Bhalerao and Ramchandani are mentioned as having worked exceptionally well throughout the year.

All divisional offices were examined during the year except Surat and South Násik.

The office establishment worked satisfactorily, but there is great need of improving the standard of ability as it would effect economy in many directions.

The protective staff (with the inevitable exceptions) also did well in trying and hard circumstances. Here again some greater liberality would be true economy.

Casualties.—There were 29 deaths or rather over $2\frac{1}{4}$ per cent. of the total staff within the year, resignation 25 or just $2\frac{1}{4}$ per cent. and retirements 9—total 5 per cent.

Discipline.—Dismissals 12, services dispensed with 33, degraded 9, suspended 2 and fined 181.

These figures showing a dissolution by death, discipline and discontent of 8 per cent. of the total staff within the year indicates some lack of economy and postulates inefficiency.

Recruitment.—Extra Assistant Conservator, Mr. Ramchandani, continued his probation and is now competent to be confirmed in the Provincial Service when vacancy occurs. Mr. Y. R. Divekar reported himself for duty from Dehra Dun as an Extra Assistant Conservator on probation.

Range Officers.—Of two students selected in 1914-15, who completed their course in March last, one has resigned. Of two selected in 1915-16, one resigned while at College. Of four students selected in the year under report, one resigned after completing the preparatory tour. These resignations have necessitated nine recruits being asked for in 1917-18, but only six can be accommodated at Dehra Dun. Of twelve additional rangerships required by expanding work in the circle, only three have been sanctioned, the other ranges are being held by foresters on wholly inadequate pay. Matters are less satisfactory in the foresters' and guards' grades.

The relations of Forest with Revenue officers have been uniformly satisfactory.

Central Circle.

Mr. L. Napier held charge of the circle throughout the year, as also did Messrs. D. A. Thomson, C. E. L. Gilbert, H. W. Starte, C. G. Dalia, V. D. P. Ribeiro and A. F. Gonsalves of their respective divisions of Poona, Sátára with the superintendentship of Mahábleshwar in addition, North Khándesh, Kolába, Working Plans and West Khándesh. In East Khándesh alone was there any change in divisional officers, Mr. R. P. Dalley being transferred to the Indian Army Reserve, and being relieved from July 2nd, 1916, by Mr. R. V. Pethe, the sub-divisional officer, who then remained in additional charge until relieved of the sub-division by Mr. E. O. Sampson from Sátára from January 11th, 1917.

Messrs. R. A. Shirali and G. S. Dangi were the sub-divisional officers in West Khándesh and Kolába respectively throughout the year, and Mr. G. R. Patker in North Khándesh except for one month during which he was on leave. Mr. A. N. Master held the Poona sub-division for six months and was then transferred to Sátára, being relieved by Mr. B. J. Joshi who had till then been attached to the former division as instructor of the Foresters' Class and additional sub-divisional officer.

Two Ranger class students from Dehra Dun joined the circle, both with higher standard certificates, and two new students and one who had been selected in 1915-16 but whose ill-health necessitated his leaving the college, were sent up for the 1917—19 course.

Thirteen students out of 16 nominated successfully passed through the Foresters' Class held at Poona, but there is an ever increasing difficulty in obtaining from the existing subordinate protective staff men of sufficient educational qualifications to profit by the instruction, and the nomination of outside candidates will probably become inevitable; unfortunately such candidates cannot be guaranteed immediate appointments on passing, and without such guarantee they are loath to come forward. And as few educated men are willing to take up forest guards' appointments and to learn their work in those low paid grades, future prospects are not hopeful. Recruitment is everywhere most difficult of the class of man that present-day conditions demand.

Similarly, there is a great dearth of qualified candidates for the post of junior clerks in range offices, more especially in those in backward and unpopular districts like Khándesh.

All Divisional officers worked with great energy and were well supported by their Assistants; and the good services of many Range officers have been brought to the Conservator's notice for special zeal in fire protection or sylviculture or general good administration of their charges. Promotion, however, is slow and prospects poor, and opportunity for rewarding good work is unfortunately seldom possible. Office establishments are generally favourably reported upon. The Conservator's head clerk, Mr. N. H. Damle, retired after 33 years' faithful and efficient service to Government.

Casualties were 22 deaths, 21 resignations, 32 dismissals and 24 retirements. One temporary depôt officer in East Khándesh was prosecuted for defrauding Government; his case is pending.

The civil suit, referred to in last year's report, in which a contractor had instituted a suit against Government on account of cancellation of his contract, was decided in Government's favour, the contractor bearing his own costs.

The Akráni pargana in North Khándesh was administered by the Divisional Forest Officer with, as the Collector records, sympathy and discretion; extracts from Mr. Starte's report are given below:—

“The Akráni pargana which comprises 1,94,683 acres of reserved forest and about 50,000 acres of revenue land continued to be administered by the Forest Department.

“In all Akráni revenue land comprises some 148 villages of which 118 are occupied. Sixty-seven of these are surveyed and the boundary marks were kept in repair by the various patels who received Rs. 150 in rewards for this work. There are also eight in-forest-settlements and two jahágir villages in the pargana.

“The assessment received from cultivated lands amounted to Rs. 3,586. There is a steady rise in the area brought under cultivation as shown by the assessment figures given below:—

			Rs.
1912-13	...	...	2,507
1913-14	...	...	2,828
1914-15	...	...	3,219
1915-16	...	...	3,356
1916-17	...	...	3,586

“The rate of assessment which is annas 4 per acre, except at Toranmal where it is annas 2, is too low in many villages, and at the request of the Collector of the district a report was submitted in 1915-16 on this question and also as to the advisability or otherwise of introducing the permanent survey settlement. The matter is in abeyance.

“The contribution to the local fund amounted to Rs. 228-7-3.

“The collection of tagái outstandings made good progress and no money was written off during the year. Rs. 6,483 capital *plus* Rs. 1,024-11-0 interest were repaid as against Rs. 8,147 and Rs. 1,134 respectively last year. During the year fresh tagái advances amounting to Rs. 1,000 were made as compared with Rs. 4,000 last year.

“The rainfall was satisfactory and general crops good. The mhowra crop was gain poor.

“On the whole the health of the people was good, but a mild outbreak of small-pox occurred in the villages of Bhusia, Mál and Bilgaon in the middle of April, and at Toranmal in the middle of June. Only one case was fatal—at Bhusia.

“Early in May foot and mouth disease (locally known as ‘Kurmund’) broke out among the cattle and several succumbed to the disease.

"Seven years ago two Government stud-bulls, one Sonkhairi and one Thilári, were brought up to Akráni. Privately owned cows were then collected together to graze with the bulls. This was not popular with the people for they do not like to let their cattle leave their homes. Accordingly, the Sonkhairi bull was temporarily handed over into the charge of the patel of Bhogwáda to graze with the cattle of his village, and the Thilári was given into the charge of the Revd. A. P. Franklin of Mundalwad. Accurate figures have not been obtained but the Mahálkari reports that in all 42 cows were covered and 13 healthy calves produced. During the year the Sonkhairi bull lost one eye in a fight but otherwise both bulls are healthy. They are probably now past their prime for breeding, and if new bulls are supplied it would be better to provide somewhat smaller bulls of the short-horned variety, as the Akráni cows are rather small. During the year Government paid Rs. 30 towards the maintenance of the two bulls.

"The Government primary school at Dhadgaon and the Mission school at Mundalwad continued to do well, but the Government school at Kámod is still not popular.

"Owing to the war, less money was spent on repairs and improvements of bridle paths, but 95 miles of bridle paths were repaired, and the cart-track from Dhadgaon to Mundalwad improved at a cost of Rs. 380-8-0. During the year a district bungalow has been completed at Dhadgaon. It should be fully furnished.

"Owing to lack of funds no new chawdis have been built although they are required at Mundalwad, Mándvi, Bhusia and Domkhedi. It is very uncomfortable for the Mahálkari and taláties to move about in the rains owing to lack of suitable accommodation. At present there is only one chawdi out of Dhadgaon, viz., at Chanseli.

"The provision of a Government dispensary at Dhadgaon for which plans and estimates have already been prepared is still urgently required. Its construction should not be delayed longer than is absolutely necessary.

"Out of the grant for improvement of village water supply a well was sunk at Telkhádi at a cost of Rs. 300, one-third of the cost being borne by Government and two-thirds by the people (Rs. 100 in cash and the equivalent of Rs. 100 in labour). Blasting was required and the upper portion has been properly lined with stone and cement.

"No cases were tried by the Divisional Forest Officer as second class Magistrate although he was instrumental in settling various complaints by arrangement between the parties. Eight cases were tried by the Mahálkari (the Range Forest Officer) in his capacity as third class Magistrate for abkári cases only. In all 11 persons were tried by him and all convicted, one being sentenced to imprisonment, and fines amounting to Rs. 160 being recovered from the rest.

"Akráni revenue lands contain many well wooded areas indistinguishable from forest proper; hence in June 1913 the more thickly populated portion was put under a simple working plan to regulate the cutting of firewood and supply of hutting material. The former is given free, and the latter on low fees. Owing to the supply being greater than the demand the demarcation of coupes is in arrears but it will be necessary to lay out new coupes next season. During the year 7,806 acres of revenue forest were burnt as compared with 99 acres last year.

"In general the year was one of steady progress accompanied by contentment of the people."

In North Khándesh in-forest-settlements, to provide for labour for fire protection and other forest works, were maintained and extended with good results both to Government and to the settlers, and the general contentment and well-being of the latter was very marked. Under the easy terms given by the department land is in great demand, cultivation is good and careful, and little trouble experienced in recovering tagái advances. Proof of the well-being and contentment was afforded in one case by an application from three adjacent settlements, and which has been forwarded to the Educational authorities, to be provided with a joint primary school. In East Khándesh

in the uninhabited hills the necessity for such settlements is a matter of great urgency, but so far attempts at forming them have met with little success, partly owing to the land being less suitable for cultivation, partly to the settler available not being by nature and habit of a good cultivator stamp. But all forest progress in the East Khándesh Sâtpudas depends on the introduction of settlers, and efforts will be continued.

Southern Circle.

The charge of the circle was held by Mr. T. R. Bell throughout the year.

Messrs. Dodgson, Edie, Marjoribanks, Butterworth, Limaye and Koppikar continued in their charges of Kánara Northern, Kánara Eastern, Kánara Western, Kánara Central, Kánara Southern and Dhárwâr-Bijâpur divisions, respectively, throughout the year.

Mr. Hodgson continued in charge of the Belgaum division for the first 8½ months of the year up to 15th March 1917 when he left to undertake special military work as Timber Supply Officer in Bombay. For the remainder of the year Mr. Miller, Divisional Forest Officer, Working Plans, held charge of the division.

The Ratnágiri division continued to be in charge of the Collector, Mr. J. P. Brander, I.C.S., throughout the year.

There was no change among the Sub-divisional Officers. Mr. Bendigeri was transferred from Kánara S. D. as an additional Sub-divisional Forest Officer in the Belgaum division in May 1917 to assist in timber supplies required by the Military Department.

Kánara W. D. badly needs an energetic Sub-divisional Forest Officer; Mr. Shrigley, who was posted there by Government during the year, has not arrived.

The Sirsi range of the Kánara Central Division was divided into two—the Sirsi East and the Sirsi West ranges during the year.

The candidate, Mr. Jagan Nath Dutt, nominated by Government for the Provincial Service Course of 1917—19, satisfactorily underwent his three months' practical training in this circle and joined the Imperial Forest College, Dehra Dun, in April 1917.

The three candidates deputed for the Rangers' course of 1915—17 passed the final examination and were posted as Rangers in Belgaum, Kánara E. D. and Kánara C. D. More Rangers are wanted.

For the Ranger's course of 1916—18 three candidates were nominated and sent up to Dehra Dun during the year.

The Belgaum Forestry Class was as usual conducted by Mr. Hattiangadi, Sub-divisional Forest Officer, Belgaum, in addition to his own duties. Of the nine students sent up from the different divisions, eight passed and one failed at the final examination.

The Conservator visited all the divisions of the circle except Ratnágiri and all the divisional offices were inspected. Range offices situated at the head-quarters of each division were also examined with a view to see whether the several instructions and standing orders issued at the detailed inspection last year have all been properly followed. No serious irregularities were noticed.

Land Revenue Administration.

Kánara N. D.—The three forest maháls, *viz.*, Dandeli, Virnoli and Kulgi comprising 23, 12 and 11 villages, respectively, in the Haliyál taluka of the Kánara district were started from the 1st August 1916, the respective Rangers being *ex-officio* Mahálkaris and the Divisional Forest Officer, *ex-officio* Assistant Collector. The Divisional Forest Officer states that one village which had been depopulated for many years was partially occupied and that every endeavour is being made to induce people to settle in these forest tracts.

Kánara E. D.—The two maháls, *viz.*, Bilki and Kirwatti, the latter newly started during the year from 1st August 1916, were successfully administered

by the respective Range Officers under the supervision of the Divisional Forest Officer, the *ex-officio* Assistant Collector.

The Devikop mahál of four villages in the Kalghátgi taluka of the Dhárwár district, administered by the Divisional Forest Officer, Dhárwár, from 1st August 1913, was split into two, *viz.*, Devikop and Kargod, comprising three and one villages, respectively, for administration by the Divisional Forest Officers, Kánara N. and E. divisions, from 1st May 1917.

Kánara W. D.—The revenue charge of the Supa mahál consisting of 120 villages was handed over to the Divisional Forest Officer, Western division, from 1st August 1916. He states:—"It is somewhat too early to judge of the effects of this change from the point of view of general administration; when the Divisional Forest Officer can find time for only a limited amount of ordinary village inspection—a fact which postulates the retaining of a good and trustworthy Mahálkari in the Petha—it is already clear that holding the revenue charge simplifies forest work in certain directions. What the people do in their fields matters very much to forest protection and in particular to the annual fire record; and it is of the first importance that the giving out of waste lands on easy terms should be supervised by one directly interested in maintaining a population for forest works. It would be difficult to speak too highly of the help given by the Mahálkari, Mr. M. S. Hegde, in trying to induce the people to greater care in the use of fire, more economy in the use of tree growth and more diligence in undertaking forest labour in the off-seasons."

No new kumri assignments were given during the year.

Belgaum division.—The Belgaum range mahál and the Khánápur West range mahál were successfully administered. It is reported that, though the kumri villagers avoided forest works, efforts made to induce them to patronise such works were successful, particularly in the latter mahál.

The policy of giving out forest land suitable for cultivation was continued.

Betta assignments.—The Divisional Forest Officer, Kánara S. D., states that all the work in connection with the betta assignments in the Sirsi and Siddápur talukas has been finished.

Hunting and shooting.—

	1916-17.	1915-16.
Game licenses issued ...	No. 43	No. 48
Breaches of game rules brought to light. ...	" 2	" 4
Fines recovered for breach of rules ...	Rs. 100	Rs. 155
Rewards paid for reporting illicit shikár. ...	" 30	" 50

Casualties and punishments.—The health of the subordinate forest staff was satisfactory everywhere except in Gund and other malarial parts of Kánara W. D. A liberal supply of quinine treatments was made to all the establishment as usual. The casualties were:—

Seventeen men—1 forester, 12 guards, 2 clerks and 2 peons—died as against 16 in 1915-16.

Twenty-three men—1 ranger, 6 foresters, 13 guards and 3 head clerks—retired as against 22 last year.

Thirty-nine men—37 guards and 2 peons—resigned as against 38 in the previous year.

Punishments.—

Year.	Fined.	Degraded.	Suspended.	Superseded.	Dismissed.	Prosecuted.	Total.
1916-17 ...	456	13	10	22	6	3	510
1915-16 ...	396	31	29	46		9	511

Criminal offences.—The particulars of the three prosecutions instituted during the year are:—

Division.	Subordinate prosecuted.	Charge.	Result of prosecution.
Kánara W. D. ...	1 Forester ...	Theft of Government money. Rs. 99-14-7.	1. month's imprisonment and Rs. 100 fine.
Kánara W. D. ...	1 Guard ...	Absconded with Government money. Rs. 8-11-0.	Complaint withdrawn, the offender not being traced; lost money is being recovered from the arrear pay due to him.
Kánara S. D. ...	1 Guard ...	Misconduct ...	Under trial.

The appeal of the forester and two guards of Kánara E. D. in the torture case, mentioned in the last report, was rejected by the High Court.

The relations between the Revenue and the Forest officials as usual have been satisfactory.

Services.—The Divisional Officers have all worked well, but have had little rest owing to extra duties imposed upon them for timber supply for military purposes in Kánara W. D., N. D. and Belgáum. The Sub-divisional Officers have also done well. In the Ranger grades the Conservator would like to mention Messrs. Mudchatkar, Hasabnis, Nerlekar and Rego in Kánara and Mr. Rege in Belgáum for hard work and attention to duty. The Conservator's Personal Assistant, Mr. Chandavarkar, has been as indefatigable as ever and Mr. Bellare, the Conservator's Head Clerk, again deserves mention. Also Mr. Nagarkatti and the Conservator's camp clerk, Mr. Mavinkurve, have worked very hard. Taken as a whole the office members have acquitted themselves creditably.

The Divisional Forest Officers report that the work of guards and most of the foresters is far from satisfactory and that it is most difficult to obtain good recruits, the hard, strenuous, lonely life on low pay not being attractive to able-bodied men, who can earn better wages in other departments of the public service or in private firms, factories, mills, railway works, etc. It often occurs that the uneducated, irresponsible cooly, who is supervised by the guard, receives higher wages than the guard, who is generally literate and has a fair amount of responsibility attached to his post. This is not as it ought to be. If guard's minimum pay be fixed at Rs. 10 per month and his service made superior as in the Police Department, it might attract men of the right stamp, render recruitment less difficult and improve the tone of the establishment considerably. On a full discussion of the subject in the Forest Conference of 1913, certain proposals were submitted to Government, who have in their Resolution No. 2683 of 5th March 1915, Revenue Department, postponed the issue of final orders in the matter. In view of the fact that the pay and prospects of the policemen have been further improved recently, an early consideration of the case of forest subordinates would improve matters.

Preliminary proposals for increasing the staff of Rangers were submitted to Government at the close of the year; orders thereon are awaited.

Sind Circle.

The Sind circle was in charge of Mr. G. R. Duxbury throughout the year.

Mr. V. R. Mirchandani held charge of the Sukkur division during the absence of Mr. A. C. Robinson on three months' privilege leave, in addition to his own duties as Sub-divisional Forest Officer. Proposals sent up during the year regarding the partition of the Sukkur and Larkána divisions into three charges with Mr. Mirchandani as the new Divisional Forest Officer,

Shikárpur, have been recently sanctioned by Government. The new arrangement will enable each officer to thoroughly inspect his charge, especially the erosion fellings and kachas; this was formerly a physical impossibility for the Divisional Forest Officer, Sukkur, who has not been provided with a steam launch.

Under the sanction of Government the officers in charge of the Lárkána and Hyderabad divisions changed stations. The Jerruck division remained throughout the year ably administered by Mr. Newman who completed his sixth consecutive year of charge during the year under report.

In accordance with Government orders proposals asking for extra Rangers required for the Sind circle were forwarded. The Sind forest staff were less favourably treated than those of any other circle in the Bombay Presidency at the last reorganization and only 55 per cent. of the ranges received Rangers. These proposals were returned for incorporation into a consolidated scheme for all forest subordinates in the Bombay Presidency and fresh proposals dealing with the need for more foresters and the increasing of the pay of the Sind forest guards were forwarded before the close of the year.

It was found necessary for a time owing to the paucity of suitable officers, to work the Rohri and Rádhan ranges as sub-ranges under the Sadhuja and Lárkána ranges respectively. The position was again restored after the close of the year under report.

The four surveyors in the Working Plans office formerly on the temporary establishment were made permanent from the 1st April 1917 under Government Resolution No. 3452 dated 28th November 1916. These men are now on graded pay instead of receiving biennial increments, and will be attached to divisional offices in the places of the present temporary men when working plans have been completely revised.

On the whole, the standard of work improved throughout the circle. Among the Rangers Mr. Rodrigues now in Hyderabad division, Messrs. Nenumal and Mewaram in Jerruck division and Messrs. Kotumal and Dalpatrai in the Lárkána division deserve special mention. The first-named is easily the best Ranger in Sind.

The office establishment worked well. Unfortunately the moral stability of many of the members of this, as well as of the protective establishment, is not equal to their industry. There is moreover still a good deal of careless work. The Deputy Conservator can recommend the Head Clerk of the circle office, Mr. Imdadali Mahomed Ashraf Kazi, for his integrity and devotion to duty.

Efforts to recruit candidates from youths who have passed the School Final Examination have been fairly successful during the year.

Forest students, Dehra Dun.—Mr. Gianchand Madhok, Ranger, reported for duty early in April, and was posted under Mr. Rodrigues but owing to the paucity of officers had very shortly to take up an independent charge in the Sukkur district.

The reports on the two candidates of 1916—18 class, on the whole, are not encouraging. Mr. Deputy Lal Kishori Lal Sharma, probationary student for the year 1917—19, received practical training under the Deputy Conservator, and the Divisional Forest Officer, Jerruck, and left for Dehra Dun in March 1917. This student who is a son of a native officer of the 10th Lancers now serving in Mesopotamia has started well.

All the divisional forest offices and that of the Working Plans Assistant, were inspected by the Deputy Conservator during the year, who also personally inspected 11 range offices in the circle. The rules laid down by the Forest Conference of 1916 have been adopted and many new registers opened in consequence.

All Divisional Forest Officers with one exception worked well throughout the year as did the Sub-divisional Forest Officer, Sukkur.

Good progress has been made in the classification of records in all offices, arrears are chiefly in the Direction office, where it was found possible this year to carry out 20 years' classification of records during the touring season. Conservator's circulars for the past 40 years were personally classified and indexed by the Deputy Conservator, and indices distributed to all Divisional Officers, who were ordered to withdraw obsolete circulars from their files and classify those left in accordance with instructions.

The following casualties occurred during the year. These are arranged under the head of superior service Rs. 12 and over, and inferior service upto Rs. 10, as requested by the Commissioner in Sind in his review of 14th October 1916:—

Division.	Deaths.	Casualties.					Discipline.				
		Retire- ments.	Resigna- tions.	Dismis- sals.	Services dispensed with.	Percent- age.	Degrada- tions.	Fines.	Superses- sions.	Percent- age.	
<i>Sukkur.</i>											
Inferior ... ..	...	...	2	3	16	} 15.11	{ 6	65	...	} 56.98	
Superior ... ..	...	3	...	1	1			7	19		...
<i>Larkana.</i>											
Inferior ... ..	...	...	3	...	2	} 9.4	{ 4	12	...	} 25.0	
Superior	3	1	...	...	...			...	...		...
<i>Hyderabad.</i>											
Inferior ... ..	...	...	...	1	...	} 2.8	{ 2	1	...	} 4.1	
Superior	1	...	...	...	...			...	...		...
<i>Jerruck.</i>											
Inferior	1	...	23	2	...	} 27.2	{ ...	7	...	} 10.9	
Superior ... ..	...	...	...	...	...			...	3		...
<i>Working Plans.</i>											
Inferior ... ..	...	...	...	...	...	...	...	...	...	...
Superior ... ..	...	...	...	...	...	...	...	...	...	...
<i>Total.</i>											
Inferior	1	...	28	6	18	} 13.3	{ 12	85	...	} 24.02	
Superior	4	4	...	1	1			7	22		...

As usual the heaviest punishments were inflicted in the Sukkur division where the old staff was thoroughly demoralised some years ago. The fines and degradations inflicted on officers of the superior service refer to Sub-rangers on Rs. 12, who are almost entirely illiterate, and are merely promoted beat guards. The large number of resignations shown in Jerruck refers chiefly to the men in the ranges where the forests are flooded by the inundation. These men were drafted on to the inland forests of Katiar where artificial regeneration is in progress, and showed their discontent by resigning. The proximity of Karachi where ordinary coolies receive as much as 12 annas per diem also very much affects the recruitment of Jerruck, causing the beat guards to refuse to serve on Rs. 9 and Rs. 10 per month.

Relations between the Revenue and Forest Departments continued to be cordial during the year.

A theft of Rs. 373-5-11 occurred in the Sadhuja range forest office when in the charge of the Range Forest Officer, Ghotki, in addition to his own duties. After a careful enquiry by the Divisional Forest Officer, Sukkur, and personal inspection of the premises by the Deputy Conservator, Sind Circle, a report was made to the Commissioner pointing out that both Ranger and clerk were guilty of carelessness, and the money was ordered to be made good from these officers by 12 monthly instalments from their pay.

CHAPTER VI.

GENERAL.

Northern Circle.

The most notable event of the year was the visit of the Inspector-General of Forests with the object of discussing, in the forests, the revision of all the existing working plans of the Thána divisions—this revision to be under one plan which was then being drafted. It is satisfactory to see from paragraphs 10 and 11 of Mr. Hart's Inspection Note, dated 16th April 1917, which is on record, that the treatment proposed met with his approval.

Not less valuable is the Inspector-General's reference to the gurcharans of the Thána district. A revised working plan on the lines suggested by him in paragraph 15 of his Inspection Note had been drawn up in the previous season (1915-16) for the Central Thána division by the orders of the Conservator, but reference to Government in the matter was postponed for several reasons which were mainly, (i) that it was advisable to first complete the revision of the forest plans then in hand, (ii) that Government should have an opportunity of considering the representations of the Collector regarding the management of the gurcharans, (iii) that the Inspector-General might record his opinion during his forthcoming visit, (iv) that proposals for the much needed reorganization of the protective staff then being prepared might be considered by Government and (v) that officers might acquire a knowledge of their new charges under the Thána divisions reorganization scheme. These matters having now sufficiently matured, the permission of Government to the complete preparation of the proposed revision is being asked. The importance of this matter lies in the fact that the gurcharans in question are equal in area to, and of greater commercial value than, a Thána forest division. If the proposals to be made are sanctioned, the revenue from gurcharans should rise from two to seven lakhs of rupees and benefit every inhabitant of the country-side.

During the year the Committee appointed to consider the development of indigenous industries commenced its enquiries. A written statement on the subject, asked for by them, was duly submitted and from time to time during the year the specific requirements of many individual industries, *e. g.*, bamboos for pulp, timber for matches, picture-frames, bobbins; firewood for glass making; gum for resin, etc.; grass for oil; barks, etc., for tan; and others, have come up for consideration, all pointing to the conclusion that the industrial welfare of the country is directly dependent, like forest revenue, on the development of forest management along the most scientific lines.

It is impossible to refrain from mentioning here the ceaseless and increasing difficulty which has been experienced throughout the year in endeavouring to carry out urgent works and even in arranging for routine duties owing to (i) the shortage and inefficiency of the present protective staff and (ii) the lack of the ordinary amenities of life of that staff in the more unhealthy and out-of-the-way localities in this circle. Reorganization proposals have been submitted. The money required to give effect to those proposals is but a fraction of the immediate additional revenue anticipated by proposed improvements in working. It is, therefore, earnestly hoped that the much-needed relief will be accorded.

Central Circle.

Rainfall was good throughout the circle and the year was a prosperous one for trade and forest revenues. And that the prosperity will continue, looking to the increasing world demand for forest material and the scope that exists for development of industries now untouched, is a matter beyond question of doubt.

From the nature of its forests, the circle could make few direct contributions to war requirements, for the Deccan divisions are not even self-supporting in forest material but depend largely on imports from elsewhere. But war demands for small timber, fuel and grass had a marked effect in Khândesh, as was evidenced not only by the demand for coupe material but by the fact that

accumulated stocks in contractors' hands were completely cleared off by the end of the season, a happy state of affairs to which the timely, though unexpected provision, of wagons by the railways largely contributed. A demand for grass was indeed made by the Military authorities in January, and was met by the department putting all its resources at the disposal of Mr. Bhiladwalla, its famine fodder contractor in West Khándesh, and enabling him to meet and fulfil a contract that he had entered into with the Military department.

For the current year revenue prospects are even more favourable than in the one under report.

Southern Circle.

The importance of forest resources of the Southern Circle was duly recognized by Government during the year, and some preliminary measures for the development of forests were undertaken. The urgent necessity for good roads to open up valuable areas was realized and one of the most important and difficult roads—the Kadra-Gund Road—in Kánara W. D., undertaken, is nearing completion. A special Engineer was deputed for the improvement of the most useful waterway for floating timber in Kánara W. D.

Mr. Haines, Executive Engineer, Dhárwár district, deputed to the Forest Department last year on the work of improving transport facilities, after making a preliminary examination of the bed of the Kálinadi river, reverted to his appointment in Dhárwár and in accordance with the recommendation of the special conference of the Commissioner, S. D., the Conservator of Forests, S. C., and the two Secretaries to Government, Public Works Department, Mr. Pipe, Executive Engineer, Ahmednagar district, was deputed to proceed with the work for seven months from 15th November 1916 to 15th June 1917. During this period he surveyed the whole of the Kálinadi from below Jogáli slide to the tidal limit above Kádra, with a view to preparing a project for improving the floating channel. He also prepared a rough survey of the Káni river from a point called "Durga Seri" to its junction with the Kálinadi. About half the blasting work preliminary to the possible evolution of a floating channel for logs along this most difficult nala was carried out by him and two trial dams of wood and masonry were constructed to head up the water in one main channel. It is to be seen how they will have stood the year's floods. Mr. Pipe's work was carried out with energy and determination under the most adverse circumstances as regards labour and supplies. His final report on the double project is awaited.

Government having sanctioned the survey of the line (16 miles) for the light forest railway from Dandeli to the Alnávar Station of the M. and S. M. Railway, the survey was made by an officer of the Railway company. Details regarding construction and management are under consideration. This forest railway is calculated to help the exploitation in Kánara N. D. to a considerable extent.

In addition to the two steam saw-mills working in Kánara N. D. three new steam saw-mills were procured for the other three important divisions of Kánara, which are being erected and will commence work in this fair season.

Fire protection and sylvicultural operations were conducted on an extensive scale, special parties being appointed for the purpose. The only retrograde step of the year was the curtailment of expenditure on buildings and wells so as to utilize the money on operations of a more urgent and remunerative character. Data for the preparation of a working plan for the Bijápur forests was collected and that for the forests of Kánara S. D. is to be collected shortly; endeavours are being made to bring the whole area of the circle under regular working plans as soon as possible and to revise such of them as have become due for revision. Large areas of pasture forests in the Dhárwár and Bijápur districts in charge of the Revenue Department having been neglected, proposals were made for their re-transfer to the management of the Forest Department and these have recently been submitted to Government. It is hoped that these areas will soon return to this department to the mutual advantage of the ryot and the State. The

Ratnágiri forests unfortunately are worked at a net annual loss of about Rs. 3,000. The forests are small, scattered scrub jungle and produce no valuable material; the Collector in charge states that a reorganization of the forests and establishment is necessary and that proposals for the same have been submitted by him to the Commissioner, S. D.

The financial results of the year, bringing in nearly a quarter of a crore of revenue, are most encouraging; with more intensive management combined with good roads and other facilities for the systematic exploitation of the produce, it would not be too much to hope for a sustained annual revenue of half a crore and over in the next quinquennium.

The Inspector-General of Forests visited the circle and made a detailed tour for about a month in February 1917 through the important forests of Kánara N., E., C. and W. divisions and Belgaum with a view to advise on working plans.

The Tanning Expert to the Government of India visited Belgaum and neighbouring towns to make a survey of tanning products of the country and of local private tanneries.

The Forest Economist paid a visit to Kánara W. D. and N. D. in connection with the experiments of seasoning different kinds of timber under different methods.

The Timber Supply Officer of the Military Department, Bombay, visited Ankola in Kánara C. D. about the timber supplies required for war purposes. Arrangements have been made for the regular despatch of timber and bamboos in large quantities from Kánara N., E., C. and W. divisions and Belgaum.

Labour supply was again deficient in the Khánápur ranges (Belgaum) as also in the Gund range of Kánara W. D. and, generally, in Kánara N. D. Notwithstanding the exertions of the revenue authorities in securing labour and carts in Khánápur the annual delivery of fuel to the Railway Company fell short by 8 lakhs of cubic feet. In Kánara W. D., the labour supply was sufficient for all work on the coast, even the extra contracts for supply of war material being carried out without any difficulty. It is only above ghats in Gund and in Kánara N. D. that scarcity of labour is severely felt. In these parts, the villages are practically uninhabited and labour has to be imported from the coast. As people on the coast find work near their homes, they naturally often refuse to go above ghats. The only solution of the difficulty appears to be to get the deserted villages inhabited again by giving out suitable cultivable land on easy terms. Messrs. Dodgson and Marjoribanks, who are *ex-officio* Assistant Collectors for forest maháls in Kánara N. and W. divisions, are taking a keen interest in their land revenue administration and try to improve matters.

The Berad (Criminal Tribes) Settlement, established by Government at Shirolí in the Khánápur taluka of the Belgaum district for the supply of forest labour, was started in March 1917 and the number of Berads gradually rose to about 100 including some Lamanis from the Bijápur district. Their services were utilized for various forest operations.

During the working season plague and cholera were prevalent in Kánara N. D. with the result that the work of carting contractors was much hindered.

At the Tavargatti depôt and Alnávar station in Kánara N. D. great difficulty was experienced by contractors and purchasers in removing their material owing to the shortage of wagons on the railway, caused by war requirements. The Divisional Forest Officer apprehends that this may affect prices adversely in the coming sales if this state of things continues.

The new timber depôt, established on the coast at Tádri in Kánara C. D. last year, was removed to a more satisfactory site further up the river at Divgi.

The enumeration of sandalwood trees in malki lands of the Dhárwár district, undertaken in 1913-14, was continued during the year, and the Forester, specially put on the work, counted 32,060 trees in 42 villages of the Dhárwár taluka. According to the figures furnished by the Mamlátdárs the total number of sandalwood trees standing in malki lands of the Bijápur

district, excluding the Badāmi taluka, for which figures have not been received, are 3,043 in 188 villages. Steps are being taken to have a correct enumeration of the trees made in both the districts as soon as possible.

The Collectors of different districts make the following remarks in forwarding the several reports :—

Kánara (By Mr. J. H. E. Tupper) :—

Kánara N. D.—"Fifty per cent. of the total area is closed to grazing and it is observed that the number of impoundings shows a marked increase.

"Mr. Dodgson administered three small forest maháls as *ex-officio* Assistant Collector in addition to his work as Divisional Forest Officer. He has been very successful in his dual capacity. He is the only Divisional Forest Officer who reports a serious attempt at repopulation of the deserted villages. One village has partially been reoccupied. It is interesting to note that Mr. Dodgson has been convinced by the acuteness of the labour question that the only solution is to get the depopulated villages inhabited again. We are now trying to work out a scheme of in-forest cultivation which will effect this purpose."

Kánara E. D.—"Mr. Edie administers two small forest maháls as *ex-officio* Assistant Collector in addition to his work as Divisional Forest Officer. His administration in both capacities has been most successful."

Kánara S. D.—"The large increase of fires in the Siddápur range in a year in which fires generally have greatly decreased is said to be partly apparent only and partly due to scarcity of fuel, driving people to the manufacture of dead-wood by firing the forests. It is hoped that the establishment of the fuel depôt at Siddápur will eliminate the second cause."

Kánara W. D.—"Mr. Marjoribanks administers a very large area, larger than the biggest taluka of the district, as *ex-officio* Assistant Collector. His administration, both as Divisional Forest Officer and as Assistant Collector, is worthy of the highest praise, and a most promising start has been made in the experiment of forest maháls.

"It is a matter of extreme difficulty to get the subordinate magistracy to realize their duties in dealing with small forest cases. The District Magistrate has issued clear orders on the subject for their guidance and hopes for improvement. These cases are carefully watched.

"Undersigned has inspected a fair amount of kumri in company with the Divisional Forest Officer and investigated the economic condition of some of the kumri villages personally. In view of the knowledge thus acquired the Collector entirely agrees with the views expressed by the Divisional Forest Officer.

"Arrangements have been made for the final disposal of cases in which bettas have not been accepted in order that the gardeners may have no legitimate cause of complaint and no pretext for protracting proceedings.

The greatest obstacle to the development of all forest operations is the scarcity of labour, and every possible means must be availed of to increase the supply to meet the inevitably and rapidly increasing demand. The best means of increasing the local supply is in-forest cultivation to which Mr. Marjoribanks alludes in his paragraph 102. A scheme is under consideration to attract agricultural labour, which can be utilized for forest purposes, by the offer of land on exceptionally favourable terms. As Mr. Marjoribanks observes labour has a natural tendency to gravitate below gháts, and below gháts the Revenue Department can do but little to attract additional population by giving out land on favourable terms because the entire area of assessed waste land available for expansion of cultivation below gháts is limited to about 10,000 acres, much of which is not very attractive quality."

Belgaum (By Mr. E. L. Sale) :—

"The early construction of the road from Gunji to Shiroli is most advisable. The cost of construction would very soon be recouped by the larger supplies of wood that would result from the provision of a proper cart-road. The experience gained over the Kanbárgi-Muchandi road shows how the absence of cart-roads deters contractors from bidding freely for coupes.

"The system of allowing reduced rates of grazing to all who have assisted in putting out fires is a good system but as worked it presents possibilities to the forest officer who draws up the statement showing those present who helped to extinguish any particular fire. It is suggested that the village patel should also sign such statements.

"The area of forest in the Murgod mahál north of the Kaladgi road which had been relinquished by the Forest Department was again handed back to that Department for management during the year. Government have also now sanctioned the return of all the forest lands remaining in this mahál and Parasgad taluka to the Forest Department.

"Mr. Hodgson's time was much taken up in the past year in providing wood for military requirements. He consequently was not able to devote much time to the revenue work of the forest maháls. Little progress was made in the giving out of suitable cultivable land in kumri villages in exchange for the temporary kumri rights.

"Mr. Hodgson has done excellent work during his tenure of the office of Divisional Forest Officer, Belgaum, in the development of communication roads to the forests and has shown the greatest enthusiasm in all branches of his work. It is to be hoped that the progress in improving the existing roads in the forest villages of Khánápur will continue and that new roads will be provided where the exploitation of the forests is hindered by the lack of proper communications."

Dhárwár and Bijápur—Remarks of the Collector of Dhárwár (Mr. E. G. Turner):—

"The report appears satisfactory though it is impossible to compare the financial results for this district owing to this being the first completed year since the changes in the Dhárwár forest division were made. The undersigned can endorse Mr. Koppikar's remarks as to the need for placing many of the pasture lands under the Forest authorities' control, and an agreement with Mr. Koppikar as to which lands should be so transferred has at last been settled and the final recommendation will shortly be made. Mr. Koppikar is very keen on a straight demarcation line so as to make conservancy easier and give less grounds to villagers for trespassing. From the several proposals put forward by him it does not appear that great importance was attached to this theory at the time of the forest settlement. However what progress can be made in this direction by exchange of lands is being considered."

Remarks of the Collector of Bijápur (Mr. V. K. Namjoshi):—

"It is satisfactory that the forest revenue of the district rose to Rs. 41,750 during the year from Rs. 33,726 during the preceding year, the revenue from minor produce alone being Rs. 31,060. The advantage of having a forest in their neighbourhood must have been specially brought home to the many people whose houses were destroyed by the floods of November last and who got free grants of timber from the forest for rebuilding them.

"It is satisfactory to note the decline in the number of forest fires during the year; but this was due of course to the special seasonal conditions of the year.

"The total number of impoundings in Badámi and Bágalkot were 3,275, sheep and goats being the principal offenders. Out of the total number of 1,10,069 animals admitted to grazing in forests during the year, the number of sheep and goats was only 1,117. This seems to indicate that facilities for grazing in the case of these animals require improvement. As this matter is the subject of a separate correspondence, it is unnecessary to say more about it here.

"It was unfortunate that a large number of seedlings grown with some trouble should have died from neglect on the part of the subordinate staff. A large number of houses is being built and factories are multiplying. The demand for timber and fuel is on the increase. The development of tree-growth to meet this increasing demand is absolutely necessary.

"The Acting Collector endorses Mr. Turner's remarks about straight demarcation. The various proposals submitted by Mr. Koppikar in this respect were judicious and his treatment of the ryot has been sympathetic."

Sind Circle.

When referring to a question asked by Government as to whether rails from light railways now laid down in France and Mesopotamia and likely to be available after the war would be wanted for the exploitation of forest produce in the Sind Circle, it was pointed out that what are needed so badly by the Sind Forest Department are tugs and barges to hire to contractors who have no boats of their own for the water carriage of their forest produce. At present country boats are very expensive to hire, and the boatmen most unreliable. This gives a great advantage to the bigger contractors who possess boats, and tends to keep contracts in the hands of a few, which is bad both for the State and the public. This want of facility of transport is one of the chief reasons why there are so few contractors in the Hyderabad and Jerruck divisions.

Another urgent need is a steamer for the Sind Forest Circle Officer. It is imperative that a large percentage of erosion fellings and kachas must be inspected, a fact brought home only too clearly this year by the bad administration found in the Hyderabad division, where the rules regarding erosion fellings have not been stringently observed. As the forests of Sind lie on the river bank and are about four miles broad, inspection by steamer, as in the early days of the administration when under Sir William Schlich, Divisional Forest Officers held free passes to travel on the steamers of the Indus River Flotilla Company, is a common sense procedure.

Reference must be made to high prices prevailing for wood all over the province. The principal cause was of course the large export of fuel to Mesopotamia from Lower Sind and to Quetta and the neighbourhood from Upper Sind. In Karachi the situation was further aggravated by the combination of the three principal contractors (who at present practically control the market) owing to one firm being unable to put six lakhs maunds of dry fuel on the market at one time. The shortage of waggons on the railway, resulting in none being available for the local fuel supply, and the disinclination of the aforesaid contractors to put any of their dry stocks wholesale on the market when a few waggons were available owing to the appearance of a well-to-do new comer in the fuel market, led to a great depletion of dry stocks in Karachi itself, and a general inflation of prices.

Personal appeal to the loyalty of contractors, and refusal to accept tenders from combinations combined with the putting of all available dead-wood on the market, has brought down the price of the military contract from 15½ annas to 9 annas per 100 lbs. and the local supply from Rs. 1-4-0 to 14 annas per maund and will, it is hoped, decrease the latter much more appreciably in the near future. In the meantime it is necessary to encourage the smaller contractor in every possible way as indicated above.

The position in Upper Sind must be ameliorated by the acquisition of more forest land which is in great deficit due to a mistaken policy in the past, and the Commissioner has been addressed on the subject during the year under report.

It was held by the Judicial Commissioner of Sind in a case during the previous year that rule 4 of the old Sind rules under section 41, Indian Forest Act, was illegal. This necessitated new rules being drawn up, and these were prepared, submitted to and sanctioned by Government and introduced during the year under report.

Felling rules were standardized and introduced into the agreements as is done in the Presidency proper. Leaving these to the discretion of the Divisional Forest Officers had proved most disastrous in the Hyderabad division.

At the request of the Timber Supply Officer, Bombay, statistics as to the timber available in the markets of Sind were obtained and forwarded early in 1917.

Arrangements were made to give instruction in arboriculture to subordinates of the Public Works Department, District Local Boards and Municipalities at Ráhuja in Sukkur and in Hyderabad. At Ráhuja all these candidates passed, while at Miáni the six candidates who sat for the final examination were successful, one of the students being absent through illness. The Commissioner has sanctioned one class being held for the province to be opened yearly at Hyderabad. The Forest Department was represented by a stall at the Arts and Crafts Exhibition opened by the Commissioner in Hyderabad in November 1916, where amongst other exhibits specimens of bobbins turned from the wood of bahan (*Populus euphratica*) were shown.

Chil and deodar logs and sleepers and logs of tali (*Dalbergia sisoo*) were as usual imported into Sukkur, Rohri and Shikárpur from the various parts of the Punjáb, and large quantities of timber and fuel to the large towns of Upper Sind from the territories of His Highness the Mir of Khairpur.

There were no civil suits during the year.

Mr. Rieu in forwarding the Hyderabad report remarks: "It is satisfactory to note that in the Unerpur range of the Karáchi district there was only one case of accidental fire in which the area damaged was insignificant."

In paragraph 101 of the Jerruck report the Divisional Forest Officer, Jerruck, writes: "The price of fuel remains at a very high level in Karáchi at the close of the year owing mainly to the greed of certain leading contractors, though ostensibly to shortage of railway transport and requirements of army in Mesopotamia."

The Collector of Karáchi in forwarding the Jerruck report comments as follows: "The Collector notices with satisfaction the result of the year's good inundation and rainfall reflected in the reduction of forest offences and cattle impoundings, and the success attained by the departmental measures in keeping the forests safe from fires."

The Collector does not accept as accurate the statement made in paragraph 101 of the report as to the principal cause of the high price of fuel in Karáchi. The price would never have risen as it did but for what are there represented as the merely ostensible reasons for the rise. The latter were therefore the main and direct causes. The dealers, as it subsequently turned out, had somewhat overestimated the extent of the shortage in the supply, not having anticipated that the restriction on the use of railway wagons for private consignments would be relaxed. As soon as this was realized, prices eased off somewhat, and the present rates probably fairly represent the existing relation between supply and demand."

The Deputy Commissioner, Upper Sind Frontier, in forwarding the Sukkur report remarks as follows: "Only one pending case belongs to this district."

There were only two forest cases before the courts, and in neither was there any complaint about the attendance of the subordinate officers of the department. There does not appear to be anything else in the report that invites comment. The creation of the new division should be an advantage to both the Forest and Revenue Departments."

REMARKS OF THE COMMISSIONER, NORTHERN DIVISION, ON THE FOREST ADMINISTRATION REPORT OF THE NORTHERN CIRCLE FOR THE YEAR 1916-17.

No. F.O.R.—47.

REVENUE DEPARTMENT.

Camp, Poona, 18th October 1917.

Submitted to Government.

2. The Commissioner has no special comment to make on the report.

H. SMITH,
For Commissioner, N. D.

REMARKS OF THE COMMISSIONER, CENTRAL DIVISION, ON THE
FOREST ADMINISTRATION REPORTS OF THE NORTHERN
AND CENTRAL CIRCLES FOR THE YEAR 1916-17 SO FAR AS
THE AREAS IN THE CENTRAL DIVISION ARE CONCERNED.

No. A.—1436 of 1917.

Poona, 27th October 1917.

The following review of the administration reports of the Northern and Central forest circles for the year 1916-17, as far as the areas in the Central Division are concerned, is submitted to Government in the Revenue Department.

2. The forest ranges in the Násik district were rearranged in order to secure more efficient administration, the Igatpuri range being transferred to the Thána division and the remaining ranges in the Násik district being formed into new three sub-divisions. There was a net decrease of 36 square miles, 192 acres in the forest area in the Central Circle, mainly as a result of the disforestation of certain pasture areas which are now to be given out for cultivation in the Poona and Ahmednagar districts.

3. The length of new boundary demarcated during the year was only 97 miles—68 miles in the Akola range, 26 miles in West Khándesh and 3 miles in the Dindori and Peint ranges. The remaining work—124 miles in the Rájur range (Ahmednagar) and 63 miles in South Násik division—is expected to be finished shortly.

4. Preparation of new working plans and revision of existing ones were delayed owing to certain suggestions of the Inspector-General of Forests, who specially visited the Sátputa forests and the teak and babul forests in Poona: the Inspector-General's recommendations are receiving the careful attention of the officers concerned.

5. Road works in North Khándesh—Hisala-Bhoiti road and Wasurdi-Kodil road—were pushed on; and proposals regarding the fresh alignment of the Akráni road which were discussed by the forest officers have already been submitted to Government.

The Commissioner sympathizes with Mr. Napier's remarks as to the need for inspection bungalows in North Khándesh where tents are uncomfortably warm in the hot weather.

6. As regards the proposed Dhadgaon dispensary, when the distribution of dispensary grants for the current year was discussed in a recent conference of the Divisional Commissioners and the Surgeon-General the Commissioner did not press for this dispensary because:—

- (1) No Sub-Assistant Surgeon is available.
- (2) If one were sent he would always try to get away. He would have nothing to do and would himself get ill.
- (3) The natives do not want a dispensary and would not use one, and Government servants could only be given quinine and cough mixture, and they can have that without a dispensary.

For these reasons the Commissioner does not think that the Dhadgaon claim is very strong. Indeed it appears doubtful if it would ever be advisable to have a dispensary at this place—at all events there are other places where dispensaries are more wanted and would be much more useful.

7. The accompanying statement shows the nature and number of the forest offences committed. Their number rose from 6,998 to 7,274, of which 229 were taken into Court, 6,174 were compounded and warnings were given, and 871 remained undetected. The largest increase in any single district was 248 in the Poona division, and the Commissioner ascribes it to pilfering of forest material for the erection of temporary huts by villagers of plague-infected areas. Communal punishment was inflicted by the Collectors of Poona and Kolába on 21 villages for persistent damage by illicit cutting and grazing.

Mr. Napier's suggestions for the better protection of State forests from loss by fire were submitted to Government with this office No. A.—1339, dated 8th September 1917.

	1915-16.	1916-17.
East Khándesh ...	11,560	11,289
West Khándesh ...	10,045	10,602
North Khándesh ...	8,082	6,027
Poona ...	11,562	10,136
Sátára ...	5,571	5,033
North Násik ...	16,537	11,419
South Násik ...	11,484	4,971
Násik Sub-division (newly formed) ...	...	8,539
	74,841	68,016

8. Statistics of impoundings in the several forest divisions are given in the margin. General improvement is noticeable in all divisions except West Khándesh. Mr. Napier remarks that the decrease in the impoundings of horned cattle from closed areas was due to there being abundance of grass and to efficient supervision.

9. *Minor produce*.—Proceeds from hirda fell from Rs. 22,863 to Rs. 16,160; the decrease is an example of ordinary fluctuation.

10. The financial results of the year's administration are very satisfactory. The revenue of the forest divisions in the Central Circle within the jurisdiction of the Central Division amounted to Rs. 7,16,800 against Rs. 5,93,549, and the expenditure to Rs. 4,24,601 against Rs. 4,13,867, leaving a net surplus of Rs. 2,92,199 against Rs. 1,79,682. North and West Khándesh divisions mainly contributed to the increase which is due to brisk timber and fuel markets.

There was an increase of Rs. 27,928 in the total revenue in the Násik ranges. As Mr. Fisher remarks, owing to the reorganization of these charges it is not possible to compare each charge with the previous year's returns.

11. The demand for forest material tends to increase. Mr. Napier observes that the war demand for timber, fuel and grass has cleared off the accumulation of stocks in Khándesh. The Commissioner is glad to add that the year's working has as usual been very satisfactory, reflecting credit on all members of the department. Relations between Forest and Revenue Officers continued to be excellent.

C. N. SEDDON,
Commissioner, C. D.

Number of forest offences committed in the Central Division.

Divisions.	A Cases taken into Court.				B Cases compounded and warned.				C Cases undetected.				Total.				Grand total, 1916-17.
	Injury to forest by fire.	Unauthorized felling or appropriation of wood and other minor forest produce.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized felling or appropriation of wood and other minor forest produce.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized felling or appropriation of wood and other minor forest produce.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized felling or appropriation of wood and other minor forest produce.	Grazing without permission.	Other offences.	
East Khándesh ...	7	17	16	16	7	238	918	162	47	64	3	3	61	319	337	181	898
West Khándesh ...	9	5	5	1	1	199	395	32	55	75	3	...	65	279	403	33	780
North Khándesh ...	6	2	1	3	12	171	144	64	43	103	2	...	61	276	147	67	551
Poona ...	4	25	26	8	33	767	878	194	83	128	6	1	120	920	910	203	2,153
Sátára ...	8	22	11	2	26	455	476	121	56	46	...	6	85	523	487	129	1,224
North Násik ...	1	8	3	1	1	180	334	46	6	14	...	1	8	202	337	48	595
South Násik ...	1	7	9	2	5	163	123	38	41	36	...	...	47	206	132	40	425
Násik Sub-division	3	5	...	1	301	278	11	13	36	14	340	283	11	648
Total ...	31	89	76	33	86	2,474	2,946	663	344	502	14	11	461	3,065	3,036	712	7,274

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REMARKS OF THE COMMISSIONER, SOUTHERN DIVISION,
ON THE FOREST ADMINISTRATION REPORT OF THE
SOUTHERN CIRCLE FOR THE YEAR 1916-17.

No. 6111.

REVENUE DEPARTMENT.

Belgaum, 24th October 1917.

Alteration in area.—Parasgad forests (7 square miles) have been transferred to the Forest Department for management. Proposal for the transfer of pasture forests in Dhárwár (56 square miles) are under consideration.

Proposals for transfer of the Ratnágiri forests (18 square miles) to the Revenue Department have been submitted to Government under this office No. 429 of 6th August 1917.

2. *Forest settlement.*—As the forest settlement in all districts of the division is complete although in some cases effected some 30 years ago I was struck with the large number of proposals for afforestation of new survey numbers submitted from time to time by district officers and have issued orders that except where cogent reasons exist or where the forest settlement is out of date or where lands are required for in-forest cultivation, proposals for afforestation of numbers not included in the demarcation sanctioned at the time of forest settlement should not be submitted. Many cases in which lands have been provisionally notified under section 4 of the Forest Act are held up either for examination in the light of these tests or owing to the time of Prant Officers being taken up by more urgent work which prevents a careful examination of each proposal. This is especially necessary in Kánara where 82 per cent. of the district is already under forest and population has steadily decreased.

3. *Demarcation.*—The Conservator reports that the Collector of Dhárwár has issued orders requiring Inámdárs to clear the common boundaries between their lands and Government forests. Such an order does not appear to be legal (*vide* Government Order No. 10632 of 1st September 1917). I am pointing this out to the Conservator and the Collector.

4. *Control of regular working plans.*—Arrears in the exploitation of forests according to working plans are due to the difficulty in procuring labour and transport and these arrears will continue to accumulate until these difficulties are removed. To counteract the deficiency of labour in malarious and inaccessible parts where forest growth is good in-forest cultivation must be started and encouraged. This important question has engaged my attention and I have been considering on what lines the scheme should be worked and have lately held a conference of forest officers and which the Collector of Kánara attended. Roads are as necessary as labour. A detailed scheme for the improvement of communications of forest estate estimated to cost three lakhs of rupees has been submitted to Government under this office No. 5115 of 11th November 1916 and orders are awaited.

5. *Fire.*—The number of offences by fire has increased, being 35 per cent. above the average of the past three years and 16 per cent. above last year's figures, but the area burnt decreased from 2,13,959 acres to 52,794 acres, *i. e.*, by 75 per cent. which is satisfactory. Sixty-four villages were reported for bad fires in which I issued necessary orders inflicting penal rate of fees on the villagers by whose negligence or carelessness fires were caused and remitting altogether or ordering the levy of ordinary fees in the case of those who helped to put them out. It is essential that rewards and punishments should be closely associated if forest fires are to be checked.

6. *Grazing.*—Grazing rules are capable of improvement on the lines of the Central Provinces rules as stated elsewhere, and the question is already engaging my attention and I am in correspondence with the Conservator on the subject. The lack of grazing in Kánara is accentuated by the fact that a very large proportion of the cattle is unfit for labour. Unfit cattle are grazed at 2 annas which is the rate that useful cattle pay. In the Central Provinces

the ryot is allowed a certain number of plough and domestic cattle at the usual rates; any in excess of that number pay Re. 1.

7. *Financial*.—Forest revenue increased from 20 lakhs to 23.5 lakhs or 17.5 per cent. This is due to the increased area in the coupes sold.

8. *General*.—I attended the Conference of forest officers on 11th and 12th September 1916 and another Conference on 22nd October 1916. The Chief Secretary to Government and the Honourable Member in charge of the Revenue Department accompanied me in a brief tour over the forests of Kánara.

A rough estimate of the resources of the forest estate has been submitted to Government under this office No. 1546 of 11th April 1917. The estimated increase in revenue (gross or nett) will be 300 per cent. It would be an advantage if a special officer could be deputed for a scientific investigation of the latent resources of the forest estate.

My report on sandalwood is pending the receipt of certain information which I called for in July 1916 and which I now learn is to be yet put up before me.

Proposals for the establishment of a Forest College in Dhárwár are under consideration of Government.

The Gunji-Shiroli road referred to by the Conservator is useful not only for the exploitation of forest produce but also for the inhabitants of several villages. I have granted Rs. 2,000 for the construction of this road out of my discretionary grant for works of public utility.

I consider considerable profit can be obtained if charcoal is manufactured by drywood distillation instead of by the wasteful method of burning. This matter is under investigation, but it is difficult for the forest officers who have large charges to consider the commercial side of the forest estate, in addition to their duties of conservancy and exploitation of the forest coupes. A Forest Engineer is shortly to be appointed who will relieve the Divisional Forest Officers of the duty of constructing roads and buildings and other works which belong to the engineering side of forest work.

L. J. MOUNTFORD,
Commissioner, S. D.

REMARKS OF THE COMMISSIONER IN SIND ON THE FOREST ADMINISTRATION REPORT OF THE SIND CIRCLE FOR THE YEAR 1916-17.

No. 3238 of 1917.

REVENUE DEPARTMENT.

Office of the Commissioner in Sind.
Government House, Karáchi, 5th November 1917.

Submitted to Government.

2. The revenue of the year amounted to Rs. 5.3 lakhs against an average of Rs. 4.1 lakhs in the last five years; and the expenditure to Rs. 2.1 lakhs against an average of Rs. 2.1 lakhs. The surplus revenue as compared with the previous year rose from Rs. 1.6 lakhs to Rs. 3.2 lakhs.

3. Of the increase of a lakh and a half over the revenue of the year 1915-16, Rs. 50,000 is apparently due to the earlier recovery of outstanding instalments; for it is reported that the revenue outstanding was Rs. 24,900 only against Rs. 77,510 on the same date last year. This fact is not put forward in the causes given by the Deputy Conservator for the improvement of revenue.

4. The grazing revenue fell from Rs. 55,000 to Rs. 44,000; while minor produce rose from Rs. 31,000 to Rs. 43,000; the chief feature under the head of minor produce being the revival of the demand for lac, with an increase of revenue from Rs. 600 to Rs. 17,000.

5. The timber exploited rose by 76 per cent. from 2.1 lakhs of cubic feet to 3.7 lakhs; while the revenue thereof increased by 60 per cent. from Rs. 67,000 to Rs. 1,07,000. No explanation of this decrease in the price of timber is offered in the report.

6. The fuel exploited increased from 160 lakhs of cubic feet to 188 lakhs, or 17 per cent.; while the revenue increased from Rs. 2 lakhs to Rs. 3.1 lakhs, or 50 per cent.

There is reason to doubt whether these figures of outturn are accurate; and since they are most important to demonstrate the efficient working of the Department, every care should be taken to render them as accurate as possible.

7. The statement of disciplinary measures taken towards the establishment shows an improvement over last year, when the Commissioner had occasion to comment on the inadvisability of wholesale punishments by degradation or fine of superior officers. These punishments are still too numerous in the Sukkur division, where of officers classed as 'superior' 7 were degraded and 19 fined; but in other divisions it was found necessary to punish three men only by fine. The Deputy Conservator will no doubt take steps to see that the recent unsatisfactory system does not continue to be followed in the Sukkur division.

8. Favourable rains and a higher inundation protected the forests equally from fires and illicit grazings, but the number of unauthorised fellings rose slightly; this result being, in the opinion of the Deputy Conservator, a sign of more vigilant inspection. The number of cattle impounded fell from 18,000 to 15,000.

9. An improvement in supervision and control is expected from the re-distribution of the Sukkur and Larkana divisions into three charges, which was sanctioned by Government with effect from the 1st of August 1917. Proposals for the improvement of the administrative staff are before Government.

10. The chief feature of the year was the very heavy demand of the Military Department for the supply of fuel to Mesopotamia, the export during the year having amounted to 88 lakhs of cubic feet. The accumulated stocks of dry fuel were largely depleted, and in consequence the price rose very high. In Karachi the situation was rendered more acute by the shortage of railway wagons for the conveyance of fuel, and prices, which ordinarily ruled at 10 annas per maund, for a time exceeded a rupee. So also in Hyderabad prices rose from 8 annas to 12 annas. The public were considerably inconvenienced by the shortage and high prices. Attempts have been made to bring more fuel into the market by throwing open additional coupes for exploitation, but the continuance of the heavy demand for Mesopotamia maintains the stringency of the market.

11. The Deputy Conservator suggests that the area of forests in Sind is insufficient. It amounts to 7,00,000 acres as compared with an annually cultivated area of 43,00,000 acres and a population of 35 lakhs. The Commissioner agrees that the reservation of additional forest area is desirable, but the difficulty is to find land available for irrigation. If the Deputy Conservator can secure the means of irrigation for waste lands, his proposals for reservation of forests will receive very careful consideration.

12. The need of steamers and barges for the conveyance of fuel suggested by the Deputy Conservator will be considered in consultation with the Inspector-General of Forests at the time of his approaching visit to Sind.

H. S. LAWRENCE,
Commissioner in Sind.

APPENDICES.

FORM No. 7.—Area of Reserved Forest, 1916-1917.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1916.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1917.		No. 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 CIRCLE.				Acres.	Sq. m. a.	Acres.	Acres.	Acres.	Sq. m. a.		
Panch Mahals	Panch Mahals.	Reserved ...	212,199	831 850	...	(b) 47	212,152	831 312	(b) 4363 1-5-1909,	(b) 7349 25-7-1917.
Surat	Surat ..	Do. ...	51,791	80 591	...	...	51,791	80 591	.....
Dangs (leased)	Dangs ...	Do. ...	211,795	330 505	...	...	211,795	330 505	.....
North Thana	Thana ...	Do. ...	214,140	334 389	(a) 5	(b) 5,948	208,206	325 106	(a) 4878 9-5-1910, 11780 30-11-1910.	(b) 7098 18-7-1910, 11780 30-11-1910.
West Thana	Do. ...	Do. ...	236,335	369 175	113,069	151,612	197,792	309 32	(b) 11780 30-11-1910.	
East Thana	Do. ...	Do. ...	212,601	332 211	194,928	(b) 113,089	204,530	400 130	(b) 9754 10-10-1910,	(b) 11788 30-11-1910.
South Násik	Násik ..	Do. ...	492,956	629 398	(a) 15,095	(b) 197,390	221,501	346 121	(a) 7849 17-8-1910, 1457 6-2-1917, 8634 2-9-1910,	(a) 10804 10-11-1910, (b) 6354-A 20-8-1910, 11646 28-11-1910.
North Násik	Do. ...	Do. ...	278,362	591 122	108,267	(b) 151,024	532,005	518 485	(b) 11267 21-11-1910, 4838 11-4-1917,	3329 17-9-1917, 11646 28-11-1910.
Násik Sub-Division.	Do. ...	Do. ...	...	...	189,557	(b) 5	189,562	296 192	(b) 3700 24-3-1917,	11646 28-11-1910,
Ahmedabad	Ahmedabad	Do. ...	12,033	18 512	...	...	12,032	18 512	.....
Total, Northern Circle.				1,932,310	3,019 150	621,851	622,715	1,931,440	3,017 566		
CENTRAL CIRCLE.											
East Khándesh	East Khándesh.	Reserved ...	511,870	799 510	14	...	511,884	799 524	8410 of 20-8-1910.	
West Khándesh	West Khándesh.	Do. ...	494,627	772 517	251	...	494,878	773 158	8850 of 12-9-1910.	
North Khándesh...	North Khándesh.	Do. ...	555,706	863 246	430	...	556,196	869 36	200 of 9-1-1917.	
Poona and Ahmednagar.	Poona and Ahmednagar.	Do. ...	646,521	1,010 121	5 498	7 380	646,627	1,010 227	5 6757 8-7-1916, 6847 11-7-1916, 1969 19-2-1917, 1900 10-2-1917, 20279 23-6-1916, 6299 23-6-1916, 7 5949 16-9-1916, 5635 6-7-1916, 12796 20-12-1916, 7950(a) & 7953 16-8-1916, 6850 11-7-1916, 11649 25-11-1916, 204 (a) 8-1-1917, 8198 (a) 22-8-1916, 9517 3-10-1916.	6349 11-7-1916, 11269 21-11-1916, 2758 & 59 6-3-1917, 4542 12-4-1917, 6849 22-9-1916, 5206 19-5-1916, 1980 19-2-1917, 1080 20-1-1917, 2777 27-3-1917, 7953 8200 22-8-1916, 1103 3-1-1917, 4807 17-1-1917, 11280 21-11-1916, 9517 3-10-1916.

FORM No. 7.—Area of Reserved Forest, 1916-1917—continued.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1916.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1917.		No. and date of Notification of addition or transfer.	Remarks.
				Acres.	Equivalent in square miles.			Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11	12
CENTRAL CIRCLE—contd.				Acres.	Sq.m. a.	Acres.	Acres.	Acres.	Sq.m. a.		
Sátara	Sátara	Reserved	454,440	710 40	...	...	454,440	710 40	.....
.....	Do.	Leased	232	0 232	...	...	232	0 232	.....
Kolába	Kolába	Reserved	287,903	449 543	...	...	287,903	449 543	.....
Ahmednagar and Sholapur.	Ahmednagar and Sholapur.	Do.	473,068	739 108	...	*24,027	449,041	701 401	*7750 of 8-8-1916 6150 1804 16-5-1917, 10-2-1917, 287 14 10 9-1-1917, 6-2-1917, 7947 300 15-8-1916, 9-1-1917, 3748 8633 26-3-1917, 5-9-1916, 9421—A. B. C. 2-10-1916.	
Total, Central Circle.				3,424,427	5,350 427	1,181	24,407	3,401,201	5,314 241		
SOUTHERN CIRCLE.											
Kánara, N. D.	Kánara and Dhárwar.	Reserved	271,073	423 353	(a) 1,229 †495	(b) 12	272,785	428 145	(a) 5077 and 5081 15-5-1916. 5207 7355 18-5-1916, 25-7-1916, 7516 8023 31-7-1916, 15-9-1916, 2458 3059 28-2-1917, 12-3-1917, (b) 11981 6-12-1916.	
Kánara, E. D.	Do.	Do.	409,068	639 103	(c) 183 (d) 1 †2 (e) 33,077 (f) 333.	(d) 1 †2 (e) 33,077 (f) 333.	375,843	587 163	(e) 5078 and 5080 15-5-1916. 7107 10894 18-7-1916, 13-11-1916, 12578 1148 21-12-1916, 30-1-1917, (d) 8848 6160 12-9-1916. 16-5-1917, No. 11398 (f) Area transferred from Kánara, E. D. to Kánara, C. D., (G. O. No. 11398, 27-10-15.)	† Mistake in area now rectified. (e) Area transferred from Kánara, E. D. to Kánara, C. D., (G. O. No. 11395, 27-10-15.)
Kánara, C. D.	Kánara	Do.	467,831	731 21	(g) 11 (e) 33,077	(h) 17	500,932	762 452	(g) 5931 13-6-1916. (h) 5591 57-7-1916, 5729 20-5-1916, 7-6-1916, 5932 6207 13-8-1916, 21-8-1916, 9128 9518 21-9-1916, 8-10-1916, 10142 599 23-10-1916, 16-1-1917, 4800 17-4-1917.	
Kánara, S. D.	Do.	Do.	411,044	642 184	(i) 0 (j) 33	(j) 33	411,020	642 140	(i) 8443 29-8-1916, (j) 5453 7074 2-6-1916, 18-7-1916, 8444 11172 20-8-1916, 18-11-1916, 11203 12167 21-11-1916, 11-12-1916, 5746 & 6-5-1917.	

Form No. 7.—Area of Reserved Forest, 1916-1917—concluded.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1916.		Added during the year.	Excluded or transferred to other hands.	Area on 30th June 1917.		No. 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
SOUTHERN CIRCLE—contd.											
Kánara, W. D.	Kánara	Reserved	527,505	824 235	(k) 40 (f) 313	(l) 2 *0,598	521,370	814 410	(k) 10800 & 10802 10-11-1916, 8848 (l) 0427 30-9-10, 12-9-1916, (m) 8100 108-3 & 10808 22-8-1916, 10-11-1916, 11263 200 21-11-1916, 9-1-1917, 4230 & 4-4-1917. (n) 5068 7508 & 7517 10-8-1916, 31-7-1916, (o) 5031 & 5034 6848 18-6-1916, 16-7-1916,	* Mistake in area now rectified. (d) Area transferred from Kánara, E. D. to Kánara, O. D., (G. O. No. 11306) 27-10-16 (f) Area transferred from Kánara, E. D. to Kánara, W. D., (G. O. No. 11306) 27-10-16
Belgaum	Belgaum	Do.	435,819	680 110	(m) 1,153	...	436,475	681 035		
Dhárwar and Bijapur.	Dhárwar and Bijapur.	Do.	818,054	496 614	(n) 30	(o) 69 * 601	817,354	495 554		
Ratnágiri	Ratnágiri	Do.	12,054	19 534	...	...	12,054	19 534		
			Total, Southern Circle.	2,852,008	4,456 228	3,158 33,410†	7,393 33,410†	2,847,633	4,440 473		† Areas transferred from Division to Division.
SIND CIRCLE.											
Sukkur	Sukkur	† Old Gublo	14,464	22 384	...	...	14,464	22 384		‡ This forest is transferred from the Upper Sind Frontier District to Sukkur District.
			Other Forests...	234,837	366 97	+8,745	-1,300	236,776	369 610		+ Gained by action of the river.
		Upper Sind Frontier.	Forests	41,929	65 329	+494	-239	42,193	65 503		- Lost by action of the river.
			Total	290,731	454 170	4,230	1,539	233,433	458 313		
Lárkána	Sukkur	Forests	82,426	50 426	...	...	82,426	50 426		
		Lárkána	Kasimshah	2,073	3 143	573	...	2,060	3 146	Government Resolution No. 5173 of 22nd August 1916.	§ Reservation. ¶ The area notified is 2-13 acres and the area according to village form of the whole forest is 2,163-17; hence 3 acres have been accounted for.
			Other Forests	59,993	93 472	+942	-360	60,532	94 392		+ Gained by action of the river.
		Nawábshah.	Forests	53,734	84 31	+240	-1,150	52,834	82 414		- Lost by action of the river.
			Total	148,275	231 435	1,103	1,531	147,038	231 98		** Reservation.
Hyderabad	Hyderabad	Khanote No. I.	1,009	1 360	**68	...	1,007	1 457	Government Resolution No. 12520 of 19th December 1916.	Do.
			Jhirkí	1,085	1 425	**9	...	1,074	1 434	Government Resolution No. 9240 of 25th September 1916.	Do.
			Khanote	6,104	9 344	**52	...	6,156	9 326	Government Resolution No. 1350 of 19th December 1916.	Do.
			Other Forests...	68,458	106 018	+9,015	-1,473	70,000	118 490		
		Karáchi	Maujhand	5,373	8 253	†1339 +20	-100	5,622	8 502	Government Resolution No. 3660 of 12th March 1917.	†† Reservation.
			Other Forests	23,955	37 175	+2,452	-713	25,580	39 029		+ Gained by action of the river.
		Nawábshah.	Forests	50,612	79 52	+575	-1,000	49,497	77 217		- Lost by action of the river.
			Total	156,476	244 310	12,510	3,931	161,035	257 655		
Jerruck	Hyderabad.	Forests	18,860	29 440	+222	-209	18,373	28 453		+ Gained by action of the river.
		Karáchi	Do.	128,000	200 60	+2,719	-4,610	126,109	197 89		- Lost by action of the river.
			Total	146,860	229 500	2,941	4,819	144,542	226 542		
			Total, Sind Circle.	744,901	1,159 141	20,913	11,800	750,043	1,173 228		
			GRAND TOTAL	8,053,708	13,085 306	830,504	609,091	8,034,428	13,055 228		

APPENDICES.

FORM No. 7-A.—Area of Protected Forest, 1916-1917.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1916.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1917.		No. and date of Notification of addition or transfer.	Remarks.
				Acres.	Equivalent in square miles.			Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11	12
NORTHERN CIRCLE.				Acres.	Sq. m. a.	Acres.	Acres.	Acres.	Sq. m. a.		
Surat (Dangs leased).	Surat	Protected	208,013	325 13	...	...	208,013	325 13	...	
North Thana	Thana	Do.	93,472	146 32	...	(b) 567	92,906	145 105	(b) 743 (b) 6272 20-1-1917, 19-5-1917, 11780 30-11-1916.	
West Thana	Do.	Do.	64,901	101 261	47,818	(b) 44,994	67,725	105 523	(b) 10564 (b) 6161 3-11-1916, 10-5-1917, 11736 30-11-1916.	
East Thana	Do.	Do.	98,072	153 152	47,532	47,818	90,786	141 546	11786 30-11-1916.	
South Nasik	Nasik	Do.	56,144	87 464	(a) 5,040	...	61,184	95 384	(a) 831 (a) 11766 17-1-1917, 30-11-1916.	
Total, Northern Circle.				520,602	813 282	93,300	93,370	520,613	813 283		
CENTRAL CIRCLE.											
Satara	Satara	Protected	658	1 18	...	...	658	1 18	.....
Poona	A h m e d nagar.	Do.	7,139	11 99	...	...	7,139	11 99	.....
Kolaba	Kolaba	Do.	47,247	73 527	...	6	47,241	73 521	7751 8033 8-8-1916, 5-9-1916, 8544 12617 2-9-1916, 22-12-1916, 6281 23-6-1916.	
Total, Central Circle.				55,014	88 41	...	6	55,038	85 638		
SOUTHERN CIRCLE.											
Kanara, N. D.	Kanara and Dhawar.	Protected Forest.	57	0 57	*1	...	58	0 58	.....	* Mistakes in areas rectified.
Kanara, E. D.	Do.	Do.	3,284	5 84	*2 (a) 2	(b) 1,579	1,703	2 420	(a) 7073 18-7-1916.	(b) Area transferred from Kanara, E. D. to Kanara, C. D., (G. O. No. 11386 27-10-15.)
Kanara, C. D.	Kanara	Do.	30,985	48 205	(b) 1,579	(c) 7 40	32,564	50 584	(c) 9737 10-10-1916.	
Kanara, S. D.	Do.	Do.	42,035	65 435	...	(d) 1 40	42,035	65 435	(d) 7938 14-8-1916.	
Kanara, W. D.	Do.	Do.	8,210	12 530	*818	...	9,028	14 68	.....
Belgaum	Belgaum	Do.	12	0 12	...	...	12	0 12	.....
Total, Southern Circle.				84,583	132 103	{ 823 (b) 1,579 }	(b) 1,579	85,406	133 286		
SIND CIRCLE.											
Itkur	Upper Sind Frontier.	Dickenson	585	0 585	...	585	585	0 585		
Total, Sind Circle.				585	0 585	...	...	585	0 585		
GRAND TOTAL...				660,814	1,012 334	95,792	94,904	661,642	1,033 522		

FORM No. 7-B.—Area of Forest Proper, Reserved or Mixed Fuel and Fodder Reserves under the management of the Forest Department for 1916-1917.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1916.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1917.		No. and date of Notification of addition or transfer.
				Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.	
1	2	3	4	5	6	7	8	9	10	11
NORTHERN CIRCLE.										
Panch Mahals	P a n c h Mahals.	Reserved ...	212,199	331 359	...	(b) 47	212,152	331 312	Vide Form No. 7.
Surat	Surat ...	Reserved and Protected .	463,507	724 147	...	...	463,507	724 147	
North Thana	Thana ...	Reserved ...	214,149	334 389	(a) 5	(b) 5,943	208,206	325 206	Vide Form No. 7.
West Thana	Do. ...	Reserved and Protected .	238,886	373 166	118,700	151,612	205,974	321 534	.....
East Thana	Do. ...	Reserved ...	218,333	341 93	194,928	118,731	294,530	460 130	Vide Form No. 7.
South Nasik	Nasik, ...	Do. ...	394,224	615 624	15,995	192,359	217,860	340 260	Do.
North Nasik	Do. ...	Do. ...	342,745	535 345	107,049	133,580	316,214	494 54	Do.
Nasik Sub-Division.	Do. ...	Do. ...	.....	...	165,138	5	165,133	258 13	Do.
Total, Northern Circle.				2,084,043	3,256 203	601,815	602,282	2,083,576	3,255 376	
CENTRAL CIRCLE.										
East Khândesh...	East Khândesh.	Reserved ...	488,615	763 295	14	...	488,629	763 309	.....
West Khândesh.	West Khândesh.	Do. ...	381,360	595 560	251	...	381,611	596 171	.....
North Khândesh.	North Khândesh.	Do. ...	555,766	868 246	430	...	556,196	869 36	.....
Poona	Poona and Ahmednagar.	Reserved and Protected.	366,397	573 177	486	*5,579	361,804	565 204	* Out of this 5,400 acres transferred to the R. D., vide G. R. No. 3013, dated 20th April 1911.
Satara	Satara ...	Do. ...	380,490	516 250	...	...	330,490	516 250	.....
Kolaba	Kolaba ...	Do. ...	269,327	420 527	...	...	269,327	420 527	.....
Total, Central Circle.				2,392,455	3,738 135	1,181	5,579	2,388,057	3,731 217	
SOUTHERN CIRCLE.										
Kanara, N. D....	Kanara and Dhárwar.	Reserved and Protected.	271,130	423 410	1,725	12	272,843	426 203	.....
Kanara, E. D....	Do. ...	Do. ...	410,023	640 423	192	8 (a) 34,656 (b) 333	375,223	586 183	* Transfers of areas from division to division as per G. O., R. D., No. 11306 of 27th October 1915:— (a) from Kanara, E. D. to Kanara, C. D., vide forms Nos. 7 and 7A.; (b) from Kanara, E. D. to Kanara, W. D., vide forms 7 and 7A.
Kanara, C. D.	Kanara ...	Do. ...	498,846	779 286	11 34,656	17	533,496	833 376	
Kanara, S. D.	Do. ...	Do. ...	453,079	707 599	9	33	453,055	707 575	
Kanara, W. D....	Do. ...	Do. ...	535,805	837 125	858 (b) 333	6,538	530,398	828 478	
Belgaum	Belgaum ...	Do. ...	401,369	627 89	1,156 (c) 4,613 30	...	407,138	636 98	(c) Area transferred from the Revenue Department to that of the Forest Department as per Collector's No. F. O. R. 35 of 17th October 1916.
Dhárwar and Bijapur.	Dhárwar and Bijapur.	Reserved ...	186,412	291 172	...	730	185,712	290 112	
Ratnágiri	Ratnágiri ...	Do. ...	12,054	18 534	...	...	12,054	18 534	
Total, Southern Circle.				2,768,718	4,326 78	8,594 34,989	7,393 *34,989	2,769,919	4,327 639	
SIND CIRCLE.										
Sukkur	Sukkur and Upper Sind Frontier.	Forests ...	291,315	455 115	* 41,239	* 1,536	294,018	459 258	* Vide Form No. 7.
Larkana	S u k k u r, L á r k á n a and Nawábshah.	Do. ...	148,275	231 435	* 1,193	* 1,530	147,938	231 98	.....
Hyderabad	Hyderabad, Karachi and Nawábshah.	Do. ...	156,476	244 316	* 12,510	* 3,981	165,035	257 555	.....
Jerruck	Hyderabad and Karachi.	Do. ...	146,396	228 476	* 2,941	* 4,819	144,518	225 518	.....
Total, Sind Circle.				742,462	1,160 62	20,913	11,866	751,509	1,174 149	
GRAND TOTAL...				7,987,878	12,480 478	667,492	662,109	7,993,061	12,489 101	

APPENDICES.

FORM No. 7-C.—Area of Fodder Reserves and Pasture Lands under the management of the Revenue Department for 1916-1917.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1916.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1917.		No. and date of Notification of addition or transfer.
				Acres.	Equivalent in square miles.			Acres.	Equivalent in square miles.	
1	2	3	4	5	6	7	8	9	10	11
NORTHERN CIRCLE.				Acres.	Sq.m. a.	Acres.	Acres.	Acres.	Sq.m. a.	
Surat	Surat	Reserved	8,092	12 412	...	...	8,092	12 412	.....
North Thána	Thána	Protected	93,472	146 32	...	567	92,905	145 105	Vide Form No. 7A. Do.
West Thána	Do.	Do.	62,350	97 270	42,187	44,994	59,543	93 23	.....
East Thána	Do.	Do.	92,430	144 270	40,532	42,176	90,786	141 546	.....
South Násik	Násik	Reserved and Protected.	64,876	101 236	5,040	5,031	64,885	101 245	Vide Form No. 7A.
North Násik	Do.	Reserved	35,617	55 417	1,218	21,044	15,791	24 431	Do.
Násik Sub-division.	Do.	Do.	.....	...	24,449	...	24,449	38 129	.....
Ahmedabad	Ahmedabad.	Do.	12,032	18 512	...	...	12,032	18 512	.....
CENTRAL CIRCLE.										
Total, Northern Circle.				368,869	576 229	113,426	113,812	368,463	575 483	
East Khándesh	East Khándesh.	Reserved	23,255	36 215	...	...	23,255	36 215	.....
West Khándesh	West Khándesh.	Do.	113,267	176 627	...	...	113,267	176 627	.....
Poona	Poona and Ahmednagar	Do.	286,763	448 43	5,400	201	291,963	456 122	.....
Sátára	Sátára	Do.	124,840	195 40	...	...	124,840	195 40	.....
Kolába	Kolába	Reserved and Protected.	65,823	102 543	...	6	65,817	102 537	.....
Ahmednagar and Sholápur.	Ahmednagar and Sholápur.	Reserved	473,068	739 108	...	21,027	449,041	701 401	.....
SOUTHERN CIRCLE.										
Total, Central Circle.				1,087,016	1,698 296	5,400	24 231	1,068,182	1,669 22	
Kánara, E. D.	Kánara and Dhárwár.	Reserved Forest.	2,329	3 409	...	...	2,329	3 409	.....
Belgaum	Belgaum	Do.	33,962	53 42	...	* 4,613	29,349	45 549	Transferred to the management of the Forest Department as per Collector's No. F. O. R. 37 of 17th October 1916.
Dhárwár and Bijápur.	Dhárwár and Bijápur.	Do.	131,642	205 442	...	...	131,642	205 442	.....
SIND CIRCLE.										
Total, Southern Circle.				167,933	262 253	...	* 4,613	163,320	255 120	
Jerruck	Karáchi	Malir	24	0 24	...	...	24	0 24	.....
Total, Sind Circle.				24	0 24	...	...	24	0 24	
GRAND TOTAL				1,623, 42	2,539 162	118,826	142,659	1,600,009	2,500 9	

ABSTRACT OF FORMS Nos. 7, 7-A, 7-B and 7-C.

Division.	In charge of the Forest Department.				
	Reserved Forest.			Protected Forest.	
	Forest proper.	Pasture reserves.	Fuel and Fodder reserves.	Forest proper.	Pasture reserves.
NORTHERN CIRCLE.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.
Panch Maháls ...	331 312	.....	...	...	.....
Surat ...	399 134	.....	...	325 13	.....
North Thána ...	323 156	.....	2 50	...	.....
West Thána ...	309 32	.....	...	12 512	.....
East Thána ...	459 497	.....	...	...	.....
South Násik ...	339 270	.....	0 630	...	.....
North Násik ...	494 54	.....	...	...	.....
Násik Sub-Division ...	258 13	.....	...	...	.....
Ahmedabad ...	.....	.....	...	...	.....
Total ...	2,914 188	.....	3 40	337 525	.....
CENTRAL CIRCLE.					
East Khándesh ...	763 309	.....	...	...	...
West Khándesh ...	465 144	.....	131 27	...	.....
North Khándesh ...	869 36	.....	...	...	.....
Poona ...	554 105	.....	...	11 99	.....
Sátára ...	515 232	.....	...	1 18	.....
Kolába ...	417 78	.....	3 449	...	.....
Ahmednagar and Sholápur ...	.....	.....	...	...	.....
Total ...	3,584 264	.....	134 476	12 117	.....
SOUTHERN CIRCLE.					
Kánara, Northern ...	424 186	1 576	0 23	...	0 58
Kánara, Eastern ...	476 431	106 603	...	...	2 429
Kánara, Central ...	682 491	99 601	...	50 564	.....
Kánara, Southern ...	385 490	256 290	...	65 435	.....
Kánara, Western ...	753 215	61 195	...	...	14 68
Belgaum ...	629 86	7 0	...	0 12	.....
Dhárwár-Bijápur ...	265 452	12 326	11 614	...	.....
Ratnágiri ...	13 534	.....	5 0	...	.....
Total ...	3,631 325	546 31	16 637	116 371	16 555
SIND CIRCLE.					
Sukkur ...	458 313	.....	...	0 585	.....
Lárkána ...	231 98	.....	...	...	.....
Hyderabad ...	257 555	.....	...	...	.....
Jerruck ...	225 518	.....	...	...	.....
Total ...	1,173 204	.....	...	0 585	.....
GRAND TOTAL ...	11,303 341	546 31	154 513	467 318	16 555

7-B and 7-C for 1916-17.

In charge of the Revenue Department.				Total Forest Area.	Remarks.
Reserved Forest.			Protected Forest.		
Forest proper.	Pasture reserves.	Fuel and Fodderreserves.	Pasture reserves.		
Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	
...	.....	...	...	331 312	
...	3 53	9 359	...	736 559	
...	.....	...	145 105	470 311	
...	.....	...	93 13	414 557	
0 273	.....	...	141 546	602 36	
...	4 212	1 289	95 384	441 505	
...	24 431	...	...	518 485	
...	38 129	...	...	296 142	
...	.....	18 512	...	18 512	
0 273	70 185	29 520	475 408	3,831 219	
...	36 215	...	...	799 524	
...	176 627	...	...	773 158	
...	.....	...	...	869 36	
...	456 122	...	...	1,021 326	
...	189 385	5 295	...	711 290	
...	29 16	...	73 521	523 424	
...	701 401	...	...	701 401	
...	1,589 486	5 295	73 521	5,400 239	
...	.....	...	...	426 203	
...	3 409	...	...	589 592	
...	.....	...	...	833 376	
...	.....	...	...	707 575	
...	.....	...	...	828 478	
1 0	42 549	2 0	...	682 7	
...	205 422	...	...	495 554	
...	.....	...	...	18 534	
1 0	252 120	2 0	...	4,583 119	
...	.....	...	...	459 258	
...	.....	...	...	231 98	
...	.....	...	...	257 555	
0 24	.....	...	...	225 542	
0 24	.....	...	...	1,174 173	
1 297	1,912 151	37 175	550 289	14,989 110	

Forest Division.	Civil District or Territory.	Name of Forest.	AREA IN SQUARE MILES		
			Finally settled during the year.	In hand at commencement of the year.	Taken in hand during the year.
1	2	3	4	5	6
NORTHERN CIRCLE.					
<i>Reserved Forest.</i>					
Panch Mahals	Panch Mahals	.....	.....	.....	.....
Surat	Surat	.....	.....	.....	.....
North Thána	Thána	Girgaon	$\frac{5}{640}$	.....	.....
West Thána	Do.	.....	.....	.....	.....
East Thána	Do.	.....	.....	.....	.....
South Násik	Násik	Amboli	$\frac{42}{640}$	.....	.....
		Trimbak	$\frac{8}{640}$	.....	.....
North Násik	Do.	.....	.....	.....	.....
Násik Sub-Division	Do.	.....	.....	.....	.....
Ahmedabad	Ahmedabad	.....	.....	.....	.....
	Total	.....	$\frac{55}{640}$	.....	.....
<i>Protected Forest.</i>					
Surat	Surat	.....	.....	.....	.....
North Thána	Thána	.....	.....	.....	.....
West do.	Do.	.....	.....	.....	.....
East do.	Do.	.....	.....	.....	.....
South Násik	Násik	.....	.....	.....	.....
	Total	.....	.....	.....	.....
	Total, Northern Circle.	.....	$\frac{55}{640}$	.....	.....

[illegible]

FORM No. 8—Progress made in Forest

Forest Division.	Civil District or Territory.	Name of Forest.	AREA IN SQUARE MILES		
			Finally settled during the year.	In hand at commencement of the year.	Taken in hand during the year.
1	2	3	4	5	6
CENTRAL CIRCLE.					
<i>Reserved Forest.</i>					
East Khándesh ...	East Khándesh ...	Kandari ...	$\frac{14}{640}$	...	...
West Khándesh ...	West Khándesh ...	Pangan ...	$\frac{152}{640}$	...	} 22 $\frac{405}{640}$
North Khándesh ...	Do. ...	Sangari ...	$\frac{430}{640}$...	
Poona ...	Poona ...	{ Nande, Bhauli, Aglambe, Donje, Khamgaon Sitewadi, Anjanwale Atwan, Kune, Awalas Ghuteke, Paud Kolwadi. }	$\frac{485}{640}$	...	...
		Kombhalne ...	...	$\frac{32}{640}$	$\frac{156}{640}$
Sátara ...	Sátara ...	Valo, Takavli Vanekhol and Mendhaghar.	...	$\frac{45}{640}$	$\frac{175}{640}$
Koláta ...	Koláta ...	.....	...	...	...
	Total, Central Circle ...	.....	$\frac{541}{640}$	$\frac{77}{640}$	23 $\frac{96}{640}$

Settlements during the year 1916-1917—continued.

COST DURING THE YEAR.		Entire cost per square mile of areas finally settled.	GOVERNMENT NOTIFICATION OF SETTLEMENT.		Remarks.
In Forest Accounts.	In other Accounts.		No.	Date.	
7	8	9	10	11	12
R. a. p.	Rs.	Rs.			
57 8 0	8410	29th August 1916.	
.....	8850	12th September 1916.	
.....	4819A	17th April 1917.	
2,283 0 0	296	9th January 1917.	
			2758 & 59	6th March 1917.	
			11266	21st November 1916.	
			6757	8th July 1916.	
			6449	11th July 1916.	
			6847	Do-	
534 0 0	1959	19th February 1917.	
			1960	12th April 1917.	
			4542	23rd June 1916.	
			6279	22nd September 1916.	
			8849	19th May 1916.	
			6206	10th November 1915.	
			11863	11th June 1917.	
			7088		
			12158	11th December 1916.	
			4441	12th April 1917.	
			6479	25th May 1917.	
			6273	19th May 1917.	
			8198	22nd August 1916.	
			8280	24th August 1916.	
			10799	10th November 1916.	
58 8 0	12334	14th December 1916.	
			632	17th January 1917.	
			5259	27th April 1917.	
5 0 0	
2,938 0 0	

FORM No. 8—Progress made in Forest Settlements

Forest Division.	Civil District or Territory.	Name of Forest.	AREA IN SQUARE MILES.		
			Finally settled during the year.	In hand at commencement of the year.	Taken in hand during the year.
1	2	3	4	5	6
SOUTHERN CIRCLE.					
<i>Reserved Forest.</i>					
Kánara, Northern...	Kánara and Dhárwár ...	Reserved Forest ...	(a) $\frac{1589}{640}$	424	$\frac{1396}{640}$
Do. Eastern ...	Kánara and Dhárwár ..	Do. ...	(b) $\frac{188}{640}$	(b) 639	$\frac{68}{640}$
Do. Central ...	Kánara ...	Do. ...	(c) $\frac{11}{640}$	731	.....
Do. Southern...	Kánara ...	Do. ...	(d) $\frac{9}{640}$	642	.....
Do. Western ...	Kánara ...	Do. ...	(e) $\frac{40}{640}$	824	$\frac{191}{640}$
Belgaum ...	Belgaum ...	Do. ...	(f) $\frac{1516}{640}$	680	$\frac{78}{640}$
Dhárwár and Bijápur.	Dhárwár and Bijápur ...	Do. ...	(g) $\frac{30}{640}$	497	$\frac{57}{640}$
Ratnágiri ...	Ratnágiri ...	Do. ...	...	19	.....
	Total, Reserved Forest ...	.....	$\frac{4103}{640}$	4,456	$\frac{2154}{640}$
<i>Protected Forest.</i>					
Kánara, Northern...	Kánara and Dhárwár ...	.....	.....	$\frac{57}{640}$	.....
Do. Eastern ...	Kánara and Dhárwár ...	.....	(i) $\frac{2}{640}$	(j) 5	.....
Do. Central ...	Kánara ...	.....	.....	49	.....
Do. Southern...	Kánara ...	.....	.....	66	.....
Do. Western...	Kánara ...	.....	.....	13	.....
Belgaum ...	Belgaum ...	.....	.....	$\frac{12}{640}$	.....
	Total, Protected Forest ...	.....	$\frac{2}{640}$	132	.....
	Total, Southern Circle ...	.....	$\frac{4105}{640}$	4,588	$\frac{2154}{640}$

during the year 1916-1917—continued.

COST DURING YEAR.		Entire cost per square mile of areas finally settled during the year.	Government Notification of Settlement, Number and Date.		Remarks.
In Forest Accounts.	In other Accounts.				
7	8	9	10	11	12
Rs.	Rs.	Rs.			Areas disforested during the year. Areas lost or gained by rectification of errors in measurements and records
...	(a) 5077 & 5081 16-5-16 16-5-16 7355 25-7-16 8926 15-9-16 3059 12-3-17 ;	5207 19-5-16 7516 31-7-16 2458 28-2-17	A. 12 A. +495
...	(b) 5076 & 5080 15-5-16 10894 23-11-16 1143 30-1-17 ;	7107 18-7-16 12578 21-12-16	1 —2
...	(c) 5933 13-6-16 ;		17
...	(d) 8443 29-3-16 ;		33
...	(e) 10800 & 10872 ; 10-11-16		2 —6,596
...	(f) 8199 22-8-16 290 7-1-17	1003 & 10805 10-11-16 4220 4-4-17	4265 21-11-16
...	(g) 5083 16-5-16	7505 and 7517 31-7-16	69 —661
...			
...			(h) Out of this area the transfers made during the year were :— Sq. miles. Acres. 51 437 to Kanara, C.D. ... 333 to Kanara, W.C.
... +1
... +2
...	(i) 7073 18-7-16		7 40 1 40 ... +818
...
...			
...			(j) Out of this area 2 square miles 299 acres were transferred to Kanara, Central Division, during the year.
...			

FORM No. 8.—*Progress made in Forest*

Forest Division.	Civil District or Territory.	Name of Forest.	AREA IN SQUARE MILES		
			Finally settled during year.	In hand at commencement of year.	Taken in hand during year.
1	2	3	4	5	6
SIND CIRCLE.					
Sukkur ...	Sukkur ...	.....	...	.....	.....
	Total ...	.....	...	.....	.....
Larkana	Sukkur, Larkana and Nawabshah.	Kashinshah ...	$\frac{2}{640}$	$\frac{2}{640}$	.....
	Total ...	.....	$\frac{2}{640}$	$\frac{2}{640}$	.....
Hyderabad	Hyderabad	Deh Jamalabad ...	$\frac{88}{640}$	$\frac{197}{640}$	$\frac{17}{640}$
	Karachi	Deh Halla Purana ...	$\frac{52}{640}$	$\frac{149}{640}$	$\frac{17}{640}$
	Nawabshah.	Deh Ghirkbi ...	$\frac{9}{640}$	$\frac{320}{640}$	.....
		Deh Tangiani ...	$\frac{329}{640}$	.....	.....
	Total ...	.....	$\frac{478}{640}$	$1 \frac{35}{640}$	$\frac{89}{640}$
Jerruck ...	Karachi and Hyderabad.	.....	...	.....	.....
	Total ...	.....	...	.....	.....
	Total, Sind Circle ...	.....	$\frac{480}{640}$	$1 \frac{37}{640}$	$\frac{89}{640}$
	GRAND TOTAL ...	.....	$6 \frac{541}{640}$	$4,589 \frac{114}{640}$	$25 \frac{339}{640}$

Settlements during the year 1916-1917—concluded.

COST DURING THE YEAR.		Entire cost per square mile of areas finally settled	GOVERNMENT NOTIFICATION OF SETTLEMENT.		Remarks.
In Forest Accounts.	In other Accounts.		No.	Date.	
7	8	9	10	11	12
Rs.	Rs.	Rs. .....	.....	.....
.....	
.....	8173	22 August 1916.	
.....	
.....	
.....	12520	19 December 1916	
.....	
.....	9240	25 September 1916.	
.....	3050	12 March 1916.	
.....	
.....	
.....	
.....	
.....	
2,938 0 0	

FORM No. 9 — Record of Demarcation and Maintenance of Boundaries, 1916-1917.

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 still to be 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. a. p.	Rs. a. p.	
NORTHERN CIRCLE.										
Panch Mahals	.....	959	.....	959	.....	161	1,060	.....	61 0 0	
Surat	.....	835	.....	835	.....	103	939	.....	68 0 0	
North Thána	.....	927	.....	927	.....	19	946	.....	451 0 0	
West Thána	.....	755	.....	755	.....	32	787	.....	503 0 0	
East Thána	3	1,300	.....	1,393	39	141	1,573	50 0 0	281 0 0	
North Násik	3	1,544	.....	1,547	63	190	1,800	33 0 0	333 0 0	
South Násik	.....	1,251	.....	1,251	1	73	1,325	.....	109 0 0	
Násik Sub-Division	.....	717	.....	717	.....	59	776	.....	33 0 0	
Total, Northern Circle	6	8,379	.....	8,384	103	718	9,205	83 0 0	1,841 0 0	
CENTRAL CIRCLE.										
East Khándesh	.....	2,183	.....	2,183	.....	107	2,290	.....	153 0 0	
West Khándesh	23	817	.....	843	.....	67	910	132 0 0	539 0 0	
North Khándesh	.....	309	.....	309	.....	52	361	.....	370 0 0	
Poona	68	10	3,134	3,212	124	451	3,787*	421 0 0	803 0 0	* The difference of 1,249 miles between the last and this year's figures is due to rectification.
Márá	.....	8	4,243	4,254	.....	80	4,334	.....	450 0 0	
Kolaba	192	1,767	.....	1,989	.....	72	2,061	2,543 0 0	674 0 0	The difference of 31 miles between the last and this year's figures is due to rectification.
Total, Central Circle	256	5,124	7,390	12,700	124	829	18,743	3,096 0 0	2,591 0 0	
SOUTHERN CIRCLE.										
Kánara, Northern	1	.....	623	624	.....	14	638	4 0 0	8 0 0	
Do. Eastern	.....	30	1,533	1,563	.....	31	1,594	.....	207 0 0	
Do. Central	30	10	3,794	3,834	.....	108	3,942	.....	17 0 0	

FORM No. 9.—Record of Demarcation and Maintenance of Boundaries, 1916-1917—concluded.

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 still to be 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
SOUTHERN CIRCLE—concluded.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs. a. p.	Rs. a. p.	
Kánara, Southern ...	480	.....	3,040	4,428	.....	100	4,528	501 0 0	.....
Do. Western ...	24	.....	1,812	1,836	24	152	2,012	(a) 1,534 0 0	.....	(a) Includes Rs. 231 wages paid for last year's work.
Belgaum ...	6	15	1,753	1,774	114	141	2,020	419 0 0	105 0 0	
Dhárwār—Bijápúr .	.....	540	675	1,215	8	20	1,242	.....	115 0 0	
Raínáigiri ...	.....	.....	140	140	.....	70	210	.....	.....
Total, Southern Circle ...	547	595	14,270	15,413	146	643	16,213	2,461 0 0	451 0 0	
SIND CIRCLE.	Miles. ft.	Miles. ft.	Miles.	Miles. ft.	Miles.	Miles. ft.	Miles. ft.			
Sukkar ...	1 3,168	920 836	.....	927 4,004	.....	181 998	1,108 4,992	.....	.....
Lárkána ...	1 1,320	504 4,214	.....	506 254	.....	76 704	552 958	.....	.....
Hyderabad ...	11 2,706	330 8,200	.....	351 680	.....	185 1,359	530 2,445	.....	.....
Jerruck ...	1 2,310	251 4,037	.....	253 1,067	.....	232 5,050	466 837	.....	.....
Total, Sind Circle ...	15 4,224	2,022 1,787	.....	2,038 731	.....	675 8,321	2,713 4,952	.....	.....
GRAND TOTAL ...	854 4,224	16,119 1,787	21,650	38,624 731	373	2,867 8,321	41,964 4,052	5,648 0 0	4,863 0 0	

Form No. 10.—Statement of Forest Areas Surveyed and

Division.	AREAS SURVEYED AND UNDER SURVEY															
	SPECIAL SURVEYS—MAPS ON 4" SCALE OR OVER, BY SURVEY OF INDIA DEPARTMENT OF FOREST SURVEY BRANCH.								ORDINARY, INCLUDED IN DISTRICT SURVEYS.							
	With Interior Details.				Boundary Surveys.				With Interior Details.				Boundary Surveys.			
	With details of Growing Stock.		Without details of Growing Stock.						With details of Growing Stock.		Without details of Growing Stock.					
	Pre-vious.	Of the year.	Pre-vious.	Of the year.	Total cost.	Previous.	Of the year.	Total Cost.	Pre-vious.	Of the year.	Pre-vious.	Of the year.	Total Cost.	Previous.	Of the year.	Total Cost.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs. a. p.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.
NORTHERN CIRCLE.																
<i>Reserved Forest.</i>																
Panch Mahals
Surat
North Thana
West Thana
East Thana
South Nasik
North Nasik
Nasik Sub-Division
Ahmedabad
Total
<i>Protected Forest.</i>																
Surat
North Thana
West Thana
East Thana
South Nasik
Total, Northern Circle
CENTRAL CIRCLE.																
<i>Reserved Forest.</i>																
East Khandesh	229	...	...	...	...	...	...	...	497	10	Not known	...	27	...
West Khandesh	676	...	...	...	...	...	...	...	1	...	...	96	...	...
North Khandesh	646	...	...	...	...	...	...	...	...	...	...	...	...	...
Poona	525	...	...	...	...	...	...	...	...	...	...	...	...	...
Satara	530	...	...	...	...	...	...	...	...	...	...	...	...	...
Kolaba	450	...	...	...	...	...	...	...	...	...	...	...	...	...
Nagar & Sholapur	737	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	3,793	...	...	...	...	...	...	...	498	10	...	96	27	...
<i>Protected Forest.</i>																
Poona	11	...	...	...	...	...	...	...	...	...	...	...	...	...
Satara	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Kolaba	74	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	86	...	...	...	...	...	...	...	...	...	...	...	...	...
Total, Central Circle	3,879	...	...	...	...	...	...	...	498	10	...	96	27	...
SOUTHERN CIRCLE.																
Kanara, Northern...
Do. Eastern
Do. Central
Kanara, Southern...
Do. Western
Belgaum
Dharwar—Bijapur...
Ratnagiri
Total, Southern Circle
SIND CIRCLE.																
Sukkur
Larkana
Hyderabad
Jerruck
Total, Sind Circle
GRAND TOTAL	3,879	...	...	...	...	...	...	...	498	10	...	96	27	...

under Survey during the year 1916-1917.

DURING THE YEAR.										COST.			Remarks.
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.			Areas remaining to be taken under Survey.	Total Forest area at end of the year as per Forms Nos. 7 & 7A.					
4-inch or over.	Under 4-inch.		Total Cost.	Pre-vious.	Of the year.	Total Cost.							
Pre-vious.	Of the year.	Pre-vious.	Of the year.										
18	19	20	21	22	23	24	25	26	27	28	29	30	31
Sq. m	Sq. m.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
...	332	...	...	...
...	412	...	...	...
...	325	...	...	...
...	309	...	...	...
...	460	...	...	...
...	346	...	...	...
...	519	...	...	...
...	296	...	...	...
...	19	...	...	...
...	3,018	...	...	...
...	325	...	...	...
...	145	...	...	...
...	106	...	...	...
...	142	...	...	...
...	96	...	...	...
...	814	...	...	...
...	3,832	...	...	...
...	37	800	24,084 0 0	...	24,084 0 0
...	773	63,994 0 0	...	...	63,994 0 0
...	223	869	1,371 0 0	...	1,371 0 0
...	494	1,010	1,11,290 0 0	...	1,11,290 0 0
...	181	710	62,560 0 0	...	62,560 0 0
...	450	Nil	...	...	Nil
...	41	702	91,230 0 0	...	91,230 0 0
...	976	5,814	3,54,233 0 0	...	3,54,233 0 0
...	*7,085 0 0	...	*7,085 0 0
...	11	...	...	...	...
...	1	...	...	...	...
...	74	...	...	...	...
...	86	...	...	...	...
...	976	5,400	3,61,323 0 0	...	3,61,323 0 0
...	3,386	3,00,231 0 0	...	...	3,00,231 0 0
...	682	57,104 0 0	...	...	57,104 0 0
...	276	406	15,268 0 0	...	15,268 0 0
...	19	531 0 0	...	...	531 0 0
...	276	4,583	4,63,184 0 0	...	4,63,184 0 0
...	450	...	...	...	...
...	231	...	...	...	...
...	258	...	...	...	...
652	9,095	208	...	2,902	...	226	...	...	...	11,097 0 0
652	9,095	208	...	2,902	...	1,174	...	...	...	11,097 0 0
652	9,095	208	...	2,902	1,252	14,999	18,24,507 0 0	...	...	18,24,507 0 0

* Represents cost of arrear mapping and cannot conveniently be distributed amongst the several Divisions, including South and North Nalik.

APPENDICES.

FORM No. 11.—Progress made in Working Plans, 1916-1917.

Division,	AREA UNDER SANCTIONED WORKING PLANS.					AREA NOT UNDER WORKING PLANS.			Total forest area in Form No. 7-B (Total of columns 5, 7, 8 and 9.)	REVISIONS.			Expenditure* on Working Plans during the year.	Remarks.
	At commencement of year.	Added during year.	Deducted during year.	At close of year.		Plans under preparation.	Plans not under preparation.			Due or required.	In progress at end of year.	Revised Plans sanctioned during year.		
				Actual area.	Percentage of total forest area (as shown in column 10).		Required at present.	Not required at present.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Percent.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	
NORTHERN CIRCLE.														
Pauch Mahals	332	...	...	332	100	...	...	...	332	219	114	...	.....
Surat	69	...	...	69	100	...	...	...	69	69	...	...	.....
North Thana	325	...	...	325	100	...	...	...	325	...	325	...	.....
West Thana	309	...	...	309	95.9	...	13	...	322	...	309	...	.....
East Thana	459	...	...	459	93.9	...	1	...	460	84	375	...	.....
South Nasik	315	...	...	315	92.6	...	...	25	340	315	...	...	.....
North Nasik	400	...	...	400	80.9	...	...	94	494	400	...	...	.....
Nasik Sub-Division	179	...	...	179	66.3	...	...	79	253	179	...	...	.....
Total	2,338	...	...	2,338	81.8	...	14	198	2,600	1,205	1,123	...	.....
Leased Surat	383	...	...	383	59.2	...	267	...	655	...	...	...	.....
Total, Northern Circle	2,776	...	...	2,776	85.3	...	281	198	3,255*	1,205	1,123	...	.....	* Exclusive of the area in charge of the Revenue Department.

FORM No. 11—Progress made in Working Plans, 1916-1917—concluded.

Division.	AREA UNDER SANCTIONED WORKING PLANS.					AREA NOT UNDER WORKING PLANS.			Total forest area in Form No. 7 (Total of columns 5, 7, 8 and 9).	REVISIONS.			Expenditure on Working Plans during the year.	Remarks.
	At commencement of the year.	Added during the year.	Deducted during the year.	At close of year.		Plans under preparation.	Plans not under preparation.			Due or required.	In progress at end of year.	Revised plans sanctioned during year.		
				Actual area.	Percentage of total forest area (as shown in column 10).		Required at present.	Not required at present.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CENTRAL CIRCLE.														
East Khândesh	Sq. m. 749	Sq. m. ...	Sq. m. ...	Sq. m. 749	Sq. m. 98.2	Sq. m. ...	Sq. m. ...	Sq. m. 15	Sq. m. 704	Sq. m. ...	Sq. m. *400	Sq. m. ...	Rs.	*Chopda, Raver and Yawal forests.
West Khândesh	180	...	...	180	33.2	...	151†	265	596	50	...	...	...	†Nawapur Nandurbar
North Khândesh	564	...	...	564	64.0	305†	...	...	818.7	...	564	...	...	†Dermogra Reserves, Akranl
Kolaba	416	...	...	416	98.8	...	...	5	421	...	...	...	...	Shirpur (newly afforested area)
Poona	328	...	85	320	56.6	72	...	173	505	...	320	...	...	Shirpur, Shahada and Taloda.
Sâtara	64	...	...	64	12.3	97	...	155	516	...	...	...	...	\$H. handed over to Revenue Department.
Total, Central Circle.	2,301	...	8	2,258	61.5	474	151	813	3,731†	50	1,284	...	...	†This is exclusive of the area in charge of the Revenue Department.
SOUTHERN CIRCLE.														
Kânara, Northern	350	...	...	350	82.2	42	...	34	428	107	107	(a) 61	3,881	(a) The Bhagwati Plan special allowance of Rs. 336-10-3 was paid to the Working Plans Officer.
Kânara, Eastern	331	...	(c) 54	277	47.0	78	...	235	500	157	157	(b) 30	...	(b) The Kirwatti Plan special allowance of Rs. 100 was paid to the Working Plans Officer.
Kânara, Central	221	(c) 54	...	278	33.3	1	104	430	833	...	26	...	...	(c) Area transferred from Kânara, Eastern Division, to Kânara, Central Division.
Kânara, Southern	71	...	...	71	10.0	97	...	540	708	...	...	...	...
Kânara, Western	258	...	...	258	31.1	...	...	571	829	...	...	...	...
Belgaum	182	(d) 149	...	331	48.5	305	...	46	682	168	168	...	23	(d) The Gokak Range Fuel Plan special allowance of Rs. 500 was granted to the Divisional Forest Officer, Belgaum, for compiling this Plan.
Dhârwar-Bijâpur	...	...	...	...	...	253	59	204	496	...	...	...	4,220	
Ratnâgiri	...	...	...	...	...	...	...	19	19	...	...	...	...
Total, Southern Circle.	1,416	149	...	1,565	31.1	756	103	2,009	4,583	432	458	61	8,124	
SIND CIRCLE.														
Sukkur	Sq. m. ac. 419 547	Sq. m. ac. ...	Sq. m. ac. ...	Sq. m. ac. 419 547	Sq. m. ac. 91.59	Sq. m. ac. 13 277	Sq. m. ac. ...	Sq. m. ac. 26 74	Sq. m. ac. 459 258	Sq. m. ac. 459 258	Sq. m. ac. ...	Sq. m. ac. ...	...	...
Lârkâra	203 176	...	...	203 176	87.0	...	4 44	24 518	231 98	...	222 400	...	6,801	
Hyderabad	225 142	...	...	225 142	87.34	...	8 263	24 150	257 555	...	...	...	...
Jerruck	225 281	...	...	225 281	90.8	...	...	0 261	225 542	...	...	...	...
Total, Sind Circle	1,072 506	...	...	1,072 506	91.4	13 277	12 307	75 303	1,174 178	459 258	222 400	...	6,801	
GRAND TOTAL	7,565 508	149	8	7,706 506	60.5	1,243 277	607 307	3,185 363	12,743 178	2,206 258	3,089 490	61	14,925	

Division.	Name of Working Plan.	Year in which sanctioned.	Area up to date.		Estimated annual output (cubic		
			To be worked.	Actually worked.	Teak.	Junglew.ood.	Fuel.
1	2	3	4	5	6	7	8
			Acres.	Acres.	Cft.	Cft.	Cft.
Kánara, Northern	Supa High Forest Plan, Blocks I to VII	1895	Particulars not furnished by Divisional Forest Officer		90	85	.....
	Bhagwati Plan, Blocks VIII, IX and XX	1918			78	19	.....
	Haliyal Teak Pole Plan	1904	In the press.		No estimate given. Coups to be cut		
	Plan for Block VII-A	1915			.....	.....	.....
	Dhárwár Plan	1900			.....	.....	.....
	Kalghatgi Plan	.....			.....	.....	.....
Do. Eastern	Yellápur Slopes Plan	1905	1,100	1,100	23	.....	.....
	Yellápur Aboveghat Plan	1905	54,287	48,009	39	.....	.....
	Mundgod High Forest Plan	1908	20,541	16,024	21	.....	.....
	Mundgod Teak Pole area Plan	1909	6,946	6,946	15	.....	187
	Kirvatti Teak Pole Plan	1916	.....	.....	.....	.....	.....
Do. Central	Ankola High Forest Plan	1910	Particulars not furnished by the Divisional Forest				
	Ankola-Kumta Coast Fuel Plan	1912					
	Sirsi Fuel Plan	1914					
	Yekambi-Sonda High Forest Plan	1915					
Do. Southern	Honáwar Tali Palm Plan	1909	Correct particulars not furnished by the Division				
	Kasarkod Casuarina Plantation	1911					
	Chandawar Fuel Plan	1915					
	Soppin-hosalli High Forest Plan	1913					
Do. Western	Gund Plan	1896	14,198	9,651	63	4	.....
	Kalinadi Slopes Plan	1911	5,173	4,604	4	55	.....
	Supa Fuel Plan	1906	9,903	4,032	Not estimated		.....
	Kárwár Fuel Plan	1903	13,121	9,651	.....	.....	1,150
	Casuarina Plantation	1911	55	55	.....	.....	25
	Kadra Teak Plantation Plan	1910	712	760	Output not estimated.		.....
	Galihalli-Godoli Teak Pole Series, I, II	1900	Particulars not furnished by the Divisional Forest				
Belgaum	Nagargali Plan	1915					
	Khánápur Fuel Reserves Plan	1903					
	Varkhad Hemadge Plan	1906					
	Gokák Fuel Plan	1916					
Dhárwár-Bijápur	Bankápur-Hungal Plan	(In the press).	.....	.....	.....	.....	.....
	Bijápur Plan	(Under preparation).	.....	.....	.....	.....	.....
Ratnágiri	None	.....	.....	.....	.....	.....	.....

Belgaum,
29th September 1917.

feet in thousands).			Actual output for 1916-17 (cubic feet in thousands).						Brief statement of reasons for arrears.
Other produce.	Gross value.	Net profit.	Teak.	Jungle wood.	Fuel.	Other produce.	Gross value.	Net profit.	
9	10	11	12	13	14	15	16	17	18
Value Rs. (in thousands). 24	Rs. in thousands.	Rs. in thousands. 253	Cft. 119	Cft. 79	Cft. ...	Value Rs. (in thousands). 46	Rs. in thousands. 634	Rs. in thousands. 401	
.....	98	50	160	84	11	23	40		
to meet demand.			146	87	177	.....	78		
.....	.....	.....	106	35	117	.....	39	236	
.....	.....	.....	108	35	130	.....	44		
.....	.....	.....	2	10	31	.....	1		
.....	34	17	60	1	...	.....	86	60	
.....	38	30	146	43	...	.....	273	181	Difficulty in procuring labour and transport.
.....	33	24	25	2	...	.....	42	27	Do. do. and large excess in the number of unsound trees over the estimate.
.....	Coupes sold standing.	11	Coupes sold standing	.....	.....	.....	.....	17	
.....	
Officer.									
Forest Officer.									
.....	88	32	52	1	...	.....	88	71	Fellings are 8 years in arrears for difficulties of exploitation and transport.
.....	50	26	6	19	...	.....	33	2	Barely one year behind hand.
.....	...	...	...	...	925	.....	66	13	Arrears due to distance from the M. and S. M. Railway line for which the fuel is expected.
.....	Not estimated.	10	...	62	10,072	.....	15	15	No arrears. The deficit in area represents unworkable coupes.
.....	4	3	...	...	52	.....	5	3	
.....	...	.....	1	...	...	.....	2	2	
Officer.									
.....	
.....	
.....	

T. R. D. BELL,
Conservator of Forests, S. C.

Form No. 12.—Statement showing communications

Division.	New works undertaken during the year.														
	Buildings.					Roads and paths.								Other works.	Total expenditure on new Works.
	Expenditure on				Total expenditure incurred.	Cart roads.		Bridle paths.		Others.		Total length of paths or roads.	Total expenditure incurred.	Expenditure incurred.	
	Head quarter houses.	Rest houses.	Houses for subordinate establishment.	Others.		Length.	Cost.	Length.	Cost.	Length.	Cost.				
1	2(a)	2(b)	2(c)	2(d)	3	4(a)	4(b)	4(c)	4(d)	4(e)	4(f)	5	6	7	8
NORTHERN CIRCLE.															
Panch Mahals
Surat	{ 9,750 0 0 500 0 0 }	4,250 0 0	11½	10,009 0 0	...	...	...	11½	10,000 0 0	1,120 0 0	15,370 0 0
North Thána	{ 4,725 0 0 3,215 0 0 5,107 0 0 }	...	13,107 0 0	5½	3,410 0 0	...	...	...	...	5½	3,410 0 0	405 0 0	16,922 0 0
West Thána	1	677 0 0	...	...	...	...	1	677 0 0	...	677 0 0
East Thána	600 0 0	...	60 0 0	11	2,000 0 0	...	...	...	...	11	2,000 0 0	...	2,000 0 0
South Násik	10	926 0 0	...	...	...	...	10	926 0 0	15 0 0	941 0 0
Total, Northern Circle	13,167 0 0	4,250 0 0	17,417 0 0	39	17,013 0 0	...	...	...	...	39	17,013 0 0	1,540 0 0	35,979 0 0
CENTRAL CIRCLE.															
East Khándesh	708 0 0	708 0 0
West Khándesh	469 0 0	469 0 0
North Khándesh	9	1,764 0 0	...	...	...	...	9	1,764 0 0	...	1,764 0 0
Poona	1	307 0 0	...	...	...	...	1	307 0 0	...	307 0 0
Mitára	200 0 0	...	200 0 0	...	...	...	...	...	...	...	...	...	200 0 0
Kolába	50 0 0	...	50 0 0	...	...	...	...	...	...	...	...	...	50 0 0
Total, Central Circle	250 0 0	...	250 0 0	10	2,071 0 0	...	...	...	...	10	2,071 0 0	1,177 0 0	3,408 0 0
SOUTHERN CIRCLE.															
*Kánara, Northern	48 0 0	84 0 0	107 0 0	...	239 0 0	16	4,475 0 0	...	...	3	30 0 0	19	4,415 0 0	155 0 0	4,839 0 0
Kánara, Eastern	25	2,204 0 0	...	...	...	...	25	2,204 0 0	308 0 0	2,510 0 0
Kánara, Central	2	377 0 0	...	...	...	...	2	377 0 0	350 0 0	727 0 0
Kánara, Southern	827 0 0	...	827 0 0	...	...	...	...	...	...	...	...	...	827 0 0
Kánara, Western	9	8,815 0 0	...	...	18	74 0 0	27	8,892 0 0	13,882 0 0	22,794 0 0
Belgaum	...	490 0 0	52 0 0	...	542 0 0	7	2,542 0 0	...	...	...	...	7	2,542 0 0	632 0 0	3,718 0 0
Dhárwar-Bijapur	619 0 0	...	619 0 0	...	...	...	...	...	...	...	...	400 0 0	1,010 0 0
Ratnágiri
Total, Southern Circle	48 0 0	574 0 0	1,805 0 0	...	2,327 0 0	59	18,356 0 0	...	...	21	104 0 0	80	18,460 0 0	15,725 0 0	36,412 0 0
SIND CIRCLE.															
Sukkur	323 5 10	...	...	...	323 5 10	...	...	...	...	...	...	...	...	236 8 0	559 13 10
Lárkána	257 9 1	...	257 9 1	...	...	9	150 0 0	...	...	9	150 0 0	551 7 7	969 0 8
Hyderabad
Jerruck
Total, Sind Circle	323 5 10	...	257 9 1	...	579 14 11	...	...	9	150 0 0	...	...	9	150 0 0	787 15 7	1,517 14 6
Grand Total	370 5 10	574 0 0	15,279 9 1	4,250 0 0	20,473 14 11	108	37,440 0 0	9	150 0 0	21	104 0 0	138	37,694 0 0	10,220 15 7	77,397 14 6

and buildings during the year 1916-1917.

Repairs executed during the year.

Repairs executed during the year.																
Buildings.					Roads and paths.								Other works.		Remarks.	
Expenditure on					Cartroads.		Bridlepaths.		Others.		Total length of paths or roads.	Total expenditure incurred.	Expenditure incurred.	Total expenditure incurred.		
Head quarter houses.	Rest houses.	Houses for subordinate establishment.	Others.	Total expenditure incurred.	Length.	Cost.	Length.	Cost.	Length.	Cost.						
																9(a)	9(b)	9(c)	9(d)	10	11(a)	11(b)	11(c)	11(d)	11(e)	11(f)	12	13	14	15	16
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
24 0 0	...	105 0 0	...	129 0 0	...	...	...	...	...	...	...	...	91 0 0	223 0 0		
...	...	1,509 0 0	...	1,509 0 0	174	5,815 0 0	...	...	...	...	174	5,815 0 0	651 0 0	7,975 0 0		
...	...	311 0 0	...	311 0 0	...	318 0 0	...	...	...	...	...	318 0 0	...	629 0 0		
...	...	351 0 0	...	351 0 0	11	331 0 0	...	...	...	...	11	331 0 0	44 0 0	726 0 0		
...	...	208 0 0	...	208 0 0	...	240 0 0	...	...	...	...	...	240 0 0	43 0 0	491 0 0		
...	...	226 0 0	...	226 0 0	11	1,113 0 0	...	...	...	...	11	1,113 0 0	...	1,330 0 0		
24 0 0	...	2,710 0 0	...	2,734 0 0	196	7,817 0 0	...	...	...	...	196	7,817 0 0	632 0 0	11,363 0 0		
60 0 0	...	239 0 0	...	299 0 0	61	497 0 0	...	...	...	...	61	497 0 0	1 0 0	797 0 0		
...	...	709 0 0	...	709 0 0	2	1,549 0 0	...	...	...	...	2	1,549 0 0	...	2,258 0 0		
16 0 0	31 0 0	483 0 0	...	533 0 0	14	125 0 0	...	746 0 0	...	...	14	871 0 0	...	1,404 0 0		
...	56 0 0	68 0 0	...	124 0 0	2	35 0 0	30	1,157 0 0	...	...	32	1,192 0 0	...	1,316 0 0		
...	...	233 0 0	...	233 0 0	28	3,025 0 0	...	...	...	88 0 0	28	3,113 0 0	151 0 0	3,497 0 0		
...	...	269 0 0	21 0 0	290 0 0	7	85 0 0	...	...	...	...	7	85 0 0	...	375 0 0		
76 0 0	93 0 0	2,001 0 0	21 0 0	2,138 0 0	114	5,316 0 0	30	1,903 0 0	...	88 0 0	144	7,307 0 0	152 0 0	9,617 0 0		
101 0 0	205 0 0	579 0 0	...	885 0 0	90	2,809 0 0	...	...	...	...	90	2,809 0 0	603 0 0	4,237 0 0		
314 0 0	501 0 0	496 0 0	...	1,311 0 0	60	3,695 0 0	8	30 0 0	...	...	68	3,725 0 0	715 0 0	5,751 0 0		
...	425 0 0	436 0 0	...	861 0 0	4	113 0 0	...	...	...	...	4	113 0 0	8 0 0	982 0 0		
...	260 0 0	456 0 0	50 0 0	766 0 0	17	1,475 0 0	...	...	...	...	17	1,475 0 0	14 0 0	2,255 0 0		
61 0 0	805 0 0	328 0 0	107 0 0	1,321 0 0	52	12,549 0 0	...	...	...	...	52	12,549 0 0	364 0 0	14,237 0 0		
220 0 0	267 0 0	223 0 0	15 0 0	725 0 0	75	4,526 0 0	...	...	...	8 0 0	75	4,534 0 0	59 0 0	5,818 0 0		
...	...	138 0 0	...	138 0 0	...	...	...	...	...	...	...	...	45 0 0	188 0 0		
...	...	10 0 0	...	10 0 0	...	...	...	...	...	...	...	...	...	10 0 0		
716 0 0	2,463 0 0	2,606 0 0	172 0 0	6,017 0 0	208	25,167 0 0	8	30 0 0	...	8 0 0	304	25,205 0 0	1,508 0 0	33,030 0 0		
...	...	615 0 5	...	615 0 5	...	...	...	...	...	...	...	...	509 6 11	1,124 7 4		
...	...	405 9 0	...	405 9 0	...	...	...	...	...	...	...	...	...	465 9 0		
...	...	624 7 8	...	624 7 8	...	...	...	...	...	...	...	...	480 18 7	1,105 5 3		
...	...	560 3 1	...	560 3 1	...	...	...	...	...	...	...	...	1,603 0 10	2,112 3 11		
...	...	2,214 4 2	...	2,214 4 2	...	...	...	...	...	...	...	...	2,593 5 4	4,807 9 6		
616 0 0	2,553 0 0	9,591 4 2	193 0 0	13,153 4 2	608	36,800 0 0	36	1,033 0 0	...	96 0 0	644	40,329 0 0	5,395 5 4	58,807 9 6		

* The following items have been excluded:—

(a) Contribution to District Local Board for repairs of Local Board roads—

Rs. 5,090

Rs. 1,000

(Contribution from District Local Board).

Net Rs. 4,000.

Item excluded:—

Contribution to District Local Board for repairs to Local Board roads—

Rs. 5,030

* The following items have been excluded:—
(a) Contribution to District Local Board for repairs of Local Board roads—
Rs. 5,000
Rs. 1,000
(Contribution from District Local Board).
Net Rs. 4,000.
Item excluded:—
Contribution to District Local Board for repairs to Local Board roads—
Rs. 5,030

Form No. 13.—Statement showing register of

Forest Division.	Cases pending from previous year.			New cases of the year.														
				Injury to forest by fire.			Unauthorized felling.			Unauthorized grazing.			Other offences.			Total.		
	A.	B.	All.	A.	B.	C.	A.	B.	C.	A.	B.	C.	A.	B.	C.	A.	B.	C.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
NORTHERN CIRCLE.																		
Panch Mahals ...	4	133	137	5	6	50	16	550	256	18	824	1	1	18	...	40	1,398	307
Surat ...	...	10	10	3	16	2	1	21	3	...	36	...	8	10	...	7	83	5
North Thana ...	6	76	82	...	...	55	21	191	151	1	229	...	...	27	...	22	443	206
West Thana ...	8	29	32	6	4	31	27	197	116	9	362	2	1	20	3	43	589	151
East Thana ...	5	23	28	5	9	64	18	329	113	6	240	7	4	49	1	83	626	185
South Násik ...	2	...	2	1	5	41	7	163	36	9	123	...	2	38	...	10	329	77
North Násik ...	3	...	3	1	1	6	8	180	14	3	334	...	1	46	1	13	561	21
Násik Sub-Division ...	5	...	5	...	1	13	3	301	86	5	273	...	...	11	...	8	591	40
Total, Northern Circle ...	28	271	299	21	42	262	101	1,932	724	51	2,425	10	12	224	5	185	4,623	1,001
CENTRAL CIRCLE.																		
East Khándesh ...	9	...	9	7	7	47	17	238	64	16	318	3	16	102	3	56	1,725	117
West Khándesh ...	14	...	14	9	1	55	5	199	75	5	395	3	1	32	...	20	627	133
North Khándesh ...	4	...	4	6	12	43	2	171	103	1	144	2	3	64	...	12	301	148
Poona ...	8	...	8	4	33	83	25	707	128	26	878	6	8	104	1	63	1,872	218
Sátara ...	5	...	5	3	26	56	22	455	46	11	476	...	2	121	6	33	1,078	108
Kolába ...	65	...	65	23	12	36	128	314	286	35	880	4	13	65	6	190	771	332
Total, Central Circle ...	105	...	105	52	91	320	199	2,144	702	94	2,591	18	43	638	16	383	5,464	1,056
SOUTHERN CIRCLE.																		
Kánara Northern ...	6	63	61	8	4	54	3	131	32	2	195	3	...	6	...	13	836	89
Kánara Eastern ...	2	...	2	...	16	69	4	128	51	...	62	...	...	22	...	4	253	120
Kánara Central (New Division) ...	10	97	107	3	21	332	19	619	47	1	23	...	3	49	...	26	711	420
Kánara Southern ...	36	244	280	2	44	162	22	709	40	1	24	...	13	82	...	38	859	222
Kánara Western ...	2	...	2	5	5	83	34	243	19	6	33	...	1	15	...	46	296	102
Pelgaum ...	10	125	144	6	32	156	7	340	119	17	729	3	...	27	3	30	1,129	281
Dhárwar-Bijápur (New combined Division) ...	1	80	81	3	2	63	9	207	42	5	248	10	1	5	...	18	512	115
Batnágiri ...	1	9	10	...	1	...	...	7	1	...	...	...	...	3	...	...	11	1
Total, Southern Circle ...	79	623	717	27	125	689	98	2,384	851	32	1,341	16	18	261	...	175	4,111	1,359
SIND CIRCLE.																		
Sukkur ...	34	...	34	2	...	50	52	598	404	11	808	...	2	6	...	67	1,412	454
Lárkána ...	1	...	1	...	...	22	9	217	61	6	250	...	1	5	...	16	472	83
Hyderabad ...	10	...	10	...	...	8	31	248	22	5	731	1	1	20	...	37	900	91
Jerruck ...	9	6	15	1	1	5	5	87	7	...	160	...	...	1	...	6	249	12
Total, Sind Circle ...	54	6	60	3	1	85	97	1,150	494	22	1,940	1	4	32	...	120	3,132	580
Grand Total ...	236	915	1,181	103	259	1,653	495	7,610	2,271	199	8,806	45	77	1,155	21	874	17,330	3,998

breaches of Forest Rules during the year 1916-17.

Total cases.				Disposed of during the year.														Cases pending at close of year.			Remarks.
				Convictions.				Acquittals.				Total.									
				Cases.		Persons.		Cases.		Persons.		Cases.			Persons.						
A.	B.	C.	All.	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.	All.	A.	B.	All.	A.	B.	All.	
20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
44	1,531	307	1,832	35	1,400	92	2,672	1	...	3	...	36	1,400	1,436	95	2,072	2,707	8	131	139	
7	93	5	105	2	67	6	205	...	...	...	...	2	67	69	6	205	211	5	26	31	
28	522	206	756	19	400	37	901	1	...	3	...	20	409	429	40	901	941	9	113	131	
43	618	151	815	29	600	48	1,619	2	...	23	...	31	600	631	76	1,610	1,695	15	18	33	
38	649	185	872	34	546	130	2,118	4	...	10	...	38	546	584	140	2,118	2,258	...	103	103	
21	329	77	427	17	329	67	993	4	...	6	...	21	329	350	73	993	1,066	...	...	...
16	561	21	598	13	561	72	1,126	1	...	5	...	14	561	575	77	1,126	1,203	2	...	2	
13	591	49	653	11	556	15	1,540	2	...	3	...	13	556	569	18	1,540	1,558	...	35	35	
213	4,894	1,001	6,108	160	4,408	467	11,174	15	...	56	...	175	4,468	4,643	525	11,174	11,699	28	426	454	
65	725	117	907	52	565	145	1,664	2	...	3	...	54	565	619	149	1,564	1,712	11	171	182	
34	627	133	794	21	415	34	1,487	5	...	7	...	26	415	441	41	1,487	1,529	8	212	220	
16	391	148	555	13	274	30	606	...	...	1	...	13	274	287	31	606	637	2*	117	119	
71	1,872	216	2,161	54	1,663	159	3,961	6	...	35	...	60	1,663	1,726	194	3,961	4,155	9†	206	215	
43	1,078	108	1,229	33	879	72	1,663	2	...	5	...	35	879	914	77	1,663	1,740	8	199	207	
264	771	132	1,367	171	661	403	1,356	28	...	62	...	190	661	860	465	1,356	1,821	65	110	175	
493	5,464	1,066	7,013	344	4,460	843	10,637	43	...	113	...	397	4,460	4,847	956	10,637	11,593	103	1,004	1,107	
21	419	69	539	11	399	19	1,012	2	...	4	...	13	360	382	23	1,012	1,035	8	50	58	
6	258	120	384	5	251	6	545	1	...	1	...	6	251	257	7	545	552	...	7	7	
36	808	429	1,278	23	725	31	1,610	9	...	15	...	32	725	757	46	1,610	1,656	4	83	87	
74	1,103	222	1,399	41	896	63	2,057	11	...	17	...	52	896	938	80	2,057	2,130	22	217	230	
48	296	102	446	20	233	35	546	2	...	9	...	22	233	255	44	546	590	26	63	69	
49	1,253	231	1,553	27	1,113	54	2,043	2	...	7	...	29	1,113	1,142	61	2,043	2,104	20	140	160	
19	592	115	726	8	569	17	2,012	2	...	3	...	10	569	579	20	2,012	2,032	9	23	32	
1	20	1	22	1	19	2	20	...	...	...	...	1	18	19	2	20	22	...	2	2	
254	4,749	1,359	6,862	136	4,104	227	9,845	29	...	56	...	165	4,104	4,329	283	9,845	10,128	89	585	674	
101‡	1,412	454	1,667	43	1,412	79	1,871	23	...	65	...	66	1,412	1,478	164	1,871	2,035	31	...	32	
17	472	83	572	9	439	12	476	3	...	7	...	11	439	450	19	476	495	6	33	39	
47	999	31	1,077	39	999	61	1,110	...	...	...	...	39	999	1,038	61	1,110	1,171	8	...	8	
15§	253¶	22	232	4	246	8	305	2	...	4	...	6	246	252	12	305	317	6	8	14	
180	3,133	580	3,893	94	3,096	160	3,762	28	...	96	...	122	3,093	3,218	250	3,762	4,018	62	41	93	
1,140	18,245	3,906	23,381	734	16,189	1,697	35,418	115	...	273	...	849	16,198	17,037	2,020	35,418	37,438	232	2,050	2,338	

* One case withdrawn.

† Two cases withdrawn.

‡ Two were transferred to B class and 1 was withdrawn.

§ Three were withdrawn.

¶ One was transferred to A class.

(A) Means cases taken to Court.

(B) " " compounded and let off with warnings.

(C) " " undetected.

FORM No. 14.—Area of Forest Tracts protected from fire during 1916-1917.

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1916-1917.	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. a. p.	
NORTHERN CIRCLE.								
Panch Mahals	North Godhra Range.	...	88,541	37,428	562	36,866	2,372 0 0	
	South do.	...	...	51,828	190	51,638
	Kalol	...	21,493	21,527	846	20,681		
	Halol	...	27,908	28,264	1,474	26,790		
	Dohad	...	43,619	46,242	1,458	44,784		
	Jhalod	...	25,824	26,863	1,043	25,820		
	Total	...	207,825	212,152	5,573	206,579	2,372 0 0	
Surat	Dangs	...	418,719	419,808	73	419,735	6,115 0 0	
	Mandvi	...	40,882	40,887	...	40,887		
	Bulsar-Chikhali	...	2,810	2,810	...	2,810		
	Total	...	462,411	463,505	73	463,432	6,115 0 0	
North Thana	Palghar	...	74,665	31,746	601	31,145	2,864 0 0	
	Manor	...		26,705	120	26,585		
	Dahisar	...	...	20,963	708	20,257
	Dahanu	...	77,771	64,221	2,544	61,677		
	Umbargao	...	57,773	32,798	476	32,322		
	Udawa	...	...	31,773	18	31,755
	Total	...	210,209	208,206	4,465	203,741	2,864 0 0	
West Thana	Bassein	...	53,470	54,355	97	54,258	3,609 0 0	
	West Vada	...	32,388	32,919	317	32,602		
	Bhiwadi	...	37,741	43,970	229	43,741		
	Salsette	...	14,396	14,809	306	14,503		
	Kalyan	...	31,345	33,438	280	33,158		
	West Murbad	...	30,997	26,479	315	26,164		
	Total	...	200,337	205,970	1,544	204,426	3,609 0 0	
East Thana	Khardi	...	104,141	52,395	1,116	51,279	4,735 0 0	
	Mokhada	...		39,032	75	38,957		
	North Shahapur	...	62,973	45,604	3,968	41,636		
	South do.	...	...	21,646	577	24,069
	East Murbad	...	23,612	29,371	371	29,000		
	East Vada	...	46,146	46,809	995	45,814		
	Igatpuri	...	52,878	53,903	680	53,278		
	Total	...	289,750	291,760	7,732	284,028	4,735 0 0	
South Nasik	Nasik	...	40,074	40,889	549	40,340	416 0 0	
	Dindori	...	50,177	53,784	2,419	51,315		
	North Point	...	107,171	126,234	263	125,971		
	South Point	416 0 0	
	Total	...	197,422	220,857	3,231	217,626	416 0 0	
North Nasik	Malegaon	...	109,251	89,150	119	89,031	246 0 0	
	Baglan	...	115,032	120,029	54	119,975		
	Kalwan	...	106,972	106,898	77	106,821		
	Total	...	331,255	316,077	250	315,827	246 0 0	
Nasik Sub-Division	Chandor	...	21,249	30,112	20	30,092	175 0 0	
	Nandgaon	...	62,458	77,586	1,155	76,431		
	Yeola	...	25,749	25,838	38	25,797		
	Sinnar	...	31,607	31,601	40	31,561		
	Total	...	141,063	165,132	1,251	163,881	175 0 0	
Total, Northern Circle.			2,039,772	2,083,659	24,119	2,059,540	20,582 0 0	

APPENDICES.

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FORM No. 14.—Area of Forest Tracts protected from fire during 1916-1917—continued.

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1916-1917.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9
CENTRAL CIRCLE.								
East Khándesh	Cháliagaon	Acres. 36,729	Acres. 38,250	Acres. 1,970	Acres. 36,280	Rs. 263 0 0	Includes Erandol Taluka. Do. Bhusawal Taluka.
	Chopda ...	...	106,466	107,700	19,781	87,919	872 4 0
	Edalabad ...	...	36,487	41,346	1,652	39,694	60 0 0
	Jalgaon ...	...	37,420	38,812	622	38,190	.....
	Jánner ...	...	63,556	64,890	1,907	62,483	42 0 0
	Parola ...	...	43,842	43,921	79	43,842	3 12 0
	Ráver ...	...	61,881	76,210	6,703	69,507	263 9 6
	Yáwal ...	...	29,000	78,000	23,210	54,790	419 14 0
	Total	418,381	488,629	55,924	432,705	1,453 7 6	
West Khándesh	Dhulia	74,156	75,818	2,515	73,303	134 0 0	Includes Sindkheda Taluka.
	Sákri ...	...	168,814	180,858	10,556	170,302	538 0 0
	Pimpalner ...	...	62,887	63,558	1,562	61,996	1,159 0 0
	Nandurbár ...	...	58,329	61,377	1,165	60,212	1,762 0 0
	Navápur					25 2 3	Miscellaneous charges.
	Total ...	...	364,186	381,611	15,798	365,813	4,445 2 3
North Khándesh	Akráni	164,134	194,683	92,884	101,799	2,280 0 0	
	Taloda ...	...	56,956	71,161	15,041	56,120	1,307 0 0
	Sháháda ...	...	78,165	83,581	5,800	77,781	1,170 0 0
	Shirpur, East ...	...	195,250	206,772	10,279	196,493	3,120 0 0
	Do. West ...	...					
	Total ...	...	494,505	556,197	124,004	432,193	7,877 0 0
Kolaba	Allbág	27,413	27,489	288	27,201	227 8 0	
	Pen ...	...	29,951	29,964	18	29,946	276 4 0
	Panvel ...	...	27,536	27,572	209	27,363	200 4 0
	Karjat ...	...	32,250	32,520	302	32,218	408 12 0
	Khálápur ...	...	21,596	21,879	180	21,699	140 4 0
	Nágothna ...	...	35,218	35,226	21	35,205	403 12 0
	Roha ...	...	39,219	39,281	101	39,180	476 4 0
	Māngaon ...	...	26,274	26,290	41	26,249	370 0 0
	Mahád ...	...	25,808	25,877	231	25,646	118 12 0
	Dápoli ...	...	2,122	2,122	...	2,122	78 12 0
	Mátherán ...	...	1,107	1,107	6	1,101	52 0 0
	Total ...	...	268,494	269,327	1,397	267,930	2,752 8 0
Poona	Akola (A'nagar Dist.)	66,597	66,826	195	66,631	Includes part of Sangamner Taluka.
	Ambegaon ...	...	38,711	38,942	277	38,665	.....
	Dhond	10,993	7,015	...	7,015	Includes parts of Indápur and Shirur Talukas of Poona District and part of Shrigonda Taluka of Ahmednagar District.
	Haveli ...	...	24,379	26,784	1,706	25,078	108 8 0
	Junnar ...	...	39,036	39,244	658	38,586	10 0 0
	Khed ...	...	34,885	35,493	1,258	34,235	.....
	Lonávla	46,174	47,215	747	46,468	22 8 0	Includes part of Bhimthall Taluka.
	Mával ...	...	26,530	26,619	285	26,334	.....
	Mulshi ...	...	9,813	8,579	330	8,249	.....
	Parandhar ...	...	65,015	65,087	65	65,022	.....
	Total	361,933	361,804	5,521	356,283	141 0 0	

FORM No. 14.—Area of Forest Tracts protected from fire during 1916-1917—continued.

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1916-1917.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9
CENTRAL CIRCLE —concluded.			Acres.	Acres.	Acres.	Acres.	Rs. a. p.	
Satara ...	Javli ...	...	58,521	58,523	15	58,508	.....	Includes part of Tasgaon Taluka.
	Karad ...	...	33,518	33,541	109	33,432	.....
	Mahabaleshwar ...	...	43,165	43,222	182	43,040	150 0 0	
	Patan ...	...	74,877	75,048	980	74,068	.....	Includes part of Khatao Taluka.
	Sattara ...	...	50,133	50,681	69	50,612	.....
	Shirala ...	...	36,170	36,211	147	36,064	.....
	Wai ...	...	33,101	33,264	60	33,198	.....
Total ...			329,485	330,490	1,568	328,922	150 0 0	
Total, Central Circle...			2,236,984	2,383,058	204,212	2,183,846	16,819 1 9	
SOUTHERN CIRCLE.								
Kánara, Northern ...	Haliyal ...	1887-88 ...	38,654	40,031	1,363	47,718	1,117 0 0	
	Sambrani ...	" ...	32,453	47,113	70	47,043	483 0 0	
	Dandeli ...	" ...	11,915	53,076	...	53,076	1,062 0 0	
	Kulgi ...	" ...	23,799	29,261	...	29,261	629 0 0	
	Virnoli ...	" ...	33,839	46,114	3,031	43,083	633 0 0	
	Kalghatgi ...	1888-89 ...	44,637	44,291	1,977	42,314	1,121 0 0	
Total ...			185,297	263,936	6,441	262,495	4,945 0 0	
Kánara, Eastern ...	Yellapur ...	1888-89 ...	87,321	114,750	623	114,127	523 0 0	
	Kirwatti ...	" ...	78,075	66,126	656	65,470	1,076 0 0	
	Bhartnalli ...	" ...	89,389	64,060	190	63,870	456 0 0	
	Mundgod ...	" ...	49,710	64,135	805	63,330	1,798 0 0	
	Kator ...	" ...	34,456	42,343	453	41,890	626 0 0	
	Dhondshi ...	" ...	25,871	23,996	158	23,838	420 0 0	
Total ...			364,822	375,410	2,885	372,525	4,899 0 0	
Kánara Central (New Division) ...	Sirsi ...	1906-07 ...	3,561	215,273	11,290	203,983	86 0 0	
	Ankola ...	1888-89 ...	148,07	221,806	1,362	220,444	629 0 0	
	Kumta ...	1899-00 ...	6,360	61,751	284	61,467	311 0 0	
Total ...			157,992	498,830	12,936	485,894	1,026 0 0	
Kánara, Southern ...	Siddapur ...	1910-11 ...	201,721	204,441	4,819	199,622	22 0 0	
	Honavar ...	1900-01 ...	124,306	124,581	1,074	123,507	184 0 0	
	Bhatkal ...	1899-00 ...	128,800	124,034	1,258	122,776	151 0 0	
Total ...			449,827	453,056	7,151	445,905	357 0 0	
Kánara, Western ...	Karwar ...	1887-88 ...	81,099	81,655	432	81,223	608 0 0	
	Kadra ...	" ...	192,064	205,971	1,324	204,647	1,028 0 0	
	Supa ...	1888-89 ...	219,193	219,286	2,707	216,579	731 0 0	
	Gund ...	" ...	20,367	23,433	501	22,932	471 0 0	
Total ...			512,723	630,395	4,904	625,431	2,838 0 0	
Belgaum ...	Belgaum ...	1888-89 ...	83,841	84,448	1,496	82,952	7,934 0 0	
	Khanapur, Eastern ...	1896-97 ...	85,281	48,192	4,871	48,321		
	Khanapur, Central ...	1910-11 ...	68,553	77,560	8,796	73,764		
	Khanapur, Western ...	1899-90 ...	97,492	97,707	1,510	96,197		
	Gokak ...	1894-95 ...	94,057	99,231	1,109	98,122		
Total ...			379,114	407,138	12,782	394,356	7,934 0 0	

Form No. 14.—Area of Forest Tracts protected from fire during 1916-1917—concluded.

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1915-1916.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9
SOUTHERN CIRCLE—continued.			Acres.	Acres.	Acres.	Acres.	Rs. a. p.	
Dhárwar-Bijapur (New Division) ...	Dhárwar and Carlag...	1888-89 ...	18,097	18,778	782	18,016	9 0 0	
	Hangal ...	...	9,334	9,495	159	9,337	838 0 0	
	Kod ...	1907-08 ...	16,878	18,052	1,101	16,951	121 0 0	
	Bádámi ...	1889-90 ...	1,368	17,613	1,692	15,921	172 0 0	
	Bágalkot ...	" ...	2,299	4,415	1,927	2,488	128 0 0	
	Total ...	...	42,976	68,353	6,610	62,743	769 0 0	
Ratnágiri ...	Khed ...	1889-90 ...	7,709	7,709	25	7,684	10 0 0	
	Sangameshvar ...	1892-93 ...	3,710	3,711	...	3,711	10 0 0	
	Málvan ...	" ...	634	634	...	634	10 0 0	
	Total ...	...	12,053	12,054	25	12,029	30 0 0	
	Total, Southern Circle.	...	2,104,804	2,614,172	52,794	2,561,378	22,797 0 0	
SIND CIRCLE.								
Sukkur ...	Mirpur ...	Not known	42,599	43,576	10	43,566	.....
	Ghotki ...		54,061	53,993	120	53,873	.....
	Sadhuja ...		70,571	74,761	465	74,296	.....
	Abad ...		35,811	33,092	287	35,805	.....
	Sukkur ...		27,288	27,745	341	27,404	.....
	Kot Bultán ...	1885-86 & 1887-88.	23,251	23,255	35	23,220	.....
	Kashmore ...	1895-96 ...	34,090	34,596	27	34,569	.....
	Total ...	...	287,671	294,018	1,235	292,783	.....
Larkana ...	Garhi Yásin ...	Not known	32,398	32,426	93	32,333	.....
	Lárkana ...		48,077	48,442	149	48,298	.....
	Selwán ...		23,006	23,543	13	23,530	.....
	Kandiáro ...		43,547	43,527	120	43,407	.....
	Total ...	...	147,028	147,938	375	147,563	.....
Hyderabad ...	Sakrand ...	Not known	50,522	49,497	105	49,392	.....
	Hála ...		51,456	52,227	164	52,063	.....
	Miáni ...		22,902	29,877	...	29,877	.....
	Hyderabad ...		2,223	2,223	...	2,223	.....
	Unerpur ...		29,131	31,211	1	31,210	.....
	Total ...	...	156,234	165,035	270	164,765	.....
Jerruck ...	Tatta ...	1912-13	52,832	52,236	36	52,200	223 12 10	
	Sháhbandar ...		24,540	23,927	...	23,927	181 8 0	
	Mulchand ...		46,942	47,578	22	47,556	629 14 5	
	Katiar ...	Not known.	20,768	20,801	...	20,801	.....
	Total ...	...	145,102	144,542	58	144,464	1,035 3 3	
	Total, Sind Circle ...	...	736,035	751,533	1,988	749,545	1,035 3 3	
	GRAND TOTAL ...	...	7,117,595	7,837,422	283,113	7,554,300	61,183 4 0	

Division or Circle.	(A)		(B)		(C) FIRES BEGINNING INSIDE THE							
	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.							
	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	By workmen employed in the forests, by purchasers, cutters, etc.		By villagers, travellers, etc., passing through the forests.		By railway engines.		By lightning or by fire-balloons.	
1	2	3	4	5	6	7	8	9	10	11	12	13
NORTHERN CIRCLE.												
Panch Mahāla	4	257	2	2	...	...	4	906	1	3	...	...
Surat	2	2	...	...	...	...	17	41	...	...	1	10
North Thāna	4	93	...	...	...	...	4	66	2	210	...	...
West do.	2	48	8	515	2	12	9	385	1	10	...	...
East do.	3	258	8	632	2	374	4	458	4	288	...	...
South Nāsik	5	842	7	285	1	215	22	607	...	...	...	...
North do. ... ..	...	...	1	10	...	...	1	62	...	...	...	...
Nāsik Sub-Division ... ..	...	...	1	4	...	...	6	155	1	8	...	...
Total ...	20	1,500	27	1,448	5	601	67	2,680	9	510	1	10
CENTRAL CIRCLE.												
East Khāndesh	11	1,171	2	210	11	829	15	28,383	4	180	...	...
West do.	3	1,099	2	185	...	...	2	50	1	10	...	...
North do.	11	1,807	6	6,662	3	130	24	9,805	...	...	...	...
Kolāba	3	37	34	332	2	6	14	140	6	276	...	...
Poona	2	18	19	270	...	...	65	2,43	2	98	...	...
Satāra	1	20	26	161	...	...	2	1	...	...	...	...
Total ...	31	4,152	89	7,820	16	965	122	40,814	13	534	...	...
SOUTHERN CIRCLE.												
Kānara, Northern	2	234	2	354	...	...	19	3,005	1	105	...	...
Do. Eastern	2	9	12	77	4	61	24	520	...	...	...	...
Do. Central	1	25	18	330	2	1	53	1,638	...	...	...	...
Do. Southern ... ..	...	...	3	168	...	...	46	600	...	...	...	...
Do. Western	12	569	4	207	6	166	33	1,180	...	...	...	...
Belgaum	2	12	24	2,045	13	741	12	268	5	15	...	...
Dhārwar—Bijāpur	2	573	3	625	...	...	13	1,099	5	181	...	...
Ratnāgiri ... ..	...	...	1	25	...	...	...	...	...	...	...	...
Total ...	21	1,422	67	3,831	25	969	200	8,310	11	801	...	...
SIND CIRCLE.												
Sukkur ... ..	...	...	4	47	...	...	7	99	1	4	...	...
Larkāna ... ..	...	...	...	...	...	...	...	...	1	8	...	...
Hyderabad	1	62	...	...	1	16	...	...	...	...	...	...
Jerruck ... ..	...	...	...	...	2	14	1	5	...	...	...	...
Total ...	1	62	4	47	3	30	8	104	2	12	...	...
Grand Total ...	73	7,136	187	13,146	49	2,565	397	51,908	35	1,396	1	10

Forest Fires during 1916-17.

RESERVE OR FIRE-TRAISED AREA.								Causes Unknown.		Total (A), (B) and (C).		Remarks.
By Intentional Firing.												
In order to obtain new grass.		In order to turn out game or to reduce cover.		Maliciously fired.		Total.						
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.	
14	15	16	17	18	19	20	21	22	23	24	25	26
...	...	2	500	7	1,409	40	2,905	53	5,573	Plus 8 on account of branches of Rules in which no area was burnt.
...	...	...	...	...	...	18	51	1	20	21	73
...	...	15	534	...	...	21	810	30	3,562	55	4,465
...	...	3	53	...	115	20	575	11	406	41	1,544	
...	...	...	...	...	...	10	1,120	57	5,722	78	7,732
...	...	1	180	...	1,085	33	2,087	2	17	47	3,231	
...	...	...	...	...	...	1	62	6	178	8	250
...	...	...	...	...	...	7	163	6	1,081	14	1,251
...	...	21	1,267	14	1,200	117	6,277	153	14,894	317	24,119	*Breach of rules in which no area was burnt † Includes 41 cases not accounted for in Form 13.
...	...	...	...	3	610	33	30,032	35	24,511	81	55,924
...	...	...	...	10	1,137	13	1,197	50	13,317	68	16,798
...	...	...	...	16	12,100	43	22,035	12	93,500	72	124,004
...	...	...	...	...	...	22	422	17	606	76	1,897
...	...	...	...	18	1,022	65	3,555	18	1,678	124	5,521
...	...	...	...	...	...	3	1	56	1,366	86	1,668
1*	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	47	14,899	199	57,242	188	134,998	507†	204,212
1	321	21	3,431	41	2,422	66	6,441	
6	599	...	...	...	...	50	2,202	21	597	85	2,885
...	...	8	372	...	650	66	2,448	322	10,133	406	12,986	
...	...	2	1	...	808	46	600	179	6,833	228	7,151	
...	...	...	...	...	...	41	1,421	36	2,767	93	4,964
1	35	...	40	...	...	66	8,596	82	2,129	194	12,782
...	...	2	2	54	7,570	23	1,888	40	2,524	68	5,610	
...	...	4	358	1	220	...	...	...	...	1	25
8	955	17	803	71	9,248	332	20,586	721	26,955	1,141	52,794	
10	500	2	1	20	604	28	634	52	1,285	
...	...	...	...	...	...	1	8	21	367	22	375
...	...	...	...	...	...	1	16	6	192	8	270
1	23	...	...	2	15	6	58	...	...	6	58
11	524	4	16	23	666	55	1,193	88	1,988	
20	1,479	38	2,070	136	25,363	676	84,791	1,117	178,040	2,053	283,113	

FORM No. 16.—Area closed and open to grazing during 1916-1917.

Division.	AREA IN SQUARE MILES.						Remarks.
	Closed to all animals.		Open to grazing				
			Of all animals.		Of all animals except browsers (camels, sheep, and goats).		
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.	Part of year.	
1	2	3	4	5	6	7	8
NORTHERN CIRCLE.							
RESERVED FOREST.							
Panch Mahals	Sq.m. a. 92 0	Sq.m. a. 19 0	Sq.m. a.	Sq.m. a.	Sq.m. a. 221 0	Sq.m. a.	
Surat	13 0	55 0	13 0	....	....	831 0	
North Thana	79 0	....	....	....	246 0	....
West do.	76 0	....	....	....	233 0	....
East do.	121 0	....	....	....	339 0	....
South Nasik	62 0	9 0	6 0	....	269 0	....
North do.	92 0	....	183 0	....	244 0	....
Nasik Sub-Division	24 0	7 0	46 0	....	219 0	....
Ahmedabad ... ..	....	....	19 0	....	....	....
Total, Reserved Forest ...	559 0	90 0	267 0	....	1,771 0	831 0	
PROTECTED FOREST.							
Surat ... ..	....	....	325 0	....	....	....
North Thana ... ..	....	....	145 0	....	....	....
West do. ... ..	....	....	92 0	....	13 0	....
East do. ... ..	....	....	142 0	....	....	....
South Nasik ... ..	....	....	96 0	....	....	....
Total, Protected Forest ...	....	....	800 0	....	13 0	....
Total, Northern Circle ...	559 0	90 0	1,067 0	....	1,784 0	831 0	
CENTRAL CIRCLE.							
RESERVED FOREST.							
East Khândesh	210 0	58 0	37 0	....	495 0	....
West do.	90 0	....	177 0	....	506 0	....
North do.	127 0	....	....	....	741 0	....
Poona	27 0	60 0	456 0	....	467 0	....
Sâtâra	106 0	....	195 0	....	410 0	....
Kolâba	56 0	1 0	29 0	....	364 0	....
Ahmednagar-Sholapur ... ..	....	....	702 0	....	....	....
Total, Reserved Forest ...	616 0	119 0	1,596 0	....	2,983 0	....
PROTECTED FOREST.							
Poona ... ..	....	....	....	....	11 0	....
Sâtâra ... ..	....	....	....	....	1 0	....
Kolâba ... ..	....	....	74 0	....	....	....
Total, Protected Forest ...	....	....	74 0	....	12 0	....
Total, Central Circle ...	616 0	119 0	1,670 0	....	2,995 0	....
SOUTHERN CIRCLE.							
Kânara, Northern... ..	213 0	....	2 0	....	211 0	....
Do. Eastern	257 0	....	....	....	333 0	....
Do. Central	89 0	....	....	....	744 0	....
Do. Southern	18 0	....	....	....	690 0	....
Do. Western	261 0	....	....	....	565 0	....
Belgaum	101 0	....	46 0	....	535 0	....
Dhârwar-Bijâpur	14 0	12 0	206 0	....	264 0	....
Batnâgiri	9 0	....	....	....	10 0	....
Total, Southern Circle ...	962 0	12 0	254 0	....	3,355 0	....
SIND CIRCLE.							
Sukkur	49 0	....	123 0	....	287 0	....
Larkana	17 0	....	134 0	....	80 0	....
Hyderabad... ..	16 0	....	187 0	....	55 0	....
Jerruck ... ..	....	2 0	117 0	....	90 0	17 0	
Total, Sind Circle ...	82 0	2 0	561 0	....	512 0	17 0	
GRAND TOTAL ...	2,219 0	223 0	3,552 0	....	8,646 0	848 0	

FORM No. 17.

GRAZING ON PAYMENT—NUMBER OF ANIMALS.

Division.	At full rates.						At privileged 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.	
												Actual.	Value at full rates.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
NORTHERN CIRCLE.						Rs. a. p.						Rs. a. p.	Rs. a. p.
Panch Mahals ...	2,115	3,945	...	...	...	4,087 8 0	1,043	3,328	...	...	...	568 9 6	6,844 8 0
Surat ...	...	...	...	...	...	.....	13,123	...	...	...	...	2,111 12 0	13,123 0 0
North Thana ...	...	...	...	...	...	.....	5	72	...	...	...	14 12 0	51 4 0
West do. ...	85	3,525	...	...	...	2,309 6 0	349	974	...	...	...	279 13 0	1,036 4 0
East do. ...	173	1,239	...	...	...	1,015 10 0	2,352	4,293	...	...	...	1,878 7 0	5,625 12 0
South Násik ...	1	84	...	...	...	85 0 0	6,415	48,174	28	...	72	7,436 0 0	54,689 0 0
North do. ...	14	293	...	...	228	535 0 0	15,891	128,374	92,820	...	2,037	25,736 10 0	1,69,507 0 0
Násik Sub-Division ...	11	65	...	...	309	385 0 0	8,221	51,152	31,223	...	549	16,221 9 0	68,112 12 0
Total, Northern Circle ...	2,419	9,151	...	...	537	8,417 8 0	47,892	236,367	124,071	...	2,658	54,247 8 6	3,18,989 8 0
CENTRAL CIRCLE.													
East Khándesh ...	858	14,477	...	...	109	15,444 0 0	36,139	192,480	4,710	...	434	31,458 0 0	2,33,763 0 0
West do. ...	170	2,323	...	...	843	3,336 0 0	15,381	115,997	31,833	...	1,430	22,214 0 0	1,64,191 0 0
North do. ...	9,688	73,594	...	...	3,181	38,356 0 0	...	...	...	...	...	.....	.....
Poona ...	5	77	4	...	15	99 0 0	23,273	156,424	45,445	...	830	28,447 0 0	1,83,465 0 0
Sátára ...	...	9	...	...	...	9 0 0	29,847	96,587	...	...	141	16,519 0 0	1,26,575 0 0
Kolába ...	109	62	...	...	...	171 0 0	20,381	71,356	...	...	...	12,210 0 0	91,837 0 0
Total, Central Circle ...	10,830	90,542	4	...	4,148	57,415 0 0	125,121	632,844	81,538	...	2,835	1,10,848 0 0	7,99,831 0 0
SOUTHERN CIRCLE.													
Kánara, Northern ...	255	...	...	...	...	255 0 0	37,347	...	216	...	...	6,338 0 0	37,401 0 0
Do. Eastern ...	...	...	...	...	...	.....	34,943	...	2	...	23	7,873 0 0	34,967 0 0
Do. Central ...	1,575	...	...	...	...	1,579 0 0	46,071	...	...	...	...	6,153 0 0	45,321 0 0
Do. Southern ...	26	...	...	...	...	26 0 0	117,759	...	51	...	...	10,925 0 0	1,17,772 0 0
Do. Western ...	...	...	...	...	...	.....	37,406	...	...	...	...	7,749 0 0	37,406 0 0
Belgaum ...	3,889	...	...	...	...	3,889 0 0	41,842	...	...	...	...	10,181 0 0	41,842 0 0
Dhárwar-Bijápur ...	677	1,117	...	...	9	959 0 0	135,808	...	...	...	445	16,674 0 0	1,36,253 0 0
Ratnágiri ...	...	...	...	...	...	.....	.....	...	...	...	...	.....	.....
Total, Southern Circle ...	6,422	1,117	...	...	9	6,708 0 0	451,176	...	209	...	468	65,693 0 0	4,50,902 0 0
SIND CIRCLE.													
Fukkur ...	6,482	8,838	31,096	482	347	13,748 0 0	...	...	...	...	...	.....	.....
Lárkána ...	5,014	2,797	17,651	434	135	6,991 0 0	...	...	...	...	...	.....	.....
Hyderabad ...	3,494	3,348	29,292	593	52	9,994 0 0	...	...	...	...	...	.....	.....
Jerruck ...	4,162	3,057	7,633	784	148	7,217 0 0	...	...	...	...	...	.....	.....
Total, Sind Circle ...	19,107	18,090	85,672	2,248	632	37,950 0 0	...	...	...	...	...	.....	.....
GRAND TOTAL ...	156,561	86,793	2,248	5,376	1,10,490	8 0	1,492,900	205,878	...	5,931	2,30,988	8 6	15,09,782 8 0

in the State Forests during 1916-1917.

GRAZING FREE—NUMBER OF ANIMALS.													
By right under Settlement.						During pleasure of Government, or otherwise than under Settlement.						Total Value of Fees at full rates.	Grand Total of Value at full rates.
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.		
15	16	17	18	19	20	21	22	23	24	25	26	27	28
					Rs. a. p.						Rs. a. p.	Rs. a. p.	Rs. a. p.
...	...	...	...	...	.....	33,120	127,816	...	...	...	93,013 0 0	93,013 0 0	1,03,975 0 0
...	...	...	...	...	.....	1,719	25,551	4,217	...	71	31,558 0 0	31,558 0 0	44,681 0 0
...	...	...	...	...	.....	14,000	87,402	...	...	...	72,126 0 0	72,126 0 0	72,177 4 0
...	...	...	...	...	.....	23,269	82,201	...	...	29	80,480 0 0	80,480 0 0	83,825 10 0
...	...	...	...	...	.....	13,974	60,237	...	...	...	55,115 0 0	55,115 0 0	61,756 6 0
...	...	...	...	...	.....	1,050	4,500	...	...	300	5,850 0 0	5,850 0 0	60,624 0 0
...	...	...	...	...	.....	...	...	...	...	...	.....	.....	1,70,042 0 0
...	...	...	...	...	.....	...	...	...	...	...	.....	.....	68,497 12 0
...	...	...	...	...	.....	87,132	387,737	4,217	...	400	3,38,172 0 0	3,38,172 0 0	6,65,579 0 0
...	...	...	...	...	.....	2,366	9,868	...	...	83	12,317 0 0	12,317 0 0	2,61,524 0 0
...	...	...	...	...	.....	995	16,556	80	...	110	17,741 0 0	17,741 0 0	1,85,268 0 0
...	...	...	...	...	.....	3,181	27,845	...	...	98	3,890 0 0	3,890 0 0	42,246 0 0
...	...	...	...	...	.....	21	125	...	...	...	146 0 0	146 0 0	1,83,710 0 0
...	...	...	...	...	.....	10	44	...	...	...	54 0 0	54 0 0	1,26,638 0 0
476	1,142	...	...	...	1,618 0 0	1,822	573	...	...	...	2,415 0 0	4,038 0 0	96,041 0 0
476	1,142	...	...	...	1,618 0 0	8,395	55,011	80	...	291	36,563 0 0	38,181 0 0	8,95,427 0 0
...	...	...	...	...	.....	9,257	...	...	...	...	9,257 0 0	9,257 0 0	46,913 0 0
...	...	...	...	...	.....	8,624	...	...	...	...	8,624 0 0	8,624 0 0	43,591 0 0
...	...	...	...	...	.....	80	...	...	...	...	80 0 0	80 0 0	46,950 0 0
...	...	...	...	...	.....	.....	...	...	...	...	.....	.....	1,17,798 0 0
...	...	...	...	...	.....	.....	...	...	...	...	.....	.....	37,406 0 0
...	...	...	...	...	.....	12,603	...	...	...	...	12,608 0 0	12,608 0 0	58,339 0 0
...	...	...	...	...	.....	.....	...	...	...	...	.....	.....	1,57,212 0 0
...
...	...	...	...	...	.....	30,569	...	...	...	...	30,569 0 0	30,569 0 0	4,88,239 0 0
1,190	4,493	...	...	41	2,592 0 0	22	465	...	...	797	392 0 0	2,984 0 0	16,732 0 0
879	2,481	...	...	1	809 0 0	53	45	...	130	451	317 0 0	1,126 0 0	8,117 0 0
9	246	...	...	...	90 0 0	76	178	...	724	514	1,339 0 0	1,438 0 0	11,432 0 0
850	228	60	2	6	359 0 0	407	516	102	59	2,252	1,094 0 0	1,453 0 0	8,670 0 0
2,423	7,448	60	2	51	3,859 0 0	558	1,204	102	913	4,014	3,142 0 0	7,001 0 0	44,951 0 0
2,904	8,590	60	2	51	5,477 0 0	570,606	4,399	913	4,705	4,03,446 0 0	4,13,923 0 0	20,94,196 0 0	

Form No. 18.—Statement showing Area of Plantations in the Bombay Presidency, including Sind, for the year 1916-1917.

Division.	Kind of Plantation.	AREA IN ACRES.				EXPENDITURE DURING THE YEAR.		TOTAL EXPENDITURE FROM COMMENCEMENT.		Revenue during the year.	Total revenue from date of creation of plantation.	Remarks.
		On 1st July 1916.	Added during the year.	Excluded during the year.	Area on 30th June 1917.	Creation.	Upkeep.	Creation.	Upkeep.			
1	2	3	4	5	6	7	8	9	10	11	12	13
NORTHERN CIRCLE.						Rs. a.	Rs. a. p.	Rs.	Rs.	Rs.	Rs.	
Panch Mahals ...	Regular plantations .	4,889	...	...	4,889	...	...	9,999	13,501	...	...
Surat ...	Do. ...	12	...	...	12	...	50 0 0	...	50	...	...
North Thána ...	Do. ...	38	57	...	95	301 0	2,381 0 0	1,440	3,550	25	25	
West do. ...	Do. ...	28	...	...	28	...	629 0 0	1,404	7,861	...	...
East do. ...	Do. ...	71	...	65	6	...	...	...	...	...	...
Total ...		5,038	57	65	5,030	301 0	3,060 0 0	12,843	24,962	25	25	
Panch Mahals ...	Cultural operations .	...	225	...	225	206 0	...	...	...	...	...
Surat ...	Do. ...	1,410	...	...	1,410	532 0	509 0 0	...	...	...	...
North Thána ...	Do. ...	1,149	153	...	1,302	101 0	...	...	1,537	...	...
West do. ...	Do. ...	844	1,598	315	1,627	176 0	...	1,404	7,861	...	...
East do. ...	Do. ...	...	230	280	...	...	90 0 0	...	...	...	...
Násik Sub-Division.	Do. ...	823	88	199	212	144 0	...	...	...	...	...
Total ...		3,226	2,294	744	4,776	1,179 0	599 0 0	1,404	9,398	...	...
Total, Northern Circle		8,264	2,351	809	9,806	1,480 0	3,659 0 0	14,247	34,360	25	25	
CENTRAL CIRCLE.												
East Khándesh ...	Regular plantations...	...	...	...	...	...	...	...	...	...	...
West do. ...	Do. ...	...	...	...	...	...	...	...	...	...	...
North do. ...	Do. ...	...	...	...	...	1 1	*19 4 6	...	...	...	...
Poona ...	Do. ...	...	...	...	...	...	...	...	...	...	...
Sátára ...	Do. ...	247	1	...	258	481 0	...	...	...	...	...
Kolába ...	Do. ...	103	7	1	109	191 0	411 0 0	2,255	2,217	521	1,908	*Raising of plants and purchase of seeds.
Total ...		350	18	1	367	673 0	430 0 0	2,255	2,217	521	1,908	
East Khándesh ...	Cultural operations ...	55	81	55	81	149 0	...	...	...	...	...
West do. ...	Do. ...	435	...	...	435	36 0	...	...	...	...	...
North do. ...	Do. ...	...	...	...	...	27 0	...	...	...	...	...
Poona ...	Do. ...	3,870	1,859	...	5,729	1,795 0	...	...	...	...	...
Sátára ...	Do. ...	911	839	...	1,750	1,119 0	...	...	...	...	...
Kolába ...	Do. ...	...	...	...	...	...	...	...	...	...	...
Total ...		5,271	2,779	55	7,995	3,126 0	...	...	...	...	...
Total, Central Circle...		5,621	2,797	56	8,362	3,799 0	430 0 0	2,255	2,217	521	1,908	
SOUTHERN CIRCLE.												
Kánara Central ...	Regular plantations .	161	10	...	171	...	1,213 0 0	1,590	11,637	...	...
Do. Southern.	Do. ...	612	8	...	620	1,841 0	...	69,482	...	2,472	18,231	
Do. Western...	Do. ...	187	19	...	206	...	998 0 0	1,285	12,553	...	5	
Belgaum ...	Do. ...	(a) 6	...	...	6	...	...	36	78	...	...
Dhárwár-Bijápur.	Do. ...	10	...	...	10	...	...	43	...	35	516	(a) Omitted in previous years through misunderstanding.
Ratnágiri ...	Do. ...	152	3	...	155	78 0	334 0 0	3,873	3,748	202	6,784	
Total ...		1,128	40	...	1,168	1,919 0	2,545 0 0	76,309	28,016	2,709	25,536	
Kánara, Eastern	Cultural operations ...	...	17,995	...	17,995	2,961 0	...	2,961	...	...	...
Dhárwár-Bijápur.	Do. ...	...	1,702	...	1,702	360 0	...	360	...	...	...
Total ...		...	19,697	...	19,697	3,321 0	...	3,321	...	...	...
Total, Southern Circle		1,128	19,787	...	20,865	5,240 0	2,545 0 0	79,630	28,016	2,709	25,536	
SIND CIRCLE.												
Sukkur ...	Regular plantations...	233	...	...	233	14 0	2,281 0 0	3,909	53,152	423	7,467	
Lárkána ...	Do. ...	16	2	...	18	...	282 0 0	56	2,600	...	...
Hyderabad ...	Do. ...	30	1	...	31	32 0	1,155 0 0	1,006	11,644	449	4,233	
Jerruck ...	Do. ...	22	...	...	22	23 0	453 0 0	439	4,600	...	...
Total ...		301	3	...	304	69 0	4,171 0 0	5,410	71,996	872	11,700	
Sukkur ...	Cultural operations ...	4,717	3,104	180	7,641	12 0	...	1,132	89	...	...
Lárkána ...	Do. ...	2,029	2,548	1,800	2,777	124 0	189 0 0	373	2,266	...	...
Hyderabad ...	Do. ...	5,107	2,607	1,883	5,831	662 0	1,222 0 0	2,345	8,176	...	...
Jerruck ...	Do. ...	11,566	4,340	1,243	14,663	1,575 0	36 0 0	5,073	5,302	...	...
Total ...		23,419	12,599	5,106	30,912	2,373 0	1,447 0 0	9,823	15,783	...	...
Total, Sind Circle ...		23,720	12,602	5,106	31,216	2,442 0	5,618 0 0	15,233	87,779	872	11,700	
GRAND TOTAL ...		38,733	37,487	5,971	70,249	12,961 0	12,252 0 0	111,365	152,372	4,127	30,169	

FORM No. 19.

Form No. 19.—Outturn (in cubic feet, solid) of Timber and Fuel

Division.	TIMBER IN THE ROUGH : LOGS.					TIMBER IN THE ROUGH : POLES.					SAWN OR SQUARED TIMBER.				
	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
Thousands of	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.	C. ft.
NORTHERN CIRCLE.															
<i>Reserved Forest.</i>															
Panch Mahāis	...	41	...	...	41	3	189	...	...	192	...	...	...	...	...
Surat	...	55	3	...	58	...	...	...	...	...	...	...	...	...	...
North Thāna	...	22	...	...	22	32	588	...	...	619	...	...	...	...	...
West Thāna	...	19	...	...	19	1	211	...	...	213	...	32	...	...	32
East Thāna	...	32	...	...	32	5	183	...	...	189	...	80	...	...	80
South Nāsik	...	56	...	...	56	...	205	1	...	206	...	...	...	...	...
North Nāsik	38	1	...	38	...	...	...	...	...
Nāsik Sub-Division	4	...	...	4	...	...	...	...	...
Total, Reserved Forest	...	225	3	...	228	41	1,418	2	...	1,461	...	112	...	...	112
<i>Protected Forest.</i>															
North Thāna	...	15	...	...	15	...	178	...	...	178	...	...	...	...	...
West Thāna	...	1	...	...	1	...	57	...	...	57	...	30	...	...	30
East Thāna	...	12	...	...	12	...	40	4	...	44	...	31	...	...	31
South Nāsik	...	22	...	...	22	...	44	...	...	44	...	...	...	...	...
Total, Protected Forest	...	50	...	...	50	...	319	4	...	323	...	61	...	...	61
<i>Unclassed Forest.</i>															
North Thāna	...	1	...	...	1	...	42	...	...	42	...	...	...	...	...
South Nāsik	...	5	...	...	5	...	12	...	...	12	...	...	...	...	...
Total, Unclassed Forest	...	6	...	...	6	...	54	...	...	54	...	...	...	...	...
<i>Leased Forest.</i>															
Surat	59	58	...	76	193	...	...	...	...	...	7	...	...	...	7
Total, Northern Circle	59	339	3	76	477	41	1,791	6	...	1,838	7	173	...	...	180

during the year 1916-1917, and Agency of Exploitation.

MISCELLANEOUS.					TOTAL TIMBER.					FUEL.					Total Outturn.
Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
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.	C. ft.	C. ft.
...	...	...	...	...	8	229	...	...	232	8	896	...	1,467	2,371	2,603
...	83	6	...	89	...	55	8	...	58	...	12	...	...	12	70
...	...	...	...	...	32	610	...	...	642	16	1,302	...	1,132	2,450	3,092
...	31	...	...	31	3	294	...	...	297	9	1,746	...	1,127	2,862	3,779
...	...	...	...	...	5	295	...	...	300	4	1,895	...	2,740	4,639	4,939
...	...	...	...	...	...	262	1	...	263	18	11	...	30	59	322
...	...	...	...	...	...	37	1	...	38	...	124	...	...	124	162
...	...	...	...	...	...	4	...	...	4	...	36	7	...	43	47
...	114	6	...	120	43	1,786	5	...	1,834	55	6,022	7	6,496	12,580	14,414
...	...	...	...	...	...	193	...	...	198	...	77	...	566	643	830
...	...	...	...	...	...	88	...	...	88	...	10	...	96	106	194
...	...	...	...	...	...	83	4	...	87	...	60	...	...	60	147
...	...	...	...	...	...	66	...	...	66	...	...	...	...	...	66
...	...	...	...	...	...	430	4	...	434	...	147	...	662	809	1,243
...	...	...	...	...	...	43	...	...	43	...	...	...	...	...	43
...	...	...	...	...	...	17	...	...	17	...	11	...	...	11	23
...	...	...	...	...	...	60	...	...	60	...	11	...	...	11	71
...	...	...	...	...	...	66	58	76	200	13	...	...	1,500	1,513	1,713
...	114	6	...	120	109	2,334	9	76	2,528	68	6,180	7	8,658	14,013	17,441

APPENDICES.

FORM NO. 19.—Outturn (of cubic feet, solid) of Timber and Fuel

Division.	TIMBER IN THE ROUGH : LOGS.					TIMBER IN THE ROUGH : POLES.					SAWN OR SQUARED TIMBER.				
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Thousands of	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.	C. ft.
CENTRAL CIRCLE.															
East Khândesh	71	1	...	72	...	...	...	...	...
West Khândesh	181	4	...	185	...	...	...	...	...
North Khândesh	6	...	...	6	...	117	1	...	118	...	22	...	...	22
Poona	4	...	...	4	7	177	3	...	187	...	...	...	...	...
Sâtâra	3	33	6	...	42	...	...	...	...	...
Kolâba	31	...	...	31	...	180	2	...	182	...	...	...	...	...
Total, Central Circle	41	...	...	41	10	759	17	...	786	...	22	...	...	22

during the year 1916-1917, and Agency of Exploitation—continued.

MISCELLANEOUS.					TOTAL TIMBER.					FUEL.					TOTAL.
Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Outturn.
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
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.	C. ft.	C. ft.
...	...	...	...	...	...	71	1	...	72	25	751	1	...	777	849
...	...	...	...	...	...	181	4	...	185	...	199	...	10	209	394
...	...	...	...	...	1	144	1	...	146	...	450	...	36	486	632
...	...	...	...	...	7	181	3	...	191	130	288	...	...	418	609
...	...	...	...	...	3	33	6	...	42	127	3	...	100	230	272
...	2	...	...	2	...	213	2	...	215	61	256	...	861	1,678	1,893
...	2	...	...	2	11	823	17	...	851	343	1,947	1	507	3,798	4,649

FORM No. 19.—*Outturn (in cubic feet, solid) of Timber and Fuel*

Division. *(As readjusted on 1st February 1916 as per Government Order No. 11396 of 27th October 1915, Revenue Department).	TIMBER IN THE ROUGH: LOGS.					TIMBER IN THE ROUGH: POLRS.				
	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
Thousands of	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
SOUTHERN CIRCLE.										
Kánara, Northern* ...	274	433	2	...	709	4	317	1	...	322
Kánara, Eastern ...	99	41	...	...	140	7	139	5	...	151
Kánara, Central ...	251	54	1	...	306	10	6	...	...	16
Kánara, Southern ...	0.3	51	10	...	61	...	...	...	...	...
Kánara, Western ...	102	71	6	...	179	35	1	...	...	36
Belgaum ...	39	45	...	...	94	48	26	5	...	79
Dhárwár-Bijápur ...	...	...	...	...	...	...	11	4	...	15
Ratnágiri ...	...	1	...	...	1	...	1	...	...	1
Total, Southern Circle ...	765	706	19	...	1,490	104	501	15	...	620

APPENDICES.

during the year 1916-1917 and Agency of Exploitation—continued.

SAWN OR SQUARED TIMBER.					MISCELLANEOUS.		
Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.
12	13	14	15	16	17	18	19
C. ft.	C. ft.	C.ft.	C.ft.	C. ft.		C. ft.	
86	...	...	...	86	..... Sandalwood— Kh. mds. lbs. 13 12 21 Rejected pieces No. 427, Chips bags 15.	.....	.....
105	...	...	...	105	..... Sandalwood— Kh. mds. lbs. 39 5 18½ Rejected pieces 706, Chips bags 76.	.....	.....
...	...	...	...	...	..... Sandalwood— Kh. mds. lbs. 16 11 26	.....	.....
...	...	...	...	...	..... Sandalwood— Kh. mds. lbs. 12 11 17	.....	.....
...	...	...	...	...	29	1	.....
7	9	...	...	16	..... Sandal trees 1,530, 34 pieces 4 baskets chips.	.....	.....
1	...	...	...	1	..... Sandalwood— Kh. mds. lbs. 35 19 3 Rejected pieces 1,175, Chips stacks 13.	.....	9
...
199	9	...	...	208	29 Sandalwood— Kh. mds. lbs. 118 1 1½ Rejected pieces 2,342, 1,530 trees, Chips bags 108.	1	9

APPENDICES.

FORM No. 19.—*Outturn (in cubic feet, solid) of Timber and Fuel*

MISCELLANEOUS—continued.			TOTAL TIMBER.	
Right-holders.	Total.	Government.	Purchasers.	Free grantees.
20	21	22	23	24
	C. ft.	C. ft.	C. ft.	C. ft.
.....	..... Sandalwood— Kh. mds. lbs. 13 12 21 Rejected pieces 427, Chips bags 15.	364 Sandalwood— Kh. mds. lbs. 13 12 21 Rejected pieces 427, Chips bags 15.	750	3
.....	..... Sandalwood— Kh. mds. lbs. 39 5 18½ Rejected pieces 706, Chips bags 76.	211 Sandalwood— Kh. mds. lbs. 33 5 18½ Rejected pieces 706, Chips bags 76.	180	5
.....	..... Sandalwood— Kh. mds. lbs. 16 11 26	261 Sandalwood— Kh. mds. lbs. 16 11 26	60	1
.....	..... Sandalwood— Kh. mds. lbs. 12 11 17	..... Sandalwood— Kh. mds. lbs. 12 11 17	51	10
.....	30	166	73	6
.....	..... Sandal trees 1,530, 34 pieces 4 baskets chips.	94 Sandal trees 1,530, 34 pieces, 4 baskets chips.	90	5
.....	9 Sandalwood— Kh. mds. lbs. 35 19 3 Rejected pieces 1,175, Chips stacks 13.	1 Sandalwood— Kh. mds. lbs. 35 19 3 Rejected pieces 1,175, Chips stacks 13.	11	13
.....	.....	.....	2	.....
.....	39 Sandalwood— Kh. mds. lbs. 118 1 1½ Rejected pieces 2,312, trees 1,530, Chips bags 108.	(a) 1,097 andalwood— Kh. mds. lbs. 118 1 1½ Rejected pieces 2,312, 1,530 trees Chips bags 108.	1,217	43

(a) This includes 3 thousand cubic feet of last year transferred from Dhárwar-Bijapur to Kanara N. and E. Divisions during the year.

during the year 1916-1917 and Agency of Exploitation—continued.

TOTAL TIMBER—continued.		FUEL.					Total Outturn.
Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	
25	26	27	28	29	30	31	32
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
.....	1,117 Sandalwood— Kh. mds. lbs. 13 12 21 Rejected pieces 427, Chips bags 15.	...	477	...	...	477	1,594 Sandalwood— Kh. mds. lbs. 13 12 21 Rejected pieces 427, Chips bags 15.
.....	396 Sandalwood— Kh. mds. lbs. 39 5 18½ Rejected pieces 706, Chips bags 76.	...	325	8	...	333	729 Sandalwood— Kh. mds. lbs. 39 5 18½ Rejected pieces 706, Chips bags 76.
.....	322 Sandalwood— Kh. mds. lbs. 16 11 26	...	484	10	...	494	816 Sandalwood— Kh. mds. lbs. 16 11 26
...	61	241	563	2	...	808	867 Sandalwood— Kh. mds. lbs. 12 11 17
.....	245	520	1,095	2	...	2,017	2,262
.....	189 Sandal trees 1,530, 34 pieces 34 baskets chips.	2,948	1,873	...	...	4,821	5,010 Sandal trees 1,530, 34 pieces 3 baskets chips.
.....	25 Sandalwood— Kh. mds. lbs. 35 19 3 Rejected pieces, 1,175, Chips stacks 13.	6	301	...	...	307	332 Sandalwood— Kh. mds. lbs. 35 19 3 Rejected pieces 1,175, Chips stacks 13.
.....	2	...	83	...	...	33	85
.....	2,357 Sandalwood— Kh. mds. lbs. 118 1 1½ Rejected pieces 2,342, 1,530, trees Chips bags 108.	4,115	5,151	22	...	9,288	11,645 Sandalwood— Kh. mds. lbs. 1 8 1 1½ Rejected pieces 2,342, 1,530 trees Chips bags 108.

* This is exclusive of 300 thousand c. ft. of Timber and 3,042 thousand c. ft. of Fuel shown under privilege holder in Chapter II, Section V (c)—Outturn and sources of forest produce.

FORM No. 19.—Outturn (in cubic feet, solid) of Timber and Fuel

Division.	TIMBER IN THE ROUGH : LOGS.					TIMBER IN THE ROUGH : POLES.				
	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
Thousands of	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
SIND CIRCLE.										
Sukkur	Actuals	...	1	...	...	1	...	...	...	...
	Estimate	...	3	48	...	48	1	33	4	85
	Total	...	4	49	...	49	1	33	4	85
Larkana	Actuals	...	...	...	...	...	...	1	...	1
	Estimate	...	1	...	...	...	5	90	...	91
	Total	...	1	...	...	...	5	90	1	92
Hyderabad	Actuals	...	1	...	...	1	...	...	...	...
	Estimate	...	...	139	...	139	2	1	...	...
	Total	...	1	140	...	140	2	1	...	...
Jerruck	Actuals	...	4.4	...	...	5	...	...	1	...
	Estimate	...	...	25	...	25	3	16	5	17
	Total	...	4.4	25	...	30	3	16	6	17
Sind Circle	...	5	214	...	...	219	2	140	2	144
GRAND TOTAL	...	830	1,299	22	76	2,227	157	3,190	41	3,368

APPENDICES.

during the year 1916-1917 and Agency of Exploitation—concluded.

[illegible]

APPENDICES.

FORM No. 19.—*Outturn (in cubic feet, solid) of Timber and Fuel.*

Miscellaneous—continued.		TOTAL TIMBER.		
Right-holders.	Total.	Government.	Purchasers.	Free grantees.
20	21	22	23	24
C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
.....	1	.....
.....	2	81	1
.....	2	82	1
.....	1
.....	6	91	.....
.....	6	91	1
.....	2	1	.....
.....	2	139	.....
.....	4	140	.....
.....	8	.....	1
.....	41	1
.....	290	8	41	2
.....	11	354	8
.....	161 Sandalwood— Kb. mds. lbs. 118 1 1½ Rejected pieces 2,342 1,530 trees Chips bags 10t	1,228	4,727	73

During the year 1916-1917 and Agency of Exploitation—concluded.

TOTAL TIMBER—continued.		FUEL.					TOTAL.
Right-holders.	Total.	Government.	Purchaser.	Free grantees.	Right-holders.	Total.	Outturn.
25	26	27	28	29	30	31	32
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
...	1	35	3,812	...	...	3,847	3,848
.....	84	5	1,247	...	...	1,252	1,336
.....	85	40	5,059	...	...	5,099	5,184
.....	1	33	1,808	...	...	1,841	1,842
.....	91	1	272	...	19	292	383
.....	92	34	2,080	...	19	2,133	2,225
.....	1	41	3,393	...	...	3,434	3,435
.....	139	8	3,398	...	...	3,401	3,510
.....	140	44	6,791	...	...	6,835	6,975
.....	9	163	2,309	...	...	2,472	2,481
.....	42	8	2,251	...	...	2,259	2,301
.....	51	171	4,560	...	...	4,731	4,782
.....	368	289	18,490	...	19	18,798	19,166
76	6,104	4,815	32,763	30	9,184	46,797	52,901 Sandalwood— Kh. mds. lbs. 118 1 1½ Rejected pieces 2,342 1,530 trees Chips bags 108

FORM No. 20.—*Outturn of Minor Forest Produce during the year 1916-1917.*

Description of Produce.	PRODUCE REMOVED OR UTILIZED.									
	By Government Agency.		By purchasers.		By free-grantees.		By right-holders.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11
NORTHERN CIRCLE.		Rs.		Rs.		Rs.		Rs.		Rs.
<i>State Forests.</i>										
Apta and Tembhum leaves	16,943	...	...	...	...	.....	16,943
Bamboos and bundies	48	...	23,771	...	470	...	8,311	.....	32,600
Babul Pods	305	...	...	...	...	.....	305
Chilhari bark	417	...	...	...	...	.....	417
Gum	204	...	...	...	...	.....	204
Grass and grazing	97,874	...	...	...	3,26,668	.....	4,24,542
Hirda nuts	1,275	...	...	...	...	.....	1,275
Karvi	2,273	...	...	...	...	.....	2,273
Kusari flowers	37	...	...	...	...	.....	37
Mhowra seed and flowers	823	...	1,773	...	...	...	...	.....	2,601
Manure	195	...	...	...	...	.....	195
Manganese (on fees)	1,937	...	...	...	...	.....	1,937
Palm leaves	1,366	...	...	...	...	.....	1,366
Rosha grass	2,199	...	...	...	...	.....	2,199
Stones	1,149	...	...	...	...	.....	1,149
Sali wood	45	...	...	...	...	.....	45
Thorns	1,623	...	...	...	...	.....	1,623
Tarwad Bark	3,511	...	...	...	...	.....	3,511
Miscellaneous	1,114	...	613	...	22,464	.....	24,191
Total, State Forests	871	...	1,58,016	...	1,083	...	3,57,443	.....	5,17,413
<i>Leased Forests (Surat).</i>										
A'pta and Tembhum leaves	224	...	...	...	...	.....	224
Bamboos	9,573	...	...	...	3,384	.....	12,962
Grass and grazing	628	...	...	...	38,529	.....	39,157
Hirda nuts	2	...	...	...	...	.....	2
Mowhra seed and flowers	4,126	...	23	...	...	...	...	.....	4,149
Miscellaneous	2,596	...	...	...	13,776	.....	16,372
Total, Leased Forests	4,126	...	13,051	...	...	...	55,689	.....	72,866
Total, Northern Circle	4,997	...	1,71,067	...	1,083	...	4,13,132	.....	5,90,279
CENTRAL CIRCLE.										
Hirda and Shikekai	5,159	...	11,001	...	...	...	...	.....	16,160
Silk cotton	8	...	.....	...	...	...	...	.....	8
Mhowra seed	4,938	...	.....	...	...	...	...	.....	4,938
Rosha grass	5,469	...	...	...	...	.....	5,469
Leaves, pod bark, etc.	9,299	...	84	...	139	.....	9,472
Fruits	2,593	...	...	...	2,313	.....	4,906
Earth, stone, murrum, etc.	284	...	1,527	...	767	...	...	.....	2,578
Grass and grazing	2,79,661	...	...	...	28,481	.....	3,08,142
Bamboos	1	...	11,036	...	38	...	...	.....	11,125
Tarwad	8,657	...	...	...	...	.....	3,667
Miscellaneous	4,161	...	13	...	89	.....	4,263
Total, Central Circle	10,390	...	3,28,454	...	852	...	31,022	.....	3,70,718
SOUTHERN CIRCLE.										
Bamboos	(a) 96,584	(a) 11,712	5,628,731	65,484	84,220	398	...	...	.....	77,594
Grass and grazing	294	...	75,740	...	2,245	...	...	.....	78,279
Harda, Shikgekai, Cinnamon, Honey, Wax, Nuxvomica, Ramphal and Rampatri.	21,780	...	...	...	...	.....	22,077
Quarrying fees	(b) 297	...	6,927	...	703	...	...	.....	7,630
Tapping fees	1,367	...	...	...	...	.....	1,367
Tali palm trees	3,168	...	1,104	...	...	.....	4,272
Baini trees	291	...	...	...	...	.....	291
Supari trees	1	...	...	...	...	.....	1
Tali palm leaves	641	...	...	...	...	.....	641
Shindoli leaves	184	...	...	...	...	.....	184
Tenuri leaves	1,835	...	...	...	...	.....	1,835
Muttal leaves.	1	...	...	...	...	.....	1

(a) Of this Rs. 10,229 is the estimated value of 73,690 bamboos exploited for war supplies from Kánara, N. D. and W. D.
 (b) Estimated value of 7 khandis 8½ maunds harda departmentally collected in Kánara, E. D.

FORM No. 20.—Outturn of Minor Forest Produce during the year 1916-1917—continued.

Description of Produce.	PRODUCE REMOVED OR UTILIZED.									
	By Government Agency.		By purchasers.		By free-grantees.		By right-holders.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11
SOUTHERN CIRCLE— <i>continued.</i>		Rs.		Rs.		Rs.		Rs.		Rs.
Soppu (green leaves for manure).	9	...	...	...	...	.....	9
Mangoes, Jack Fruits and Cashew fruits and leaves.	3	...	61	...	...	.....	61
Bori fruits	15	...	...	...	...	.....	15
Tamarind fruits	23	...	...	...	...	.....	23
Undi seeds	27	...	...	...	...	.....	27
Hulgal seed	1,314	...	...	...	...	.....	1,314
Divi-divi seed	70	...	...	...	...	.....	70
Karanja seed	...	60	.....	249	...	...	...	...	.....	309
Bābul pods	397	...	...	...	...	.....	397
Waivdung	25	...	...	...	...	.....	25
Dagadful	132	...	...	...	...	.....	132
Soap nut	78	...	...	...	...	.....	78
Chandra pit	155	...	...	...	...	.....	155
Lantana	92	...	...	...	...	.....	92
Prickly pear	35	...	...	...	...	.....	35
Broom grass	422	...	...	...	...	.....	422
Stakes	98	...	27	...	...	.....	125
Creepers	32	...	4	...	...	.....	36
Thorns	303	...	...	...	...	.....	303
Gum	...	202	.....	100	...	...	...	...	.....	302
Bandurbi	706	...	...	...	...	.....	706
Tarwad bark	13,235	...	...	...	...	.....	13,235
Shige bark	99	...	...	...	...	.....	99
Shembi bark	29	...	...	...	...	.....	29
Canes	668	...	2	...	...	.....	670
Skins and horns	7	...	...	...	...	.....	7
Miscellaneous	47	...	...	...	...	.....	47
Total, Southern Circle	...	12,565	.....	1,95,789	...	4,514	...	...	.....	2,12,898*
SIND CIRCLE.	M. s.									
Vegetables, fruit and flowers.	...	93	.....	...	...	...	...	...	.....	93
Rahrja garden contract.	...	190	.....	...	...	...	...	...	.....	190
Bābul seed	6 0	6	.....	...	...	...	...	...	.....	6
Juari grass	3 cart loads.	4	.....	...	...	...	...	...	.....	4
Sur-reed	Contract.	1,727	...	...	...	...	.....	1,727
Lopping of Bahan Bābul and Kāndi branches.	645	33	...	...	...	...	.....	33
Bābul pod contract	Contract.	1,310	...	...	...	...	.....	1,310
Kanh grass	217 bundles.	14	...	...	...	...	.....	14
Dubh grass	303 bundles.	19	...	...	...	...	.....	19
Pabun and Bih contract.	Contract.	450	...	...	...	...	.....	450
Date fruit	3	...	...	...	...	.....	3
Mango fruit of Dickenson Forest.	Contract.	310	...	...	...	...	.....	310
Value of seed recovered from Maldars.	89 maunds.	89	...	...	...	...	.....	89
Bark	5	...	...	...	...	.....	5
Sur grass	2 cart loads.	1	...	...	...	...	.....	1
Chabar grass	163 head loads.	11	...	...	...	...	.....	11
Jaw brushwood	39 head loads.	3	20 loads.	1	...	...	.....	4
Do.	20 cart loads.	15	...	...	...	...	.....	15
Sar reed	3 head loads.	2	...	...	...	...	.....	2
Bābul leaves	24 seers.	1	...	...	...	...	.....	1
Value of after growth...	10	...	...	...	...	.....	10
Grazing	13,748	...	392	...	2,592	.....	13,732
Total	...	298	.....	17,751	...	393	...	2,592	.....	21,034
Lārāna.										
Bābul pods	Contract.	1,815	...	...	...	...	.....	1,815
Kana Sur	Do.	870	...	...	...	...	.....	870
Kanh grass	Do.	40	...	...	...	...	.....	40
Kanh grass bundles	12	150	9	...	...	.....	9
Ber fruit	4	...	...	...	...	.....	4
Date fruit	6	...	...	...	...	.....	6
Manure	100 bales.	40	...	...	...	100 bales.	.....	40
Bābul seed	20 mds.	40	...	...	...	20 mds.	.....	40
Kāndi branches	Nos. 128.	8	...	...	...	128 Nos.	.....	8
Grazing	6,991	...	317	...	809	.....	8,117
Total	9,786	...	326	...	809	.....	10,921

* This is exclusive of Rs. 46,482 on account of Sandalwood shown under Government Agency and Rs. 15,000, Rs. 1,80,000 and Rs. 3,00,387 on account of Bamboos, Minor Forest Produce and Grazing shown under Privilege holders in the statement in Chapter II, Section V (c) outturn and sources of forest produce.

FORM No. 20.—Outturn of Minor Forest Produce during the year 1916-1917—concluded.

Description of Produce.	PRODUCE REMOVED OR UTILIZED.									
	By Government Agency.		By purchasers.		By free-grantees.		By right-holders.		Total.	
	Quantity	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11
	Mds. s.	Rs.		Rs.		Rs.		Rs.	Mds. s.	Rs.
SIND CIRCLE— continued.										
Hyderabad. { Vegetables of Miani garden bungalow. ... 9 9	...	9	...	.....	...	...	...	...	.....	9
Fruit of Miani Bungalow garden. ... 10 10	...	10	.....	.....	...	...	...	...	.....	10
Juari produced in Bungalow garden. 1 20 4 4	1 20	4	.....	.....	...	...	...	...	.....	4
Karbi grass in Bungalow garden. 100 bundles. 10 10	100 bundles.	10	.....	.....	...	...	...	...	.....	10
Fruit of Miani Mango garden. Contract. 165 165	Contract.	165	.....	.....	...	...	...	...	.....	165
Do. Kathri Devi garden. Do. 251 251	Do.	251	.....	.....	...	...	...	...	.....	251
Babul pods ... Contract. 12,447	...	...	Contract.	12,447	...	...	...	...	.....	12,447
Lac ... Do. 10,575	...	...	Do.	10,575	...	...	...	...	.....	10,575
Kanh and Sur grass ... Do. 521	...	...	Do.	521	...	...	...	...	.....	521
Jaw brushwood ... 166 bundles. 10	...	...	166 bundles.	10	...	...	...	...	.....	10
Lopping of babul, and kandi branches. Nos. 3,193 271	...	...	Nos. 3,193	271	...	...	...	...	.....	271
Grazing ... 9,994 1,339 99 11,432	...	...	.....	9,994	...	1,339	...	99	.....	11,432
Total .. 449 33,818 1,339 99 35,705	...	449	.....	33,818	...	1,339	...	99	.....	35,705
Jernok. { Babul and kandi pods... 1,660 Contract. 1,875	...	1,660	Contract.	1,875	...	...	...	...	...	3,535
Sur and Kanh grass ... 95	...	...	.....	95	...	...	...	...	...	95
Lac contract. ... Contract. 6,525	...	...	Contract.	6,525	...	...	...	...	.....	6,525
Mango fruit ... 3	...	...	.....	3	...	...	...	...	.....	3
Sale of kamo creeper ... 40	...	...	.....	40	...	...	...	...	.....	40
Babul seed ... 75 0 56	75 0	56	.....	.....	...	...	...	...	.....	56
Grazing ... 7,217 1,094 359 8,670	...	...	.....	7,217	...	1,094	...	359	.....	8,670
Total ... 1,716 15,755 1,094 359 18,924	...	1,716	.....	15,755	...	1,094	...	359	.....	18,924
Total, Sind Circle ... 2,463 77,110 3,152 3,859 80,584	...	2,463	.....	77,110	...	3,152	...	3,859	.....	80,584
GRAND TOTAL ... 30,415 7,72,420 9,631 4,48,013 12,60,479	...	30,415	.....	7,72,420	...	9,631	...	4,48,013	.....	12,60,479

Form No. 21.—Account of Timber and other Produce cut or collected by Government Agency and brought to Depôts, sold locally, or otherwise disposed of during the year 1916-1917.

Name of Division or Range.	Balance at commencement of the year in Forests and Sale Depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in Forests and Sale Depôts.	Name of Division or Range.	Balance at commencement of the year in Forests and Sale Depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in Forests and Sale Depôts.
1	2	3	4	5	6	7	8	9	10	11	12
NORTHERN CIRCLE.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	SOUTHERN CIRCLE.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
<i>Timber.</i>						<i>Timber.</i>					
Panch Mahals ... ..	...	3,807	2,607	2,807	...	Kánara, Northern Division—					
Surat	21,218	66,347	87,565	53,303	31,203	Teak	356,481	(a) 280,784	637,205	337,673	239,602
North Thána	675	31,483	82,058	17,115	14,943	Blackwood	55,418	14,256	69,672	14,727	54,945
West Thána	10	3,105	3,115	2,308	807	Junglewood	43,870	68,910	112,780	59,244	53,536
East Thána ... ..	...	5,273	5,270	5,270	...						
North Násik ... ..	...	...	...	...	...	Total ...	455,767	393,950	810,717	471,544	349,173
South Násik Sub-division ...	7,288	215	7,501	7,501	...						
Total, Timber ...	29,089	1,09,233	138,322	88,370	40,952	Kánara, Eastern Division—					
<i>Fuel.</i>						Teak	105,910	(a) 162,370	269,300	180,174	88,120
Panch Mahals ... ..	...	7,960	7,960	7,960	...	Blackwood	1,161	1,087	2,849	720	2,123
Surat	12,150	12,037	24,787	18,523	6,204	Junglewood	8,817	46,841	55,688	19,039	36,619
North Thána	103	10,160	16,263	13,960	2,303						
West Thána ... ..	...	9,040	9,040	9,040	...	Total ...	115,938	210,898	326,836	199,969	126,867
East Thána ... ..	...	4,360	4,360	4,360	...						
West Násik Sub-division ...	560	17,712	18,272	2,502	15,680	Kánara, Central Division—					
Total, Fuel ...	12,813	67,800	80,682	56,435	24,247	Teak	62,010	116,538	178,543	107,174	31,374
<i>Minor Forest Produce.</i>	Rs.	Rs.	Rs.	Rs.	Rs.	Blackwood	5,153	7,200	10,413	5,000	4,753
Panch Mahals ... ..	...	60	60	...	60	Junglewood	73,632	136,975	210,607	123,112	87,365
Surat	5,258	1,008	7,168	5,261	1,905						
West Thána ... ..	...	1,152	1,152	...	1,152	Total ...	138,795	269,773	399,569	296,040	103,522
East Thána ... ..	...	1,587	1,587	48	1,541	Kánara, Southern Division—					
Total, Minor Forest produce ...	5,258	4,707	9,965	5,307	4,058	Teak	6,263	...	6,263	1,718	4,545
Total, Northern Circle ...	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	Junglewood	6,691	327	6,908	2,455	4,453
	41,902	177,102	219,004	144,805	74,199						
	+ Rs.	+ Rs.	+ Rs.	+ Rs.	+ Rs.	Total ...	12,844	327	13,171	4,203	8,998
	5,258	4,707	9,965	5,307	4,058						
CENTRAL CIRCLE.						Kánara, Western Division—					
<i>Timber.</i>						Teak	1,593	70,250	77,333	60,348	17,435
East Khándesh	1,335	291	1,526	1,203	323	Blackwood	251	1,321	1,572	747	825
North Khándesh ... ..	...	428	428	426	...	Junglewood	9,060	83,585	97,604	27,881	60,783
Kolaba	173	246	419	303	116						
Poona	58	7,161	7,217	6,894	323	Total ...	10,903	168,166	177,069	88,976	88,093
Sátara ... ..	...	2,684	2,684	2,684	...	Belgaum Division—					
Total ...	1,464	10,808	12,272	11,510	763	Teak	728	13,916	14,544	7,365	7,140
<i>Firewood.</i>						Blackwood	115	1,792	1,407	600	607
East Khándesh	80	24,570	24,650	24,650	29	Junglewood	678	70,141	70,819	72,741	7,078
North Khándesh	29	340	369	340	...						
Kolaba	4,951	60,046	65,897	53,380	10,517	Total ...	1,521	91,249	95,770	80,736	15,031
Poona	8,089	129,064	138,052	127,212	10,540	Dhárwar-Bijápur Division—					
Sátara	35,250	127,100	162,350	129,633	32,717	Teak	(a) 3,976	1,274	1,274	1,274	...
Total ...	49,398	342,920	391,918	337,315	54,103	Total ...	(a) 3,976	1,274	1,274	1,274	...
<i>Minor Forest Produce.</i>	Rs.	Rs.	Rs.	Rs.	Rs.	Total, Southern Circle—					
West Khándesh ... ..	...	2,182	2,182	2,182	...	Teak	536,971	(a) 651,032	1,191,027	815,656	368,371
North Khándesh ... ..	...	2,764	2,764	2,764	...	Blackwood	60,096	25,616	85,912	22,490	63,452
Kolaba ... ..	...	16	16	16	...	Junglewood	142,677	420,789	563,460	304,632	259,534
Poona ... ..	...	5,245	5,245	5,245	...						
Sátara ... ..	...	185	185	182	3	Total Timber ...	739,744	1,097,037	1,833,405	1,142,743	690,657
Total ...	...	10,392	10,392	10,380	3	<i>Fuel.</i>					
<i>Famine Fodder</i> (arrear from 1915-16).						Kánara, Eastern Division ...	100	...	100	100	...
West Khándesh ... ..	...	61,725	61,725	61,725	...	Kánara, Southern do. ...	40,367	241,049	281,418	132,456	148,960
Kolaba ... ..	...	1,045	1,045	1,045	...	Kánara, Western do. ...	265,333	920,353	1,158,686	935,795	180,831
Total ...	...	65,770	65,770	65,770	...	Belgaum Division ...	472,117	2,848,028	3,420,145	2,670,508	769,677
Total, Central Circle ...	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	Dhárwar-Bijápur Division ...	2,341	5,594	7,925	7,470	475
	49,862	338,728	408,590	348,725	54,865						
	+ Rs.	+ Rs.	+ Rs.	+ Rs.	+ Rs.	Total ...	780,258	4,115,014	4,693,272	3,776,360	1,118,903
	...	76,162	76,162	76,160	3						

(a) 3,976 c. ft. teak of Dhárwar-Bijápur being transferred partly to Kánara, Northern and partly to Kánara, Eastern, the material stands included in the figures of those Divisions.

FORM No. 21.—Account of Timber and other Produce cut or collected by Government Agency and brought to Depôts, sold locally, or otherwise disposed of during the year 1916-1917—concluded.

Name of Division or Range	Balance at commencement of the year in Forests and Sale Depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in Forests and Sale Depôts.	Name of Division or Range.	Balance at commencement of the year in Forests and Sale Depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in Forests and Sale Depôts.
1	2	3	4	5	6	1	2	3	4	5	6
SCUTHERN CIRCLE —continued.						SIND CIRCLE.					
<i>Bamboos.</i>						<i>Timber.</i>					
Kánara, Northern Division ... Value.	...	2,150	2,150	...	2,150	Sukkur ...	750	1,568	2,325	1,953	873
Kánara, Eastern Division ...	...	299	299	299	...	Lárkána ...	93	640	733	640	93
Kánara, Western Division ...	...	8,638	8,638	565	8,073	Hyderabad ...	128	414	542	300	242
Belgaum Division ...	...	610	619	619	...	Jerruck ...	.....	8,498	8,498	5,855	2,643
Total ... Value.	...	11,712	11,712	1,483	10,229	Total ...	0,080	12,118	12,036	8,747	3,351
<i>Sandaloreed.</i>						<i>Fuel.</i>					
Kánara, Northern Division ... Value.	...	4,124	4,124	4,124	...	Sukkur ...	500	39,797	40,357	40,074	283
Kánara, Eastern Division ...	...	12,000	12,000	12,000	...	Lárkána ...	22,300	33,000	55,000	50,960	5,000
Kánara, Central Division ...	...	(c) 6,719	6,719	6,719	...	Hyderabad ...	25,822	44,331	70,208	33,235	30,963
Kánara, Southern Division ...	...	4,081	4,083	4,951	15	Jerruck ...	2,000	171,546	173,546	160,146	13,400
Belgaum Division ...	2,090	6,121	6,121	7,716	405	Total ...	50,682	289,384	340,068	284,415	55,651
Dhárwar-Bijápúr Division ...	...	11,072	11,072	10,972	100	<i>Minor Forest Produce.</i>					
Total ... Value.	2,005	44,997	47,002	46,452	520						
<i>Minor Forest Produce.</i>											
Kánara, Eastern Division ... Value.	...	297	297	...	(b) 297	Sukkur ... Value.	312	380	692	473	219
Belgaum Division ...	510	126	638	(b) 620	16	Lárkána ...	240	1,034	1,274	1,151	123
Dhárwar-Bijápúr Division ...	...	202	202	202	...	Hyderabad ...	6	1,206	1,272	1,240	32
Total ... Value.	510	625	1,135	822	313	Jerruck ...	140	1,282	1,422	1,212	150
<i>Drift and waste wood and confiscated Forest Produce.</i>						Total ... Value	693	3,162	4,660	4,100	554
Kánara, Northern Division ... Value.	...	5	5	5	...						
Kánara, Eastern Division ...	...	1	1	1	...						
Kánara, Central Division ...	(e) 22	3	3	3	...						
Kánara, Southern Division ...	...	65	65	65	...						
Kánara, Western Division ...	...	71	71	71	...						
Belgaum Division ...	70	9	79	79	...						
Dhárwar-Bijápúr Division ...	...	27	27	27	...						
Ratnágiri Division ...	...	3	3	3	...						
Total ...	92	184	254	254	...						
Total, Southern Circle ...	C. ft. 1,520,002 + Rs. 2,607	C. ft. 5,203,675 + Rs. 57,436	C. ft. 6,728,877 + Rs. 60,103	C. ft. 4,919,117 + Rs. 49,041	C. ft. 1,809,530 + Rs. 11,062	Total, Sind Circle ...	C. ft. 51,682 + Rs. 693	C. ft. 300,502 + Rs. 3,902	C. ft. 352,164 + Rs. 4,660	C. ft. 293,162 + Rs. 4,106	C. ft. 69,002 + Rs. 554
						GRAND TOTAL ...	C. ft. 1,663,428 + Rs. 8,563	C. ft. 6,040,07 + Rs. 1,42,327	C. ft. 7,703,535 + Rs. 1,60,890	C. ft. 5,705,003 + Rs. 1,34,613	C. ft. 1,907,628 + Rs. 16,277

(b) Includes Rs. 206, value of grass written off.

(c) Rs. 22 stands included in Rs. 6,719.

FORM No. 22.—Abstract showing the value of Timber and other Produce at Sale Depôts for the year 1916-1917.

Description of Timber and other Forest 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.	
1	2	3	4	5	6	7	8	9	10
NORTHERN CIRCLE.			Rs.			Rs.	Rs.	Rs.	
<i>Timber.</i>									
Surat ... ..	...	21,218	24,095	...	34,202	43,778	...	...
North Thana ... ..	...	575	175	...	14,943	2,500	...	...
West Thana ... ..	...	10	25	...	807	1,614	...	...
South Nasik ... ..	...	7,286	200	...	...	...	...	...
Total, Timber ...	...	29,089	24,495	...	49,952	47,892	23,397	...	
<i>Fuel.</i>									
Surat ... ..	...	12,150	1,556	...	6,264	1,279	...	...
North Thana ... ..	...	103	50	...	2,303	230	...	...
South Nasik ... ..	...	560	42	...	15,680	436	...	...
Total, Fuel ...	...	12,813	1,648	...	24,247	1,945	297	...	
<i>Minor Forest Produce.</i>									
Panch Mahals ... ..	...	...	...	...	...	60	...	...
Surat ... ..	...	...	5,258	...	...	1,905	...	...
West Thana ... ..	...	...	...	...	...	1,152	...	...
East Thana ... ..	...	...	...	...	...	1,541	...	...
Total, Minor Forest Produce ...	...	...	5,258	...	...	4,658	...	...
Total, Northern Circle ...	...	...	31,401	...	...	54,495	23,094	...	
CENTRAL CIRCLE.									
<i>Timber.</i>									
East Khândesh	1,297	1,235	356	241	323	83	...	...
Kolâba	57	173	68	16	116	36	...	...
Poona	25	56	3	143	323	33	...	...
Total, Timber ...	1,379	1,464	422	400	762	152	...	270	
<i>Firewood.</i>									
East Khândesh	4	80	12	...	...	10	...	...
North Khândesh	1	29	10	...	29	...	...	...
Kolâba ... ..	...	4,951	1,818	...	10,517	1,340	...	...
Poona ... ..	...	8,088	505	...	10,640	677	...	...
Sâtâra ... ..	...	35,250	2,150	...	32,717	1,612	...	...
Total, Firewood ...	5	48,398	4,495	...	54,103	3,639	...	856	
<i>Mhowra.</i>									
West Khândesh ... ..	...	Lbs. 7,073	300	...	Lbs. 191,567	4,789	...	...
North Khândesh ... ..	...	15,798	300	...	39,717	745	...	...
Total, Mhowra ...	...	22,871	600	...	231,284	5,534	4,934	...	
<i>Seeds.</i>									
East Khândesh	Kh. 3	Mds. 19	Lbs. 27	Kh. 1	Mds. 20	Lbs. 18	...	...
Poona	16	18	26	7	1	0	...	...
Sâtâra ... ..	...	...	25	7	21	14	...	...
Total, Seeds ...	21	6	21	16	15	4	...	...
Total, Central Circle ...	...	...	5,517	...	...	9,825	3,808	...	

FORM No. 22.—Abstract showing the value of Timber and other Produce at Sale Depôts for the year 1916-1917—concluded.

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.	
1	2	3	4	5	6	7	8	9	10
SOUTHERN CIRCLE.									
<i>Timber.</i>									
Tcak	131,982	536,971	8,70,167	140,891	368,371	7,75,811	...	94,556	
Blackwood	4,051	60,096	43,942	5,366	63,452	56,604	12,662	...	
Junglewood	5,606	142,677	1,17,949	40,560	258,834	2,69,038	1,51,089	...	
Total, Timber ...	141,639	739,744	10,32,058	186,817	690,657	11,01,253	69,195	...	
Fuel ... ..	...	7,80,258	50,985	...	1,118,903	71,855	20,870	...	
Bamboos Value.	...	...	...	...	...	10,229	10,229	...	
Sandalwood Value.	...	...	2,005	...	...	520	...	1,485	
Minor Forest Produce ... Value.	...	...	510	...	...	313	...	197	
Confiscated Forest Produce ...	...	...	92	...	...	...	...	92	
Total, Southern Circle ...	...	...	10,85,650	...	...	11,84,170	98,520	...	
SIND CIRCLE.									
<i>Timber.</i>									
Babul logs	21	107	26	28	108	27	...	...
Kandi logs	71	213	40	65	177	33	...	...
Asri logs	76	192	24	2	4	1	...	...
Jaw rafters	340	181	42	513	266	60	...	...
Bahan posts	15	15	4	46	46	12	...	...
Kandi cart axles	1	1	...	...	...	...	...	...
Babul cart axles	7	7	2	4	4	1	...	...
Kandi stakes	4	2	...	...	...	...	...	...
Bahan logs	26	78	19	13	39	9	...	...
Bahan Varas	1	3	1	2	6	2	...	...
Lai props	8	24	3	...	...	...	...	...
Kandi props	26	78	15	...	...	...	...	...
Lai Manghas	80	40	2	80	40	1	...	...
Kandi Varas	4	12	3	3	9	3	...	...
Lai Varas	9	27	3	...	...	...	...	...
Timber pieces ... ..	...	...	...	87	2,643	348	...	...
Babul props ... ..	...	...	...	3	9	3	...	...
Total, Timber ...	689	980	184	846	3,351	500	316	...	
<i>Firewood and Charcoal.</i>									
Loco-fuel ... ..	...	49,805	1,666	...	47,680	1,344	...	...
Firewood	130	877	25	1,181	7,971	76	...	...
Total, Fuel ...	130	50,682	1,691	1,181	55,651	1,420	...	271	
<i>Minor Forest Produce.</i>									
Babul, Kandi and other seeds ...	934	...	697	688	...	554	...	...
Jam brushwood	20	...	1	...	...	...	...	...
Total ...	954	...	698	688	...	554	...	144	
Total, Sind Circle ...	...	...	2,573	...	...	2,474	...	99	
GRAND TOTAL ...	...	...	11,25,141	...	...	12,50,464	1,25,323	...	

FORM No. 23.—Abstract showing the value of Live and Dead Stock for the year 1916-17.

Description of Live and Dead Stock.	ON HAND AT COMMENCEMENT OF THE YEAR.		ON HAND AT CLOSE OF THE YEAR.		DIFFERENCE IN VALUE.		Remarks.
	No.	Value.	No.	Value.	In favour of the year.	Against the year.	
1	2	3	4	5	6	7	8
NORTHERN CIRCLE.							
<i>Live Stock.</i>							
Bullocks	3	294	3	294	...	...
<i>Dead Stock.</i>							
Buildings	284	2,97,153	289	3,14,510	17,357	...	
Copying machines	8	...	8	...	...	...
Cyclostyles	7	...	7	...	...	...
Carts	7	133	7	133	...	...
Hay presses	111	...	111	...	...	...
Steel wire ropes	12	...	12	...	...	...
Stores, tools, plant and office furniture ... ..	...	63,987	...	65,715	1,728	...	
Typewriters, Empire	3	600	3	600	...	...
Remington Typewriter	6	...	6	...	...	...
Tents and rahutis	34	4,400	34	4,400	...	...
Total, Dead Stock ...	472	3,66,273	477	3,85,358	19,085	...	
TOTAL, NORTHERN CIRCLE ...	475	3,66,567	480	3,85,652	19,085	...	
CENTRAL CIRCLE.							
<i>Dead Stock.</i>							
Buildings	147	1,71,724	148	1,71,924	200	...	
Tents	8	2,138	8	2,135	...	3	
Rahutis (Kabul pal fan)	27	2,172	27	2,170	...	2	
Tools, plant and office furniture ...	...	34,598	...	34,339	...	259	
Remington Typewriters	9	...	7*	...	...	...	* Correct figure given.
Empire Do.	2	...	4*	...	...	...
Copying machines	5	...	5	...	...	...
Cyclostyles	5	...	5	...	...	...
Boat with fittings	1	1,371	1	1,371	...	...
Boon furniture ... ..	...	700	...	650	...	50	
Total, Dead Stock ...	204	2,12,703	205	2,12,589	200	314	
Total, Central Circle ...	204	2,12,703	205	2,12,589	...	114	

FORM No. 23.—Abstract showing the value of the Live and Dead Stock for the year 1916-17—concluded.

Description of Live and Dead Stock.	ON HAND AT COMMENCEMENT OF THE YEAR.		ON HAND AT CLOSE OF THE YEAR.		DIFFERENCE IN VALUE.		Remarks.
	No.	Value.	No.	Value.	In favour of the year.	Against the year.	
1	2	3	4	5	6	7	8
SOUTHERN CIRCLE.							
<i>Live Stock.</i>							
Buffaloes and bullocks ...	57	2,952	60	2,945	...	7	
Total, Live Stock ...	57	2,952	60	2,945	...	7	
<i>Dead Stock.</i>							
Buildings ...	392	3,02,314	365	2,96,334	...	5,980	Value of Saw-mills and other machinery Rs. 42,160 hitherto wrongly included in (a) is now separately shown, vide items marked (b).
Tents ...	9	2,212	9	1,909	...	303	
Rahutis ...	22	1,838	22	1,838	...	...
Tools, plant and office furniture ...	...	(a) 47,922	...	46,343	...	1,579	
Typewriters Remington ...	1	...	1	...	...	...
Do. Empire ...	2	...	2	...	...	...
Do. Hammond ...	7	...	7	...	...	...
Cyclostyles ...	6	...	8	...	...	...
Carts ...	38	2,162	39	2,068	...	94	
Guns ...	4	133	4	133	...	...
Bicycle ...	1	129	3	379	250	...	(c) 2 Saw-mills in Kanara, N. D.
Iron safes ...	4	535	...	...	...	...
Monorail materials ...	6	(b) 140	10	675	...	...
Saw-mills (Steam power) ...	...	25,382	...	25,382	...	...
Distillation Plant ...	2	(b) 40,770	(c) 2	38,731	46,932	2,039	(d) Saw-mills newly purchased— 1 for Kanara, E. D. 1 for Kanara, C. D. 1 for Kanara, W. D.
Windlass ...	...	...	(d) 3	46,932			
Crab Winch ...	1	(b) 1,200	1	910	910	...	
	1	(b) 50	1	1,140	...	60	
	...	...	...	47	...	3	
Total, Dead Stock ...	496	4,24,787	478	4,62,821	48,092	10,058	
Total, Southern Circle ...	553	4,27,739	538	4,65,766	38,027	...	
SIND CIRCLE.							
<i>Live Stock.</i>							
Bullocks ...	11	246	11	246	...	...
Camels ...	32	1,160	31	1,380	...	...
Total, Live Stock ...	43	1,406	42	1,606	200	...	
<i>Dead Stock.</i>							
Buildings ...	96	47,764	92	47,743	...	...
Tents ...	14	2,954	14	2,954	...	...
Stores, Mathematical ...	643	5,356	724	5,785	...	...
Tools, plant and office furniture ...	2,533	13,896	2,647	14,047	...	...
Remington Typewriters ...	5	...	6	...	...	...
Empire Typewriters ...	1	...	...	...	...	...
Copying machine ...	1	...	1	...	...	...
Iron safes ...	1	201	1	201	...	...
Miscellaneous ...	522	1,403	544	1,670	...	...
Total, Dead Stock ...	3,816	71,564	4,029	72,400	836	...	
Total, Sind Circle ...	3,859	72,970	4,071	74,006	1,036	...	
GRAND TOTAL ..	5,091	10,79,979	5,294	11,38,013	58,034	...	

FORM No. 24.

FORM No. 24.—Summary of Revenue and Expenditure of the

Budget Head.	Direction.	North Thana Division.	West Thana Division.	East Thana Division.	North Nasik Division.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
NORTHERN CIRCLE.					
REVENUE.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber ...	.....	5,275 9 0	238 5 0	1,819 6 0	.....
b. Firewood and charcoal... ..	.....	187 12 0	719 6 0	109 1 0	7 12 0
c. Bamboos ...	.....	2 8 0	.....	45 13 4	.....
d. Sandalwood ...	.....	.....	.....	.....	.....
e. Grass and other minor produce...	.....	.....	.....	.....	.....
f. Famine fodder ...	.....	.....	.....	.....	.....
Total, I ...	.....	5,465 13 0	922 11 0	1,474 4 4	7 12 0
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
a. Timber ...	.....	7,76,773 2 3	3,32,551 13 10	2,73,751 7 3	10,903 3 0
b. Firewood and charcoal... ..	327 6 0	803 7 10	2,236 14 6	174 10 6	5,456 15 0
c. Bamboos ...	0 12 0	10,623 11 0	2,318 0 6	1,046 13 6	124 0 0
d. Grazing and fodder grass ...	73 10 0	6,054 12 0	2,690 3 0	3,973 15 10	40,262 2 0
e. Other minor produce ...	29 10 0	301 10 0	6,700 11 8	4,134 6 5	6,504 5 3
f. Other items ...	.....	.....	.....	.....	.....
g. Commutation fees ...	.....	.....	.....	.....	.....
Total, II ...	429 6 0	7,94,338 11 1	3,45,447 11 6	2,83,031 6 5	63,253 9 3
III.—Drift and Waif Wood and Confiscated Forest Produce...					
	3 0 0	4 7 6	23 3 3	.....	158 11 9
Total, III ...	3 0 0	4 7 6	23 3 3	.....	158 11 9
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests ...	.....	.....	1,246 10 0	10 6 2	.....
Total, IV ...	.....	.....	1,246 10 0	10 6 2	.....
V.—Miscellaneous—					
a. Fines and forfeitures ...	.....	463 12 5	303 9 0	1,330 5 0	328 0 0
b. Refunds ...	.....	244 1 0	149 13 2	42 0 2	.....
c. Other sources ...	908 10 0	3,882 0 6	3,182 11 4	3,370 6 0	4,079 9 0
Total, V ...	908 10 0	4,589 13 11	3,535 1 6	4,642 11 2	5,007 9 0
Grand Total, Revenue.	1,339 0 0	8,04,418 13 6	3,51,174 5 3	2,89,208 13 1	68,427 10 0
EXPENDITURE.					
A.—CONSERVANCY AND WORKS.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber ...	.....	3,677 10 3	627 4 8	175 6 0	.....
b. Firewood and charcoal... ..	.....	6 15 0	170 6 0	.....	.....
c. Bamboos ...	.....	1,113 10 6	.....	116 3 6	.....
d. Sandalwood ...	.....	.....	.....	.....	.....
e. Grass and other minor produce...	.....	.....	.....	.....	0 10 0
Total, A-I ...	.....	4,796 3 9	897 10 8	291 9 6	0 10 0
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers ...					
	83 8 0	7,027 9 9	4,167 9 7	3,481 11 4	215 13 10
Total, A-II ...	83 8 0	7,027 9 9	4,167 9 7	3,481 11 4	215 13 10
III.—Drift and Waif Wood and Confiscated Forest Produce ...					
	.....	.....	0 10 0	1 15 0	.....
Total, A-III ...	.....	.....	0 10 0	1 15 0	.....
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests ...	.....	.....	.....	.....	.....
Total, A-IV ...	.....	.....	.....	.....	.....

different Divisions for the forest year 1916-1917.

South Násik Division.	Násik Sub-Division.	Surat Division.	Panch Mahals Division.	Working Plans Division.	Direction Famine Fodder Division.	Total for the forest year 1916-1917.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
934 10 8	.....	1,16,093 3 4	1,712 4 0	.....	.....	1,25,538 0 0
101 8 8	.....	1,167 8 7	.....	.....	.....	2,292 11 4
270 0 0	70 0 0	30 0 0	.....	.....	.....	48 5 4
.....	.....	4,948 11 9	.....	.....	641 14 0	870 0 0
.....	.....	.....	.....	.....	.....	4,948 11 9
1,306 3 5	70 0 0	1,22,239 2 8	1,712 4 0	.....	641 14 0	641 14 0
.....	.....	.....	.....	.....	.....	1,33,840 0 5
1,05,304 15 0	1 5 0	69,890 15 7	1,27,602 7 8	.....	.....	16,86,782 5 4
2,119 9 6	785 12 0	29 8 0	-603 13 8	.....	.....	12,393 0 7
6,805 1 9	61 4 0	10,852 12 11	1,535 12 11	.....	.....	33,348 4 7
34,578 12 9	396 15 0	2,335 1 0	8,134 15 6	.....	.....	98,501 7 1
7,556 10 6	1,061 15 6	3,796 7 9	10,131 5 7	.....	.....	39,216 2 8
.....
1,56,365 1 6	2,307 3 6	76,934 13 3	1,48,008 6 9	.....	.....	18,70,186 4 3
109 10 9	24 0 6	13 12 0	6 1 0	.....	.....	401 14 9
169 10 9	24 0 6	13 12 0	6 1 0	.....	.....	401 14 9
.....
.....	.....	56 0 3	.....	.....	.....	1,313 2 5
.....	.....	56 0 3	.....	.....	.....	1,313 2 5
1,203 4 0	74 6 0	462 5 3	232 3 6	.....	.....	4,206 13 2
23 6 8	18 12 0	380 14 5	5 11 8	.....	.....	809 11 1
2,364 8 5	1,562 10 2	1,570 7 5	8,094 15 0	.....	.....	29,513 8 10
3,595 14 1	1,655 12 2	2,413 11 1	8,332 14 2	.....	.....	31,681 1 1
1,01,436 13 9	4,037 0 2	2,01,657 7 3	1,58,059 9 11	.....	641 14 0	20,40,421 6 11
.....
23 0 0	.....	44,230 12 1	681 1 0	.....	.....	49,620 2 0
242 2 4	.....	830 6 0	.....	.....	.....	1,049 13 4
.....	.....	74 2 0	.....	.....	.....	1,301 0 0
410 0 0	.....	4,134 11 0	21 2 2	.....	.....	4,500 7 0
680 2 4	.....	49,089 15 1	702 3 0	.....	.....	50,640 6 4
.....
3 12 0	4 5 9	4,628 10 9	1,902 0 11	.....	.....	24,185 4 0
3 12 0	4 5 9	4,628 10 9	1,902 0 11	.....	.....	24,185 4 0
.....	.....	4 0 0	0 8 0	.....	.....	11 7 0
.....	.....	4 0 0	0 8 0	.....	.....	11 7 0
.....
.....	.....	8 8 0	.....	.....	.....	8 8 0
.....	.....	8 8 0	.....	.....	.....	8 8 0

FORM No. 24.—Summary of Revenue and Expenditure of the

Budget Heads.	Direction.	North Thána Division.	West Thána Division.	East Thána Division.	North Násik Division.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
EXPENDITURE—continued.					
A.—CONSERVANCY AND WORKS—continued.					
V.—Rent of leased Forests and Payments to Shareholders in Forests managed by Government ...	.....	.....	.....	306 8 9	3,875 4 4
Total, A-V ...	.....	.....	.....	306 8 9	3,875 4 4
VI.—Live-Stock, Stores, Tools and Plant—					
a. Purchase of cattle ...	.....	.....	.....	.....	.....
b. Feed and keep of cattle ...	.....	.....	.....	.....	.....
c. Purchase of stores, tools and plant ...	545 10 1	55 12 0	55 4 0	148 9 0	.....
Total, A-VI ...	545 10 1	55 12 0	55 4 0	148 9 0	.....
VII.—Communications and Buildings—					
a. Roads and bridges ...	.....	3,727 7 2	1,007 13 9	2,389 0 9	.....
b. Buildings ...	.....	13,418 0 11	350 13 3	269 0 9	.....
c. Other works ...	.....	404 14 6	43 12 0	43 2 0	.....
Total, A-VII ...	.....	17,550 6 7	1,402 7 0	2,250 12 0	.....
VIII.—Organization, Improvement and Extension of Forest—					
a. Demarcation ...	.....	451 5 0	504 12 3	331 1 3	109 0 6
b. Cost of Forest Settlements and Compensation for land and rights ...	.....	20 12 7	10 8 0	17 0 3	.....
c. Surveys ...	.....	.....	.....	.....	.....
d. Working-plans ...	.....	103 14 1	140 0 9	439 15 6	44 8 8
e. Sowing and planting ...	98 0 0	2,783 7 2	804 12 6	87 9 6	108 5 0
f. Protection from fire ...	150 0 0	2,683 12 0	3,639 5 6	4,735 6 11	246 7 0
g. Other works ...	.....	20 0 0	.....	850 2 6	.....
Total, A-VIII ...	246 0 0	6,333 2 10	5,069 7 0	6,613 3 11	508 4 9
IX.—Miscellaneous—					
a. Law charges ...	.....	.....	.....	.....	.....
b. Other charges ...	841 13 6	2,344 3 1	2,501 9 5	2,789 12 0	1,234 5 5
Total, A-IX ...	841 13 6	2,344 3 1	2,501 9 5	2,789 12 0	1,234 5 5
TOTAL, A.—CONSERVANCY AND WORKS ...	1,719 15 7	38,110 0 0	14,194 9 8	10,183 2 0	5,684 6 4
B.—ESTABLISHMENTS.					
I.—Salaries—					
a. Conservators ...	18,000 0 0	.....	.....	.....	.....
b. Superior Officers ...	1,070 11 0	16,429 1 11	11,099 4 2	15,883 6 5	5,429 5 4
c. Subordinate Forest and Depot Establishments ...	685 13 4	24,794 0 3	29,810 10 3	23,272 11 1	15,120 14 4
d. Office Establishments ...	7,028 9 4	5,889 4 8	7,194 7 6	6,129 0 9	4,072 15 3
e. Deputation and Special Allowances ...	.....	69 11 11	946 4 11	1,535 1 3	2 15 3
f. Exchange Compensation Allowance—					
1. Conservators ...	.....	.....	.....	.....	.....
2. Deputy Conservators ...	.....	.....	.....	.....	.....
3. Assistant Conservators ...	.....	.....	.....	.....	.....
4. Extra Assistant Conservators ...	.....	.....	.....	.....	.....
Total, B-I ...	27,385 1 8	47,181 2 9	49,090 10 10	51,706 9 6	24,026 2 2
II.—Travelling Allowances—					
a. Conservators ...	2,554 5 10	.....	.....	.....	.....
b. Superior Officers ...	9 10 10	2,018 6 0	1,563 4 9	2,536 8 0	1,231 4 0
c. Subordinate Forest and Depot Establishments ...	35 0 0	2,823 4 4	2,959 0 1	2,409 7 8	1,587 9 2
d. Office Establishments ...	843 0 10	818 15 8	841 0 0	612 4 6	303 13 8
e. Forest School (Dehradun) ...	102 8 9	81 12 4	.....	143 0 11	.....
f. Plague allowances ...	33 1 0	25 0 0	28 3 3	15 0 0	172 8 0
Total, B-II ...	3,577 11 3	5,772 6 4	5,690 8 1	5,806 5 1	3,200 12 10
III.—Contingencies—					
a. Stationery ...	60 7 1	365 2 11	421 3 1	413 11 8	165 10 1
b. Carriage of Tents and Records ...	288 0 0	235 1 11	334 5 9	250 11 0	121 1 0
c. Rents, rates and taxes ...	982 0 8	763 14 5	.....	703 11 3	43 0 0
d. Pay of Police Guards ...	.....	.....	.....	.....	.....
e. Official postage ...	435 4 6	932 2 6	817 3 6	1,003 7 6	325 2 0
f. Sundries ...	307 10 6	508 9 3	385 8 3	202 9 2	189 8 0
Payments to Officers of other Provinces ...	.....	.....	.....	.....	.....
Total, B-III ...	2,053 6 9	2,894 15 0	2,038 4 7	2,730 2 7	840 5 10
TOTAL, B.—ESTABLISHMENT ...	33,016 8 8	55,753 8 1	50,810 7 6	60,333 1 2	29,775 4 10
GRAND TOTAL OF EXPENDITURE ...	34,736 3 3	93,863 8 1	71,014 1 2	70,516 3 2	34,650 11 2

different Divisions for the forest year 1916-1917—contd.

South Násik Division.	Násik Sub-Division.	Surat Division.	Panch Maháls Division.	Working Plans Division.	Direction Famine Fodder Division.	Total for the forest year 1916-1917.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
.....	.....	18,001 6 8	.....	.....	.....	22,183 3 9
.....	.....	18,001 6 8	.....	.....	.....	22,183 3 9
.....
.....	.....	374 2 9	.....	.....	.....	374 2 9
66 10 0	.....	541 8 9	1 15 9	1 0 0	.....	1,416 5 7
66 10 0	.....	915 11 6	1 15 9	1 0 0	.....	1,790 8 4
.....
2,038 13 6	.....	15,814 11 11	.....	.....	.....	24,828 8 1
226 3 3	.....	5,769 15 9	128 10 0	.....	.....	26,150 11 11
15 5 0	.....	1,771 3 0	93 13 6	.....	.....	2,372 2 0
2,280 5 9	.....	23,344 14 8	222 7 6	.....	.....	47,351 6 0
.....
872 2 6	32 10 6	69 4 0	61 0 6	.....	.....	1,930 4 6
.....	.....	161 5 10	60 8 0	.....	.....	370 2 8
162 0 3	13 7 0	89 15 9	54 9 6	1 13 0	.....	1,190 4 1
20 9 0	114 2 0	1,140 8 9	206 7 0	.....	.....	5,363 13 0
415 8 0	25 0 0	6,114 12 0	2,372 6 5	.....	.....	20,532 10 0
9 10 0	5 3 0	358 3 0	.....	.....	.....	1,343 2 6
979 13 9	190 6 6	7,933 1 7	2,764 15 11	1 13 0	.....	30,620 5 3
.....
2,368 4 6	566 9 6	1,879 15 4	2,241 3 6	10 12 7	.....	16,847 8 10
2,368 4 6	566 9 6	1,879 15 4	2,241 3 6	10 12 7	.....	16,847 8 10
9,060 14 5	761 5 9	1,05,766 3 7	7,825 6 7	13 9 7	.....	1,99,548 9 6
.....
8,083 2 2	3,350 0 0	11,257 11 3	9,325 10 6	.....	.....	18,090 0 0
19,532 14 11	5,897 5 4	20,811 11 1	20,651 0 6	504 9 9	.....	1,65,921 10 10
4,764 11 0	1,945 8 6	6,470 7 5	6,115 4 2	720 13 8	.....	51,078 8 8
662 13 8	.....	5,766 14 10	653 10 11	.....	.....	9,636 8 4
.....
.....
.....
.....
33,342 9 4	11,642 13 10	44,312 12 7	36,245 10 1	1,225 7 5	.....	3,26,749 0 3
.....
1,860 0 0	420 0 0	2,398 11 8	2,041 14 2	.....	.....	2,554 5 10
2,095 3 4	407 3 3	2,938 3 1	2,489 2 8	40 8 0	.....	17,833 3 7
351 13 8	290 0 3	965 3 8	501 13 8	243 6 6	.....	5,760 8 7
.....	.....	14 6 5	.....	.....	.....	327 0 0
117 8 0	134 0 0	.....	.....	.....	.....	539 12 8
3,931 9 0	1,200 3 6	6,316 10 10	5,033 14 6	283 14 8	.....	40,975 0 1
.....
261 11 8	82 2 0	249 13 5	383 2 11	0 15 9	.....	2,304 0 7
253 9 0	60 2 0	465 4 5	345 8 11	43 10 0	.....	2,452 8 0
36 0 0	.....	21 0 0	68 0 0	.....	.....	2,068 10 4
445 12 0	105 0 0	450 2 6	909 13 0	13 4 0	.....	5,557 3 6
3 1 12 1	42 9 0	569 11 7	360 9 6	49 1 0	.....	3,097 9 1
.....
1,389 12 9	370 13 0	1,755 15 11	1,987 2 4	111 14 9	.....	16,079 13 6
39,605 15 1	13,162 14 4	52,385 7 4	43,245 10 11	1,621 4 10	.....	3,83,803 13 9
47,735 13 6	13,944 4 1	1,58,171 10 11	51,071 1 6	1,634 14 6	.....	5,83,353 7 3

FORM No. 24.—Summary of Revenue and Expenditure of the

Budget Head.	Direction.	East Khândesh Division.	West Khândesh Division.	North Khândesh Division.	Poona Division.
	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.
CENTRAL CIRCLE.					
REVENUE.					
<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>					
a. Timber	158 0 0	.....	283 0 0	897 10 0
b. Firewood and charcoal	234 0 0	.....	7 0 0	9,178 12 0
c. Bamboos	1 0 0	.....
d. Sandalwood	147 12 0
e. Grass and other minor produce	5,245 6 0
f. Famine fodder	2,182 8 6	2,763 14 6	.....
Total, I	372 0 0	2,182 8 6	3,054 14 6	15,439 8 0
<i>II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—</i>					
a. Timber	12,602 9 0	1,44,976 7 9	46,320 13 6	34,220 14 9
b. Firewood and charcoal	18,398 6 9	4,352 6 0	8,018 14 3	28,449 3 3
c. Bamboos	10,249 4 0	186 12 0	533 12 5	4 8 0
d. Grazing and fodder-grass	80,628 1 1	33,043 9 3	46,307 13 0	63,331 8 6
e. Other minor produce	2,391 2 6	3,108 2 6	5,216 10 0	10,058 0 0
f. Other items
g. Commutation fees
Total, II	1,84,279 7 4	1,98,247 5 6	1,00,397 15 3	1,31,024 3 3
<i>III.—Drift and Waif Wood and Confiscated Forest Produce</i>					
.....	266 15 9	227 5 3	216 7 6	551 10 6 3
Total, III	266 15 9	226 5 3	216 7 6	551 10 6
<i>IV.—Revenue from Forests not managed by Government—</i>					
a. Duty on foreign timber and other forest produce	7,002 8 9	.....	3,936 15 0	.....
b. Revenue from shared and private Forests	23 5 7
Total, IV	7,002 8 9	.....	3,936 15 0	22 5 7
<i>V.—Miscellaneous—</i>					
a. Fines and forfeitures	1,862 3 3	1,411 0 0	1,037 2 0	551 4 0
b. Refunds	1 0 0	0 8 0	123 3 0	.....
c. Other sources	500 8 0	4,936 12 0	7,117 0 11	8,777 11 4	16,091 7 0
Total, V	500 8 0	6,799 15 3	8,528 8 11	9,837 0 7	16,632 11 0
Grand Total, Revenue	500 8 0	1,48,720 14 4	2,07,785 12 2	1,23,543 4 10	1,63,670 6 4
EXPENDITURE.					
A.—CONSERVANCY AND WORKS.					
<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>					
a. Timber	12 8 0	.....	6 0 0	106 4 6
b. Firewood and charcoal	87 12 0	.....	8 6 0	1,127 8 3
c. Bamboos
d. Sandalwood	7 10 0
e. Grass and other minor produce	6,411 4 3	2,246 8 5	1,578 15 3
f. Famine fodder
Total, A-I	100 4 0	6,411 4 3	2,261 0 5	2,910 6 0
<i>II.—Timber and other Produce removed from the Forests by Consumers or Purchasers.</i>					
.....	2,038 2 0	2,462 4 2	5,345 10 0	830 12 10
Total, A-II	2,038 2 0	2,462 4 2	5,345 10 0	830 12 10
<i>III.—Drift and Waif Wood and Confiscated Forest Produce</i>					
.....	6 0 0	.....	9 8 0	.....
Total, A-III	6 0 0	.....	9 8 0	.....
<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

different Divisions for the forest year 1916-1917—contd.

Kolaba Division.	Satara Division.	Working Plans, Central Circle, Division.	West Khandesh Famine Fodder Division.	Kolaba Famine Fodder Division.	Total for the forest year 1916-17.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
25 0 0	857 12 0	.....	.....	.....	2,171 8 0
7,048 8 8	11,846 0 6	.....	.....	.....	28,312 2 0
.....	.....	.....	.....	.....	1 0 0
.....	.....	.....	.....	.....	147 12 0
16 0 0	182 8 0	.....	.....	.....	10,300 5 0
.....	.....	.....	64,725 3 4	1,045 0 0	65,773 3 4
7,087 5 8	12,886 4 6	.....	64,725 3 4	1,045 0 0	1,08,702 12 4
1,31,810 4 0	16,898 14 3	.....	.....	.....	9,58,849 15 3
749 7 9	239 0 0	.....	.....	.....	55,206 8 0
2 10 0	128 2 11	.....	.....	.....	11,035 1
13,545 14 0	27,254 7 0	.....	.....	.....	2,79,661 6 1
8,113 12 7	8,821 11 6	.....	.....	.....	87,708 7 7
.....
1,49,220 0 4	53,842 3 8	.....	.....	.....	7,70,511 3 4
1,153 9 4	110 6 8	.....	.....	.....	2,526 8 1
1,155 9 4	110 6 8	.....	.....	.....	2,526 8 1
.....
.....	.....	.....	.....	.....	10,939 7 9
3 12 0	.....	.....	.....	.....	28 1 7
3 12 0	.....	.....	.....	.....	10,985 9 4
877 0 0	458 4 0	.....	.....	.....	5,998 13 3
8,658 5 6	6,363 11 0	3 15 2	.....	.....	127 10 2
.....	.....	9 6 3	.....	.....	52,447 14 3
9,333 5 6	6,826 15 0	13 5 5	.....	.....	58,672 5 8
1,66,798 0 8	73,165 13 8	13 5 5	64,725 3 4	1,045 0 0	9,40,368 4 9
.....
.....	138 6 0	.....	.....	.....	848 2 6
5,010 11 7	5,932 6 11	.....	.....	.....	12,175 14 9
.....	.....	.....	.....	.....	7 10 0
.....	93 2 0	.....	.....	.....	10,329 13 11
.....	.....	.....	1,950 10 8	.....	1,953 10 8
5,019 11 7	6,158 14 11	.....	1,950 10 8	.....	24,812 3 10
2,978 15 6	189 7 6	.....	.....	.....	13,845 4 0
2,978 15 6	189 7 6	.....	.....	.....	13,845 4 0
16 13 0	.....	.....	.....	.....	32 0 0
16 13 0	.....	.....	.....	.....	32 0 0
.....
.....
.....

FORM No. 24.—Summary of Revenue and Expenditure of the

Budget Head.	Direction.	East Khândesh Division.	West Khândesh Division.	North Khândesh Division.	Poona Division.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
EXPENDITURE—continued.					
A.—CONSERVANCY AND WORKS—continued.					
V.—Rent of leased Forests and Payments to Shareholders in Forests managed by Government ...	.....	.....	.....	.....	636 3 4
Total, A-V ...	.....	.....	.....	.....	836 3 4
VI.—Live-stock, Stores, Tools and Plant—					
a. Purchase of cattle ...	.....	.....	.....	.....	.....
b. Feed and keep of cattle ...	.....	.....	.....	.....	.....
c. Purchase of stores, tools and plant...	79 3 0	89 7 0	134 5 3	23 7 0	71 6 0
Total, A-VI ...	79 3 0	89 7 0	134 5 3	23 7 0	71 6 0
VII.—Communications and Buildings—					
a. Roads and Bridges ...	.....	1,205 4 1	1,518 12 6	2,635 7 6	1,490 1 9
b. Buildings...	.....	293 8 9	708 10 0	633 0 0	123 9 6
c. Other works ...	.....	1 0 0	408 12 0	.....	.....
Total, A-VII ...	.....	1,504 13 10	2,226 2 6	3,168 7 6	1,613 11 3
VIII.—Organization, Improvement and Extension of Forest—					
a. Demarcation ...	.....	152 12 0	671 4 11	870 6 3	617 6 0
b. Cost of Forest Settlements and Compensation for land and rights ...	.....	57 8 0	.....	2,282 14 0	534 4 2
c. Surveys ...	.....	.....	.....	.....	.....
d. Working Plans ...	.....	676 0 6	247 10 2	469 9 9	227 2 9
e. Sowing and Planting ...	.....	149 8 0	35 15 6	47 7 6	1,795 3 8
f. Protection from Fire ...	.....	1,453 7 8	4,415 2 3	7,877 0 3	141 0 0
g. Other works ...	.....	56 7 0	3 5 0	.....	229 8 0
Total, A-VIII ...	.....	2,546 4 0	5,403 7 10	11,047 5 9	3,744 8 7
IX.—Miscellaneous—					
a. Law charges ...	.....	.....	.....	.....	.....
b. Grain Compensation ...	.....	.....	.....	.....	.....
c. Other charges ...	.....	2,250 11 6	1,944 9 6	2,403 8 2	3,602 2 9
Total, A-IX ...	.....	2,250 11 6	1,948 6 6	2,403 8 2	3,602 2 9
TOTAL A.—CONSERVANCY AND WORKS...	79 3 0	8,535 9 4	19,101 15 6	24,257 9 10	13,278 1 9
B.—ESTABLISHMENTS.					
I.—Salaries—					
a. Conservators ...	20,400 0 0	.....	.....	.....	.....
b. Superior Officers ...	.....	6,052 13 5	9,505 2 7	9,960 0 0	22,789 8 4
c. Subordinate Forest and Depôt Establishments ...	.....	29,107 11 11	21,807 6 2	20,727 14 10	38,869 9 3
d. Office Establishments ...	9,155 3 0	6,427 13 10	5,244 12 3	5,977 10 10	7,259 0 7
e. Deputation and Special Allowances ...	10,188 1 11	498 12 11	2,208 8 5	2,173 15 9	392 4 1
f. Exchange Compensation Allowance—	.....	.....	.....	.....	.....
1. Conservators ...	.....	.....	.....	.....	.....
2. Deputy Conservators...	.....	.....	.....	.....	.....
3. Assistant Conservators ...	.....	.....	.....	.....	.....
4. Extra Assistant Conservators ...	.....	.....	.....	.....	.....
Total, B-I ...	39,743 4 11	44,067 4 1	39,005 13 5	38,839 9 6	69,090 0 2
II.—Travelling Allowances—					
a. Conservators ...	2,492 11 4	.....	.....	.....	.....
b. Superior Officers ...	.....	2,009 11 8	2,223 14 8	2,612 11 8	2,932 4 8
c. Subordinate Forest and Depôt Establishments ...	.....	2,072 5 11	2,846 10 7	3,013 15 9	3,433 2 5
d. Office Establishments ...	623 9 2	535 9 8	691 3 6	720 2 10	787 4 3
e. Forest School, Dehra Dun ...	387 6 0	6 7 3	.....	.....	.....
f. Plague allowances.	120 0 0	75 0 0	94 8 0	105 0 0	177 8 0
Total, B-II ...	3,603 10 6	5,239 2 6	5,582 4 9	6,491 12 3	7,330 3 4
III.—Contingencies—					
a. Stationery ...	16 11 0	417 7 2	257 8 3	332 0 3	634 3 1
b. Carriage of Tents and Records ...	167 15 0	200 11 0	140 10 6	321 14 6	265 1 9
c. Rents, rates and taxes ...	1,980 0 0	36 0 0	175 0 0	128 0 4	137 0 0
d. Pay of Police guards ...	.....	.....	.....	.....	.....
e. Official postage...	293 14 0	875 9 9	779 8 0	543 7 0	1,100 11 6
f. Sundries ...	446 2 0	416 5 0	431 4 9	530 2 0	627 9 9
Payments to Officers of other Provinces.	.....	.....	.....	.....	.....
Total, B-III ...	2,894 10 0	1,946 0 11	1,783 10 6	1,815 8 1	2,754 4 1
TOTAL B.—ESTABLISHMENTS...	46,241 9 5	51,312 7 6	46,711 12 8	47,166 13 9	79,174 13 7
GRAND TOTAL OF EXPENDITURE ...	46,320 12 5 3	60,848 0 10	65,413 12 2	71,844 7 7	92,852 15 4

different Divisions for the forest year 1916-1917—continued.

Kolaba Division.	Sátara Division.	Working Plans Central Circle Division.	West Khandesh Famine Fodder Division.	Kolaba Famine Fodder Division.	Total for the forest year 1916-1917.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
11,032 4 0	3,407 9 5	.....	.....	.....	15,276 0 3
11,032 4 6	3,407 9 5	.....	.....	.....	15,276 0 3
.....
.....
24 0 3	31 10 0	31 0 0	.....	.....	483 6 6
24 0 3	31 10 0	31 0 0	.....	.....	483 6 6
78 0 0	3,112 15 6	.....	.....	.....	10,077 9 4
3 3 13 6	432 13 3	.....	.....	.....	2,425 6 0
21 3 0	161 8 0	.....	.....	.....	642 7 0
425 15 6	3,697 4 0	.....	.....	.....	13,145 6 4
3,210 14 5	458 9 6	.....	.....	.....	5,687 5 1
5 0 0	58 4 0	.....	.....	.....	2,037 14 2
432 12 3	95 8 0	449 6 8	.....	.....	2,598 11 10
602 5 2	1,000 9 8	.....	.....	.....	4,231 1 6
2,752 8 0	151 8 0	.....	.....	.....	16,820 10 0
406 12 0	80 5 0	.....	.....	.....	836 8 0
7,476 3 10	2,444 12 11	449 6 8	.....	.....	33,112 2 7
.....
3,729 7 10	2,035 2 8	115 5 6	.....	.....	16,140 12 11
3,729 7 10	2,035 2 8	115 5 6	.....	.....	16,140 12 11
30,703 8 0	17,944 14 2	595 12 2	1,950 10 8	.....	1,16,847 4 5
11,094 14 10	15,420 0 0	9,603 3 7	.....	.....	20,400 0 0
39,585 6 1	24,147 0 4	2,094 12 5	.....	.....	80,655 10 9
6,607 2 6	6,071 4 9	1,361 7 4	.....	.....	1,76,139 12 11
119 9 10	-703 6 11	.....	.....	.....	50,164 7 1
.....	.....	.....	.....	.....	14,787 14 0
.....
.....
59,167 1 3	44,844 14 2	13,059 7 4	.....	.....	3,48,177 12 9
1,904 13 8	2,511 5 0	1,319 1 4	.....	.....	2,492 11 4
2,144 3 8	2,034 6 2	742 9 9	.....	.....	15,579 14 8
836 11 6	785 13 2	486 14 6	.....	.....	17,527 6 3
82 4 1	82 4 2	35 0 0	.....	.....	5,467 4 7
20 0 0	.....	.....	.....	.....	538 5 6
5,043 0 11	6,013 14 6	2,583 9 7	.....	.....	627 0 0
409 8 10	350 15 7	2 5 6	.....	.....	42,232 10 4
2 7 6 9	260 12 1	315 9 0	.....	.....	2,490 11 8
.....	22 8 0	.....	.....	.....	1,870 0 7
870 1 0	707 0 0	75 9 6	.....	.....	2,478 8 4
271 6 0	333 0 3	80 9 9	.....	.....	5,235 8 3
.....	.....	.....	.....	.....	3,136 2 0
1,819 7 4	1,674 3 11	474 1 9	.....	.....	15,200 14 10
60,333 9 9	52,533 0 7	16,117 2 8	.....	.....	4,05,611 5 11
97,037 9 1	70,477 14 9	16,712 14 10	1,950 10 8	.....	5,22,458 10 4

FORM No. 24.—Summary of Revenue and Expenditure of the

Budget Head.	Direction.	Working Plans Division.	Dhárwar and Bijapur Division.	Belgaum Division.	Ratnagiri Division.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
SOUTHERN CIRCLE.					
REVENUE.					
<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>					
a. Timber	76 0 0	16,503 2 8	.....
b. Firewood and charcoal	527 13 11	1,58,207 4 9	.....
c. Bamboos	619 4 9	.....
d. Sandalwood	10,972 0 8	7,716 10 9	.....
e. Grass and other minor produce	202 0 0	353 0 0	.....
Total, I	11,777 14 7	1,61,488 16 11	.....
<i>II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—</i>					
a. Timber	86 0 0	41,837 14 5	616 2 4
b. Firewood and charcoal	9,594 14 2	30,782 8 0	372 13 0
c. Bamboos	208 8 0	4,355 15 11	59 1 7
d. Grazing and fodder grass	20,046 5 6	14,662 12 9	89 10 0
e. Other minor produce	21,422 0 4	16,454 8 6	26 1 6
f. Other items
g. Commutation fees
Total, II	51,657 9 0	1,10,123 11 7	1,162 12 5
<i>III.—Drift and Waif Wood and Confiscated Forest Produce</i>					
	26 12 0	78 9 0	3 6 0
Total, III	26 12 0	78 9 0	3 6 0
<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	10 9 6
Total, IV	10 9 6
<i>V.—Miscellaneous—</i>					
a. Fines and forfeitures	40 0 0	715 5 2	.....
b. Refunds	35 9 8	263 8 6	.....
c. Other sources	1,645 7 7	8 12 0	3,192 2 11	19,029 1 2	5 0 2
Total, V	1,645 7 7	8 12 0	3,207 12 7	20,007 14 10	60 8 6
Grand Total, Revenue	1,645 7 7	8 12 0	66,730 0 2	3,11,699 8 4	71 8 8
EXPENDITURE.					
A.—CONSERVANCY AND WORKS.					
<i>I.—Timber and other Produce removed from the Forests by Government Agency—</i>					
a. Timber	13 4 0	.....	.....	10,830 10 3	.....
b. Firewood and charcoal	131 10 6	90,493 9 7	.....
c. Bamboos	4,720 4 0	.....
d. Sandalwood	712 5 3	997 11 7	.....
e. Grass and other minor produce	131 6 8	208 1 0	.....
Total, A-I	13 4 0	.....	976 6 5	1,22,266 4 5	.....
<i>II.—Timber and other Produce removed from the Forests by Consumers or Purchasers</i>					
	509 11 11	2,955 6 6	.....
Total, A-II	509 11 11	2,985 6 6	.....
<i>III.—Drift and Waif Wood and Confiscated Forest Produce</i>					
	2 0 0	10 0 0	1 0 0
Total, A-III	2 0 0	10 0 0	1 0 0
<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

different Divisions for the forest year 1916-1917—contd.

Kánara Eastern Division.	Kánara Northern Division.	Kánara Southern Division.	Kánara Western Division.	Kánara Central Division.	Total for the forest year 1916-1917.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
2,96,318 13 4	6,83,727 11 0	4,504 6 7	1,33,040 13 6	2,91,803 13 9	14,30,054 13 3
4 8 0	100 0 0	6,500 13 3	27,639 0 8	.....	2,31,119 14 7
299 5 0	.....	.....	565 8 0	.....	1,491 1 9
12,000 2 11	4,124 4 2	4,051 5 8	.....	6,718 12 11	40,482 5 1
.....	.....	.....	.....	.....	555 0 0
3,03,650 13 3	6,88,011 15 8	10,016 9 6	2,02,135 12 1	3,01,614 10 8	17,00,636 11 8
28,283 1 1	2,11,822 8 8	2,563 2 11	2,338 12 4	2,312 0 2	2,02,049 9 11
7,323 12 0	2,790 2 9	15,909 11 0	21,896 15 11	13,181 3 3	1,06,151 13 1
26,187 3 11	28,016 11 0	1,083 4 0	4,678 11 0	839 12 0	65,487 3 11
7,908 0 0	6,593 0 0	10,957 15 0	7,743 10 0	7,732 6 0	75,739 11 3
2,314 15 0	1,416 4 0	6,291 9 9	4,945 12 8	2,663 11 6	51,584 15 3
.....
72,018 0 0	2,51,608 10 11	36,811 10 8	44,608 13 11	26,809 0 11	5,94,890 5 4
1 0 0	4 12 0	65 0 11	71 2 9	2 5 6	253 0 2
1 0 0	4 12 0	65 0 11	71 2 9	2 5 6	253 0 2
.....
.....	.....	.....	.....	.....	10 9 6
.....	.....	.....	.....	.....	10 9 6
820 10 4	1,259 8 0	841 14 5	2,074 2 3	2,060 2 11	7,810 11 1
47 0 7	35 6 6	276 7 0	107 14 0	5 6 2	776 4 7
4,212 8 9	4,007 7 1	6,921 10 9	1,503 9 4	3,526 6 4	44,293 5 5
5,079 14 8	5,391 5 7	8,040 0 2	3,773 9 7	5,591 15 5	52,880 5 1
3,85,749 11 11	9,45,106 12 2	80,933 5 3	2,50,591 6 4	3,34,018 0 6	23,57,730 15 10
1,06,400 0 8	1,03,120 0 9	1,556 6 7	1,12,532 12 6	66,105 3 4	4,96,663 5 8
.....	.....	5,562 8 9	54,419 10 8	.....	1,59,546 7 6
180 4 0	.....	316 13 1	5,003 0 0	414 5 0	9,915 8 0
467 1 7	165 1 2	.....	.....	.....	2,073 5 8
33 11 1	.....	.....	.....	.....	463 2 9
1,07,006 0 11	1,93,291 1 11	7,335 12 5	1,71,954 7 2	66,609 8 4	6,69,561 13 7
753 6 3	763 2 9	811 8 2	467 0 2	167 7 4	6,462 11 1
758 6 3	763 2 9	811 8 2	467 0 2	167 7 4	6,462 11 1
.....	2 8 0	9 12 4	18 3 6	29 1 0	72 14 10
.....	2 8 0	9 12 4	18 3 6	29 1 0	72 14 10
.....
.....
.....

FORM NO. 24.—Summary of Revenue and Expenditure of the

Budget Head.	Direction.	Working Plans Division.	Dhárwar and Bijapur Division.	Belgaum Division.	Ratnagiri Division.
EXPENDITURE—contd.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS—contd.					
V.—Rent of leased Forests and Payments to Shareholders in Forests managed by Government ...	.....	.....	.....	.....	.....
Total, A-V ...	.....	.....	.....	.....	.....
VI.—Live-stock Stores, Tools and Plant—					
a. Purchase of cattle ...	.....	.....	.....	.....	.....
b. Feed and keep of cattle ...	.....	.....	.....	.....	.....
c. Purchase of stores, tools and plant ...	951 8 8	.....	227 14 0	203 12 0	.....
Total, A-VI ...	951 8 8	.....	227 14 0	203 12 0	.....
VII.—Communications and Buildings—					
a. Roads and bridges ...	.....	.....	.....	7,075 14 2	.....
b. Buildings ...	.....	.....	750 14 8	1,265 13 7	10 0 0
c. Other works ...	.....	.....	415 2 0	601 12 3	.....
Total, A-VII ...	.....	.....	1,202 0 8	9,033 8 0	10 0 0
VIII.—Organization, Improvement and Extension of Forest—					
a. Demarcation ...	.....	.....	110 8 0	523 15 5	.....
b. Cost of Forest Settlements and Compensation for land and rights ...	.....	.....	.....	7,207 13 7	.....
c. Surveys ...	.....	.....	.....	22 13 0	.....
d. Working-plans ...	.....	3,509 11 8	.....	.....	.....
e. Sowing and planting ...	.....	.....	859 13 10	2,300 3 1	493 11 8
f. Protection from fire ...	.....	.....	767 10 4	7,933 9 2	30 0 0
g. Other works ...	.....	.....	18 13 9	227 14 6	.....
Total, A-VIII ...	.....	3,509 11 8	1,565 14 9	18,276 4 9	432 11 8
X.—Miscellaneous—					
a. Law charges ...	.....	.....	1 14 0	.....	.....
b. Other charges ...	—17 7 6	144 0 10	1,421 5 4	3,484 10 5	227 12 2
Total, A-IX ...	—17 7 6	144 0 10	1,423 3 4	3,484 10 5	227 12 2
TOTAL, A.—CONSERVANCY AND WORKS ...	917 5 2	3,743 12 6	5,606 3 0	1,58,339 4 1	671 7 10
B.—ESTABLISHMENTS.					
I.—Salaries—					
a. Conservators ...	22,900 0 0	.....	.....	.....	.....
b. Superior Officers ...	3,379 5 4	8,120 0 0	5,038 1 0	17,435 2 7	.....
c. Subordinate Forest and Depot Establishments ...	720 0 0	2,025 5 4	18,677 3 9	28,752 6 10	2,676 15 6
d. Office Establishments ...	7,536 15 5	1,017 1 0	5,131 14 4	5,543 5 3	474 6 11
e. Deputation and Special Allowances ...	.....	446 10 8	72 2 3	2,613 7 6	.....
f. Exchange Compensation Allowance—					
1. Conservators ...	.....	.....	.....	.....	.....
2. Deputy Conservators ...	.....	.....	.....	.....	.....
3. Assistant Conservators ...	.....	.....	.....	.....	.....
4. Extra Assistant Conservators ...	.....	.....	.....	.....	.....
Total, B-I ...	34,436 4 4	11,609 1 0	23,919 5 4	51,430 6 2	3,151 6 5
II.—Travelling Allowances—					
a. Conservators ...	2,584 4 0	.....	.....	.....	.....
b. Superior Officers ...	328 12 0	1,839 12 0	1,400 4 8	2,473 8 6	.....
c. Subordinate Forest and Depot Establishments ...	104 13 6	410 4 8	1,412 5 4	3,234 15 0	303 0 0
d. Office Establishments ...	1,023 8 8	360 12 8	370 11 7	807 14 3	.....
e. Forest School (Ibra Dun) ...	.....	.....	.....	.....	.....
f. Flag allowances ...	40 14 7	.....	.....	25 0 0	.....
Total, B-II ...	4,120 4 4	2,640 13 4	3,183 5 7	6,801 0 9	703 0 0
III.—Contingencies—					
a. Stationery ...	11 11 0	.....	183 1 4	195 0 9	68 12 0
b. Carriage of Tents and Tools ...	451 9 0	.....	261 12 0	276 1 6	21 5 2
c. Rent of Huts and Tents ...	810 0 0	.....	.....	.....	.....
d. Pay of Police-guards ...	.....	.....	.....	.....	.....
e. Office postage ...	605 9 0	47 6 0	829 0 0	1,111 7 6	85 0 0
f. Subsidy to Officers of other Departments ...	1,567 10 5	.....	345 2 2	818 7 0	85 13 0
Total, B-III ...	3,506 7 5	47 6 0	1,018 15 6	2,429 0 9	210 14 2
TOTAL, B.—ESTABLISHMENTS ...	42,123 0 1	14,297 4 4	33,721 10 5	63,469 7 8	3,725 4 7
GRAND TOTAL OF EXPENDITURE ...	43,070 5 3	18,041 0 10	30,327 13 5	2,10,808 11 9	4,396 12 5

different Divisions for the forest year 1916-1917—contd.

Kánara Eastern Division.	Kánara Northern Division.	Kánara Southern Division.	Kánara Western Division.	Kánara Central Division.	Total for the forest year 1916-1917.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
.....
.....
208 0 0	723 0 0	.....	343 0 0	.....	1,374 0 0
2,021 5 3	1,587 7 3	.....	357 11 10	.....	4,800 8 4
211 1 9	1,403 4 1	78 15 11	469 0 0	309 5 0	4,034 6 5
3,340 7 0	3,773 11 4	78 15 11	1,170 4 10	609 5 0	10,174 14 9
5,029 5 6	11,254 0 5	1,471 10 11	30,045 4 8	405 7 4	65,844 11 0
1,311 2 11	1,123 14 3	1,592 9 8	1,321 0 11	845 11 8	8,207 0 8
1,020 8 3	758 1 0	14 7 0	1,041 12 5	358 4 0	4,320 14 11
8,261 0 8	13,135 15 8	3,081 11 7	42,603 8 0	1,709 7 0	78,442 3 7
206 12 6	7 4 0	503 11 0	1,533 13 3	10 14 0	2,011 14 11
.....	.....	25 14 7	.....	2,370 15 0	9,073 11 2
.....	.....	.....	.....	.....	3,622 8 8
2,000 10 4	5,419 0 5	1,841 1 5	1,843 7 1	1,213 1 0	16,340 0 10
4,899 1 6	4,044 13 8	350 9 8	2,988 6 7	1,025 8 6	22,705 11 3
.....	.....	.....	.....	.....	240 12 3
8,066 8 4	10,371 2 1	2,727 4 6	6,215 10 11	4,635 6 6	55,500 11 1
.....	.....	.....	.....	101 8 0	193 6 0
3,121 8 3	3,737 15 8	1,123 1 11	2,202 1 3	1,277 6 6	16,722 6 10
3,121 8 3	3,737 15 8	1,123 1 11	2,202 1 3	1,468 14 6	16,015 12 10
1,30,643 15 5	2,25,075 9 5	15,163 2 10	2,24,036 3 10	74,999 1 8	8,37,221 1 9
.....	.....	.....	.....	.....	22,800 0 0
17,180 10 3	19,091 13 5	9,000 5 2	17,543 0 4	2,459 5 8	1,07,213 11 9
23,712 13 9	31,987 2 10	16,788 14 1	10,705 0 0	15,087 6 2	1,00,193 4 3
5,009 9 9	6,258 12 7	4,318 10 11	5,496 7 1	3,700 8 19	45,302 11 8
5,176 4 6	3,426 7 8	803 12 5	2,753 0 2	405 9 6	15,787 6 8
.....
.....
.....
51,979 6 3	61,607 4 6	30,971 10 7	45,500 7 7	23,712 14 2	3,51,357 2 4
.....	.....	.....	.....	.....	2,504 4 0
2,700 8 0	2,603 4 0	1,800 0 0	2,651 9 4	2,615 4 0	18,532 9 6
2,140 0 0	8,346 14 10	2,131 4 10	2,002 12 4	1,399 0 8	16,686 0 2
384 11 8	475 5 10	510 14 4	270 0 2	600 3 0	4,873 1 9
75 0 0	191 2 1	113 11 4	75 0 0	24 3 2	473 0 7
.....	.....	.....	.....	40 15 4	106 13 11
5,300 12 8	6,678 10 9	4,615 14 6	4,990 5 10	4,638 10 2	43,191 13 11
119 9 6	292 10 6	46 0 2	112 5 3	112 9 5	1,141 4 11
94 2 0	123 0 2	172 0 0	329 13 10	332 2 8	2,061 14 4
.....	0 11 4	.....	.....	.....	640 11 4
607 14 0	439 7 0	746 9 6	433 3 6	727 4 6	5,722 13 0
171 4 1	197 15 5	178 2 9	320 0 10	170 5 10	3,838 13 6
.....
931 13 7	1,053 12 5	1,143 5 5	1,201 7 5	1,342 6 5	13,005 9 1
59,272 0 6	69,330 11 8	36,730 14 6	51,761 4 10	34,743 14 9	4,08,184 9 4
1,88,015 15 11	2,94,415 5 1	51,899 1 4	2,75,797 8 8	1,00,733 0 5	12,45,405 11 1

[illegible]

FORM No. 24.—Summary of Revenue and Expenditure of the different divisions
for the forest year 1916-1917—concl'd.

Budget Head,	Direction.	Thar and Parker Division.	Larkana Division.	Sukkur Division.	Hyderabad Division.	Jerruck Division.	Working Plans Division.	Total for forest year 1916-17.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
EXPENDITURE—contd.								
A.—CONSERVANCY AND WORKS—contd.								
<i>V.—Rent of leased forests and payment to share- holders in forests managed by Government ...</i>	.....	.....	.....	.....	.....	.....	.....	.....
Total, A-V ...	.....	.....	.....	.....	.....	.....	.....	.....
VI.—Live Stock, Stores, Tools and Plant—								
a. Purchase of cattle ...	.....	.....	.....	.....	.....	.....	.....	.....
b. Feed and keep of cattle ...	.....	.....	29 15 8	400 15 0	23 2 0	10 3 0	.....	404 3 8
c. Purchase of stores, tools and plant ...	49 0 0	.....	149 13 0	245 5 6	105 10 0	129 4 0	.....	679 0 6
Total, A-VI ...	49 0 0	.....	179 12 8	646 4 6	128 12 0	139 7 0	.....	1,143 4 2
VII.—Communications and Buildings—								
a. Roads and bridges ...	.....	.....	.....	.....	.....	.....	.....	.....
b. Buildings ...	.....	.....	723 2 1	927 6 3	624 7 8	506 3 1	.....	2,791 3 1
c. Other works ...	.....	.....	551 7 7	745 14 11	450 13 7	1,003 0 10	.....	3,381 4 11
Total, A-VII ...	.....	.....	1,274 9 8	1,633 5 2	1,105 5 3	2,109 3 11	.....	6,172 8 0
VIII.—Organization, Im- provement and Extension of forest—								
a. Demarcation ...	.....	.....	.....	.....	.....	.....	.....	.....
b. Cost of forest settle- ments and compen- sation for land and rights ...	.....	.....	.....	.....	.....	.....	.....	.....
c. Surveys ...	.....	.....	.....	.....	.....	.....	.....	.....
d. Working Plans ...	.....	.....	1,392 0 6	1,795 0 6	720 14 1	703 11 0	.....	4,611 10 1
e. Sowing and planting ...	.....	.....	350 7 7	2,139 0 9	1,637 4 7	2,143 6 6	.....	6,200 3 5
f. Protection from fire ...	.....	.....	.....	.....	.....	1,071 0 4	.....	1,071 0 4
g. Other works ...	.....	.....	1,152 5 5	.....	1,461 9 0	.....	.....	2,613 14 0
Total, A-VIII ...	.....	.....	2,924 13 1	3,834 1 3	3,819 11 8	3,918 1 10	.....	14,496 11 10
IX.—Miscellaneous—								
a. Law charges ...	.....	.....	.....	1 9 9	.....	.....	.....	1 9 9
b. Grain compensation ...	.....	.....	.....	.....	0 12 5	.....	.....	0 12 5
c. Other charges ...	10 4 0	.....	667 0 6	1,020 11 0	921 4 10	1,099 7 0	.....	4,324 11 4
Total, A-IX ...	16 4 0	.....	667 0 6	1,622 4 9	920 8 10	1,099 7 0	.....	4,325 9 1
TOTAL, A.—CONSERVANCY AND WORKS ...	65 4 0	.....	5,033 2 6	9,380 5 0	7,197 5 8	12,657 6 0	.....	34,933 7 2
B.—ESTABLISHMENTS.								
I.—Salaries.								
a. Conservators ...	15,000 0 0	.....	8,520 0 0	17,839 4 2	8,579 5 9	14,100 6 0	.....	64,038 0 11
b. Superior Officers ...	.....	.....	.....	.....	.....	.....	.....	.....
c. Subordinate Forest and Depot Establish- ments ...	.....	1,589 0 5	9,394 9 3	22,241 15 9	10,700 11 11	12,789 10 5	.....	56,714 15 9
d. Office Establishments ...	6,651 3 5	.....	4,534 5 5	6,351 2 4	4,785 7 3	7,791 2 11	.....	27,113 5 4
e. Deputation and Special Allowances ...	1,570 5 2	.....	163 13 1	938 10 0	.....	534 0 8	.....	3,500 12 11
f. Exchange Compensa- tion Allowance—	.....	.....	.....	1 0 0	.....	.....	.....	1 0 0
1. Conservators ...	.....	.....	.....	.....	.....	.....	.....	.....
2. Deputy Conserva- tors ...	.....	.....	.....	.....	.....	.....	.....	.....
3. Assistant Conserva- tors ...	.....	.....	.....	.....	.....	.....	.....	.....
4. Extra Assistant Conservators ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, B-I ...	23,521 8 7	1,589 0 5	22,612 11 9	47,372 0 3	24,065 8 11	32,214 14 0	.....	1,51,374 11 11
II.—Travelling Allow- ances—								
a. Conservators ...	2,481 3 10	.....	1,762 13 4	2,633 2 11	1,799 3 8	2,655 14 0	.....	11,232 5 9
b. Superior Officers ...	.....	.....	.....	.....	.....	.....	.....	.....
c. Subordinate Forest and Depot Establishments ...	.....	.....	820 12 4	2,413 3 9	876 10 9	1,065 12 10	.....	5,396 7 9
d. Office Establishments ...	702 14 4	.....	581 5 8	1,135 5 4	588 9 2	615 13 13	.....	3,702 0 5
e. Forest School (D.D.) ...	28 5 4	.....	.....	.....	.....	64 4 3	.....	92 9 7
f. Plague allowances ...	.....	.....	.....	.....	.....	.....	.....	.....
g. Grain compensation ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, B-II ...	3,273 7 6	.....	3,161 15 4	6,211 12 0	3,302 7 7	4,321 13 1	.....	20,333 7 6
III.—Contingencies—								
a. Stationery ...	18 14 6	.....	91 15 0	197 6 3	99 1 6	165 1 0	.....	513 6 9
b. Carriage of tents and records ...	336 10 10	.....	702 0 6	562 9 11	104 6 0	245 3 6	.....	1,540 14 9
c. Rents, Rates and Taxes ...	1,503 2 0	.....	721 10 0	320 9 0	551 8 0	600 0 0	.....	3,606 13 6
d. Pay of Police guards ...	3 6 9 0	.....	541 10 0	863 5 6	440 9 6	407 2 0	.....	2,639 4 0
e. Official postage ...	393 13 6	.....	600 13 0	393 9 7	357 10 3	327 1 0	.....	2,071 15 4
f. Sundries ...	.....	.....	.....	.....	.....	.....	.....	.....
Payments to officers of other provinces ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, B-III ...	2,578 2 4	.....	2,168 0 6	2,337 8 3	1,618 3 3	1,744 8 0	.....	10,461 8 4
TOTAL, B.—ESTABLISH- MENTS ...	29,372 2 5	1,589 0 5	27,935 11 7	55,021 4 6	29,071 3 9	38,231 3 1	.....	1,82,169 9 9
GRAND TOTAL OF EXPENDITURE...	29,437 6 5	1,589 0 5	33,508 14 1	65,301 9 6	30,268 9 5	50,938 4 1	.....	2,17,103 0 11

FORM No. 25.—Annual Account Current for the forest year 1916-1917.

NORTHERN CIRCLE.	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To Opening Cash Balance ...	.....	807 2 2	By I. Refunds and Drawbacks—	.....
„ VIII.—Assessed Taxes—Income Tax—Part I salaries and pensions. ....	.....	3,790 10 3	Refunds—Forest ... ..	.....	6,248 15 7
„ IX—Forests : ... ..	.....	20,40,421 6 11	„ II. Forest ... ..	.....	5,83,352 7 3
„ Bombay Uncovenanted Service Family Pension Fund—Widows' Branch ..	.....	220 6 0	„ General Provident Fund ...	.....	4,791 9 11
„ Civil Deposits—Forest deposits. ....	.....	1,74,000 9 3	„ Civil Deposits—Forest deposits ... ..	.....	1,83,402 14 11
„ Advances Recoverable—			„ Advances Recoverable—		
Forest advances	3,63,178 15 9	3,78,964 7 9	Forest advances	3,81,448 11 1	3,87,812 11 1
Objection book advances ...	4,310 0 0		Advances to non-gazetted officers for purchase of conveyance, etc. ...	317 0 0	
Advances to non-gazetted officers for the purchase of conveyance, etc. ...	203 8 0		Tentage advances to gazetted officers	400 0 0	
Tentage advances to gazetted officers	72 0 0		Motor car advances	1,000 0 0	
Motor car advances	210 0 0		Objection book advances ...	4,654 0 0	
„ Cheques and Bills—Departmental Cheques—Forests. ....	.....	6,81,028 2 3	„ Cheques and Bills—Departmental Cheques—cancelled. ....	.....	7,059 10 10
„ Cash Recoveries—Clothing ... ..	.....	1,99 12 8	„ Cash Recoveries—clothing ... ..	.....	1,99 12 8
„ Forest Remittances—			„ Forest Remittances—		
Remittances to treasuries.	2,565 4 6	6,650 8 8	Remittances to treasuries.	20,94,756 2 9	20,97,539 7 7
Inter-Departmental transfers	1,701 0 1		Inter-Departmental transfers	399 0 9	
Inter-Divisional transfers	2,384 4 1		Inter-Divisional transfers	2,384 4 1	
„ P. W. D. Remittances—III other remittances and rents of public buildings ... ..	.....	1,070 7 11	„ P. W. D. Remittances—III other remittances—Miscellaneous ... ..	.....	467 8 11
„ Account between Bombay and Post Office—Subscription to Postal Insurance Fund ... ..	.....	630 6 4	„ 32. Miscellaneous—Refunds—Refund of lapsed deposits—Forest ... ..	.....	3 12 0
„ Provincial Advances and Loan Account—Advances to cultivators under Land Improvement and Agriculturists' Loans Act—Tagai Advances ... ..	.....	712 3 9	„ Provincial Advance and Lone account—Advances to cultivators under Land Improvement Agriculturists' Loans Act—Tagai Advances ... ..	.....	49 0 0
„ XII.—Interest—Interest on advances to cultivators under Land Improvement and Agriculturists' Loans Act ... ..	.....	93 15 11	„ Account between Bombay and Railways—R. B. & C. I. Railway—IV items adjustable by Railways—Miscellaneous ... ..	.....	27,627 12 0
„ XX.—Medical—Miscellaneous—Sale-proceeds of quinine ... ..	.....	324 14 0	„ Account between Bombay and Military—Poona Division—IV items adjustable by Military—Miscellaneous ... ..	.....	6,093 0 0
„ Account between India and Bombay—III items adjustable by India—Subscription to the Indian War Loan under the Government Scheme—			„ Closing Balance ... ..	.....	667 7 1
War Bonds, 1920 ... ..	.....	570 0 0			
Do. 1922 ... ..	.....	420 0 0			
War Loan, 1922-47 ... ..	.....	25 0 0			
„ Suspenses Head—War Loan subscriptions under the Presidency Banks Scheme—					
War Bonds, 1920 ... ..	.....	70 0 0			
Do. 1922 ... ..	.....	15 0 0			
War Loan, 1922-47 ... ..	.....	210 0 0			
„ General Provident Fund ... ..	.....	19,491 0 0			
Total, Northern Circle ... ..	.....	33,06,216 1 10	Total, Northern Circle ... ..	.....	33,06,216 1 10

FORM No. 25.—*Annual Account Current for the forest year 1916-1917*—continued.

CENTRAL CIRCLE.		Rs. a. p.	Rs. a. p.			Rs. a. p.	Rs. a. p.
To Opening Balance	...	...	590 2 9				
" VIII. Income Tax—				By I. Refunds and Drawbacks—			
Recoveries from salaries and pensions paid by Government	...	...	4,062 10 9	Forests	...	1,025 4 6	
" IX. Forest (as per Annual Summary Form No. 67)	...	...	9,49,868 4 9	Income tax	...	3 10 0	
" XII. Interest—Miscellaneous on other accounts	...	...	438 11 0	" II. Forest (as per Annual Summary Form No. 67)	...	5,22,458 10 4	
" XVII B.—Jails—				" 19B.—Jails Miscellaneous services, District Jails other miscellaneous services and supplies...	...	3 11 0	
Jail manufactures, sale-proceeds of Jail manufactures	...	...	3 8 0	" Cash Recoveries, Clothing Recoveries	...	1,716 12 6	
" XX. Medical Miscellaneous—sale-proceeds of quinine	...	...	230 0 0	" 32. Miscellaneous—			
" Deposits of Service Funds, Bombay U. S. F. Pension Fund	...	...	235 10 9	Refund of lapsed deposits	...	190 0 0	
" Forest Officers' Provident Fund	...	...	279 0 0	Forest Advances	...	3,80,877 13 2	
" General Provident Fund	...	...	18,201 3 0	Remittances to treasuries, Forest. Remittances	...	9,84,490 7 1	
" Advances repayable, Civil—				Inter-Departmental Transfers	...	3,513 15 6	9,88,355 6 7
Advances, Tenage Advances to Gazetted Officers	...	13 14 2		Inter-Divisional Transfers	...	351 0 0	
Objection Book Advance	...	1,580 10 8		Forest Deposits	...	55,705 11 4	
Advances to Non-Gazetted Officers for the purchase of ponies, cycles, etc.	...	173 8 0	2,618 0 10	" Advances Repayable—			
Advances to Gazetted Officers for the purchase of motor cars, etc.	...	850 0 0		Objection Book Advances	...	1,707 0 0	
Forest Advances	...	...	8,82,598 14 9	Advances to Gazetted Officers for the purchase of motor car	...	2,500 0 0	4,407 0 0
Civil Deposits, Forest Deposits	...	...	62,536 9 0	Advances to Non-Gazetted Officers for the purchase of ponies, cycles, etc.	...	200 0 0	
Cash Recoveries, Clothing Recoveries	...	...	1,716 12 6	General Provident Fund	...	...	4,272 2 11
Cheques and Bill, Departmental Cheques—Forests	...	...	5,44,057 10 9	Suspense Account	...	...	194 0 0
Remittances to Treasuries	...	...	686 10 3	" Account between Civil and Military, Account between Bombay and Military, Supply Circle—			
Inter-Departmental Transfers	...	...	12,447 10 1	IV.—Items adjustable by Military Miscellaneous	...	...	461 0 0
Inter-Divisional Transfers	...	...	276 0 0	" Account between Bombay and Military, Poona Division—			
" P. W. D. Remittances III—				IV. Items adjustable by Military Miscellaneous	...	...	6,386 9 0
Other Remittances, Bent	...	2,294 7 6	2,311 2 2	" Cheques and Bills—(Cancelled) Forests Cheques	...	...	691 0 2
Miscellaneous	...	16 10 8		" Account between Central Provinces and Bombay—			
" Account between Bombay and Post Office, Postal deductions	...	732 8 8	842 8 8	III—Items adjustable by Central Provinces Miscellaneous	...	...	18,012 14 0
Miscellaneous receipts on account of Indian War Loan Bonds of 1920	...	110 0 0		Closing Balance	...	...	738 8 6
Suspense Account	...	...	194 0 0				
Do. Bank Scheme—							
War Bonds of 1922	...	...	265 0 0				
Do. of 1920	...	...	85 0 0				
Account between India and Bombay War Loan under Government Scheme, 1929-47	...	...	115 0 0				
Do. —War Bonds of 1920	...	...	630 0 0				
Do. do. of 1922	...	...	30 0 0				
Total, Central Circle	...	...	19,85,500 2 0	Total, Central Circle	...	...	19,85,500 2 0

FORM No. 25.—Annual Account Current for the forest year 1916-1917—continued.

	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
SOUTHERN CIRCLE.					
To Opening Balance ... ..	.....	3,021 4 8	By I. Refunds and Drawbacks— Refunds—Divided Heads, Forests ... ..	.....	4,806 15 3
„ VIII. Assessed Taxes—Income Tax— Deductions by Government from salaries and pensions. ... ..	.....	5,123 2 0	„ II. Forest (as per Annual Sum- mary Form No. 67) ... ..	.....	12,45,405 11 1
„ IX. Forest (as per Annual Summary Form No. 67)... ..	.....	28,57,730 15 10	Savings Bank Deposits— General Provident Fund ... ..	.....	8,081 10 3
„ XII. Interest—Miscellaneous on other accounts ... ..	.....	3,304 6 11	„ Civil Deposits—Forest Deposits ..	1,20,747 4 4	1,20,751 8 4
„ Bombay Uncovenanted Service Family Pension Fund—Widows Branch	48 6 2	80 9 8	„ Civil Deposits—Personal Depo- sits—Other Departments— Indian Imperial War Relief Fund	4 4 0	
Life Assurance Branch	37 3 6		„ Advances Recoverable— Forest Advances	7,04,550 9 7	7,07,943 1 7
„ Civil Deposits—Forest Deposits ...	1,26,914 5 11	1,26,856 0 11	Objection Book Advances	2,307 8 0	
„ Civil Deposits—Personal Deposits— Other Departments	-58 5 0		„ Advances to Non-Gazetted Officers for the purchase of con- veyances	1,090 0 0	1,377 2 2
„ Advances Recoverable—Forest Ad- vances	6,83,980 5 2	6,99,459 14 0	Motor Car Advances ... ..	.....
Tentage Advances to Gazetted Officers ... ..	.....		„ Cash Recoveries ... ..	.....	35,908 6 11
Objection Book Advances... ..	2,368 10 8	27,901 12 8	„ Cheques and Bills—Cancelled Departmental Cheques (Forests) ... ..	.....	19,31,296 2 7
Advances to Non-Gazetted Officers for the purchase of conveyances.	877 8 0		„ Forest Remittances—Remittances to Treasuries	19,31,296 2 7	
Motor Car Advances	3,233 6 2	23,408 2 8	Inter-Divisional Transfers	-260 0 0	19,31,600 10 7
„ Cash Recoveries ... ..	.....		Inter-Departmental Transfers.	44 8 0	
„ Cheques and Bills—Departmental Cheques—Forests ... ..	.....	12,99,377 10 11	„ P. W. Remittances—III. Other Remittances—Miscellane- ous ... ..	.....	10,530 3 5
„ Forest Remittances— Remittances to Treasuries	2,816 10 0	1,738 0 0	„ Account between Bombay and Railways—M. & S. M. Railway. IV. Items adjustable by Rail- ways—Miscellaneous ... ..	.....	4,60,939 14 10
Inter-Divisional Transfers	1,677 0 0		„ 32. Miscellaneous—Miscellaneous Refunds—Lapsed Deposits ... ..	.....	596 9 6
Inter-Departmental Transfers ...	23,408 2 8	26,251 4 2	„ Account between Bombay and Military Supply Circle—IV. Items adjustable by Military Miscellaneous ... ..	.....	11,846 14 0
„ Account between Bombay and Post Office—Postal Fund Deduc- tions ... ..	.....		IV. Items adjustable by Mili- tary—Poona Division— Miscellaneous ... ..	.....	80 0 0
„ P. W. Remittances—III. Other Remittances—Rents of Public Buildings	1,439 1 6	268 5 8	„ 32. Miscellaneous Temporary re- coverable Loans written off ... ..	.....	127 8 0
Rents of Public Buildings, Miscellaneous	298 14 6		„ Account between Bombay and Telegraphs ... ..	.....	3 0 0
General Provident Fund ... ..	.....	114 12 0	„ Account between Bombay and Military Works—IV. Items adjustable by Military Works— Miscellaneous ... ..	.....	84 0 0
„ Account between Bombay and Mili- tary Supply Circle— IV. Items adjustable by Military— Miscellaneous ... ..	.....		„ 32. Miscellaneous—Miscellaneous and Unforeseen Charges— Other unforeseen Charges, Provincial ... ..	.....	3,143 8 11
XXV. Miscellaneous—Sale-proceeds of stores and materials, Provincial.	.....	84 0 0	„ 19B Jails—Central Jails—Jail Manufacture of Raw Mate- rials ... ..	.....	1,001 12 10
XVIB. Law and Justice—Jail manu- factures, sale-proceeds of Jail manufactures ... ..	.....	100 0 0	„ 19B Jails—District Jails—Jail Manufacture of Raw Mate- rials ... ..	.....	325 2 0
Suspense Account ... ..	.....	110 0 0	„ Suspense Account ... ..	.....	84 0 0
Account between India and Bombay, III—Items adjustable by India, subscription to War Loan under Government Scheme ... ..	.....	150 0 0	„ Interest on other obligations— Interest on Miscellaneous Account, Refunds ... ..	.....	26 15 7
Account between Bombay and Post Office, Miscellaneous War Bonds, 1920 ... ..	.....	.....	„ Closing Balance ... ..	.....	1,204 7 8
Account between Bombay and Post Office, Miscellaneous War Loan, 1929-47 ... ..	.....	.....	
Total, Southern Circle ... ..	.....	45,44,726 2 11	Total, Southern Circle ... ..	.....	45,44,726 2 11

FORM No. 25.—Annual Account Current for the forest year 1916-1917—concluded.

SIND CIRCLE.	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To Opening Balance ... ..	.....	265 8 6	By 1. Refunds and Drawbacks— Refunds—		
„ VIII. Assessed Taxes—Income Tax—			Divided Heads (Forests) ...	.....	221 12 8
Deductions by Government from Salaries and Pensions...	.....	2,479 12 8	„ 11. Forest (as per Annual Sum- mary Form No. 67) ...	.....	2,17,103 0 11
„ IX. Forest (as per Annual Summary Form No. 67) ... ..	.....	5,34,269 15 0	„ Civil Deposits—Forest Deposits ...	.....	11,691 6 0
„ Civil Deposits—			„ 32. Miscellaneous—Miscellaneous Refunds—		
Forest Deposits ... ..	.....	19,657 15 6	Refund of lapsed Deposits ..	.....	230 2 0
„ Advances Recoverable—			„ 32. Miscellaneous—Miscellaneous and Unforeseen Charges— (Provincial) Other unfore- seen charges ...	.....	29 1 5
Forest Advances	1,10,547 4 7	1,10,732 4 7	„ Advances Recoverable—		
Objection Book Advances ...	170 0 0		Forest Advances	1,12,354 14 9	1,12,574 14 9
Advances to Non-Gazetted Officers for the purchase of conveyances, etc.	15 0 0		Objection Book Advances ..	220 0 0	
„ Cash Recoveries—Clothing ... ..	.....	133 15 0	„ Cash Recoveries—Clothing ...	.....	133 15 0
„ Cheques and Bills—Departmental Cheques—Forests ... ..	.....	2,16,092 0 3	„ Cheques and Bills (cancelled) Departmental Cheques, Forests ...	.....	275 0 0
„ Forest Remittances—			„ Forest Remittances—		
Remittances to Treasuries ...	59 1 1	143 11 1	Remittances to Treasuries ...	5,47,519 11 6	5,47,519 11 6
Inter-Departmental Transfers.	84 10 0		Inter-Departmental Transfers.	.....
„ Account between Bombay and Post Office—			Savings Bank Deposits—		
Postal Fund Deductions ... ..	.....	365 4 0	General Provident Fund ...	.....	60 0 0
„ P. W. Remittances—			„ P. W. D. Remittances—		
III. Other Remittances—			III. Other Remittances—		
Rents of Public Buildings ...	.....	351 0 0	Items adjustable by P. W. D.—		
„ Objection Book Advances—Suspense— —Suspense Account ... ..	.....	82 7 4	Miscellaneous ... ..	.....	5,163 6 8
„ XX. Medical—Miscellaneous—Sale proceeds of quinine ... ..	.....	127 15 0	„ Refunds and Drawbacks—Re- funds—Divided heads—Assessed Taxes—Income Tax ... ..	.....	8 10 4
„ General Provident Fund ... ..	.....	10,523 4 0	„ Objection Book Advances—Sus- pense—Suspense Accounts ...	.....	373 5 11
„ Account between India and Bombay—			Closing Balance ... ..	.....	219 9 9
IV. Items adjustable by India—					
Subscriptions to the War Loan under Government Scheme—					
War Bonds—1920 ... ..	.....	200 0 0			
War Bonds—1922 ... ..	.....	100 0 0			
„ Suspense Head—					
War Loan Subscription under the Presidency Bank Scheme—War Bonds—1920 ... ..	.....	120 0 0			
Total, Sind Circle ... ..	.....	8,95,654 0 11	Total, Sind Circle ... ..	.....	8,95,654 0 11
GRAND TOTAL ... ..	.....	1,07,32,096 7 8		.....	1,07,32,096 7 8

FORM No. 26.—Revenue received and outstandings on account of revenue during 1916-1917.

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.
1	2	3	4	5	6	7	8
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
NORTHERN CIRCLE.							
Direction ...	Various sources ...	.....	432 0 0	432 6 0	432 6 0	.....
Panch Mahals.	Timber and other forest produce.	.....	1,49,726 11 9	1,49,726 11 9	1,49,726 11 9	.....
Surat ...	Do. ...	1,273 12 0	1,99,193 15 11	2,00,467 11 11	1,99,187 11 11	1,280 0 0	
North Thána.	Do. ...	.....	8,48,100 15 7	8,48,100 15 7	7,99,828 15 7	48,272 0 0	
West Thána ...	Do. ...	.....	3,46,392 9 9	3,46,392 9 9	3,46,392 9 9	.....
East Thána ...	Do. ...	.....	2,98,801 1 9	2,98,801 1 9	2,84,555 9 9	14,245 8 0	
South Násik ...	Do. ...	130 0 0	1,57,745 15 8	1,57,875 15 8	1,57,840 15 8	35 0 0	
North Násik ...	Do. ...	.....	63,420 1 0	63,420 1 0	63,420 1 0	.....
Násik Sub. Division.	Do. ...	.....	2,401 4 0	2,401 4 0	2,401 4 0	.....
Direction (Famine Fodder).	Famine fodder ...	.....	641 14 0	641 14 0	641 14 0	.....
	Total, Northern Circle	1,403 12 0	20,66,856 15 5	20,68,260 11 5	20,04,428 3 5	63,832 8 0	
CENTRAL CIRCLE.							
Direction ...	Various sources ...	... ..	500 8 0	500 8 0	500 8 0	.....
East Khán-desh.	Timber and other forest produce.	.....	1,48,720 14 4	1,48,720 14 4	1,48,720 14 4	.....
West Khán-desh.	Do. ...	.....	2,10,238 12 2	2,10,238 12 2	2,07,185 12 2	3,053 0 0	
North Khán-desh.	Do. ...	290 0 0	1,23,857 12 16	1,24,147 12 10	1,23,543 4 10	604 8 0	
Poona ...	Do. ...	.....	1,71,172 6 4	1,71,172 6 4	1,63,670 6 4	7,502 0 0	
Sátara ...	Do. ...	52 0 0	74,215 6 8	74,267 6 8	73,165 13 8	1,101 9 0	
Kolába ...	Do. ...	656 0 0	1,66,798 0 8	1,67,454 0 8	1,66,798 0 8	656 0 0	
Working Plans.	Do. ...	.....	13 5 5	13 5 5	13 5 5	.....
	Total, Central Circle ..	998 0 0	8,95,517 2 5	8,96,515 2 5	8,83,568 1 5	12,917 1 0	
SOUTHERN CIRCLE.							
Kánara, North-ern.	Timber and other forest produce.	2,72,273 13 0	10,64,068 7 8	13,36,282 4 8	(a) 612 0 0 9,45,106 12 2	3,89,678 0 3	(a) Amount adjusted in the accounts for March (III Supplementary) 1916, and not accounted for by the Divisional Forest Officer in the last year's return.
Kánara, East-ern.	Do. ...	1,18,926 5 6	3,81,002 9 7	4,99,928 15 1	(b) 855 8 3 3,85,749 11 11	1,14,086 3 2	
Kánara, Central.	Do. ...	25,661 7 10	3,24,926 1 9	3,50,587 9 7	(b) 93 0 0 3,34,018 0 6	16,569 9 1	
Kánara, South-ern.	Do. ...	7,261 10 7	55,925 4 2	63,186 14 9	60,933 5 3 (b) 352 10 0	1,900 15 6	
Kánara, West-ern.	Do. ...	23,414 3 0	2,53,202 0 9	2,76,646 3 9	2,50,591 6 4	26,054 13 5	
Belgaum ...	Do. ...	44,450 6 0	3,12,554 13 0	3,57,005 3 0	3,11,699 3 4	45,305 15 8	
Dhárwár-Bijá-pur.	Do. ...	377 11 9	66,810 9 1	67,188 4 10	66,730 0 2 (b) 146 6 0	311 14 8	
Ratnágiri ...	Do. ...	.....	1,248 4 7	1,248 4 7	1,248 4 7	.....
Direction ...	Various sources ...	.....	1,645 7 7	1,645 7 7	1,645 7 7	.....
Working Plans.	Do. ...	.....	8 12 0	8 12 0	8 12 0	.....
	Total, Southern Circle.	4,92,395 9 8	24,61,332 6 2	29,53,727 15 10	(a) 612 0 0 23,57,730 15 10 (b) 1,477 8 3	5,93,907 7 9	(b) Revenue written off during the year:— Items. Amt. False balance.. 4 497.53 Rea. balance. 7 8-0 2-0 Total.. 11 1,477-9-3
SIND CIRCLE.							
Direction ...	Various sources ...	.....	.....	.....	.....	.....
Sukkur ...	Timber and other forest produce.	24,513 12 0	1,39,383 5 10	1,64,297 1 10	1,64,181 9 10	115 8 0	
Larkána ...	Do. ...	6,097 12 0	57,584 3 5	63,681 15 5	63,681 15 5	.....
Hyderabad ...	Do. ...	20,870 10 8	1,40,819 11 11	1,61,690 6 7	1,56,275 6 7	5,415 0 0	
Farruck ...	Do. ...	25,628 6 1	1,09,388 3 6	1,35,016 9 7	1,15,646 11 7	19,369 14 0	
Bar and Párkar.	Do. ...	.....	5,696 4 10	5,696 4 10	5,696 4 10	.....
	Total, Sind Circle	77,510 8 9	4,52,871 18 6	5,30,382 6 8	5,05,482 0 8	24,900 0 0	
	GRAND TOTAL	5,72,307 14 5	58,76,578 5 6	64,48,886 8 11	57,53,328 13 2	6,95,557 6 9	

APPENDICES.

FORM No. 27.—Outstandings and Liabilities on account of Contractors and Disbursers for the forest year 1916-1917

Division.	DEPARTMENT DEBTOR.			DEPARTMENT CREDITOR.			BALANCE DUE		Re
	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	
NORTHERN CIRCLE.		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
<i>Contractors.</i>									
North Thána	229 0 0	229 0 0	.....	229 0 0	229 0 0	.....	...
Surat	8,757 8 0	8,757 8 0	13,757 8 0	17,000 0 0	30,767 8 0	22,000 0 0	...	
Total, Contractors	8,986 8 0	8,986 8 0	13,757 8 0	17,229 0 0	30,986 8 0	22,000 0 0	...	
<i>Disbursers.</i>									
Direction	1,423 3 9	1,423 3 9	.....	1,423 3 9	1,423 3 9	.....	...
North Thána	61,156 8 11	61,156 8 11	891 3 2	62,879 0 10	63,770 4 0	2,613 11 1	...	
West Thána	50,035 14 8	50,035 14 8	1,389 12 9	50,355 4 4	51,745 1 1	1,709 2 5	...	
East Thána	51,169 3 7	51,169 3 7	918 12 4	52,821 10 11	53,740 7 3	2,571 3 8	...	
North Násik	24,705 13 2	24,705 13 2	834 0 4	24,272 15 10	25,107 0 2	401 3 0	...	
South Násik	35,671 4 4	35,671 4 4	1,416 1 5	35,257 4 3	36,673 5 8	1,002 1 4	...	
Panch Maháls	33,022 1 4	33,022 1 4	587 6 1	33,225 6 1	33,812 12 2	790 10 10	...	
Surat	95,315 11 2	95,315 11 2	4,580 15 9	95,939 15 5	1,00,520 15 2	5,205 4 0	...	
Sub-Násik	7,692 4 4	7,692 4 4	.....	8,044 13 8	8,044 13 8	352 9 4	...	
Total, Disbursers	3,60,192 1 3	3,60,192 1 3	10,618 3 10	3,61,219 11 1	3,74,837 14 11	14,645 13 8	...	
TOTAL, N. C.	3,69,178 9 3	3,69,178 9 3	24,375 11 10	3,81,448 11 1	4,05,824 6 11	36,645 13 8	...	
CENTRAL CIRCLE.									
<i>Contractors.</i>									
Direction	2,500 0 0	2,500 0 0	.....	.....	.....	.....	2,500 0 0	
Total, Contractors	2,500 0 0	2,500 0 0	.....	.....	.....	.....	2,500 0 0	
<i>Disbursers.</i>									
Direction	1 2 0	.....	1 2 0	1 2 0	...	
East Khándesh	46,508 14 0	46,508 14 0	413 14 9	46,702 10 6	47,116 9 3	607 11 3	...	
West Khándesh	72,886 11 1	72,886 11 1	3,009 1 11	75,005 15 4	78,075 1 3	5,188 6 2	...	
North Khándesh	73,808 4 1	73,808 4 1	3,177 8 0	72,413 2 2	75,590 10 2	1,782 6 1	...	
Poona	68,596 2 7	68,596 2 7	1,514 10 11	68,313 12 2	69,828 7 1	1,232 4 6	...	
Kolába	65,857 1 4	65,857 1 4	885 0 5	65,816 0 0	66,701 0 5	843 15 1	...	
Sátára	51,041 13 8	51,041 13 8	1,267 7 1	51,166 5 0	52,433 12 1	1,391 14 5	...	
Working Plans	900 0 0	900 0 0	.....	900 0 0	900 0 0	.....	...
West Khándesh Famine Fodder.	...	500 0 0	500 0 0	.....	500 0 0	500 0 0	.....	...
Total, Disbursers	3,80,098 14 9	3,80,098 14 9	10,268 13 1	3,80,877 13 2	3,91,146 10 3	11,047 11 6	...	
TOTAL, C. C.	3,82,598 14 9	3,82,598 14 9	10,268 13 1	3,80,877 13 2	3,91,146 10 3	8,547 11 6	2,500 0 0	

FORM No. 27.—*Outstandings and Liabilities on account of Contractors and Disbursers for the forest year 1916-1917—concl'd.*

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
SOUTHERN CIRCLE.	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
<i>Contractors.</i>									
Hārwar-Bijāpur	281 7 0	281 7 0	281 7 1	.....	281 7 0	.....	...
Anara, N. D.	39,294 10 6	39,294 10 6	28,031 7 2	29,248 0 0	57,279 7 2	17,984 12 8	...	
elgaum	96,833 15 5	96,833 15 5	65,576 0 9	1,16,145 0 0	1,81,721 0 9	84,887 1 4	...	
Anara, W. D.	78,615 12 3	78,615 12 3	45,964 0 0	79,354 4 3	1,25,318 4 3	46,702 8 0	...	
Anara, S. D.	3,080 8 9	3,080 8 9	4,700 0 0	2,319 0 0	7,019 0 0	3,938 7 3	...	
Anara, E. D.	40,844 11 2	40,844 11 2	13,212 6 9	47,336 0 0	60,548 6 9	19,703 11 7	...	
Anara, C. D.	25,418 3 6	25,418 3 6	19,462 10 9	16,881 11 7	36,344 6 4	10,926 2 10	...	
Total, Contractors	2,84,369 4 7	2,84,369 4 7	1,77,228 0 5	2,91,283 15 10	4,68,512 0 3	1,84,142 11 8	...	
<i>Disbursers.</i>									
Hārwar-Bijāpur	26,322 6 8	26,322 6 8	1,452 15 4	25,494 5 5	26,947 4 9	624 14 1	...	
elgaum	1,03,205 9 5	1,03,205 9 5	10,407 13 1	1,07,270 0 0	1,17,677 13 1	14,472 3 8	...	
Anara, N. D.	90,010 9 2	90,010 9 2	4,255 12 7	91,640 8 8	95,902 5 3	5,891 12 1	...	
Anara, W. D.	46,141 15 1	46,141 15 1	3,883 9 7	50,915 11 9	54,799 5 4	8,657 6 3	...	
Anara, S. D.	35,371 12 0	35,371 12 0	1,327 12 6	34,732 0 10	36,059 13 4	688 1 4	...	
Anara, E. D.	63,340 2 11	63,340 2 11	2,827 4 10	65,505 4 0	68,332 8 10	4,92 5 11	...	
Anara, C. D.	27,893 14 3	27,893 14 3	876 7 1	30,559 8 0	31,235 15 1	3,312 0 10	...	
atnāgiri	3,774 11 1	3,774 11 1	8 0 0	3,793 3 1	3,801 3 1	26 8 0	...	
Working Plans	2,650 0 0	2,650 0 0	.....	2,650 0 0	2,650 0 0	.....	...
Direction	900 0 0	900 0 0	...	900 0 0	900 0 0	.....	...
Total, Disbursers	3,99,611 0 7	3,99,611 0 7	25,039 11 0	4,13,266 9 9	4,38,306 4 9	38,695 4 2	...	
TOTAL, S. C.	6,83,980 5 2	6,83,980 5 2	2,02,267 11 5	7,04,550 9 7	9,06,818 5 0	2,22,837 15 10	...	
SIND CIRCLE.									
<i>Contractors.</i>									
Direction	100 0 0	100 0 0	.....	100 0 0	100 0 0	.....	...
arkāna	20 0 0	20 0 0	.....	20 0 0	20 0 0	...	...
rruck	130 0 0	130 0 0	.....	130 0 0	130 0 0	.....	...
yderabad	120 0 0	120 0 0	.....	120 0 0	120 0 0	.....	...
akkur	30 0 0	30 0 0	.....	30 0 0	30 0 0	.....	...
Total, Contractors	400 0 0	400 0 0	.....	400 0 0	400 0 0	.....	...
<i>Disbursers.</i>									
arkāna	19,402 2 1	19,402 2 1	139 12 9	19,771 2 7	19,910 15 4	508 13 3	...	
rruck	28,421 15 3	28,421 15 3	1,031 3 4	28,544 12 0	29,575 15 4	1,154 0 3	...	
yderabad	18,459 10 4	18,459 10 4	119 0 6	18,830 0 0	18,949 0 6	489 6 2	...	
akkur	43,863 8 11	43,863 8 11	486 11 4	44,809 0 2	45,295 11 6	1,432 2 7	...	
Total, Disbursers	1,10,147 4 7	1,10,147 4 7	1,776 11 11	1,11,954 14 9	1,13,731 10 8	3,584 6 1	...	
Total, Sind Circle	1,10,547 4 7	1,10,547 4 7	1,776 11 11	1,12,354 14 9	1,14,131 10 8	3,584 6 1	...	
GRAND TOTAL	15,46,305 1 9	15,46,305 1 9	2,38,089 0 3	15,79,232 0 7	18,17,921 0 10	2,71,015 15 1	...	