

ADMINISTRATION REPORT
OF THE
FOREST CIRCLES

IN THE
BOMBAY PRESIDENCY

INCLUDING

SIND

FOR THE YEAR 1912-1913.

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ADMINISTRATION REPORT OF THE FOREST CIRCLES IN THE BOMBAY PRESIDENCY, INCLUDING SIND, FOR THE YEAR 1912-1913.

CONSERVATORS IN CHARGE OF CIRCLES DURING THE YEAR.

Northern Circle.

W. F. D. Fisher, Esquire, 1st July 1912 to 27th January 1913.

G. E. Majoribanks, Esquire, 28th January 1913 to 13th February 1913.

G. R. Duxbury, Esquire, 14th February 1913 to 30th June 1913.

Central Circle.

The Honourable Mr. G. P. Millett, 1st July 1912 to 18th April 1913.

O. H. L. Napier, Esquire, 19th April 1913 to 30th June 1913.

Southern Circle.

T. R. D. Bell, Esquire, 1st July 1912 to 19th October 1912 and 21st April 1913 to 30th June 1913.

O. H. L. Napier, Esquire, 23rd October 1912 to 16th April 1913.

W. E. Copleston, Esquire, 20th October 1912 to 22nd October 1912 and 17th April 1913 to 20th April 1913.

Deputy Conservator of Forests in charge Sind Circle.

E. G. Oliver, Esquire.

CHAPTER I.

CONSTITUTION OF STATE FORESTS.

(1) Alteration in Area.

Northern Circle.

Changes in forest areas during the year are exhibited in Form No. 7 appended, the net result being a decrease of 660 acres.

Form 7.

The following are the details:—

Reserved Forest.

Panch Maháls.—One acre added (rectification). 21 acres excluded for a light railway, and five acres for a Public Works Department road in Halol Táluka.

Central Thána.—One acre added for a rubber plantation.

Kolába.—Thirty-six acres disforested, 28 acres of old graveyard land in Panvel, the rest for the Tata Hydro-Electric Scheme and land near village sites.

Ahmedabad.—952 acres disforested in the Modasa Petha for cultivation.

Protected Forest.

North Thána.—Six acres excluded for Government building sites and cultivation.

Central Thána.—Four hundred and nineteen acres added being woodland plots forfeited for arrears of assessment. 12 acres excluded for the G. I. P. Railway.

South Thána.—Two acres excluded for Police lines.

Kolába.—Eleven acres added; 58 acres excluded partly for the Hydro-Electric Works, partly for convenience of village gaothans.

Leased Forest.

No change.

Central Circle.

There was a net decrease in the forest area of 13 square miles 21 acres, details being shown in the table below. The decrease was mainly represented by lands at the foot of the Satmala hills in the East Khándesh Division, disforested in the interests of cultivation in accordance with Government Resolution No. 9360, dated 15th October 1910. Other alterations consisted of minor afforestations and disforestments throughout the Circle, details being shown in Form 7.

The reserved forests in the Poona District, which, under the orders of Government, are transferred to the management of the Revenue Department, were not taken over during the year by the Collector, as the necessary arrangements for dealing with them had not been made.

Class of Forest.	Area on 1st July 1912.		Added during the year.		Excluded during the year.		Area on 30th June 1913.	
	Sq. m.	acres.	Sq. m.	acres.	Sq. m.	acres.	Sq. m.	acres.
Reserved ...	6,193	124	1	303	14	324	6,180	103
Protected ...	99	236	.....	.....	.....	.....	99	236
Leased ...	0	232	.....	.....	.....	.....	0	232
Total ...	6,292	592	1	303	14	324	6,273	571

Southern Circle.

If transfers between divisions are excluded the year has resulted in an increase in reserved forest area as shown below :—

Class of Forest.	Area on 1st July 1912.		Added during the year.		Excluded during the year.		Area on 30th June 1913.	
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Reserved ...	2,852,145	1,508	1,148	2,852,505	1,148	2	2,852,505	1,148
Protected ...	92,205	.....	2	92,203	2	.....	92,203	.....
Total ...	2,944,350	1,508	1,150	2,944,708	1,150	.....	2,944,708	.....

The additions to reserved forests occur mainly in the Kanara Southern and Dhárwár Divisions and are mostly Government assessed waste lands relinquished by occupants during the last ten years or so. All these and a few more in other divisions, wedged in between existing patches of jungle, were afforested.

The chief exclusions from reserve are :—(1) in Belgaum 320 acres 17 gunthas were handed over to Gokak Mills and 227 acres 36 gunthas in Halsi, táluka Khanapur, were disforested as fit for grazing and dry crop and (2) in Dhárwár, 525 acres and 34 gunthas of pasture land in Karajgi and Ranebenuur tálukas were disforested to meet agricultural demands.

The other exclusions are minor, in favour of cultivation or house building.

The only change in the protected forest area was the exclusion of 2 acres and 9 gunthas in Siddapur and Yellapur talukas in Kánara for the extension of garden cultivation.

Besides the above an interchange of areas was effected between Kánara Northern, Eastern and Western Divisions in order to form a new (Kadra) Range in the last Division to facilitate the working of the Kálinadi Slopes Forests, Block XXIV. The areas contributed are:—

		A.	g.	
Kánara Northern Division	...	104,767	34	Reserved forest.
		2,814	0	Protected do.
Kánara Eastern Division	...	5,176	23	Reserved do.

This interchange did not affect the total forest area of the Circle.

Sind Circle.

The alterations in area are:—

Class of Forests.	Area on 1st July 1912.		Added during the year.		Excluded during the year.		Area on 30th June 1913.	
	Sq. m.	acres.	Sq. m.	acres.	Sq. m.	acres.	Sq. m.	acres.
Reserved ...	1,131	461	35	493	31	426	1,135	528
Protected ...	0	585	.....	.....	.....	.....	0	585
Total ...	1,132	406	35	493	31	426	1,136	473

The additions are 22,454 acres of alluvial accretion, 274 acres fresh reservation and 165 acres by rectification of area.

The exclusions are 20,037 acres eroded, 212 acres disforested and 17 acres by rectification of area.

The eroded area is classified thus:—

Growing valuable timber 1,970 acres, new alluvium without trees 13,668 acres, new alluvium with young growth 759 acres, coupes under regeneration 1,031 acres, blanks 2,609 acres. Total 20,037 acres. In the previous year the total erosion was 16,153 acres.

Value of material exploited from eroded areas (*vide* Government Resolution No. 804 of 2nd February 1900).

Approximate area eroded after exploitation	...	...	Acres.	1,915
Value per acre as estimated prior to erosion	...	...	Rs. a. p.	4 5 1
Estimated value of timber before exploitation	...	...	...	8,268 9 6
Actual receipts	...	...	...	8,158 5 2

Fifty-five acres in Sukkur containing growth worth Rs. 151 were eroded before exploitation was possible.

One thousand six hundred and nine acres threatened with erosion were exploited. The material was sold for Rs. 17,063-13-4.

Acquisition of kachas adjoining forests:—

Claims brought over from last year 15, new claims during the year 26. Decided in favour of Forest Department 26, against the Department 1, still undecided 14.

Acres 8,748 gunthas 36 were temporarily alienated to other Departments.

(2)—*Forest Settlements.*

Northern Circle.

Forest Settlement work is practically complete in this Circle. A few areas are notified forest as opportunity occurs. Details under this head are as follows:—

Form 8.

Panch Maháls.—Seventy-one acres and 20 gunthas of land in the Godhra Range were actually notified under section 19 during the year though the area was added to the Range in 1907.

Surat.—In Mandvi Range, 135 acres and 24 gunthas were relinquished by the occupants of 26 villages for cash compensation of Rs. 373. The Conservator is to inspect Bulsar-Chikhli forests and report on the question of further acquisition or disforestation during the coming working season.

Kolába.—Eighteen acres were notified under section 4, Indian Forest Act, in Akshi, Alibág taluka, for a Casuarina plantation, while 25 acres have been selected in Alibág and Varsoli villages for a similar purpose, and proposed for notification.

Twenty-seven acres of land assigned for in-forest cultivation in the Roha taluka and 11 acres in the Khálápúr Petha lapsed under the dalhi settlements to Government in consequence of the failure of direct heirs or of the emigration of right-holders.

Central Circle.

Rs. 1,230 were paid on account of compensation for small areas acquired in various divisions throughout the Circle, such areas consisting generally of numbers situated inside the reserves or within the demarcation line. With this exception no money was spent on settlement. The area of proposed forest, notified under section 4 of the Forest Act and awaiting settlement at the close of the year, stood at 6 square miles 156 acres.

Southern Circle.

Nothing was spent on Forest Settlement work which was chiefly limited to submitting notifications for areas referred to in Section (1).

Sind Circle.

	Acres.
Area awaiting settlement at commencement of the year	6,552
Area added by notification under section 4 of the Indian Forest Act	32,152
Total	38,704
Actually settled	274
Balance awaiting settlement	38,430
Expenditure	Nil

(3)—*Demarcation.*

Northern Circle.

A new calculation of the existing work to be done shows 493 miles in the Kolába Division and 7 miles in the Panch Maháls.

Form 9.

Surat.—The revision of the Dangs boundary has been completed during the year by a surveyor deputed from the Land Record Office, a traverse survey of four miles of Násik and 22 miles of West Khándesh boundaries being carried out, and boundary marks constructed at a cost of Rs. 196.

In the Dangs, 309 new cairns were put up between reserved and protected forests (internal boundaries) for Rs. 291, and 827 half cairns were converted into whole cairns for Rs. 210.

Kolaba.—170 miles were newly demarcated at a cost of Rs. 1,961, 1st class cairns being built at main angles only.

In other divisions, work was confined to the repair of existing boundary marks.

Central Circle.

One hundred and forty-three miles of new boundary were demarcated during the year at a cost of Rs. 1,234, while 4,931 miles of boundary already completed were kept in repair at a cost of Rs. 1,817, the total expenditure thus being Rs. 3,051. The amount of outstanding work is now shown in Form No. 9 to be 1,096 miles, of which 43 miles are in the North Násik Division, 935 miles in South Násik, 51 miles in Poona and 67 in Sátára. The work in North Násik will be completed during the coming year; in Poona the figure includes lands which are due for transference to the Revenue Department, and there really only remain for demarcation some 16 miles of boundary of lands which will remain in charge of the Forest Department; this also will be completed during the year. In Sátára though 67 miles are still shown as requiring demarcation, it is reported that the remaining work consists chiefly of the erection of supplementary marks on lines already demarcated, though imperfectly so, rather than of totally new work. Next year's report should show that all work has been completed in this division also. In South Násik alone progress is unsatisfactory. The major part of the work still to be carried out is in the Akola and Rájur Ranges of the old Ahmednagar-Sholápur Division. In the year under report work was much hampered by the illness of surveyors, and by their presence being required on other work, *viz.*, coupe demarcation. To cope with the outstanding demarcation, it would be advisable to engage several special men, and to employ them on nothing else, but under the present conditions of surveyors' service, it is found impossible to keep the permanent staff up to strength, much less to obtain men for special work. The question of the recruitment of surveyors is now before Government.

Southern Circle.

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

New demarcation amounted to 30 miles of outer boundaries and 80 miles of internal boundaries. The former cost Rs. 281, or 9·3 per mile and includes 7 miles of Mysore frontier in Kánara Southern Division, which alone costs Rs. 16 a mile owing to the hilly nature of the country. The latter comprised the demarcation of betta lands also in Kánara Southern Division, and was done at a cost of Rs. 2·25 per mile—being easy work.

The demarcation work in general has been hampered very much owing to the scarcity of trained surveyors at terms offered.

Sind Circle.

External boundaries.—Twenty miles and 4,627 feet were demarcated by 323 new boundary marks in newly afforested areas. Eighteen thousand eight hundred and four old boundary marks on 2,067 miles and 3,909 feet of line were repaired. Expenditure *nil*.

Internal boundaries.—The forests are cut up into half mile squares by rides 20 feet wide. Four miles and 1,089 feet were cut in Jerruck Division at an average cost of Rs. 19-11-10 per mile. Two miles were cut by contractors in return for the material obtained from the line, and three miles on new kachas. Two thousand six hundred and thirty-nine miles of previously cut rides were kept clear by free labour. If paid for, this would cost Rs. 5,278-0-0.

An area of 124,023 acres still remains undivided into half mile squares. This consists almost entirely of newly formed kachas, the growth on which is at present very small. Lines will not be cut on these lands till the growth is bigger.

(4) *Forest Surveys.*

Northern Circle.

Form 10. No Forest Survey work was carried on during the year.

Expenditure under the head "Constitution of State Forests" for the Circle shows:—

	Rs.
Acquisition of land	2,362
Settlement offices	28
Demarcation, new and old	4,948
Surveys, including cost of reprinting maps	1,750
Total ...	9,088

Central Circle.

None were undertaken.

Southern Circle.

No new work was undertaken and no expenditure on account of surveys or printing of maps was debited against the Department.

The total expenditure on the constitution of State Forests was Rs. 4,893 as compared with Rs. 1,953 in 1911-12.

Sind Circle.

None in the strict sense of the term. Each division had one surveyor, who, in addition to his ordinary work, had to survey all erosions and accretions. The work of a surveyor in this Circle is far more varied, difficult and responsible than in the others and there is more of it. One surveyor to each division is inadequate. A lot of survey work is consequently thrown on the Range Forest Officers, withdrawing them from their legitimate duties. Extra surveyors have been applied for.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

1.—REGULATION OF MANAGEMENT.

(a) *Preparation and Control of regular Working Plans.*

Northern Circle.

Form 11. A working plan for the North Dangs was submitted by the Divisional Forest Officer, Surat, during the year and returned for slight revision. It deals with an area of 159.42 square miles and is based on the system of improvement fellings. With the exception of the Central and South Dangs forest (an area of 497 square miles) the rest of the reserved forests in the Circle are organised. A plan for the South Dangs will be prepared during the next season.

The surveyors of the Working Plans Office were distributed among the divisional offices, each officer controlling the laying out of coupes in his division. It is proposed to appoint an Imperial Officer to the Working Plans Office this season both to superintend silvicultural works required in exploited coupes and to report on results of working in those forests where the last decade of working is shortly to be commenced under the original working plan. Coupe

under existing working plans were worked except where the growth was too thin or the area difficult of access.

The improvement of means of communication both as regards major roads to be constructed by the Public Works Department and minor roads by the Forest Department is being kept in view. 57 coupes in the Circle remained unsold on account of their inaccessibility out of a total of 380.

A slight change in the methods of disposal of produce under the Kolába Working Plan in order to secure cheap firewood and agricultural implements for the people was again made during the season under report.

No Plan will lapse within the next three years.

Central Circle.

The Igatpuri and Sinnar Teak and Fuel Working Plan was sanctioned under Government Resolution No. 10888, dated 4th November 1912.

No fresh plans were submitted for Government sanction during the year.

The Divisional Forest Officer, Working Plans, was engaged in the past working season on the preparation of a plan for the Satmala Reserves in the East Khándesh Division. Data had been collected for the same three years back, but the extensive disforestments that subsequently took place necessitated the whole area being reinspected. This plan will shortly be submitted to Government. He also inspected the Transpurna Babul Forests in the Edlabad range of the same division with a view to the revision of the existing working plan.

A plan for the working of the Anjan Forests on the Dhulia and Pimpalner ranges was drawn up by the Divisional Forest Officer, West Khándesh, but was returned by the Conservator for amendment in various respects.

The prescriptions of existing plans were worked up to with a fair degree of accuracy, but dearth of labour, dislocation of trade consequent on scarcity in some divisions, absence of water in the forests and scarcity of fodder necessitated many deviations being made in the way of extensions of contracts for felling and removal of material from coupes, withholding of coupes altogether from sale owing to poor demand, and the throwing open to grazing of areas which should have been under closure for regeneration purposes.

Last year's report brought to the notice of Government the necessity for the appointment of a trained officer to the Working Plans Division, and the remarks then made can only be repeated. Revision of many plans is urgently called for, but all that can be done at present is for Divisional Forest Officers to collect the necessary data, and this is being undertaken in nearly every Division. To give specific instances, the plans of the Shirpur-Shahada forests in North Khándesh, and those of the Chopda-Yawal-Raver forests in East Khándesh, which were drawn up some 14 years ago, are now thoroughly unsuited in their prescriptions to the changed conditions of the markets for forest produce, to the state of the labour market, and to the condition of the forests themselves. The size of the coupes militates against good and up to time working by contractors themselves, against efficient supervision over their work by the Forest staff, and against the possibility of new men of small means being able to take up contracts at all. Work is confined to far too few centres, and competition is confined to a few men who take areas far larger than they can manage, and exploit them by fair means or foul to their own profit but not to that of the forest growth. The conditions of all these forests are similar, and Mr. Dodgson, recently Divisional Forest Officer in North Khándesh, has collected data which could be applied by a trained Working Plans Officer to all of them. In the Poona Division the felling arrangements prescribed under existing Teak and Babul Forest Plans will be upset in many instances by the handing over of various areas to the Revenue Department, and here too the Divisional Forest Officer is going into the matter with a view to revision. But this is properly speaking the work of a regular Working Plans Officer.

Southern Circle.

New Plans.—Two new plans were sanctioned during the year:—

(1) Ankola-Kumta Coast Fuel Plan, area 58·77 sq. miles, cost Rs. 135-11-9 per sq. mile, system of working being "Coppice with standards."

(2) Soppinhosalli High Forest Plan, area 17·9 sq. miles, cost Rs. 365-11-3 per sq. mile. System is "Selection felling".

Plans under preparation:—

(1) Sirsi Town Fuel Plan, 12·98 sq. miles, has been accepted and is now in press. The provisions are, however, being carried out.

(2) Plans for the Yekambi High Forests, and

(3) for the forests of Kalghatgi, Bankapur and Hangal in Dhárwár Division are being written.

(4) Honávar-Bhatkal Fuel Plan is not yet completed.

(5) Gokák Working Plan has been drafted and is under discussion.

Nos. 1 to 4 are done by Mr. Aitchison, Divisional Forest Officer, Working Plans, and No. 5 by Mr. Hodgson, Divisional Forest Officer, Belgaum.

The Divisional Forest Officer, N. D. Kánara, reports that the successful protection from fire of the teak area has changed the conditions since the present plans were made. The yield has increased about six times and two plans have therefore been recommended to Government for revision.

Control.—The provisions of existing plans were carried out as far as the supply of labour and demand for the produce would admit. In Kánara Northern Division girdling was postponed in Gund range as a large number of already-girdled trees had remained unexploited. Standards marked in 2 coupes of the Haliyál Teak Pole area were hollow and unsound and clear cutting was ordered instead of coppice with standards. The work in Block XIII, Eastern Division Kánara, was behind-hand owing to labour difficulties combined with an epidemic of cholera. The provisions of the plan for the Kárwár fuel reserves and of the Ankola-Kumta Coast Working Plan in W. D. Kánara had to be somewhat curtailed owing to lack of demand.

In the Belgaum Division by the introduction of a change in the agency of exploitation it is expected to overtake arrear work in the Nagargali High Forest Working Plan. The Khánápur fuel plan is less in arrears than it was a year ago, due to improvements introduced in the method of working the coupes.

Sind Circle.

Except new kachas and recent reservations all forests in Sind are under regular working plans. The prescriptions of the plans were adhered to with the following exceptions:—

Sukkur and Naushahro Divisions.—Burnt areas and those threatened with erosion were exploited instead of some prescribed coupes.

Hyderabad Division.—The sanctioned plans were suspended in three ranges (as authorized by Government Resolution No. 10562, dated 26th October 1907) to permit removal of dead wood.

Jerruck Division.—Dead wood was sold in addition to the prescribed coupes.

The Working Plans Division was held by the Deputy Conservator of Forests in charge of the Circle in addition to his own duties for most of the year. Consequently no revision of the plans could be carried out. And this revision work is most urgent in Sind where erosion is liable to upset the best laid plans within four or five years. Government have recently ruled (Government Resolution No. 7084, dated 30th July 1913) that—

"Each Divisional Forest Officer in Sind should be able to maintain or revise the conduct of working plans in his own division and that therefore the continuance of a separate Working Plans Division in Sind is unnecessary. No provision has been made in the cadres as at present sanctioned. Instead of reviving the appointment of Working

Plans Officer, Sind Circle, from time to time whenever an officer happens to be available to fill it, Government consider that it will be more convenient to depute such officer to assist one of the Divisional Forest Officers in his work in connection with working plans."

As long as an extra officer is available to help the Divisional Forest Officer this idea will work all right, though Government will not save any money by it. When the extra officer is not available the revision of working plans will come automatically to a stand-still, for, as frequently pointed out, an officer in charge of a Forest Division cannot revise working plans unless he neglects his important divisional work to a large extent.

(b).—*Preliminary Working Plan Reports.*

Northern Circle.

A preliminary report on the method of treatment proposed to be adopted for the North Dángs was submitted to the Conservator.

Central Circle.

Nil—but a simple scheme was drawn up for regulating the free extraction of firewood by the villagers of the Akrani in North Khándesh and with the approval of the Conservator and Collector is to be brought into force in the coming season.

Southern Circle.

No preliminary reports were submitted during the year. In consequence of a demand arising for jungles around Kánara Eastern Division, data has been collected for a plan for forests around Yellápur forming 13 compartments. A valuation survey of the growing stock has also been made.

Three more plans are in contemplation for the Belgaum Division and proposals are being formulated :—

- (1) Belgaum Range Working Plan.
- (2) Khánápur West Range Plan.
- (3) Khánápur Local Supply Working Plan.

Sind Circle.

Nil.

(c).—*Plans of Operations.*

Northern Circle.

In all divisions plans of operations were submitted through Collectors and worked up to, except in a few instances of minor importance which are referred to under other paragraphs of the report.

Central Circle.

These were drawn up in all divisions and carried out so far as possible, subject to deviations due to causes mentioned above, and to which must be added dislocation of ordinary work consequent on famine fodder operations.

Southern Circle.

Plans of operations were submitted for all divisions and were, on the whole, worked up to as far as labour supply and supervision permitted. In Kánara Northern Division there was a shortage in the sleeper supply to the railway and the construction of a rest house at Kalamkhand and a well at Adkehosur had to be postponed. The rest house at Allanki in Southern Division, Kánara, could not be finished. The Katur bungalow was not undertaken in Eastern Division, Kánara.

Sind Circle.

Plans of operations were submitted for each division and sanctioned. They were carried out with minor and unimportant changes.

2.—COMMUNICATIONS AND BUILDINGS.

(a).—Roads and Bridges.

Northern Circle.

Rs. 13,002 were spent on roads including repairs during the current year compared with Rs. 2,550 during the year previous.

The following *new* work was taken in hand :—

Surat—North Dángs.—One mile 6 furlongs of new road was constructed on the Chikhla Bardipada section for Rs. 1,131. Improvements over four miles of the Dongiamba-Sutarpada road in connection with the new fellings were carried out for Rs. 1,376, while ordinary repairs over 44½ miles in the range cost Rs. 620.

Central Dángs.—A further length of 63¾ miles of the new Kalamvihir-Chinchli road was constructed at a cost of Rs. 1,856. Ordinary repairs over 95½ miles of road cost Rs. 56.

South Dángs.—Galkund-Kanchanghat road was completed during the year, 3 miles 5½ furlongs being constructed for Rs. 1,970, this including repairs to last year's section. It is imperative that the top of this road should be linked up with Kanasi in the Kalvan Taluka of the Násik District, from whence the South Dángs timber could find a profitable market in the Deccan ; it ends at present in a cutting on the Násik boundary.

Central Thána.—Three miles and three furlongs of the Wada-Mangrul road was completed at a cost of Rs. 2,912 to open up inaccessible coupes at Ujani and Virhe. The road will be used next working season.

In other parts of Thána a road programme sanctioned in 1911 is being carried out by the Public Works Department.

Kolába.—A new forest road passing through part of the Nágothna and Pen ranges was realigned and partly constructed during the year. The alignment was reduced to 2½ miles of which 1 mile 1 furlong of the most difficult portion entailing much blasting and the erection of several retaining walls, was constructed for Rs. 1,388. The remaining portion which is fairly level will be constructed in October next.

Central Circle.

In the Sátára Division work on the extension of the Vang Valley road was pushed on, 4 miles 7½ furlongs being completed at a cost of Rs. 1,197. This work, prescribed in the sanctioned working plan, is proving of the greatest value. Over 15 miles are now complete, and for the first time it has been found possible to sell all the coupes, hitherto inaccessible, of the Patan Range teak forests. The Koina Valley road was also extended by 2½ miles, bringing the total length now open to 13½ miles. The further extension of this road which is contemplated will open up valuable forests in the future—even now it has been of material use in the exploitation of minor produce, and will be invaluable should the projected scheme of a boom across the Koina River at Karád with a view to the supply of wood to that town, prove a success.

In Peint in South Násik, 5 miles 7 furlongs of the Chinchohol road were constructed for Rs. 580, but progress was hindered by scarcity of labour and by the forest staff being engaged on famine grass operations.

In North Khándesh, 18 miles of path were constructed in the Akrani for Rs. 245, and a new unmetalled road from Bhurki to Wasardi was commenced for the opening up of the Satpuda forests, Rs. 2,041 being spent during the year.

In Poona the improvement of communications in the Ghát region was taken in hand, the Forest Department carrying out repairs to the bridle path from Bhimashankar to Lonávla, a distance of nearly 28 miles, at a cost of Rs. 2,488. It will be for consideration in the future whether this bridle path could not be converted into a road fit for cart traffic, a work which would materially improve conditions for the extraction of minor forest produce, and might make an opening for the working of the Ghát forests for fuel and charcoal.

In West Khándesh the question of the Charanmal-Borzar section of the road between Pimpalner and Navápur needs serious consideration. The original idea was for this section to be constructed by the Forest Department at a cost of some Rs. 20,000 spread over ten years. Work was begun in 1906-07 on the improvement of the existing cart track, and a certain amount has been spent yearly on repairs which are again destroyed with every monsoon. The present road is little better than a narrow track with excessive gradients and dangerous corners, and up which only half laden carts can be taken. When it is realized that the section forms part of the main line of communication between Navápur and Pimpalner, it is obvious that something better than this is needed, but to make a road up this steep ghát, with proper gradients and in all respects properly surveyed and constructed, is a work which needs expert engineering, and also far more funds than the original estimate of Rs. 20,000; it is quite beyond the capacity of the Forest Department, and a continuance of the present policy is mere waste of money. The Public Works Department is constructing the section from the foot of the Ghát to Navápur on behalf of the Local Board, but application to the Collector for the Borzar-Charanmal being similarly undertaken has been met with the reply that funds are not available. The only alternative therefore would seem to be for Government to undertake it as a Provincial work.

The total expenditure in all divisions of the Circle on new road work was Rs. 5,729, on repairs to existing roads and tracks Rs. 9,491—in all Rs. 15,220.

Southern Circle.

Rs. 3,371 were devoted to the construction of regular cart roads and bridges, the expenditure being chiefly in the Kánara Northern and Belgaum Divisions. The details are :—

Division.	Name of work.	Distance in miles.		Cost.
		M.	f.	Rs.
Kánara Northern	... Bomanhalli-Donknala road ...	3	1	920
Do.	... Gund-Kaneri road ...	2	0	605
Do.	... Kunsharkop depôt road ...	0	1	297
Kánara Eastern	... Arbail camping ground road ...	0	4	50
Do.	... Cycle path ...	0	4	4
Kánara Southern	... Hadikal road ...	0	4	361
Belgaum	... 8 bridges on Malprabha-Jamboti road.	...	...	1,134

The Gund-Kaneri road has connected the forests in those tracts with the Railway, whereby the rates for carting timber have been lowered by Rs. 5 per ton.

The Nandgad-Barchi forest road was handed over to the Public Works Department and the following Local Boards roads in the Belgaum Division were handed over to the Forest Department, with an annual grant of Rs. 2,077 for their repairs :—

	Miles.
1 Khánápur-Talewadi ...	17
2 Talewadi-Krishnapur ...	5
3 Malaprabha-Jamboti ...	4½
4 Jamboti-Chorla ...	20
5 Kusmali-Jamboti ...	2
Total ...	48½

All these and about 120 miles of other forest roads were repaired at a cost of Rs. 19,367.

Sind Circle.

There are, as a rule, no works under this head in the Circle. The 20 feet rides which cut up the forest into ½ mile squares are available as roads and used as such. For details of these see sub-section (3), chapter I, above.

(b).—Buildings.

Northern Circle.

Expenditure on account of new buildings amounted to :—

	Rs.
Rest house at Balethi completed	2,694
Police lines at Ahwa (6 rooms)	2,662
Police lines part completed (2nd set)	1,704
House for 4 Foresters at Sabir	3,149
13 posts for Forest guards in Circle	11,532
Temporary buildings	813
Repairs in all divisions	4,800
Total ...	27,354

Central Circle.

The expenditure on new buildings amounted to Rs. 25,435, and on repairs to Rs. 2,825, in all Rs. 28,260, a large increase over the previous year, when construction was curtailed by orders of Government owing to want of funds. There still remains much to be done before the forest staff is completely provided for, and in many districts the greatest difficulty is experienced by Guards and even by Rangers in obtaining any accommodation at all in villages. A liberal building policy is all in the interests of Government, for not only is the having to hire houses, often in unsuitable places, a heavy tax on low paid subordinates, but forest work suffers by men constantly absenting themselves from illness, the result of insanitary housing, and by their perforce having to live in places which are inconveniently situated for the performance of their duties.

Of the Rs. 25,435 spent on new buildings, Rs. 626 were on account of part cost of Ranger's quarters at Taloda, Rs. 3,916 on talatis' quarters at Dhadgaon, Rs. 3,718 on forest depôts, and Rs. 17,175 on forest guards' quarters in various divisions.

Southern Circle.

The total expenditure on new buildings amounted to Rs. 16,922 and that on repairs to Rs. 4,787. The works executed during the year were :—

	Rs.
<i>Kánara Northern Division.</i>	
Rest house at Kalamkhand in	131
Do. at Dandeli	1,243
Temporary huts for guards	54
<i>Kánara Southern Division.</i>	
Rest house at Al	1,812
Guard's houses at	175
<i>Kánara Eastern Division.</i>	
Guard's houses at Hutkhand; Kalkeri, Kyatnalli, Kangod and Chawdalli	924
Rest houses at Gunjavati, Bilki and Katur	567
<i>Kánara Western Division.</i>	
Rest house at Ramanguli	1,274
Do. at Santgal	2,217
Houses for guards at Amdalli, Asnoti, Gudhalli, Gundballa and Sulgeri	2,174
Range Office at Kumta	2,000
Temporary hut for guards	10
<i>Belgaum Division.</i>	
Range Offices at Jamboti and Khanapur	3,000
Do. at Gujnal in part	674
10 Huts for subordinates	117
<i>Dhárwar Division.</i>	
Guard's house at Dhumwad	550
Total ...	16,922

Owing to want of skilled labour in Kánara many of the buildings could not be completed.

Sind Circle.

The cost of new buildings was Rs. 1,929 as under:—

	Rs.
Office room for the Range Forest Officer at Mirpur ...	760
Pacca wall round part of the Rahuja nursery ...	906
Verandah to the Range Forest Officer's quarters at Radhan ...	92
Additions to the Range Forest Officer's quarters at Mari ...	152
Other petty works ...	19
Total ...	1,929

Repairs to existing buildings cost Rs. 1,728-0-0.

The rebuilding of part of the Forest Bungalow at Miani was finally completed by the Public Works Department. The cost (Rs. 206) was paid by this Department.

The following works were carried out by the Public Works Department and charged to their budget:—

	Rs.	a.	p.
Additions and alterations to the Divisional Forest Officer's bungalow at Sukkur ...	1,021	7	3
Repairs to the Divisional Forest Office and the residential quarters at Sukkur ...	118	15	6
Total ...	1,140	6	9

(c).—Miscellaneous Works.

Northern Circle

Wells.

4 in North Dángs ...	965
4 in Central Dángs ...	571
1 in South Dángs ...	274
3 in Panch Maháls ...	1,115
Repairs to wells in all divisions ...	977

Cattle pounds.

3 in South Thána ...	150
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Wire fence.

South Thána ...	42
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Central Circle.

Rs. 451 were spent on construction and improvement of wells, and Rs. 77 on improvement of camping grounds.

Southern Circle.

Wells were dug at Katur, Kyatualli, Bhartnalli and Hunasgeri in Eastern Division Kánara, at Binghe in Western Division Kánara and at Jamboti in Belgaum Division at a total cost of Rs. 552. The masonry work had to be postponed to make certain that a permanent supply of water would be assured.

Eight tanks were deepened in Eastern Division Kánara, incurring Rs. 443.

The other outlay under this head was the charges on account of laying two telephone lines, erecting or repairing fences round, and levelling compounds of, rest houses and subordinates' quarters.

Sind Circle.

(11) The usual minor irrigation works were carried out by the Forest officials. These cost (for new works) Rs. 2,219. Repairs to existing works cost Rs. 6,083. Total cost under this head Rs. 8,302.

Certain sluices for the irrigation of the forests were constructed by the Public Works Department and debited to their budget, as follows:—

	Rs.	a.	p.
(1) Masonry outlet at head of Forest Karia ex Korai wah mile 2/3 in Bahab Forest, Sukkur Division ...	180	13	9
(2) Sluices ex Gillespie wah mile 12/1 in Hassan Wahan Forest, Naushahro Division ...	178	6	11
(3) Do. Do. at mile 12/4 in Hassan Wahan Forest, Naushahro Division ...	178	2	2
(4) Three sluices ex Nurwah at mile 8/3, 7/5 and 6/2 in Abad and Mahrabpur Forests, Sukkur Division ...	444	5	9
(5) Sluice at mile 12/5 Jhali Bund in Andaldal Forest, Sukkur Division ...	1,644	10	9
(6) Sluice at mile 12/0 Jhali Bund in Andaldal Forest, Sukkur Division ...	1,509	13	0
(7) Sluice ex mile 2/6 Pritchard Canal Right Bank in Kasim-Shah Forest, Naushahro Division ...	577	11	6
(8) Sluice ex mile 12/1 of Gillespie wah Left Bank in Hassan Wahan Forest, Naushahro Division ...	178	6	11
(9) Sluice ex mile 12/4 of Gillespie wah Left Bank in Hassan Wahan Forest, Naushahro Division ...	178	2	2
(10) Sluice at mile 0/3 of Gharko Embankment of Baghar Canal in Garko Forest, Jerruck Division ...	769	0	0
(11) Sluice over Forest Karia ex Ganjbahar 47 taki 24 Left Bank in Mulchand Forest, Jerruck Division ...	183	13	3
Total ...	6,023	6	2

3. PROTECTION OF FORESTS.

(a) General Protection.

Northern Circle.

The following statement gives a comparison between the offences of the year, the preceding year, and the average of the past three years:—

Division.	A. Cases taken into court.				B. Cases compounded.				C. Cases undetected.				Total.				Grand Total.
	Injury to forest by fire.	Unauthorised felling.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorised felling.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorised felling.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorised felling.	Grazing without permission.	Other offences.	
Panch Mahals ... { 1912-13 ...	4	15	1	...	6	553	305	27	107	180	1	...	117	748	307	27	1,199
... { 1911-12 ...	...	...	...	...	...	...	...	...	...	...	...	...	28	1,179	384	105	1,696
Surat ... { 1912-13 ...	10	3	1	1	8	40	33	10	5	4	1	1	29	47	35	12	123
... { 1911-12 ...	...	...	...	...	...	...	...	...	...	...	...	...	37	64	35	18	154
North Thána ... { 1912-13 ...	1	3	1	...	2	164	103	36	41	170	...	...	44	337	161	33	531
... { 1911-12 ...	...	...	...	...	...	...	...	...	...	...	...	...	71	279	200	20	57
Central Thána ... { 1912-13 ...	11	5	2	1	...	345	350	47	54	206	5	7	65	558	357	55	1,633
... { 1911-12 ...	...	...	...	...	...	...	...	...	...	...	...	...	88	407	286	80	861
South Thána ... { 1912-13 ...	3	22	23	2	1	195	206	27	41	127	...	...	45	314	288	29	704
... { 1911-12 ...	...	...	...	...	...	...	...	...	...	...	...	...	100	346	284	19	749
Kolaba ... { 1912-13 ...	0	130	5	8	13	383	205	55	38	224	...	...	59	737	210	63	1,060
... { 1911-12 ...	...	...	...	...	...	...	...	...	...	...	...	...	99	662	184	72	1,017
Total, 1912-13 ...	41	178	30	12	32	1,690	1,322	202	286	911	7	8	359	2,700	1,350	222	4,700
Total, 1911-12 ...	52	204	46	10	60	1,781	1,316	291	311	952	11	13	423	2,937	1,378	314	5,047
Average of the past three years.	53	213	68	8	50	1,475	1,051	199	396	971	8	16	498	2,630	1,227	219	4,600

N.B.—The Central Thána figures have been corrected as a mistake was made last year.

The total number of offences shows a decrease of 338 from last year and an increase of 100 over the three years' average.

Fires show a decrease of 64 from last year's figures and a decrease of 139 over the three years' average.

Cases of unauthorised felling show a total decrease of 368 and an increase of 110 over the average. The increase this year in North and Central Thána and Kolába is claimed to be due to more effective supervision, and it has occurred in those ranges where subordinates were well supervised by good Range Officers.

Grazing offences decreased in the Panch Maháls, Surat, and North Thána, and increased elsewhere, Central Thána showing nearly a 20 per cent. increase, due, it is stated, to more active outdoor inspections of Rangers.

Other offences decreased everywhere but in North and South Thána, where it is claimed that the transit rules were more strictly observed. The number of cases taken into court during the present and previous years are shown in the following statement:—

Division.	1912-13.		1911-12.		Percentage of acquittals.	
	Convictions.	Acquittals.	Convictions.	Acquittals.	1912-13.	1911-12.
Panch Maháls ...	17	1	25	1	5.5	3.8
Surat ...	14	1	27	...	6.6	...
North Thána ...	14	...	27	...	...	...
Central Thána ...	20	8	28	7	28.6	20.
South Thána ...	49	4	84	21	7.5	20.
Kolába ...	106	19	105	14	15.2	10.8
Total ...	220	33	296	43	13.0	12.7

The large number of acquittals in Central Thána is stated by the Divisional Forest Officer to have occurred principally in the Wáda Range, where cases were pending in the Magistrate's court from the previous year.

In Kolába some offence papers were badly prepared by an inexperienced round guard.

The total number of cases compounded decreased from 3,448 to 3,236, the average figure being 2,775.

Undetected cases decreased from 1,287 to 1,212, the average being 1,391.

Where convictions were obtained punishments are stated to have been adequate except in the Panch Maháls where a complaint is made of want of severity in punishment in certain fire cases. The District Magistrate has issued a circular in the matter. In South Thána also the Aval Kárkún of Sháhápur inflicted a fine of Rs. 5 for a fire of 1,000 acres.

Communal punishment for breaches of forest laws was inflicted as shown below:—

Division.	Range.	Village punished.	Reason for punishment.	Nature of punishment.	Period of punishment.
North Thána ...	Umbergaon ...	Chimne ...	Bad protection of forest...	Suspension of privileges ...	One year upto 15th June 1914.
Do. ...	Máhim ...	Sákhre and Náoje ...	Bad protection of forest and not helping in putting out fires.	Do. ...	One year upto 29th May 1914.
Do. ...	Do. ...	Dahisar and Gundave.	Do. ...	Warned through the Mámáldar.	.....
Do. ...	Do. ...	Vaghumba, Navghar Ghatim, Pen and Kirat and Lalonde.	Bad protection of forest and breach of talab rules.	Do. ...	.....
South Thána ...	Sháhápur ...	Atgaon ...	Bad forest and fire protection and for not rendering assistance in putting out fires.	Payment of grazing fees at single rate.	Continued upto 30th June 1914.

Division.	Range.	Village punished.	Reason for punishment.	Nature of punishment.	Period of punishment.
Kolaba	Alibág	Vadav Bk.	Illicit cutting in forests	Levy of double grazing fees.	One season of 1912-13.
Do.	Do.	Nigda	Do.	Do. do.	Do.
Do.	Do.	Kária	Do.	Do. do.	Do.
Do.	Do.	Kusumble	Do.	Suspension of privileges and levy of double grazing fees.	Two years upto 14th June 1915 and two seasons of 1912-13 and 1913-14.
Do.	Do.	Saral	Do.	Do. do.	One year upto 30th June 1914 and one season of 1913-14.
Do.	Do.	Kávade	Do.	Do. do.	Do. do.
Do.	Do.	Háshivre	Do.	Do. do.	Do. do.
Do.	Do.	Vaijáli	Do.	Do. do.	Do. do.
Do.	Páunel	Chavne Dewloli	Do.	Suspension of privileges	One year upto 31st May 1914.
Do.	Kárját	Khandpe	Do.	Levy of double grazing fees.	One season of 1912-13.
Do.	Khalápur	Ghodivli	Do.	Suspension of privileges	Two years upto 30th April 1915.
Do.	Do.	Várose	Do.	Levy of double grazing fees	One season of 1912-13.
Do.	Nágothna	Karav	Do.	Suspension of privileges	One year till 30th April 1914.
Do.	Do.	Vádi	Do.	.....	.....
Do.	Do.	Zotire	Do.	.....	.....
Do.	Do.	Jui	Do.	.....	.....
Do.	Do.	Társhet	Do.	Suspension of privileges	One year from 1st August 1912 to 31st July 1913.
Do.	Do.	Jámbultep	Do.	.....	.....
Do.	Do.	Mudháni	Do.	.....	.....
Do.	Do.	Alivli	Do.	.....	.....
Do.	Do.	Gandhe	Do.	.....	.....
Do.	Do.	Páda	Do.	.....	.....
Do.	Do.	Chole	Do.	.....	.....
Do.	Roha	Kille	Do.	Suspension of privileges	One year till 28th February 1913.
Do.	Do.	Cháwre	Do.	Levy of double grazing fees.	One season of 1912-13.
Do.	Do.	Sambhe	Do.	Do. do.	One season of 1913-14.
Do.	Do.	Kolá	Do.	Suspension of privileges and levy of grazing fees.	Two years till 28th February 1915. One season of 1913-14.
Do.	Do.	Shenvai	Do.	Suspension of privileges. Levy of double grazing fees.	One year till 28th February 1914. One season of 1913-14.
Do.	Mángaon	Panhálghar	Do.	Suspension of privileges	Two years till 14th June 1915.
Do.	Do.	Kavilváhal Bk.	Do.	Levy of double grazing fees.	One season of 1913-14.
Do.	Do.	Kalwan	Do.	Suspension of privileges and levy of double grazing fees.	Two years till 28th February 1915. One season of 1913-14.
Do.	Do.	Mágti	Do.	Do. do.	One year from 1st March 1913 to 28th February 1914. One season of 1913-14.
Do.	Do.	Dakhne	Do.	Do. do.	Till 5th June 1915. One season of 1913-14.
Do.	Máhad	Mánde	Do.	Suspension of privileges	One year from 1st September 1912 to 31st August 1913.
Do.	Do.	Ambivli Bk. (6 persons only.)	Do.	Do. do.	1st August 1912 to 31st July 1913.
Do.	Do.	Borgaon	Do.	Levy of double grazing fees.	One season of 1913-14.
Do.	Do.	Veer	Do.	Suspension of privileges and levy of double grazing fees.	Two years till 31st July 1914. One season of 1913-14.
Do.	Do.	Mumúshhi	Do.	Do. do.	One year from 1st August 1912 to 31st July 1913. One season of 1912-13.
Do.	Do.	Káranjadi	Do.	Do. do.	Two years till 31st July 1914 and one season of 1912-13.

Rewards for good forest protection were given as follows :—

Kolaba	... Ladivli	...half remission of grazing fees for one season.
"	... Talavli and Chilhe	...full remission of grazing fees for one year.
"	... Khardi Budruk.	do. do. do.

Measures to improve supply and thus to reduce offences of unauthorised felling.

In the forests near the coast where much depredation has been carried on in the past a dual policy of assistance to villagers and repression of theft has been continued. In Kolaba and latterly in North Thána coupes have been sold on the special terms of supply of firewood and wood for agricultural implements to villagers at cheap rates, while negotiations are being carried on for land for forming at once nine new *Casuarina* plantations to provide firewood to the sea-coast towns in the future. These will be added to yearly.

Twelve villages in Máhim have, on the other hand, been warned that continuance of theft will result in the permanent loss of their dead wood privilege.

Where rab burning is carried on, the importance of preservation of tahal for seed beds has been steadily impressed on villagers in the Kolába and Thána districts and in the Dangs. The results in many cases are excellent and have saved, and will save neighbouring forests from depredations, improving the sustained yield from trees outside forests.

Central Circle.

The following table gives the number of offences reported during the year, as compared with those of 1911-12 and of the past three years :—

Division.	A. Cases taken into court.				B. Cases compounded and warned.				C. Cases undetected.				Total.				Grand Total.	
	Injury to forest by fire.	Unauthorized fellings or appropriation of wood and other minor forest produce.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized fellings or appropriation of wood and other minor forest produce.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized fellings or appropriation of wood and other minor forest produce.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized fellings or appropriation of wood and other minor forest produce.	Grazing without permission.	Other offences.	1913-13.	1911-12.
East Khándesh ...	4	54	33	12	...	378	267	54	6	80	3	...	10	518	392	68	693	971
West ..	0	5	3	...	4	216	411	30	34	73	4	...	47	294	418	20	779	720
North ..	4	13	2	27	17	207	143	365	8	68	1	1	29	298	145	303	855	873
North Násik ...	1	23	7	7	1	617	794	54	5	164	...	3	7	807	831	64	1,879	1,351
South ..	2	34	11	2	4	636	403	61	10	138	1	35	35	838	420	90	1,363	1,443
Poona ...	2	16	14	2	11	772	650	78	38	149	1	1	51	930	665	81	1,733	1,112
Sátára ...	1	26	45	8	13	481	537	83	27	64	...	1	41	571	632	65	1,339	1,056
Total ...	23	174	114	58	50	3,307	3,259	718	147	741	19	42	220	4,222	3,383	818	8,643	7,536
Average past three years ...	64	118	126	41	60	2,765	3,250	424	433	713	44	23	590	3,596	3,420	491	8,103	...

There was thus an increase of 1,107 as compared with 1911-12, and of 540 as compared with the previous three years' average, the contributing divisions (as regards the former comparison), being West Khándesh, North Násik, Poona and Sátára. In nearly every case the increases come under the heads of unauthorized fellings and illicit grazing; though offences under section 41 of

the Forest Act, control of timber and other forest produce in transit, showed a considerable rise in Khándesh. As regards unauthorized fellings Poona shows an increase of 243, but there is every reason to believe that the figure does not represent so much an extra amount of crime, but rather the insistence by the Divisional Forest Officer on more efficient protection of the forests, and more accurate reporting of offences by the forest staff than had formerly been the case. Sátára shows an increase of 283, and this was in the main due to the necessity for urgent measures being taken to check the abuse of the dead wood privilege in the Mahábleshwar and Jawli ranges. In Khándesh the scarcity of rain at the beginning of the year resulted in many cases of illicit loppings of anjan trees. As regards illicit grazing, North Násik (402), Poona (306), and Sátára (275) mainly contributed to the increase. In the first named the circumstances of the year were conducive to cattle trespass, for with the rains holding off at the commencement of the season, grass in open forest was entirely absent. In Sátára illicit trespass of sheep was almost wholly the cause of the increase. Thousands of acres in the eastern part of the district have been thrown open to sheep grazing by the transference of pasture forests to the Revenue Department, but in spite of this there was persistent and deliberate trespass in the forest proper, which are wholly closed to these animals, and such trespass was very rightly met by strict measures. With the ever increasing demand for the grass from these forest proper for agricultural cattle, it is absolutely essential that sheep should not be allowed into them. In Poona, though the number of grazing offences reported showed an increase, a fact due to insistence on the proper protection of closed areas, yet at the same time there were less cattle actually impounded, so that the increase is more apparent than real.

The number of prosecutions instituted in offence cases was 369 as against 314 in 1911-12, the percentage of convictions rising from 89.5 to 91.8. The majority of prosecutions were on account of illicit fellings rather than of illicit grazing, resort to the courts in grazing offences only being taken in exceptional cases of persistent trespass or of obstruction to guards in the performance of their duty.

The number of cases compounded under section 67 of the Forest Act rose from 5,210 to 6,646, and the compensation accepted from Rs. 24,319 to 33,301, the average per case being Rs. 5-0-2 as against Rs. 4-10-8. In this case it is the increase in grazing offences in various divisions, explanation of which has been given above, that accounts for the rise.

In 688 cases, as against 969 in the previous year, offenders were let off with a warning, while in 940 cases, as against 1,043 in the previous year, no offenders could be traced.

Of serious crime it can be said generally that little took place. A year of scarcity is always reflected in an increased number of petty forest offences, for the people naturally turn to the forests when fodder is wanting outside, both for grazing in the closed areas, and for the sake of the anjan leaves, while want of other employment also induces them to commit thefts of wood for sale. With the present favourable season in prospect, an all round decrease in offences may confidently be looked for in next year's report.

Mention must be made of one instance of serious crime that took place in three villages of the Sangamner and Akola Talukas in the Ahmednagar District and in which the villagers combined to commit systematic theft of timber from the forests, to conceal the offenders, and to terrorize any who might give information regarding them. This outbreak of lawlessness has been met by the imposition by Government of punitive police on the villages concerned. In the Igatpuri Taluka also, the punishment of 29 villages for persistent maltreatment of the forests, by the doubling of the grazing fees, had again to be continued under the Collector's orders, while 10 other villages which had been previously warned for the same conduct were similarly treated. In the same taluka several villages had to have their privilege of removing dead fuel suspended on account of persistent damage to live trees, their object being the manufacture of dead fuel.

Southern Circle.

The offences of the year compare with those of 1911-12 and with the average of the past three years as shown below :—

Nature of offences.	Taken into court.			Compounded.			Undetected.			Total.		
	1912-13.	1911-12.	Average of past 3 years.	1912-13.	1911-12.	Average of past 3 years.	1912-13.	1911-12.	Average of past 3 years.	1912-13.	1911-12.	Average of past 3 years.
I.—Injury by fire ...	23	20	21	51	79	68	478	833	804	552	971	893
II.—Unauthorized fellings ...	174	193	167	2,435	2,234	1,801	530	590	306	3,175	3,072	2,364
III.—Unauthorized grazing ...	55	39	52	1,510	923	606	11	2	1	1,57	961	650
IV.—Other offences ...	16	22	18	311	173	172	12	4	4	339	109	194
Total ...	248	283	258	4,33	3,459	2,647	1,037	1,459	1,205	5,612	5,210	4,119

The total number of cases during the year exceeded both the average of the past three years and the cases of 1911-12. The increase, however, is satisfactory considering the large number of trees cut and other forest offences which occur; they, ordinarily, for the most part, remained unreported.

The increase occurs in "Unauthorized removals, grazing and other offences" and is ascribed to petty offences being better reported and to the closure of larger areas, as also to the scanty crop of grass on account of heavy rain and fewer fires.

On the other hand, cases of "Injury by fire" decreased 43 per cent., which is shared by all divisions except Bijápur and is due to heavy rains which kept jungles damp for a longer time than usual.

The results of prosecutions compare as follows :—

Division.	1912-13.		1911-12.		Percentage of acquittals.	
	Convictions.	Acquittals.	Convictions.	Acquittals.	1912-13.	1911-12.
Kánara Northern ...	15	1	6	1	6.25	14.8
Do. Southern ...	68	14	72	13	17	15.3
Do. Eastern ...	7	4	24	3	36.36	11.1
Do. Western ...	14	19	33	7	57.57	17.5
Belgaum ...	18	6	11	7	25	38.9
Dhárwár ...	22	5	53	7	18.5	11.7
Bijápur ...	56	8	32	5	12.5	13.5
Ratnágiri ...	1	...	2	1	...	33.3
Total ...	201	57	233	44	22	16

The number of cases taken to court was 4.6 per cent. of the total cases of the year. The lengthy procedure which takes away subordinates from their legitimate work compelled the Divisional Forest Officers to send as few cases as possible to the Magistracy. The percentage of acquittals rose by 6 per cent. Kánara Western Division showed the worst result: as many as 57.57 per cent. were acquittals.

All the Divisional Forest Officers have complained about the inadequacy of punishments awarded by courts.

There were 2 cases of illicit shikar in Kánara Eastern Division, but both were let off by the Magistrate for want of sufficient evidence.

Cases compounded numbered 3,380 against 3,266 of 1911-12, the compensation recovered being Rs. 17,611 against Rs. 12,279. This gives an average of Rs. 5.2 against 3.9 per case in the previous year. The increase in the number

of compounded cases was chiefly under the head "Illicit grazing" and was due to the scarcity of fodder in the open forests, which made the cattle trespass in closed areas. Kánara Northern and Belgaum divisions are mainly responsible for the increase.

Offenders in 528 cases were let off with a warning.

There was a fall in the number of undetected offences reported from 1,459 in 1911-12 to 1,037 in the year of report, the percentage to the total number of offences being 18 against 28 in the previous year.

Sind Circle.

The year's offences are given below:—

Division.	Cases taken into court.				Cases compounded.				Cases undetected.				Total.				Grand Total.
	Fires.	Unauthorised fellings.	Illicit grazing.	Other offences.	Fires.	Unauthorised fellings.	Illicit grazing.	Other offences.	Fires.	Unauthorised fellings.	Illicit grazing.	Other offences.	Fires.	Unauthorised fellings.	Illicit grazing.	Other offences.	
Sukkur	0	43	11	7	...	309	...	1	31	133	...	...	40	485	11	8	514
Naushábro ... ..	...	2	1	3	...	72	...	11	18	...	...	...	18	76	1	14	109
Hyderabad ... ..	...	8	1	5	...	142	...	20	19	9	...	...	19	150	1	25	204
Jerruck	1	6	2	1	4	55	...	...	31	5	...	...	35	66	2	1	104
Total of 1912-13 ..	7	59	15	16	4	578	...	32	101	140	...	...	112*	789	15	48	961
Total of 1911-12 ...	11	57	12	27	...	729	2,013	17	251	149	...	...	262	935	2,925	44	4,168
Average of past 3 years...	5	48	15	28	1	640	2,539	16	209	125	6	...	215	813	2,500	44	3,632

* This includes six fire cases left undecided from last year.

There is an enormous drop in the number of illicit grazing offences compounded by the Divisional Forest Officers under section 67 of the Indian Forest Act. The explanation for this is as follows.

According to Rule 10 of the Grazing Rules,—

"All cattle found grazing without passes having been taken out for them, all cattle found grazing in closed blocks or places where grazing is forbidden, all cattle found during the period from 15th October to 15th April, both inclusive, grazing between half an hour after sunset and half an hour before sunrise may be impounded. They may, however, be exempted from being impounded,

(a) in the case of cattle found grazing in closed blocks or places where grazing is forbidden, by the payment of fees for each animal at the rates locally prescribed for the levy of fines, under the Cattle Trespass Act I, 1871;

(b) in the case of cattle grazing otherwise than as aforesaid, by payment of one month's fees as a fine.

In addition to these penalties a pass for not less than two months should also be taken out in all cases where the cattle are not already covered by a pass. If cattle are thus exempted the fact of the payment of the penalties prescribed in (a) and (b) above and the amount so paid shall be noted on the pass issued".

It will be observed that the above rule fixes the penalty for cattle grazing illicitly in forests. That penalty is impounding or ransoming the cattle from impounding at a fixed price. Therefore any case treated under the above rule cannot be said to be compounded by the Divisional Forest Officer under section 67 of the Indian Forest Act. The penalty is a fixed one and the Divisional Forest Officer has no discretion in the matter at all. The cattle are impounded or the fines paid to the Range Forest Officer on the spot, and the Divisional Forest Officer only hears about the matter subsequently. To classify such cases under "B cases compounded" is manifestly incorrect.

All these cases have hitherto been treated as cases compounded by the Divisional Forest Officer under section 67. The Deputy Conservator did not discover this until his first tour, consequently the mistake appears in last year's report also.

The number of cases disposed of during the year under the above rule was 2,533.

It was pointed out last year, and may be repeated here, that in the Presidency proper a man found grazing his cattle without a pass in open or closed forests generally gets off by paying his fees, and no offence is registered. It is therefore misleading to call similar occurrences in Sind offences.

The Forest Officers of the Circle assembled in conference in June last and drafted (among other things) proposals for new grazing rules. These proposals include an increase of the time for which a grazing permit is valid, and decreased grazing fees. They are now under the consideration of the Commissioner in Sind.

Omitting cases of illicit grazing which were entered last year as "compounded" the number of offences shows a decrease during the year.

The offences taken into court were 97 during the year. 29 were pending from last year. Total 126. Of these 75 were decided during the year and 51 left pending. The 75 decided cases resulted in 57 convictions and 18 acquittals. The percentage of acquittals was 24 as against 19.8 last year. The Jerruck division has not had an acquittal for the last two years. The Hyderabad division had no acquittal during the year under report. The percentage of acquittals rose in Sukkur and remained the same in Naushábro. The cases of the Sukkur division require more careful preparation and the Divisional Forest Officer is taking steps to this end. In this division, however, people were convicted of setting fire to the forests in four cases. There were in all six offenders and the punishments were—one man Rs. 5 fine, one man Rs. 6 fine, two men Rs. 75 fine each plus 1½ months' rigorous imprisonment, two men Rs. 10 fine each and 10 days' rigorous imprisonment. In view of the immense difficulty of catching the offender in a fire case the above results are good, but it is to be regretted that the two first mentioned punishments were not exemplary. In the Jerruck division one fire case pending from the previous year was decided. The offender was fined Rs. 30 and got a month's rigorous imprisonment as well.

Prosecutions for assault and obstruction of forest guards in the execution of their duty fell from 13 to 6. Of these 4 were convictions and 2 acquittals.

(b) Protection from Fire.

Northern Circle.

In most divisions the sanctioned plans for fire tracing were revised, much was done in the way of personal conversation with villagers whose responsibilities in the way of fire protection were explained to them. The Bassein system of fire protection by means of which the villagers themselves undertake the duties of fire guards for a money consideration again worked well, and is being tried in parts of Wáda and Khárdi ranges of Central Thána.

Fire guards were employed in all divisions and the system of fire stations as usual in Surat where it continued successful. The same system tried again in North Thána in the Máhim range was a failure, the configuration of the ground being unsuitable.

In Panch Maháls the system of rewards to villagers for good fire protection answered well. An innovation allowing free grazing to the cattle of villagers bordering Native States for the successful co-operation of the owners in fire protection was also partly successful.

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

Division.	Total forest area of the Division in charge of the 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 3 years.		Extent of forest naturally immune from fire.	Extent of forest burnt.		
						Open forest.	Closed forest.	Total.
	Acres.	Acres.	Acres.	Per cent.	Acres.	Acres.	Acres.	Acres.
Panch Maháls ...	212,200	212,225	178,248	or 84·	...	7,646	3,156	10,802
Surat ...	463,507	463,507	462,410	or 99·7	2,128	46	1,141	1,187
North Thána ...	214,141	214,141	205,321	or 95·8	...	604	922	1,526
Central Thána ..	238,895	236,344	218,862	or 92·6	1,500	1,796	1,846	3,642
South Thána ...	218,377	203,356	189,548	or 90·9	4,356	2,840	3,761	6,601
Kolába ...	269,931	269,965	265,395	or 98·3	5,553	864	187	1,051
Total, 1912-13 ...	1,617,051	1,604,539	1,519,784	or 94·7	13,537	13,796	11,013	24,809
Total, 1911-12 ...	1,617,110	1,604,559	1,537,558	or 95·8	13,537	19,167	17,470	36,637

The number and origin of fires are shown in Form No. 15 ordered by Government Resolution No. 1542 of 17th February 1913.

The following remarks on divisions compare the year's results with those of the previous year :—

Panch Maháls.—Number of fires 111, area burnt 10,802 acres. Last year there was scarcely any grass, and 18 small fires burnt but 310 acres. A better comparison would be with the year 1910-1911 when there were 201 fires burning 23,492 acres. The results show progress. The fires shown under the head of "Malice" are, it is explained, classified on supposition. Forest areas have boundaries bordering Native States, and protection is not easy.

Surat.—Number of fires 16, area burnt 1,187 acres, showing a decrease of 14 fires and acreage of 569 acres compared with last year. Of this, a large fire of 430 acres during Holi in North Dangs and one of 650 acres in Central Dangs claimed nearly the total area burnt.

North Thána.—Forty-four fires burnt 1,526 acres, a decrease of 26 fires and 2,836 acres.

Central Thána.—Sixty-five fires burnt 3,642 acres, a decrease of 22 fires and 5,349 acres.

South Thána.—Forty-five fires burnt 6,601 acres, a decrease of 55 fires and 11,007 acres. This division contains the Tansa catchment area where grass for famine districts and Military Grass Farms was being cut. The figures show good results. Much care in watching is required during the Shimga holidays and two guards were assaulted by separate hunting parties during that time.

Kolába.—Fifty-nine fires burnt 1,051 acres, a decrease of 40 fires and 1,559 acres.

It is true that heavy rain in November kept the grass green rather later in the year than usual and that the monsoon broke early in the year 1913, but nevertheless the results arrived at are most creditable. Omitting Panch Maháls in both years the area burnt decreased from 36,327 to 14,007.

Of 359 fire cases 28 were prosecuted and convictions obtained in each case. Thirty-two were compounded and 13 are pending. In the balance of cases offenders were not found.

Central Circle.

Fire protection was exceptionally satisfactory during the year, the total number of fires having fallen from 330 to 220, and the area burned from 101,792 acres to 38,288. The statement showing the origin of the various fires is now given in the Appendix in Form No. 15, instead of in the body of

the report, and a reference to it will show that all classes of fires, whether those through careless burning of lines, or through fire crossing exterior lines, or through rab burning, or with deliberate intention, have materially decreased in number. It cannot of course be denied that the successful results of the year are in some way due to the prevailing scarcity of fodder, to there being consequently less grass in the open forests to burn, to much grass being removed from closed areas in the shape of cut fodder, but there is also evidence from every side that the fire protection measures instituted by the department are being brought to a greater state of perfection each year, that the people recognise that Government is in earnest in putting down fires and are willing to assist in that policy, and that they also recognize that it is in their own interests to do so. The results are best illustrated by a brief note regarding each division:—

East Khándesh.—Decrease in number of fires from 42 to 10, decrease in area burned from 21,393 to 12,649. The Divisional Forest Officer reports that far more care was exercised by contractors and by villagers frequenting the forests in preventing accidental outbreaks, that villagers gave ready assistance in extinguishing such fires as did occur, and that the policy initiated in previous years of punishing those villages which failed to help by suspension of privileges, and rewarding those that gave ready assistance by remission of grazing fees, free grants of produce and rewards to pátils, had a marked effect in the areas concerned. The area burned would have been considerably less but for the exceptional difficulty of some parts of the Sátputás, where the country is extremely mountainous and where there are few villages near. In this division the system of fire stations and drums is not in force, being unsuited to the conditions prevailing in the areas susceptible to fire, *viz.*, vast areas of forest with no villages in or near their limits.

West Khándesh.—Decrease in number of fires from 61 to 47, decrease in area burned from 43,934 to 12,959. The result is attributed partly to better work on the part of the staff, but chiefly to increased interest in the protective measures on the part of the people, the interest being stimulated by liberal grants of forest produce and by threats of withdrawal of privileges. The Fire Station and Drum System was in force.

North Khándesh.—Decrease in number of fires from 72 to 29, decrease in area burned from 27,996 to 9,511. In this division the percentage of failures in fire protected areas has fallen in five years from 45.3 to 1.71, the result of a policy of fire stations, drums, and patrols, and of judicious rewards and punishments. There has been a marked improvement in three ranges which hitherto have not shown conspicuously good results.

South Násik.—Decrease in number of fires from 57 to 35, decrease in area burned from 6,089 to 1,144. Scarcity of grass throughout the division partly accounts for the results, but the people are reported to have been extra careful in their habits, and as a rule to have turned out quickly to extinguish outbreaks. Those that did not were punished by the Collector by enhancement of grazing fees, and others were warned. Villages which had been so punished in the previous year showed an improvement, and the punishment was remitted.

North Násik.—Decrease in number of fires from 18 to 7, decrease in area burned from 465 to 222. Total absence of grass in the east of the division, and removal of much cut grass from the closed forests in the west helped to keep down the figures, but the burned area would have been far greater but for efficient protection by all concerned.

Poona.—Increase in number of fires from 38 to 51, decrease in area burned from 1,620 to 938. The area successfully protected in this division shows a steady yearly decrease. The villagers have learnt the value of grass and grazing in the forests, and readily turn out to extinguish fires, so much so that expenditure on protection is reduced to a minimum.

Sátára.—Decrease in number of fires from 42 to 41, increase in area burned from 295 to 865. The increase was due to one isolated case of incendiarism, which resulted in 600 acres being overrun.

The main feature of the above results is the success that has been attained in the divisions that are most susceptible to fire, and which in the past have suffered the most *viz.*, the three Khándesh divisions. That the improvement is steady, and is not merely the effect of scanty rainfall, is illustrated by the following figures giving totals for the three divisions for the past five years, and proportionately similar good results could be shown for the whole Circle:—

Year.	No. of fires.	Area burned.
		Acres.
1908-09 ...	289	338,114
1909-10 ...	331	294,503
1910-11 ...	253	214,922
1911-12 ...	175	93,323
1912-13 ...	86	35,119

The amount spent on protective measures was Rs. 18,545 as against Rs. 17,214. This works out as an insurance premium of about $1\frac{1}{4}$ pies per acre on the total area of 2,856,703 acres in which those measures were undertaken, and of but a fraction higher on the area of 2,818,415 acres that were successfully protected.

In the 220 cases of fires that occurred the offenders were detected in 73 cases. On the whole, the punishments inflicted by magistrates in the cases that were taken into court were reported to be satisfactory, but in some districts there is still the tendency so often noted in previous years, to treat firing the forests as a comparatively trivial offence for which a small fine rather than imprisonment is an adequate punishment. As an instance, a fine of Rs. 4 for intentional incendiarism which resulted in 250 acres being burned, may be quoted. In such cases the assistance of the District Magistrate is sought by Divisional Forest Officers and meets with a ready response, but the point is one which evidently has to be reiterated yearly.

The following statement shows the progress made in fire protection during the last seven years:—

Division.	Total forest area of the division in charge of the Department.	Extent of valuable forest for which continuous protection from fire is desirable.	Protection of valuable forest which has been continuously protected from fire for 7 years.	Extent of forest naturally immune from fire.	Extent of forest burnt during the year.		
					Open forest	Closed forest	Total.
	Acres.	Acres.	Acres. Per cent.	Acres.	Acres.	Acres.	Acres.
East Khándesh ...	487,760	367,918	108,519 or 29.4	...	6,894	5,755	12,649
West Khándesh ...	346,591	206,107	Nil.	...	10,881	2,078	12,959
North Khándesh ...	555,766	555,766	Nil.	...	7,418	2,093	9,511
North Násik ...	449,398	449,262	442,262 or 98.4	...	219	3	222
South Násik ...	419,795	237,865	153,388 or 64.4	65,920	605	539	1,144
Poona ...	267,370	127,203	103,208 or 81.1	101,752	260	678	938
Sátara ...	329,688	228,980	212,923 or 93.8	100,569	718	147	865
Total ...	2,856,368	2,173,101	1,020,300 or 46.9	268,241	26,995	11,293	38,288

Southern Circle.

The area attempted to be protected was 1,224,017 as compared with 1,108,499 acres in the previous year, the increase being chiefly due to the addition of the working plan area of the Ankola range in Kánara Western division and partly to the area transferred to the charge of the Forest Department in Dhárwár division in 1911-12. The area burnt was 29,560 acres or 2.4 per cent. against 79,090 acres or 7.1 per cent. in the previous year. The total amount spent on special protection was Rs. 22,476 or Rs. 14 per square mile as compared with Rs. 24,050 or 14.9 respectively in the previous year, *vide* statement given below:—

Division.	Area attempted to be protected.		Area burnt.		Area actually protected.		Total cost.		Cost per square mile protected.	
	1912-13.	1911-12.	1912-13.	1911-12.	1912-13.	1911-12.	1912-13.	1911-12.	1912-13.	1911-12.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	Rs.	Rs.
Kánara Northern	241,133	241,133	2,331	7,931	238,802	233,202	6,368	6,072	17	16-6
Kánara Southern	9,787	9,506	71	78	9,716	9,433	396	149	9-9	10
Kánara Eastern	225,946	225,946	11,997	31,204	213,949	194,742	6,719	8,236	20-1	27-3
Kánara Western	198,386	83,338	380	442	198,006	87,946	1,878	2,703	6	10-7
Belgaum	400,444	400,984	2,262	11,502	398,182	389,482	4,223	3,939	7	6-5
Dhárwár	132,500	125,990	12,073	27,243	120,427	98,747	2,788	2,780	14-8	13-1
Bijápur	3,770	4,512	445	690	3,325	3,812	74	83	14-8	13-8
Ratnágiri	12,051	12,050	1	5	12,050	12,045	30	30	1-6	1-6
Total ...	1,224,017	1,108,400	29,560	79,090	1,194,457	1,029,409	22,476	24,050	14	14-9

Protection from fire was still more remarkable this year in Kánara Northern division than in 1911-12. In the teak area, comprising about 226,769 acres, only 683 acres or 3 per cent. were burnt. The Divisional Forest Officer records that with two years' successful fire protection much of the high grass in Block XX has completely disappeared. The dying off of this grass, which was often 10 feet high, has greatly simplified the protection of those very dry and inflammable forests.

The only 2 areas under working plans in Kánara Southern division are never burnt. The area of coupes, etc., which was specially protected was 9,787 acres, out of which 71 acres were burnt. On the whole the coupes were well protected, only 3 small fires having occurred.

There was a vast improvement in the fire protection in Kánara Eastern division. The number of fires decreased from 220 to 105 and the area burnt from 35,219 acres to 14,266. Katur was the only range where, through the extremely slack arrangements of the Range Officer, fires were bad. Otherwise the division would have shown even better results.

Though the area specially protected in Kánara Western division was more than double of what it was in 1911-12, the area burnt was less by 62 acres. This most satisfactory result is attributed to—

(1) good rains in October and November which kept the jungles damp till late in January,

(2) appointment of temporary guards to patrol compact blocks of fire traced area, and

(3) punitive measures under which grazing fees were enhanced where there were bad fires in the previous year.

The fire season was a long one in the Belgaum division, the first fire occurring on the 12th December and the last one on the 1st June. There was, however, a considerable decrease in the area burnt, from 11,502 acres in 1911-12 to 2,262 acres in 1912-13. The Divisional Forest Officer remarks that the two most important ranges, Khánápur Central and East, suffered most from fires, that the fires were often started through malice and that a police patil was amongst the prime offenders.

The villagers in the Dhárwár division are reported to be realizing the benefit of fire protection. The area burnt was less than half compared with the previous year, the Kod range alone contributing nearly 50 per cent.

The area of 3,770 acres under special fire protection in the Bijápur division is limited to coupes under regeneration. Of this, 445 acres were burnt, which is very unsatisfactory.

The following statement shows the concessions allowed for good general protection and punitive rates imposed for bad protection during the year:—

Division.	Number of villages rewarded with free or concession grazing for good general protection.	Number of villages punished for bad protection of jungles by excessive grazing fees.
Kánara Northern ...	47	36
Kánara Southern ...	.....	15
Kánara Eastern ...	60	30
Kánara Western ...	.....	3
Belgaum ...	120	103
Dhárwár ...	16	11
Bijápur ...	23 people of 3 villages.	2
Total ...	243	200

Form No. 15 accompanying the report gives the origin of fires which were 552 in number, whereas in the previous year it was 971. The area burnt was 44,031 acres as compared with 104,404 acres in 1911-12. The number of fires caused in burning lines was 28, which is high though there is an improvement on 1911-12 when there were 43. Kánara Eastern Division alone is responsible for 16 out of 28. There were 130 fires due to carelessness or accident against 330 similar ones in 1911-12. Cases of intentional firing numbered 77, or 22 more than in the previous year. Out of 77 as many as 74 or 13·4 per cent. were detected, 23 being prosecuted and 51 compounded or warned. In 1911-12 the percentage of detection of fire cases was 11 per cent. The following schedule gives the number of fire offences detected and the action taken against the offenders:—

Division.	Total number of fire offences.	Number of detected cases.		Percentage of detected cases.	Result of prosecution.
		Prosecuted.	Compound- ed or warned.		
Kánara Northern ...	66	2	4	9	1 acquitted. 1 sentenced to 10 days' imprisonment and Rs. 5 fine.
Kánara Eastern ...	105	3	12	14·3	Pending.
Kánara Southern ...	113	7	7	12·4	2 convictions, 1 fined Rs. 5 and in another 2 offenders fined Rs. 5 each.
Kánara Western ...	45	2	10	27	4 acquitted. 1 pending. 1 convicted with fine of Rs. 5.
Belgaum ...	94	4	11	16	1 acquitted.
Dhárwár ...	83	2	6	9·6	1 convicted with fine of Rs. 25 and compensation of Rs. 25. 3 pending.
Bijápur ...	44	3	...	7	1 convicted with Rs. 3 fine. 1 pending.
Batnágiri ...	2	...	1	50	(1) fined Rs. 10 or 10 days' simple imprisonment. (2) fined Rs. 5 or 5 days' simple imprisonment. (3) Two offenders fined Rs. 4 each or 4 days' simple imprisonment and 8 offenders fined Rs. 2 each or 2 days' simple imprisonment.
Total ...	552	23	51	13·4	

Out of 15 cases decided by the Magistrates in only one was the offender sentenced to imprisonment, all the rest escaped with trivial fines ranging from Rs. 2 to 10 and, exceptionally, Rs. 25. Apparently the punishments inflicted by the courts were generally inadequate.

The following statement shows the progress made in fire protection during the last seven years as required by Government Resolution No. 248, dated 12th January 1904:—

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 7 years.	Extent of forest naturally immune from fire.	Extent of forest burnt during the year.		
					Open forest.	Closed forest.	Total.
	Acres	Acres.	Acres. Per cent.	Acres.	Acres.	Acres.	Acres.
Kánara Northern.	479,091	252,290	229,000 or 98	49,493	2,251	80	2,331
„ Southern.	624,848	555,408	300,000 or 54	209,180	2,754	171	2,825
„ Eastern...	417,756	225,946	69,213 or 30.6	4,300	2,269	11,997	14,266
„ Western.	558,280	288,571	99,044 or 34	129,348	72	380	452
Belgaum ...	400,438	400,438	48,500 or 12	48,500	1,091	1,171	2,262
Dhárwar ...	143,396	143,396	39,208 or 27	...	14,220	2,737	16,957
Bijápur ...	139,510	137,241	103,604 or 75.5	2,269	445	4,492	4,937
Ratnágiri ...	12,051	2,543	.....	9,508	...	1	1
Total ...	2,775,370	2,005,828	888,569 or 44.3	452,593	23,102	20,929	44,031

The accuracy of the figures in column 4 is questionable.

Sind Circle.

The results of the year and last year are as under :—

Division.	Fires originating in departmental fire conservancy operations.		Fires crossing outer fire traces.		Fires due to carelessness or accident by outsiders or unknown causes.		Fires originating from intention or malice.		Total.	
	No.	Area burnt.	No.	Area burnt.	No.	Area burnt.	No.	Area burnt.	No.	Area burnt.
Sukkur ...	1	5	7	229	11	112	15	554	34	900
Naushábro ...	...	...	...	...	18	939	...	...	18	939
Hyderabad ...	...	...	...	...	19	644	...	...	19	644
Jerruck ...	...	...	...	...	35	1,237	...	...	35	1,237
Total of 1912-13 ...	1	5	7	229	83	2,932	15	554	106	3,720
Total of 1911-12	...	...	18	707	173	8,098	71	14,003	262	22,808

It is gratifying to be able to record a very great improvement in the measure of success attending attempted protection of the forests from fire. There were 106 fires in all, the average area burnt being 35 acres. In the previous year the corresponding figures were 262 and 87. There was an improvement in every division, but most noticeably in Sukkur and Naushábro, where fires were less than one-third those of last year. The reasons for this were :—

(a) a better inundation and consequently a better supply of grass,

(b) many areas which had hitherto been closed became fit for opening and thus afforded a more plentiful supply of grass and a wider field for pasture,

(c) the forest officers were constantly impressing on the maldárs and villagers the damage done to the forests by fire, and the further disadvantages to themselves in the shape of closure of burnt areas and enhanced fees.

The Divisional Forest Officer, Jerruck, reports that "carelessness of travellers and the ferry-going public is responsible for most fires, and a large number in the Mulchand range are the result of deliberate incendiarism." To minimise the danger from travellers some very good fire tracing work was carried out along the principally used tracks and the results obtained were encouraging. At the very end of the year the Divisional Forest Officer found it necessary to ask the Collector to close one large forest in the Mulchand range for one year in the hope of impressing on the people that a defiant attitude will not serve them.

Nineteen miles of fire lines were cleared in the Jerruck division at a cost of Rs. 875 or Rs. 46 per mile. The widths varied from 25 to 100 feet, and from a personal inspection the Deputy Conservator can say that never were lines cleared more cheaply, considering the nature of the difficulties encountered. Fire watchers were also employed to patrol the forests and fire lines during the season. Rs. 653 were spent on these. The season during which a fire is possible in Sind is considerably longer than in the Presidency proper, consequently patrol expenses are heavier.

The detection of offenders in fire cases is particularly difficult, and it is therefore gratifying to record the success alluded to above.

It is safe to say that success in protection from fire in the Sind Circle depends very largely on circumstances entirely outside the control of the Forest Department; *e. g.*, a favourable inundation means not only plenty of grazing for all comers but also plenty of grazing outside the forests. A good rainfall in the hills brings good grass there, and the hill cattle owners do not bring their animals down to the forests. The Forest Department under ordinary circumstances welcomes cattle in forests to keep down the dense growth of grass, but when large flocks of starving cattle from distant places invade forests which are deficient in grass owing to an inadequate inundation, the cattle owners not finding grazing, burn the forests right and left to obtain young grass for the animals, and in these circumstances a staff three times as strong could not stop them.

The statement required by Government Resolution No. 243 of 12th January 1904 regarding areas enjoying continuous immunity from fire for a period of 7 years, is given below:—

Division.	Area.	Extent of valuable forests for which continuous protection from fire is desirable.	Proportion of valuable forest which has been continuously protected for 7 years.	Extent of forest naturally immune from fire.	Extent of forest burnt during the year.		
					Open forest.	Closed forest.	Total.
	Acres.	Acres.	Acres. Per cent.	Fresh formed kachas.	Acres.	Acres.	Acres.
Sukkur ...	284,953	284,953	256,725 or 90.09		794	106	900
Naushahro ...	146,480	146,480	138,408 or 94.49		924	15	939
Hyderabad ...	151,043	151,043	150,580 or 99.69		644	...	644
Jerruck ...	145,037	145,037	128,528 or 88.62		1,237	...	1,237
Total ...	727,513	727,513	674,241 or 92.68	...	3,599	121	3,720

(c) Protection from Cattle.

Northern Circle.

The following statement shows the number of animals impounded compared with the figures of the previous year and the past three years. All forests are closed to browsers:—

Statement showing the number of animals impounded for illicit grazing.

Division.	Cows and Bullocks.		Buffaloes.		Goats.		Sheep.		Other animals.		Total.		Grand total for 1912-13	Grand total for 1911-12.
	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.		
Panch Mahals ...	251	2,632	131	1,108	1,723	507	3	...	7	58	2,115	4,303	6,418	10,189
Surat ...	74	79	2	25	...	...	129	130	...	...	205	234	439	714
North Thána ...	153	1,069	49	264	1,026	547	26	40	...	...	1,284	1,920	3,204	3,259
Central Thána ...	321	3,627	118	632	790	220	249	28	...	...	1,473	4,507	5,980	4,481
South Thána ...	20	2,267	9	646	479	380	4	...	...	...	512	3,203	3,805	3,882
Kolába ...	11	1,438	17	247	...	163	...	940	...	4	28	2,702	2,820	2,315
Total, 1913-13 ...	860	11,112	321	2,920	4,018	1,817	411	1,138	7	62	5,617	17,049	22,666	...
Total, 1911-12 ...	684	12,687	357	2,478	4,044	2,042	874	515	17	242	6,876	17,984	...	4,810
Average of past 3 years ...	845	10,457	364	2,133	3,858	1,238	3,009	622	24	135	7,010	14,585	...	...

The number of impoundings decreased from 24,840 to 22,666, 21,595 being the three years' average.

The reduction in impoundings in the Panch Maháls is attributed to the lenient conditions allowed after the famine.

In North Thána stall feeding was encouraged, closed coupes being thrown open to villagers for the cutting of grass free.

In Central Thána there was an increase of cattle impounded in each range, chiefly in the closed area where supervision was strict.

In South Thána the increase was in the number of goats impounded. Kathodis who own many goats were largely engaged by land owners in manufacturing charcoal because of its high price during the year. Their animals frequently strayed into forest.

In Kolába the few animals impounded in open forests show that the grazing collection was good early in the grazing year.

Central Circle.

Out of 4,463 square miles of lands in charge of the Forest Department 954 square miles, or 21·4 per cent. were closed to grazing of all animals throughout the year, and 130 square miles were so closed for part of the year, the latter representing lands which are worked primarily for the sake of grass cutting, and in which, once the grass crop is cut and removed, there is little objection to horned cattle being admitted. The former of course represents areas of valuable forests closed for regeneration purposes. Goat and sheep grazing is now forbidden by Government in practically all forest proper, but there are 1,817 square miles of pasture forests in charge of the Revenue Department to which these animals are admitted.

The conditions of the past season, though somewhat more favourable than the previous one for the protection of forests from cattle in the way that such extensive concessions in the matter of throwing open closed areas to grazing were not held to be necessary, was nevertheless unfavourable as compared with a year of ordinary good rainfall and plentiful fodder. In particular, the holding off of the rains in the early part of the season resulted in great pressure on the closed areas, much cattle trespass, and a consequent increase in the number of cattle impounded as compared with the previous year.

The following statement gives the details of impoundings, and the results may be analysed as below :—

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	2,443	6,831	22	1,130	1,668	4,939	...	...	14	8	4,170	12,908	17,078
West Khándesh	26	7,106	...	618	2,349	471	191	465	18	212	2,584	8,872	11,456
North Khándesh	82	5,697	2	1,118	308	23	...	...	...	30	332	6,257	6,649
North Násik ... ..	...	8,222	...	624	9,713	6,082	6,481	3,178	...	145	16,197	18,251	34,448
South Násik	593	5,293	25	130	...	3,937	...	726	...	25	618	10,266	10,884
Poona	431	3,091	179	828	2,427	870	2,406	924	3	12	5,446	726	11,171
Sátára	86	1,942	27	327	1,446	152	6,392	194	13	4	7,964	2,610	10,583
Total 1912-13	3,666	37,587	255	4,875	17,929	16,623	15,473	5,487	43	426	37,371	64,898	102,269
Total 1911-12	1,634	23,535	272	2,835	8,470	19,085	6,145	13,659	33	114	16,554	60,128	76,682
Average of past 3 years	3,662	30,571	302	3,550	3,605	22,666	4,605	19,607	125	306	12,380	75,791	88,171

There was an increase in the number of animals of all sorts impounded, of 25,587, *viz.*, from 76,682 to 1,02,269. Of this increase, no less than 7,153 were sheep and goats, the grazing of which in forest proper is not only deliberate in that it is known to all that they are not allowed, but also unnecessary from the point of view of the owners, in that such large areas of pasture forest have been made available for them. These impoundings, therefore, need not be considered. The main question for consideration is the impounding of horned cattle, which showed a rise of 18,107. From this figure 2,015 animals may also be left out of consideration, in that they were impounded from open forest for deliberate refusal to pay the grazing fees; the orders of Government in this respect are strictly observed, and no horned cattle are ever impounded when caught grazing in open forest, without the owners first being given the option of paying the fees due. There thus remains an increase of impoundings of horned cattle from closed forests, as compared with the previous year, of 16,092, and each division will be taken separately to explain the causes.

East Khândesh.—Increase 1,743. The season was somewhat better than the previous one, and there was not the wholesale early opening of closed areas. Grass was scarce in open forests, and the contractors of closed areas showed much carelessness in protecting the areas in their charge once they had cut what grass they wanted. The people too, having been given concessions in the previous year, could see no reason why they should not always enjoy them.

West Khândesh.—Increase 5,158. The holding off of the rains early in the season resulted in much deliberate trespass in the kurans, which necessarily had to be closed to ensure there being any grass at all later in the season. There was also a large influx of cattle without permits from the Násik District, and trespass in the closed forests. On this question the Collector has remarked that "the impoundings could have been avoided had the people been warned a few days before the forests were closed." There is, however, no reason for thinking that such was not the case. Closure is never enforced without due warning; the trespass in question was deliberate; and obviously the influx of cattle from Násik could not be affected by any such warning.

North Khândesh.—Decrease 169 as compared with the previous year, but an increase of 1,789 as compared with the previous two years' average, due not to trespass by local villagers, but to an influx of non-forest-village cattle from the plains at a time of the year when owing to the failure of the rain, there was no grass outside. The privilege of free grazing is, as the Collector remarks, no doubt an important factor in enlisting the sympathy of forest inhabitants, and in securing their co-operation to prevent forest fires, but in this case the offenders were outsiders who care nothing for the forests and only seek to obtain grazing. It must be pointed out too that unless the forests are closed when the grass first begins to grow, there can be absolutely nothing for the cattle to eat later in the season when it may be more urgently needed. There is therefore more than one side of the question to be considered.

North Násik.—Increase 4,429. This was due to scarcity of grass everywhere except in the west of the division, and to the concessions as regards opening of closed areas not having been made as in the previous year.

South Násik.—Increase 1,947, due to general scarcity of fodder outside of forests.

Poona.—Increase 2,474 due to insistence of proper protection of closed areas. The Collector has recorded his opinion that they are in no way due to insufficient grazing facilities, but rather to the abuse of generous concessions, and to the desire of the people to avoid payment of fees.

Sátára.—Increase 510 only, which calls for no special remark.

The whole question of grazing and impounding brings to the fore again the necessity of the people laying in a reserve of fodder which will tide them over the possibility of the monsoon failing in the early months. As has been remarked in previous reports nothing of the sort is done, especially in cotton districts, and the result is that the forests have to be called on to reconcile the problems of preserving their true interests as forests, of keeping the cattle alive in the

early months of the season, and of the provision of a supply of grass for the remainder of the year. The difficulty, if not impossibility, of reconciling these problems so as to give general satisfaction is clearly shown by the details that have been given above. Concessions are freely given whenever the Revenue and Forest Departments consider them to be necessary, but it is not always the case that the concessions are duly appreciated by the people. Rather they try to trade on them in good years when there is no necessity for them to be given. Reference has already been made to the number of cattle in East Khándesh for which the owners refused to pay fees even when caught grazing in open forest, and in addition the Divisional Forest Officer, Poona, brings to notice the avoidance of payment until it can no longer be avoided, so much so that at least 25 per cent. of the cattle of the district for which fees were paid, had first to be taken to the village before the owners would pay up, while the fees of no less than 9,683 head had to be recovered at double rates owing to avoidance of payment beyond the fixed date within which single fees only were necessary. Considering the smallness of the fee and the value of the grazing given for it, the remark of the Collector of Poona on last year's report that "where grazing is concerned there is a disposition to assert rights beyond those conceded by Government" is one that can hardly be gainsaid in any district.

Southern Circle.

Form No. 16 exhibits the details of areas closed and open to grazing during the year.

The area entirely or partially closed to grazing amounted to 16.4 per cent. of the State forests as compared with 16.5 per cent. in 1911-12. The area open to all animals (including browsers) was 275 square miles or 6 per cent. Thus 83.6 per cent. of the total area of the forests was open to the grazing of horned cattle throughout the year.

The number of cattle impounded during the year was as follows:—

Division.	Cows and Bullocks.		Buffaloes.		Goats.		Sheep.		Other animals.		Total.		Total of open and closed for 1912-13.	Grand total of open and closed for 1911-12.
	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.		
Kánara Northern ...	...	1,039	...	805	9	10	...	2	...	...	9	1,856	1,805	1,455
Do. Southern ...	116	105	...	15	112	...	...	21	...	...	228	141	369	158
Do. Eastern ...	...	764	...	179	...	31	...	...	...	...	...	974	974	984
Do. Western ...	...	133	...	89	...	...	...	...	...	...	...	222	222	157
Belgaum ...	353	3,182	97	924	...	3,181	..	1,165	...	1	456	8,453	8,909	6,718
Dhárwár ...	2	302	33	405	413	35	306	...	...	...	754	742	1,496	2,332
Bijápúr ...	...	1,247	...	340	...	3,633	...	308	...	22	...	5,610	5,610	7,038
Ratnágiri ...	...	3	...	3	...	130	...	...	...	...	...	136	136	15
Total of 1912-13 ...	471	6,775	130	2,780	534	7,020	306	1,556	6	23	1,447	19,134	19,581	.....
Total of 1911-12 ...	824	6,035	42	1,509	590	4,996	97	4,703	...	31	1,523	17,334	...	18,857

The total number of cattle impounded rose from 18,857 in 1911-12 to 19,581 in 1912-13. The impoundings in Kánara Eastern Division, Dhárwár and Bijapur have decreased by 2,274, which is a set-off against an increase of 2,998 in the other divisions. The net increase of 724 is mostly in horned cattle which were persistently let into closed coupes as well as other peoples' crops. In the Belgaum division the heavy compensation of Rs. 2 per head in deliberate cases of illicit grazing is beginning to teach the owners that grazing passes must be kept with the herdsmen. The Divisional Forest Officer, Dhárwár, attributes the decrease to good grass crop outside forests throughout the division on account of good rain. In Bijapur it is ascribed to the zeal of subordinates which it is hoped is the case.

Under this head again it must be confessed that the co-operation of the courts is much needed to put down trespass. In such cases it is difficult

to prove the offence to the satisfaction of the court; secondly, the subordinates lose a deal of valuable time and if they are so fortunate as to obtain a conviction the punishment is a light fine, in fact lighter than what the Forest Officers can themselves impose under Section 67. One Magistrate holds that the legislature does not intend to punish a man for cattle trespass, impounding of cattle being in itself a sufficient punishment. The only alternative that exists, therefore, is not to take grazing cases to court.

Sind Circle.

Ninety-three per cent. of the forest area was open to grazing of cattle (except goats and camels). The latter animals were admitted to about half of the above area.

Impoundings have decreased by 3,645 since last year. The decrease is contributed to by all divisions and may be accounted for as follows:—

- (1) More people ransomed their cattle before they were impounded,
- (2) extensive opening of hitherto closed areas,
- (3) a falling off in the number of cattle brought for grazing in forest.

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, Revenue Department:—

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.	1911-12.	1912-13.
Sukkur	597	1,602	371	693	13	...	1,869	1,859	116	271	91	86	3,057	4,461	9,189	7,518
Naushábro	190	723	128	220	...	55	344	594	27	145	3	28	692	1,765	2,511	2,457
Hyderabad	381	375	278	199	...	40	381	256	128	101	19	61	1,187	1,032	3,730	2,210
Jerruck	537	92	326	22	...	...	445	683	87	42	34	10	1,429	849	2,687	2,278
Total, 1912-13 ...	1,705	2,792	1,103	1,134	13	95	3,039	3,392	358	559	147	135	6,365	8,107	...	14,472
Total, 1911-12 ...	3,205	3,173	1,024	1,252	5	12	2,710	4,950	671	674	65	128	7,900	10,217	13,117	...

Fences were made of branchwood round newly exploited coupes over a length of 22½ miles. Repairs to existing fences were made on 515 miles. This work was done free with the help of maldárs and coupe contractors.

(d) Protection against Injuries from Natural Causes.

Northern Circle.

Creepers cutting was carried on by guards in all divisions, the Central Thana guards being supplied with special koyatas for this purpose.

Besides departmental work the following sums were spent in various divisions in cutting out creepers:—

	Rs.
Panch Maháls	22
Surat	236
North Thána	570
Central Thána	32
Kolába	230

Statistics are furnished from the Surat division where an eight-year plan to go over the North Dangs range was started. 1,15,012 creepers were cut, 4,676 damaged saplings cut back at a cost of Rs. 134.

In Central Thána, a coupe (XVI-24) in Wada range was cleared of dead bamboos and in Kolába soft woods weeded in the young *casuarina* plantations.

Central Circle.

There is little to record under this head.

Prickly pear.—Systematic eradication in babul coupes was carried out at a cost of Rs. 516; and creepers were cut by guards' labour; experiments in the erection of tals were continued, Rs. 58 being spent in East Khandesh, 200 in North Nasik, 199 in South Nasik, 75 in Poona, and 85 in Satara. The work has hardly been in force long enough for an estimation of results to be made, but in Poona villagers are reported to have repaired some old tals on their own initiative, a sign that their lands lying immediately below had benefitted.

Southern Circle.

Wild Animals.—The Divisional Forest Officer, Kanara Northern Division, reports that wild elephants did a certain amount of damage, most especially to young dhamni poles.

Climbers.—These were cut as far as possible in all working plan areas of Kanara, Belgaum and Dharwar by forest guards without cost.

Water.—About a hundred young plants in the *Casuarina* plantation at Kasarkod were washed away by the sea caused by the shifting southwards of the Honavar bar. Kuran lands in Herkal and Chik-Gulbal of the Bijapur division were washed away by flood along the Krishna river. To prevent erosion it is proposed to sow sindi palm seed along the banks as also jili seed (*Sesbania aculeata*).

Lantana.—In Kanara Northern Division orders were issued to eradicate the *Lantana* seedlings round teak growth as far as possible so as to facilitate the exploitation of coupes on the Dharwar frontier where its growth is too dense. The Divisional Forest Officer, Dharwar, states that the unrestricted growth of *Lantana* unless suppressed by eradication is likely to diminish the future supply of grass. In view of the fires that occur, however, this is perhaps not an unmixed evil.

Sind Circle.

The season in Upper Sind was a comparatively mild one and frosts were not numerous or severe. Some injury was caused to young babul in the Sukkur division, but the plants mostly recovered later on. Tali seedlings were successfully hooded to protect them from frost. Creepers were cut by the guards in all divisions. In the Jerruck division there were severe frosts in February, and even as late as the middle of March. These naturally caused somewhat serious damage. A scourge of defoliating caterpillars appeared in November and lasted till well on in the hot weather. These devoured thousands of seedlings and also the leaves of full-grown trees. In consequence the babul pod crop was ruined in Mulchand and Shahbundar ranges and about Rs. 1,200 of potential revenue lost. Specimens of the caterpillar were sent to the Pusa Research Institute but could not be identified there. Many closed areas were opened to light grazing by horned cattle in order to keep down the grass and give the seedlings a better chance. This was attended by good results, as the animals do not eat the babul seedlings and the damage done by their feet is small and more than made up for by the good they do in clearing the dense grass.

4.—SYLVICULTURE.

(a) *Natural Reproduction.*

Northern Circle.

(i) *From Seed.*

In Panch Maháls owing to the famine of the previous season most trees seeded badly, mhowra (*Bassia latifolia*) being an exception.

Owing to excessive grazing necessitated by the absence of fodder elsewhere natural reproduction was bad.

Seedlings of padhai bamboo (*Bambusa arundinacea*) were found in quantity in the Dangs, also in the Thána and Kolába districts.

The report of teak reproduction in the Kolába district was hopeful. In the Thána district, teak seedlings are noticed in coupes three or four years after felling, not before. It is universally agreed that the seeds of most other species germinate quicker and generally dominate the light-demanding teak, necessitating early thinnings of young injaili "advance growth."

In more* remote areas, such as in the Dangs, where it is not pecuniarily profitable to remove firewood or even charcoal, the silvicultural future of our teak forests seems to depend on our finding a market for other species the removal of which will open up the canopy. It will be our duty to endeavour to persuade the railways (particularly the light railways) to accept other variety of wood than teak for their sleepers. There are many species available such as:—*Terminalia tomentosa*, *Adina cordifolia*, *Lagerstroemia microcarpa*, *Stephegyne parvifolia*, *Albizzia Lebbek*, and *Albizzia procera*, which have been found to be most durable if treated with green oil or similar preparations.

(ii) *By coppice shoots.*

Teak coppiced well everywhere in the Circle south of and including the Dangs. In the Panch Maháls where the previous drought was most felt dead wood fellings had to be again undertaken; in the case of mature trees still green at the base fair coppice shoots were obtained, but many younger trees below 12" girth were quite killed.

Central Circle.

Two successive years of insufficient rainfall have naturally had an adverse effect on natural reproduction from seed. From all sides come reports of a lean seed-year of the more important trees, of seedlings which did germinate with the first rains perishing in the subsequent long dry spell, of the ill-effects of excessive grazing, and of the anjan leaf concession having resulted in the simultaneous destruction of the seed on the trees. On the other hand, regeneration by coppice shoots is less affected by the above conditions, and is reported to be vigorous and satisfactory everywhere. The effect of fire protection in Khándesh is very noticeable; for years the forests had been becoming more and more open under the influence of fire (and in some places overcutting which has now been stopped), and more and more overrun by coarse and useless grasses, but already a change can be detected in the quantity of natural regeneration that is springing up, and given continued protection, evidence of the possibility of the improvements of these forests is everywhere visible. Natural regeneration of riverside areas within the flood limits in the Poona babul forests is stated to have been excellent, as also of sandalwood in one coupe where this species is replacing the babul. Near Sátára the growth of sandal is said to be showing remarkable results; the high value of these trees when mature makes this fact of considerable importance. On the Poona ghats the bamboos and karvi flowered, and the effects on natural regeneration will be carefully watched.

Southern Circle.

Kánara.—Reproduction from seed was fair in the Haliyal, Bomanalli and eastern portion of Dandeli ranges and bad in the western half of Dandeli, Yellapur, Kulgi and Gund teak tracts. Even where forests were open through the bamboos dying, teak seedlings were scarce. In the coast and south-eastern tálukas honne, kindal and harda seeded freely.

In Belgaum the death of bamboos and karvi helped towards the development of scattered seedlings. Bamboo seed also germinated on burnt areas, though not so freely as on unburnt.

Seedlings in Dhárwár division are reported to be thriving well. In Bijápur the reverse was the case, for where the seed germinated freely in July and August, the plants died for want of moisture in the hot weather.

Coppice reproduction was satisfactory in all the divisions. In a few localities the growth was weak, stunted and inferior but that was entirely due to poor quality of the soil.

Sind Circle.

The area inundated was 4,40,877 acres as against 374,730 acres the year before. Natural regeneration on the flooded area both from seed and coppice was satisfactory but the seedlings were somewhat damaged by frost in Upper Sind and much damaged in Jerruck by frost and caterpillars. Given sufficient water, natural reproduction is a certainty.

(b) Artificial Reproduction.

Northern Circle.

Regular Plantations.

Division.	Plantation.	Plants raised.	Cost.
			Rs.
Panch Maháls	Godhra Nursery	33,700 teak 1,000 other plants	866
Surat	Velvach	40,600 teak 25,600 other plants	164
Do.	Delvada	24,000 teak 3,100 other plants	174
Do.	Vejalpur	300 casuarina plants	65
Central Thána	{ Alman Pelhar	{	592
South Thána	Mulund	7,038 teak and other plants.	377
Kolába	{ Nagaon Akshi	{ 4,590 casuarina plants	639

Cultural operations.

In *Panch Máhals* 975 maunds of teak and other species were dibbled in blank areas.

Surat.—25 bags of teak seed, 124 bags junglewood seed dibbled in old coupes in Bulsar range; 5,228 teak and junglewood plants planted out in Mandvi range from seven local nurseries. Six bags of teak-seed and 17 bags junglewood seed dibbled in felled coupes.

In the *Dangs*, 19 bags teak seeds sown in local nurseries to provide plants for improvement fellings, 8 bags teak and 38 bags junglewood seed broadcasted in the felling area.

In *North Thána*, seed was sown in 2,550 patches one foot square, Khair and Ain germinated, teak germination poor.

In *Central Thána*, dibbling seeds direct into exploited coupes was tried; results were fair.

In *South Thána*, 237 maunds of seeds of all kinds were dibbled and broadcasted in coupes. 5,619 plants raised by the side of water courses were also transplanted. In each round a plot of an acre was ploughed and sown with seed. Results generally satisfactory.

In *Kolaba*, 702 maunds of seed of teak and various species were dibbled in open forests under cover of bushes. 14,275 plants reared in temporary nurseries were put out.

Central Circle.

Exploited coupes and blanks in bábul forests were as usual ploughed and resown, the results being everywhere satisfactory except in North Násik, where the failure of the rains was the cause. The system of agriculture-cum-forestry was continued in two of the Khándesh Divisions and in Poona; in the former results were poor, partly owing to deficient rainfall, partly to the unsatisfactory nature as a cultivator of the Bhil, who will probably have to be replaced to a certain proportion by the Kunbi if the desired objects are to be attained. In the latter no good results have yet been attained, but the work will be given a further trial under careful supervision. In the Sátára Division systematic sowing and planting of indigenous species in pits and in beds in exploited coupes was carried out with, in places, excellent results. In North Khándesh the bamboo plantations were extended and met with success. In Poona teak plants were raised in the Hivre Botanical Garden and planted out in the forests, the results being reported to be very favourable. In South Násik in the Satpur regular plantation, careful experiments of different methods of plantation work were carried out with a view to the acquisition of knowledge as to the most satisfactory manner of regeneration of our Deccan forests, and to the eventual application of such knowledge on a large scale in place of the somewhat haphazard operations which each Divisional Forest Officer now carries out according to his own ideas.

Southern Circle.

Regular Plantations.—The *Casuariana* plantations were extended by 118 acres—78 in Kánara Southern Division, 37 in Kánara Western Division and 3 in Ratnágiri—at a total cost of Rs. 18,729. All the plantations were doing well except the one at Gangawali, where several plants were damaged by cattle which trespassed to drink the distillery waste water drained into this area.

Form No. 18 has hitherto continued to show the areas treated from year to year under this head. In this year's form all areas, where the operations have been abandoned, have been deducted.

Cultural Operations.—The system of nursing natural seedlings introduced last year in Kánara Northern Division attained great success. Seedlings were marked by stakes in May and June, weeded in the rains, mulched in the cold weather and shaded from January to April. Plentiful rain of the year was favourable and scarcely any seedlings died. The pole forests of Haliyál range which are barely half stocked are likely to benefit by this treatment. The number of natural seedlings cultivated, including transplantations, was 32,609 in 1912 and 87,956 in 1913. In the high forests 38,830 plants were put on in blanks caused by the dying down of bamboos in the Dandeli range, 13,095 in Gund range and 28,174 in Kulgi range. The cost incurred was Rs. 1,529.

The Divisional Forest Officer, Southern Division Kánara, reports:—“Blanks in the below-ghát coupes were filled up. In the coupes at Gersappa teak were planted and established themselves. In the old coupe at Dasangadde the teak coppice is very vigorous.”

Eastern Division Kánara.—Four nurseries were maintained on the Kalanadi Slopes and one in each of the 12 blocks of the pole area. Teak seedlings planted out from nurseries grow very slowly. In many cases teak seed dibbled in during the rains of 1912 came up these rains; on burnt areas where the seed was dibbled in soil mixed with the ashes of burnt trees the results were satisfactory. Six-and-half bags of teak seed and an equal quantity of bamboo seed were dibbled in over 60 acres in Yellápur; 11,700 seedlings were raised and transplanted in the same range. Six bags of teak seed and 5 of matti were dibbled in the coupes exploited this year. The charges incurred under this head were Rs. 1,129, the area operated on being 7,868 acres.

Kánara Western Division.—In the blanks planted out last year 1,500 teak and 3,000 matti plants are doing well. A further 2,000 teak and 2,000 matti have been added. The planting in the 1,912 coupes gave good results, notwithstanding the damage done by rodents.

Belgaum.—Fifteen hundred teak were dug up, where found growing too thick, and put in a small nursery at Tavargatti. From this nursery 630 teak

were planted out in closed coupes. Most of the plants put out in Nagargali Series XIX are reported to have been destroyed by wild animals. The expenditure incurred was Rs. 591, being the wages of coupe mális.

Dhárwár.—Thirty-eight maunds of teak, sissum and junglewood seeds and two maunds of sandalwood seed were broadcast on 689 acres in cuttings as well as in blanks in all ranges by the subordinates without cost. Two thousand four hundred and seventy-nine seedlings that germinated last year were in good condition.

Bijápur.—About 320 maunds of nim, maswal, etc., seed were sown in pits on 885 acres in hill coupes but the result was no better than last year due to the failure of late rains. The efforts made in Kuran coupes by sowing bábul seed along with cereals have succeeded splendidly besides bringing in small amounts of revenue to the Department. Teak seedlings in the Kurans referred to last year are 4 feet high and looking excellent. The expenditure was Rs. 59.

Ratnágiri.—There were 5,770 plants in the Dápoli nursery at the commencement of the year. Five hundred and twenty were newly raised, 4,290 died and 2,830 were transplanted. *Casuarina*, teak, ain, kindal and bamboo are the chief species.

Sind Circle.

Regular plantations.—The only regular plantations in Sind are those of tali (*Dalbergia Sisso*). There were 172 acres under regular plantations at the beginning of the year. Ninety-three acres were added and 7 were eroded or abandoned. Total at the end of the year 253 acres. It is a question whether the expenditure on these plantations is worth the results obtained. An enquiry into this matter is at present being made.

As to Kot-Sultan plantation in Sukkur Division the original idea of planting 100 acres had to be abandoned for want of water. For this reason the plantation was limited to 78 acres. Except tali and mulberry seedlings the other species (siris, ber, bábul and kandi) are doing well. The Public Works Department is being asked if it can supply more water.

The old established gardens were maintained as under :—

	Rs.
Sukkur Division—	
Rahuja at a cost of	2,222
Hyderabad Division—	
Miani Bungalow	} at a cost of
" Monument	
" Mango garden	
Total ...	3,576

Cultural operations.—These are of two kinds : (a) Forestry-cum-agriculture (by lift irrigation) and (b) broad-casting on bare areas and exploited coupes which receive flood water. Under the first method 2,208 acres were brought under regeneration, the assessment (amounting to Rs. 5,773) being credited to the Revenue and Public Works Departments by book transfer. This is for lands which get water from Public Works Department canals. The results reported were on the whole not good owing to low water in canals. This is not a satisfactory system and orders have been issued to confine it to lands where it will really be a success, *i. e.*, where the land will leave the hands of the cultivator in a *better* state (from a forest point of view) than when he took it. In many lands inspected it was observed that the temporary cultivation had resulted in the deterioration of the forest growth or in its total disappearance.

Under the 2nd system 2,683 maunds of bábul and kandi seed were sown throughout the Circle. Some of the results obtained from these sowings were splendid. As a type of many may be mentioned the following :—

A blank was sown broadcast with bábul seed in Keti Lalia forest in Sehván Range in September 1912, when there were about 4—6 inches of water on the ground. Seedlings inspected on November 21st. The water had dried up, the ground was moist and the seedlings were about a foot high and very numerous. They were expected to be 3 feet high by June 1913. An adjoining plot sown in September 1911 was seen. There is a dense crop of bábul seedlings from 10 to 15 feet high, and beyond the reach of damage from any animals except camels. The above is only an isolated instance of what can be done, and what is done where water is available. Equally good results were observed in various places in all Divisions.

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

Northern Circle.

No weedings, thinnings, girdlings or improvement fellings of unsaleable stock were carried out. Some of the older Thána fellings require these and the work will be entrusted to the Working Plans Officer when appointed. Creeper cutting has been mentioned previously.

Central Circle.

In the South Násik Division, girdling of useless species in the coupes of the year are carried out by contractors under their agreements. In Poona special attention was paid to the cutting of climbers which were damaging growing trees, and to the freeing of valuable seedling growth from overhead cover which would interfere with it. The subordinate establishment were also instructed as to the thinning out of superfluous coppice shoots growing from one and the same stool.

Southern Circle.

The chief operations carried on under this head in Kánara Northern Division were:—

Saplings freed from infringing growth	...	...	teak.	11,151
Do. do. do. do. do.	...	...	other species.	1,271
Trees, poles, etc., freed from interfering growth	...	...	teak.	1,566
Do. do. do. do. do.	...	...	other species.	355
Inferior species girdled	...	...	...	65
Climbers cut	...	...	...	19,779

Besides these, 16,273 unsound teak, 44 blackwood and 2,402 jungle wood trees were marked for felling in Block VII. Also 1,280 unsound teak trees were felled in Block VI for conversion into sleepers.

Kánara Southern Division.—Creeper cutting was carried on as usual. Teak coppice in Dasangadde old coupe was thinned and also the teak in the surrounding jungle. Below-ghát the teak near rubber plantation were thinned and teak in the Nagarbastikeri-Begodi tract were freed.

Kánara Eastern Division.—Fifty-six thousand five hundred and thirty-two bamboos, 2,518 interfering trees and 16,012 useless teak were cut. 41,288 teak seedlings were freed and 974 trees were lopped of branches and about 65,000 creepers were cut.

Kánara Western Division.—Creepers were cut as usual and thinnings were continued in the Kadra teak plantation. A thinning was also made in the oldest *Casuarina* plantation at Kodibág and 400 dead and dying dominated poles were removed.

Belgaum.—Cultural work done was:—

Creepers cut	...	...	...	9,640
Bamboos cut	...	...	...	1,004
Teak seedlings freed	...	...	...	2,879
Junglewood do.	...	...	...	230
Badly grown teak shoots cut level with the ground	...	...	...	1,838
Do. do. Junglewood	...	...	...	1,997
Trees girdled	...	...	...	44
Trees of which branches were cut off	...	...	...	144

Bijápur.—The only operations done and needed was the thinning of the bábul crop in Galgali where it was too dense.

Sind Circle.

The only operations were the cutting of creepers all over the Circle, and some small thinnings in the Jerruck Division. These latter were very successful and effected a real improvement in the forests besides yielding some revenue.

(d) *Experiments.*

Northern Circle.

No new species were introduced, Casuarina plantations were extended and notes made on the rubber trees already put out. It is believed that the distribution of rainfall in the Circle is inimical to the rubber plant which suffers both from excessive rain and drought. It is attacked by pigs when planted out, and suffers from uprooting by wind: sickly trees are also attacked by white ants. It is proposed to shortly try tapping of Ceara and Para trees. *Ficus elastica* trees in Central Thána are healthy but their growth compares vary unfavourably with that in Assam.

Central Circle.

Few were carried out. In South Násik hirda trees were freed from surrounding growth to see if the crop of fruit was thereby increased, the experiment being based on the well-known fact that trees in cultivated lands yield larger crops than do those in forests. In Poona experiment was made to see if the germinating qualities of the hirda seed could be improved, and results were promising. If successful the experiment should be of value, for hitherto attempts at artificial propagation of this tree have been labour lost. In East and West Khándesh experiments with lac were continued with moderate results. In the former division it has been proved that there is no difficulty in spreading the lac by artificial infection of fresh trees, but all efforts to prevent its subsequent destruction by its chief enemy the black ant, which kills the insects, have so far proved a failure. In the latter division there was insufficient supervision of the work owing to the diversion of the Forest Staff on Famine Grass Operations. The experiments will be continued, for the quality of Khándesh lac is excellent, and experience in other Provinces has shown that its cultivation can be a very valuable source of revenue. In Sátára the Divisional Forest Officer continued his experiments in the culture of fruit trees with most promising success, 273 grafts of various species, mango, custard apple, sweet lime, loquat, pomegranate, guava, orange, raspberry, fig, pumelo, peach, pear and bullock heart being distributed in various localities with a very slight percentage of casualties. Excellent Cooking pears were obtained from the old trees at Lingmalla, while figs in the Pátan Range are said to have left nothing to be desired.

Southern Circle.

Nil.

Sind Circle.

Attempts were made in the Hyderabad Division to extend the lac bearing area but with very poor results. The failure is due principally to a very hot season which seems to have almost annihilated the broad lac. Further experiments are being made in Hyderabad and Jerruck Divisions.

5.—EXPLOITATION.

(a) *System of Management.*(i) *Major Forest Produce.*

Northern Circle.

The following table gives the application of the various sylvicultural systems in force as ordered by Government Resolution No. 1542 of 17th February 1913:—

Division.	Method of clear fellings by compartments.		Uniform method.		Group method.		Selection method.		Simple coppice.		Coppice with standards.		Method of Improvement felling.		Unworkable area and area not under Working Plan.	
	Area in square miles.	Percentage of total area under sylvicultural system.	Area in square miles.	Percentage of total area under sylvicultural system.	Area in square miles.	Percentage of total area under sylvicultural system.	Area in square miles.	Percentage of total area under sylvicultural system.	Area in square miles.	Percentage of total area under sylvicultural system.	Area in square miles.	Percentage of total area under sylvicultural system.	Area in square miles.	Percentage of total area under sylvicultural system.	Area in square miles.	Percentage of total area under sylvicultural system.
Panch Maháls..	278	83.7	26	7.9	23	8.4
Surat	68	9.8	159	22.0	497	66.7
North Thána	24	7.4	...	...	308	91.7	...	...	3	.9
Central Thána..	13	3.5	...	...	358	60.5	...	...	...	...
South Thána	3	.8	...	...	326	99.1	...	...	3	1.1
Kolába	2	.3	...	...	44	92.0	...	...	34	7.6
Total	42	1.7	...	...	1,750	68.9	185	7.2	505	22.2

Clear fellings.—None.

Selection fellings.—Were prescribed for Talasari Maháls forest and Blocks I and II of Mokháda, but were held up for want of roads which are here lacking; a road is to be aligned shortly which will link up with one already made by the Public Works Department to the villages below-ghát in the Násik Táluka.

Coppice with standards.—This is the system adopted everywhere but in the Dángs, Talasari and Mokháda. Contractors working in all divisions; area sold in 1912-13 acres 22,462.

Improvement fellings.—Started this year in North Dángs over an area of nearly two square miles in advance of the working plan which has been written but not yet sanctioned. Fellings of the kind also take place in the Mátherán plateau forests.

Unregulated fellings.—These still continue for revenue in Central and South Dángs, but working plans on the same lines as that for the North Dángs will shortly be applied and place this area under systematic management.

Central Circle.

Clear fellings.—These were undertaken in babul forests only, 45 coupes of a total area of 428 acres realizing Rs. 39,465 or an average of slightly over Rs. 92 per acre.

Improvement fellings.—In Poona abnormally high floods did much damage in bábul forests by erosion and uprooting of trees. Two lákhs sixty-nine thousand one hundred and thirty-three cubic feet of fuel, the result of the damage, were extracted departmentally and sold for Rs. 9,795. Similar work on a small scale was done in East Khándesh.

A felling under the Lonávla Working Plan for the supply of fuel to Lonávla and Khandálla proved a failure, as labour could hardly be obtained to bring up the material from the precipitous ravine in which it was cut. Operations under this plan will have to be suspended.

In North Násik overmature and diseased anjan trees were removed at a good profit, and in South Násik similar operations were undertaken in the Akola forests with a view to supplying the town of Akola with fuel, to stopping the harmful head-load traffic prevailing, and incidentally to improving the growing stock.

In East Khándesh, the work of removing dead and dying trees, the legacy of the drought of seven years back, was finally completed, 4,330 acres being worked over and Rs. 7,874 realized. Similar work was done with teak and other species in West Khándesh where 128,650 cubic feet realizing Rs. 4,833 were extracted.

In Sátára the Mahábleshvar plateau forests were subjected to thinning to provide for the fuel supply of the towns of Mahábleshvar and Panchgani.

Selection fellings.—These were undertaken in three divisions. In South Násik 28 coupes in the below-ghát forests of Peint and Dindori, 3,150 acres, yielded Rs. 15,045, or Rs. 4-12-2 per acre. In West Khándesh four coupes in the Deomogra reserve and five coupes in anjan forests, in all 2,047 acres realized Rs. 4,503, or Rs. 2-3-2 per acre for 38,006 cubic feet of material extracted. In North Khándesh practically all work is under the selection system, 28 coupes realizing Rs. 30,520.

Coppice fellings.—Sanctioned working plans provide for these in the Sátapura forests, the Edlabad anjan and scrub forests, and the Chálisgaon forests of East Khándesh, the Umarpata forests of West Khándesh, the above-ghát forests of North and South Násik, and the mixed forests of Poona and Sátára. True coppice fellings, however, are not invariably carried out, especially in Khándesh and Násik, where dearth of labour, lack of markets, and the unsuitability of the working plans to prevailing conditions, result rather in a system of selection being followed, purchasers only removing such material as they can hope to dispose of at a profit and leaving the remainder. In all 10,695 acres were nominally worked under the coppice system, the revenue being 53,521, or Rs. 5-7-6 per acre on the average of the whole, but varying in different divisions from an average of Rs. 19-6-9 per acre in Poona where the demand is keenest, to as little as Rs. 2-9-3 in West Khándesh, and 2-10-1 in East Khándesh. In the Násik Division too the average is but little higher.

Unregulated fellings.—In Government forests these were carried out in the Akrani in North Khándesh where a few fellings were made to supply the wants of the local population, and in future even these will be regulated by a simple scheme that has been drawn up. Elsewhere there were no such fellings except such as were necessary to provide for free grants of forest produce of various sorts.

The usual fellings of teak and other royalty trees in occupied and waste lands were carried out in all divisions. It is unnecessary to give details as the matter is not one that strictly comes under the head of management of State forests; it is only referred to, as the Collector of Sátára, in his remarks, which will be found at the end of this report, has commented on the rapid denudation, noticed by the Divisional Forest Officer in his report, of all tree-growth outside forest. His remark could of course be applied to the whole circle, and the Conservator can but agree that the inevitable end must be rise in the price of all forest produce, and increase of demand which the forests will find it difficult to meet, and in the case of pasture forests, unless the tree-growth on them is strictly preserved, a serious diminution of the grazing areas. The question, however, is not one of forest administration, pure and simple.

Southern Circle.

Clear fellings.—These were made over 6.5 acres of Kodibág *Casuarina* plantation in Kánara Western Division. The revenue realized was Rs. 3,570 which gives an average of Rs. 549 per acre against Rs. 385 in 1911-12. In Bijápur 2 bábul coupes measuring 32.14 acres were worked out departmentally at a cost of Rs. 1,558. The produce was sold for Rs. 6,579. The net revenue per acre was Rs. 155.

Selection fellings.—The following operations were carried on in Kánara, Belgaum and Dhárwár Divisions:—

Division.	Number of trees cut.		
	Teak.	Blackwood.	Junglewood.
<i>Organized Area.</i>			
Kánara Northern Division	2,981	769	914
Kánara Eastern do.	5,952	.....	1,634
Kánara Western do.	264	48	898
Belgaum Division	126	38	92
Total ...	9,323	855	3,538
<i>Unorganized Area.</i>			
Dhárwár Division	500	.....	.....
Total of 1912-13 ...	9,823	855	3,538
Total of 1911-12 ...	6,396	894	2,363

In the Gund range of Northern Division, Kánara, the work is four years in arrears. So also in the Nagargali Series XIX the work has fallen heavily into arrears. By the recent change in the method of working, *i. e.*, "selling standing coupes" there is a probability of over-taking the arrears in the latter.

The road train and its working, etc., is treated under Chapter V.

Improvement fellings.—Were conducted in Blocks VI, VII and XX of Northern Division, Kánara, where unsound teak, blackwood and junglewood trees useless for timber were cut and converted into fuel and sold at Tavargatti. Owing to the distance from places of consumption and to the consequent lack of demand for material turned out it was impossible to carry out similar necessary operations in Kánara Eastern Division.

Coppice fellings.—This method of exploitation was adopted in all the divisions except Ratnágiri both in organized and unorganized forests. The revenue realized per acre increased in all other divisions except Belgaum which alone shows a decrease as detailed below :—

Division.	Area in acres.	Revenue per acre.		Quality.
		1912-13.	1911-12.	
<i>Organized Areas.</i>				
Kánara Northern Division	799	Rs. 156	Rs. 138	Teak poles. Teak poles and fuel. Timber and fuel. Logs, poles and fuel. Railway fuel. Poles and fuel.
Kánara Eastern do.	590	10	10	
Kánara Western do.	1,550	32	24	
Belgaum	139	115	162	
Dhárwár	2,254	75	105	
	690	52	36	
Total for 1912-13 ...	6,022	66	
Total for 1911-12 ...	4,927	78	
<i>Unorganized Areas.</i>				
Kánara Southern Division	330	14	13	Timber and fuel. Local fuel. Fuel. Do.
Belgaum	3,142	3	11	
Dhárwár	200	17	15	
Bijápur	626	8	7	
Total for 1912-13 ...	4,298	5	.....
Total for 1911-12 ...	2,585	.....	11

Hubli is the market for the consumption of material from the coupes of E. D., Kánara, but with matters as they stand at present transport of material has not been a profitable business and the purchasers find it very difficult to dispose of their produce. A steam tramway between Hubli and Mundgod might do away with these difficulties but the Forest Department cannot undertake such a project.

Unregulated fellings.—In Kánara, Northern, Eastern and Southern Divisions and Dhárwár, 1,879 trees of sandalwood were uprooted and the heartwood amounting to 186 khandies together with roots, chips, etc., was sold for Rs. 49,802. This is a record price. Besides this 30 trees in the Bijápur Division were sold standing to be exploited by the purchasers themselves for Rs. 241.

Sind Circle.

Clear fellings.—The coupes exploited throughout the Circle in accordance with the provisions of the working plans come under this head. Ten thousand five hundred and thirty-nine acres as compared with 8,867 acres of the preceding year were worked in this manner.

Improvement fellings.—The removal of standing and fallen dead trees was carried out in the Hyderabad and Jerruck Divisions as sanctioned in Government Resolution No. 10562, dated 26th October 1907. The area worked over was 11,947 acres as against 15,174 acres in 1911-12.

Selection and coppice fellings.—Nil.

Unregulated fellings.—Under this head come the cuttings on lands threatened with erosion, free grants, and wood cut to meet urgent demands of the Public Works Department. The area so cleared during the year was 3,524 acres as compared with 2,750 acres the year before.

(ii) Minor Forest Produce.

Northern Circle.

Details are shown in Form No. 20. All such produce is disposed of to petty contractors. Grazing is regulated by special rules in force in the various districts, round guards collecting grazing fees except in the Panch Maháls where this work is still delegated to village officers.

Bamboos having seeded were sold at cheap rates in the Panch Maháls, Dángs, North and Central Thána and the forests gained by clearance of the dead and highly inflammable culms.

One thousand two hundred and fifty lbs. of bamboo seed were collected in the North Thána Division and quickly bought up by Local Boards, Municipalities and the Public Works Department. Much grass in closed areas was given free to the people during the year.

Central Circle.

Full details of the exploitation of minor forest produce are given in Form No. 20. The most important items were hirda, mhowra seed, bamboos and rosha grass and grass and grazing.

As remarked in last year's report, the departmental system of hirda collection has now everywhere been abandoned as unsatisfactory. Except in Rájur and Akola in South Násik, the crop is sold standing and receipts amounted to Rs. 10,979 as against Rs. 16,217 in the previous year, the crop being poor. In Rájur and Akola the same system cannot be followed owing to lack of contractors who will purchase the crop, and the introduction of a royalty system, whereby a fixed quantity of fruit, to be mutually agreed upon by the Forest Department and the people, is to be handed over to Government free of charge, while the people take the balance of the crop for themselves, was sanctioned by Government last year. Special report has recently been made to Government in the matter, and it will therefore suffice to say here that though some difficulties have been met with, yet the system gives such promise of

success as to justify a further trial. At any rate in the year under report, the revenue, *viz.*, Rs. 7,221, realized on a scanty crop, has only once been exceeded under any previous method of collection, while this favourable result was also obtained without the general dislocation of work, consequent on the necessity of drafting in-guards from other ranges to supervise departmental collection, which formerly prevailed.

Rosha grass yielded Rs. 10,616 as against Rs. 12,037. This is a product which, under improved methods of extracting the oil, might become of considerably higher value, and efforts are being made by the Forest Economist at Dehra Dun to induce a Bombay firm to erect proper stills and to work on scientific lines. The methods followed now by the purchasers of the grass are crude in the extreme.

The mhowra seed crop was collected departmentally in the North and West Khándesh and North and South Násik Divisions. The crop was poor and the profits realized only amounted to Rs. 3,288 as against 37,724 in 1911-12. The increasing value of this product has resulted in Khándesh in an influx of merchants who by paying a slightly higher rate than does Government, manage to attract to their depôts, it is feared, a good deal of seed from Government forests. There is of course every reason why Government should not pay the same rate as merchants, for in the case of the former the amount paid represents merely wages for collection of Government property, while in the case of the latter it represents wages for collection plus price of the seed to the private owners of the same. The notifying of mhowra seed as forest produce under the Forest Act has been of considerable help, in that transit passes are necessary for its removal, but even so check on diversion of Government seed to private depôts is very difficult to prevent.

Grass and Grazing.—As a result of the continued scarcity, the demand for grass for cutting exceeded even that of the previous year which was the highest on record. Everywhere the price obtained for kurans showed a large rise, and more particularly, in East Khándesh where, owing to the prevalence of cotton, the forest grass is practically the sole fodder in the district, in Poona where the advantages of forest areas being reserved for cutting of grass rather than for grazing are being yearly more appreciated by the people, a most healthy symptom, in Sátára, and in North Násik owing to the famine in the adjoining Ahmednagar District. The total receipts under this head amounted to Rs. 3,61,116, an increase of Rs. 32,003 over the previous year. Better proof could hardly be given of the economic value of the forests to the country in the matter of its cattle, nor indeed of the fact that closure of the forests, apart from the necessity of the same in their interests as timber and fuel producing areas, is in the best interests of the country, even if it does result in a certain amount of grievance from the impounding of cattle. As has been already pointed out, without closure at the proper season of the year there can be no subsequent supply of grass, and there can be no question that as time goes on the wasteful system of grazing must inevitably be replaced by stall feeding if the cattle of the country are to be provided for at all in the way that they should be.

In addition to the grass removed by the people by cutting and by grazing, famine fodder operations were carried out in the South Násik and West Khándesh Divisions, 2,898,802 lbs. being collected in the former and 2,500,000 in the latter. Of the South Násik grass 1,834,287 lbs. were disposed of to districts where scarcity prevailed and 1,064,515 lbs. are on hand, the same being kept partly as a reserve against possible necessity, happily not realized, in the current year and partly because it could not be disposed of before the rains. The reason of excess collections over disposals was that the Ahmednagar needs proved less than was at first feared. The 25 lákhs lbs. on hand in West Khándesh represent the permanent reserve which has to be kept in stock for Government by Mr. Bhiladwala under his agreement.

Southern Circle.

The system of disposal of minor produce has remained much the same during the year, the directions laid down in Government Resolution No. 9846, dated 15th December 1912, being followed.

Sind Circle.

Lac, fish, bábul, bahan, and kandi pods, sar and kanh grass are farmed out to contractors; other grass is either allowed free or sold on permits at fixed rates. Grazing is free or on permits.

(b) *Agency of Exploitation.*(i) *Departmental Agency.*

Northern Circle.

A few works which occurred under this head are the following:—

Extraction of dead wood in the Panch Maháls. It was obviously impossible to let this kind of wood be removed from the felling depôts. The disposal of this class of timber was, therefore, kept in the hands of the department.

Improvement Fellings in the North Dángs.—The growth here is typical of so many forests in India where the trees have been subjected to unregulated fellings for many years. The growth which is largely unsound at the base is not saleable standing on the spot owing to the distance from the railway. A saw mill has, therefore, been started, and the unsound parts of large logs are converted into s eepers, boards and battens, the work being departmental throughout.

In Central Thána one coupe left uncut by a defaulting contractor was partly exploited departmentally.

In Kolába at Mátherán, 13,110 maunds of fuel were extracted departmentally, and a coupe in Mángaon was cut by the department for local supply.

Central Circle.

This method of exploitation is but little used, and in cases of coupes, only where they fail to find purchasers for the standing material, or in clearing up outstandings of contractors' works. Of 223 coupes worked during the year, departmental agency was only required in 10 cases. The selection fellings in the Mahábleshvar Plateau Forests, as also extraction of dead and fallen trees in babul forests in various divisions, were also carried out in this way. Of minor produce mhowra seed alone is collected departmentally, and in famine years, grass.

Southern Circle.

The outturn of timber, fuel, sandalwood and grass cut and disposed of departmentally during the year compares with the average of past three years as below:—

Forest Produce.	Average of preceding 3 years.						1912-13.					
	Balance.	Exploited during the year.	Total.	Disposed of during the year.	Cost.	Re-ceipts.	Balance.	Exploit- ed during the year.	Total.	Dispos- ed of during the year.	Cost.	Re- ceipts.
	C. ft.	C. ft.	C. ft.	C. ft.	Rs.	Rs.	C. ft.	C. ft.	C. ft.	C. ft.	Rs.	Rs.
<i>Major.</i>												
Timber	485,071	791,621	1,276,692	664,695	3,32,913	7,60,518	744,494	1,661,724	2,406,218	1,021,947	3,53,251	10,94,628
Fuel	597,415	3,519,664	4,117,079	3,522,813	1,34,171	2,53,782	538,531	3,595,570	4,184,101	3,190,786	1,17,414	2,28,919
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Sandalwood ... Value.	589	24,198	24,787	24,367	2,104	25,272	75	49,737	49,812	49,802	...	49,802
<i>Minor.</i>	No.	No.	No.	No.			No.	No.	No.	No.		
Bamboos ... ..	...	13,609	13,609	13,609	117	169	...	...	...	...	2,760	...
	Rs.	Rs.	Rs.	Rs.			Rs.	Rs.	Rs.	Rs.		
Grass and other minor produce	327	137	464	74	8,047	43	...	28,448	28,448	28,443	2,267	28,448

The quantity of timber exploited during the year was more than double of that of 1911-12 and that of the average of the past three years. Most of this

increase occurs in Kánara Northern Division where, though the timber brought to the Tavargatti depôt was about half that of the previous year owing to the failure of the road-train, the carts which might have been employed on carrying timber to Tavargatti were engaged in bringing it to the roadside depôts, 8 to 15 miles away. Thus there is an exceptionally large quantity in these depôts. The percentage of timber exploited departmentally to the total outturn was 71 against 59 in 1911-12.

In fuel while there was a rise of 75,906 c. ft. over the average of past three years, there was a fall of 82,669 c. ft. compared to the outturn of 1911-12. The shortage is ascribed to want of means of transport of railway fuel in the Belgaum Division. The percentage of fuel exploited departmentally to the total outturn was 44 against 59 in the previous year.

The outturn of sandalwood was not more in quantity than that of previous years, but the revenue therefrom increased greatly, the prices obtained during the year being on an average nearly cent per cent higher all round.

Grass was cut, baled and disposed of departmentally in the Belgaum Division, besides famine grass operations being continued from the previous year. Hence there is an increase in receipts under that head.

The work turned out by the three Government elephants estimated at Rs. 5 per khandi (instead of the old contract rate of Rs. 9) amounts to Rs. 9,502 in value. Deducting Rs. 3,437 incurred on account of the upkeep of the animals, the net profit to Government was Rs. 6,065 in the single year. On the other hand, the Departmental buffaloes did not give such a good return. Six died during the season. Value of work done by the rest was Rs. 5,265, less charges of upkeep Rs. 4,072; the profit was only Rs. 1,193.

The working of the saw mill was unsatisfactory for two reasons—(1) the contractor who had undertaken to supply sleeper pieces to the mills failed, and (2) the mill dam burst late in October at a time when there was no chance of refilling it. The following statement compares the work done by the mill:—

Materials.	1911-12.				1912-13.			
	Outturn.	Proportion of revenue credited to the mill.	Charges.	Profit.	Outturn.	Proportion of revenue credited to the mill.	Charges.	Profit.
		Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Teak sleepers No.	51,827	35,684	27,737	19,610	35,351	20,379	22,179	18,789
Bridge sleepers "	716				248	372		
Matti sleepers "	173				373	746		
Jungle wood sleepers "	12,251	2,207
Teak slabs C. ft.	22,000	500	27,737	19,610	28,750	500	22,179	18,789
„ scantlings No.	769	1,537			6,536	5,314		
„ falloes "	188	94			.....	.....
„ battens "	5,799	8,638			9,569	9,569		
„ boards "	338	844			.....	.....
„ planks ... .. "	.....	.....			3,074	1,701
Total ...		47,347						

The monorail which was handed over to a contractor was not worked properly by him. Further efforts are being made.

Sind Circle.

The only departmental operations were for the supply of fuel to Government steamers on the Indus. The quantity thus supplied was 224,559 c. ft., value Rs. 6,524. The expenditure incurred was Rs. 5,728. No profit is expected from this source, the object being to supply Government as cheaply as possible. The slight profit which appears on paper barely meets the cost of supervision.

(ii) *Purchasers.*

Northern Circle.

Full details are given at the end of the chapter under (c).
The total value of the year's sale under this head was :—

	Rs.
Major produce	12,11,586
Minor produce	1,02,200

The working of the permit systems in force continued satisfactory. In North Thána, depôt officers submitted forms and revenue returns direct to the Divisional office, saving much clerical labour in the Range office which only dealt with their expenditure.

Central Circle.

By this means is extracted practically the whole outturn of forest produce, whether by sale of standing coupes, by sale of dead wood, bamboos, grass and grazing and various minor products on permit, and by sale of royalty trees from occupied lands either on fixed fees or standing by auction.

The coupes offered for sale, those actually sold and the receipts were as under :—

Division.	No. of coupes offered for sale.	No. of coupes sold.	Receipts.
			Rs.
East Khândesh	19	19	29,840
West Khândesh	15	14	6,503
North Khândesh	28	28	30,520
North Násik	50	50	8,224
South Násik	80	41	18,450
Poona	47	47	48,460
Sátára	14	14	7,389
Total	253	213	1,49,386

or a decrease of 40 coupes sold and of Rs. 20,919 in receipts as compared with the previous year. Owing to scarcity both in the previous year and that under report, the market was poor, and only such coupes as were more favourably situated or as contained valuable material found purchasers. Non-completion of work, too, by contractors in some divisions of the 1911-1912 coupes, and the consequent extensions that had to be given to them, entailed the withholding from sale of various coupes that should properly have been worked in 1912-1913; any attempt to sell them would have been useless, for neither would purchasers have come forward when demand for material was so poor, nor, if they had, could they have carried out their undertakings, and the only result would have been a further prolongation of giving extensions of contracts in succeeding years.

Royalty trees were disposed of as below, and showed a decrease in number and resulting revenue as compared with 1911-1912. This, however, must in the nature of things continue, as once the tree is cut, the Government right over it passes away :—

Division.	No. of trees sold.	Receipts.
		Rs.
West Khândesh	90,388	90,520
South Násik	47,049	23,389
North Násik	15,052	8,750
Poona	3,340	3,340
Sátára	2,398	2,511
Total	158,237	1,28,510

Grass and Grazing.—The receipts for each Division were as below:—

Division.			Grass.	Grazing.	Total.
			Rs.	Rs.	Rs.
East Khándesh ...	...	...	84,447	49,613	1,34,060
West Khándesh ...	...	...	16,361	10,151	26,512
North Khándesh...	...	...	22,826	24,806	47,632
South Násik ...	...	...	10,493	21,517	32,010
North Násik ...	...	...	9,863	35,699	45,562
Poona ...	...	...	26,118	18,368	44,486
Sátára ...	...	...	12,821	18,033	30,854
Total ...			1,82,929	1,78,187	3,61,116

The number of cattle which grazed in forests on payment of fees was 1,150,294, somewhat less than in 1911-1912, when, under worse conditions of fodder supply, the pressure from villages far from the forests was naturally higher. Free grazing was enjoyed by 58,795 cattle, mostly the property of forest villagers having that privilege under the North Tápti Code.

Bamboos to the number of 1,224,279, and of value Rs. 14,509, were removed by purchasers, showing an increased revenue of Rs. 937.

Receipts from other minor produce such as rosha grass, hirda, mhowra seed, apta and tembhurni leaves, shikekái, aloes, reeds, thorns and stones realized in the various Divisions were:—

Division.			Receipts.
			Rs.
East Khándesh ...	...	...	2,288
West Khándesh ...	...	...	4,964
North Khándesh ...	...	...	5,080
South Násik ...	...	...	3,613
North Násik ...	...	...	4,990
Poona ...	...	...	3,840
Sátára ...	...	...	11,754
Total ...			36,529

Southern Circle.

The following statement represents the quantity and value of forest produce removed by purchasers:—

Produce.	Average of past three years.		1912-13.	
	Quantity.	Receipts.	Quantity.	Receipts.
<i>Major.</i>	C. ft.	Rs.	C. ft.	Rs.
Timber ...	633,758	1,77,996	660,693	2,07,320
Fuel ...	2,638,274	45,746	4,526,496	72,352
Total ...	3,272,032	2,23,742	5,187,189	2,79,672
<i>Minor.</i>	No.	Rs.	No.	Rs.
Bamboos ...	4,512,423	50,701	4,505,659	48,447
Grass and grazing ...	.....	71,723	.....	74,685
Other minor produce...	.....	60,164	.....	65,332
Total ...	.....	1,82,588	.....	1,88,464
Grand Total ...	.....	4,06,330	.....	4,68,136

The increase in the area of coupes sold as well as better prices obtained for them accounts for the increase in the revenue from the major produce.

Bamboos having seeded last year the revenue on that account was affected to a small extent. The small increase in grazing is due to punitive rates recovered from certain recalcitrant villages. Normal rainfall in up-countries gave an incentive to the trade in general, not excluding minor forest produce.

Sind Circle.

The sales of coupes and dead wood were as under:—

Division.				Number of coupes and deadwood lots.	Area exploited.	Value realized.
					A. g.	Rs.
Sukkur	...	...	...	Coupes ... 81	8,277 16	76,356
Nausháhro	...	...	...	Do. ... 39	3,071 22	15,572
Hyderabad	...	...	...	{ Do. ... 9	653 20	28,500
				{ Deadwood ... 13	9,013 0	77,651
Jerruck	...	...	...	{ Coupes ... 45	1,852 25	80,900
				{ Deadwood ... 6	1,755 32	
Total, 1912-13				193	24,623 35	2,78,979
Total, 1911-12				158	22,486 13	2,50,979

There are increases on the previous year of 2,137 acres in area and Rs. 28,000 in revenue. The average revenue per acre was Rs. 11.33 as against Rs. 11.11 last year.

The revenue realised by sale of timber and fuel under the permit system was Rs. 12,225 against Rs. 15,696 last year. The decrease is mostly in Sukkur Division, where most of the gháts are. Certain fixed coupes were set apart for ghát working in this division. The wood being green was not in much demand. Formerly the permit holders were allowed to wander at will all over the forests, looking for deadwood and (incidentally) manufacturing it. This wasteful and pernicious system has now been stopped.

Grazing.—The grazing fee collection was as under:—

				1911-12.	1912-13.
				Rs.	Rs.
Sukkur	...	...	...	12,330	11,639
Nausháhro	...	...	...	6,566	6,724
Hyderabad	...	...	...	18,425	13,900
Jerruck	...	...	...	6,907	6,484
Total				44,228	37,847

The Hyderabad and Jerruck Divisions are responsible for most of the decrease. The graziers in these divisions are largely hillmen. As soon as the rain fell in February and March last these men went back to their hills where they could count on finding a fresh crop of grass. The issue of free grazing passes on the recommendation of the Revenue authorities accounts for the slight drop in the Sukkur Division.

Minor Forest Produce.—The sales of farms of forest produce and the assessment levied for lands leased out for cultivation compared with the figures of last year are:—

				1911-12.	1912-13.
				Rs.	Rs.
Lac	...	...	...	9,717	4,600
Bábul pods	...	...	...	34,425	26,691
Grasses	...	...	...	3,590	3,789
Fishery	...	...	...	4,728	4,500
Cultivation	...	...	...	21,422	20,035
Total				73,882	59,615

The decrease is mainly due to a very bad crop of bábul pods in the Jerruck Division. There is also a decrease in the lac revenue, there being a general tendency of this crop to disappear from the forests of the Hyderabad Division. Efforts are being made to increase the supply in this and in the Jerruck Division.

(iii) *Rights and Privileges.*

Northern Circle.

The value of the produce removed is estimated at Rs. 4,67,809, details being found in the statement under (c).

The people of the Dángs were induced to use the dead culms of bamboos for ash manure, tree-logging in protected forests was consequently curtailed during the year. Privilege holders were also persuaded to use dead and suppressed poles for hutting materials in the same area and leave promising young saplings alone.

The privilege of collecting deadwood is still abused in some of the forests near the coast and B. B. & C. I. Railway. This abuse is particularly bad along creeks and near bandars where manufactured deadwood can be bartered for fish and removed in native craft. As this privilege has become destructive, steps have been taken to warn certain villages that continuance of the abuse will result in the permanent withdrawal of the privilege.

Central Circle.

Tahál cutting demonstrations were held by the Divisional Forest Officer, Poona, in the Lonávla range, and it was found that the people were fully acquainted with correct principles. In the Peint range in Násik, demonstrations were given by the Revenue and Forest officials. The Divisional Forest Officer remarks that there is little to show for the demonstrations as the tahál cutters work according to their inclination rather than according to rule, but that little damage to seedling growth was noticed, and that so long as the rule regarding preservation of the leading shoot is observed, as it almost universally is, there is no need for insistence on complicated rules as the supply of tahál in Peint is more than sufficient. With this last remark the Collector does not agree, though he is of opinion that villages where there is no tahál at all get on remarkably well by the simple utilization of cowdung. The Conservator has no experience of Peint and cannot comment.

Rights are few and the many privileges in the way of free grazing, deadwood, and various minor products were freely availed of, and as a rule without abuse. Reference has already been made to the necessity of temporary suspension of privileges as a punishment for non-assistance in forest protection and to the efficacy of this policy. The value of forest produce removed under privilege during the year, including grass and grazing, may be estimated at Rs. 46,973.

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. Hacking and looting still go on under cover of the privilege rules. It would be difficult to give accurate figures of value. The following is an estimate:—

Produce.	1912-13.	
	Quantity.	Value.
<i>Major.</i>		
Timber Cubic feet.	300,000	72,000
Firewood "	3,041,686	6,46,353
<i>Minor.</i>		
Bamboos No.	3,000,000	15,000
Grazing Value.	.....	3,00,387
Minor products ... .. "	.....	1,80,000

Sind Circle.

The extent and value of forest produce and grazing enjoyed free under privileges are—

				Rs.
Grazing	...	11,456 animals	...	10,226
Firewood	...	178,022 cubic feet	...	2,087

(iv) Free grants.

Northern Circle.

Free grants to the value of Rs. 5,221 compared with 5,853 in 1911-12 were given during the year, details being shown under (c).

The greatest care has to be exercised in the grant of teak. In consequence of the high prices, poor grantees have been tempted to dispose of their grants instead of building their houses and the servants of comparatively rich men have applied for such grants for the purpose of benefiting their master's buildings.

Central Circle.

Free grants of timber, fuel, bamboos and other material were liberally given, both as rewards for good assistance to the Department in fire protection, and in cases of necessity such as destruction of houses by fire, repairs to temples, or where the grantees had no means to pay. The value of such grants as a means of enlisting public sympathy with the work of the Department is fully recognized. The estimated price of material removed under this head amounts to Rs. 7,342.

Southern Circle.

The subjoined table gives the value:—

Produce.			Average for past three years.		1912-13.	
			Quantity.	Value.	Quantity.	Value.
	<i>Major.</i>			Rs.		Rs.
Timber	...	... Cubic feet.	25,070	10,388	21,196	4,993
Fuel	...	... „ ...	16,316	366	24,884	314
		Total ...	41,416	10,754	46,080	5,307
	<i>Minor.</i>					
Bamboos	...	... No.	35,103	359	32,172	265
Grazing	...	... Value..	...	5,462	...	1,611
Other minor produce	...	... „	...	1,200	...	1,010
		Total ...	...	7,021	...	2,886
		Grand Total ...	...	17,775	...	8,193

Timber.

Grants were less owing to the indiscriminate granting of free timber being more closely checked. Also inferior kinds of timber were mostly given instead of first class or reserved kinds.

Fuel.

Figures against this head simply represent the amount of firewood given as reward for good fire protection or to low paid Government servants.

Grazing.

In former years the value of free grazing was assessed at full rates instead of at 2 annas per head; hence the difference in value.

Sind Circle.

The extent and value of free grants of forest produce and free grazing made during the year are shown below :—

		Extent.	Value.	
			1911-12.	1912-13.
			Rs.	Rs.
Grazing	...	20,477 animals...	10,455	6,646
Minor produce	...	104 bundles...	161	9
Timber and firewood	...	4,621 cubic feet	1,353	456
		Total	11,969	7,111

In addition to the above the free grazing allowed to cattle of the forest contractors was worth Rs. 4,935.

*(c). Outturn and Sources of Forest Produce.***Northern Circle.**

The outturn from all sources of forest produce during the year 1912-13 compared with that of the previous year was as follows :—

Outturn in volume and value from each source of Agency.

Agency of exploitation.	Material.								
	Timber.		Fuel.		Total Wood.		Bamboos.	Grass and grazing.	Minor produce.
	Cubic feet solid.	Value in Rupees.	Cubic feet solid.	Value in Rupees.	Cubic feet solid.	Value in Rupees.	Value in Rupees.	Value in Rupees.	Value in Rupees.
Government	283,748	37,963	124,575	5,937	408,318	43,900	...	...	389
Purchasers	2,146,981	12,06,051	5,679,561	5,535	8,026,972	12,11,536	28,215	42,800	31,095
Free Grantees	36,206	5,103	200	8	36,506	5,111	108	...	2
Privilege-holders	120,000	14,400	12,370,500	1,09,833	12,490,500	1,24,233	10,416	2,71,523	61,632
Total, 1912-13	2,586,930	12,63,517	18,375,426	1,21,313	20,062,356	13,84,830	38,739	3,14,418	94,008
Total, 1911-12	1,744,833	10,79,634	16,695,653	1,24,426	18,440,436	12,04,260	31,346	3,77,348	1,00,496

The number of cattle for which grazing was provided is estimated at :—

Free	...	...	...	360,395
On fee...	...	...	...	120,552

Central Circle.

The outturn, from all sources, of forest produce is compared for two years in the following statement :—

Agency of exploitation.		Materials.													
		Timber.			Fuel.			Total Wood.			Bamboos.			Grazing.	Minor produce.
		Cubic feet solid.	Value in Rupees.		Cubic feet solid.	Value in Rupees.		Cubic feet solid.	Value in Rupees.		Number.	Value in Rupees.		Value in Rupees.	Value in Rupees.
			Total.	Per 100 cubic feet.		Total.	Per 100 cubic feet.		Total.	Per 100 cubic feet.		Total.	Per 100.		
Government ...	1911-12 ...	1,703	116	6'8	170,103	1,146	6'8	171,806	1,262	0'07	...	...	...	1,23,010	1,10,625
	1912-13 ...	26,577	918	3'4	341,912	12,682	3'7	388,489	13,488	3'7	450	16	3'6	2,46,280	19,563
Purchasers ...	1911-12 ...	2,027,660	2,74,369	13'5	2,068,696	85,385	4'1	4,094,356	3,50,754	8'7	1,022,820	13,196	1'2	3,29,133	39,738
	1912-13 ...	2,578,447	2,32,183	9'004	2,145,034	77,966	3'3	4,723,481	3,10,149	6'6	1,201,246	14,230	1'2	3,61,116	36,529
Free grantees ...	1911-12 ...	41,150	1,270	3'08	23,895	3,678	15'8	65,045	4,946	7'5	20,483	378	1'8	...	324
	1912-13 ...	61,425	6,682	10'9	4,140	114	2'8	65,565	6,798	10'4	19,583	231	1'9	...	315
Privilege-holders ...	1911-12 ...	...	...	...	408,689	37,613	9'2	408,689	37,613	9'2	...	...	...	33,047	194
	1912-13 ...	1,787	90	5'04	297,220	11,770	4'0	299,007	11,860	4'	3,200	2	1'	91,132	3,949
Total ...	1911-12 ...	2,070,513	2,75,755	13'5	2,669,383	1,27,820	4'7	4,739,896	4,03,575	8'5	1,042,303	13,572	1'3	3,03,780	2,82,801
	1912-13 ...	2,868,236	2,39,871	9'	2,788,306	1,02,432	3'7	5,456,542	3,42,303	6'3	1,224,479	14,509	1'2	6,88,537	60,366

Southern Circle.

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

Agency.	Timber.		Fuel.		Total Wood.		Bamboos.		Sandal wood Value.	Minor forest produce Value.	Grazing Value.
	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	No.	Value.			
Government ...	1,661,724	Rs. 10,94,628	3,595,570	Rs. 2,28,919	5,257,294	Rs. 13,23,547	...	...	49,737	...	28,448
Purchasers ...	660,698	2,07,320	4,526,496	72,352	5,187,189	2,70,672	4,505,659	48,447	241	65,332	74,685
Free Grantees ...	21,196	4,993	24,894	314	46,080	5,307	32,172	265	...	1,010	1,611
Privilege-holders ...	300,000	72,000	3,041,686	6,46,363	3,341,686	7,18,363	3,000,000	15,000	...	1,80,000	3,00,387
Total of 1912-13 ...	2,643,613	13,78,041	11,139,636	9,47,938	13,833,249	23,26,879	7,537,831	63,712	49,978	2,46,342	4,05,131
Total of 1911-12 ...	1,682,642	11,11,769	9,226,847	9,59,038	10,909,439	20,70,807	7,200,042	67,532	32,074	2,41,647	3,37,567

Sind Circle.

The outturn from all sources of forest produce is summarized in the following table :—

Agency by which material removed.	Material removed.								Total.
	Timber.		Fuel.		Total Wood.		Minor produce value.	Grazing value.	
	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	Rs.	Rs.	
Government ...	4,004	308	322,192	8,401	326,196	8,709	917	...	9,628
Purchasers ...	389,085	87,713	19,295,316	246,547	19,684,401	3,34,260	36,008	37,847	4,08,115
Free Grantees ...	4,216	446	405	10	4,621	456	9	11,581	12,048
Privilege-holders ...	...	...	178,022	2,037	178,022	2,037	...	10,226	12,263
Total ...	397,305	88,467	19,795,935	2,58,995	20,193,240	3,45,462	36,934	59,654	4,42,050

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

		Quantity.	Value.
Timber ...	... No. ...	7,860	786
Branch wood ...	... Bundles ...	8,330	521
Earth ...	... Cubic feet.	10,183,895	2,546
Total ...		.....	3,853

CHAPTER III.

FINANCIAL RESULTS.

Northern Circle.

The financial results of the year in comparison with those of 1911-12 and with the average of the preceding five years were as follows :—

Head.	Average of five preceding years.	1911-12.	1912-13.
Revenue	Rs. 12,08,157	Rs. 14,61,839	Rs. 15,32,472
Expenditure	A ... 2,77,447	5,28,222	3,32,077
	B ... 2,99,874	3,54,880	3,78,801
Total, Expenditure	5,77,321	8,83,102	7,10,878
Surplus	6,30,836	5,78,737	8,21,594

N.B.—The following figures of Famine Fodder Operations are included :—

	Rs.
Revenue	1,46,105
Expenditure	1,14,069
	6,774

Deducting famine fodder figures the revenue and expenditure of the two years contrast as follows :—

	1911-12.	1912-13.
	Rs.	Rs.
Revenue	11,99,227	13,86,367*
Expenditure	5,40,318	5,90,035

The Revenue and Expenditure of 1912-13 includes the following figures on account of lands *not* managed by the Forest Department :—

	Rs.
Revenue	2,55,314
Expenditure	2,181

* Rs. 25,585 belonging to the Bombay Municipality forest were wrongly credited to South Thána and will be deducted from Forest Revenue in 1913-14.

The gross revenue has improved with the conditions of the year. The reasons for increase are improvement in the price of teak timber especially in Gujarát, rise in the price of charcoal in Bombay, collection of arrears of revenue in Surat, rise in the price of coupes in Bulsar, and in Kolaba confining sale of special coupes for cheap firewood to localities where there is a genuine demand. Kolába and Panch Maháls Divisions (the latter, however, through dead wood sales) show a net surplus revenue during the year which is unusual.

The increase in expenditure is due to the large number of guards' posts and roads constructed during the year, to further promotions under the re-organization of establishment and in Surat to the purchase of a road train and plant necessary for a saw mill.

The following statement compares the receipts and charges in details of budget heads for the years 1911-12 and 1912-13 :—

Budget head.				1911-12.	1912-13.	Difference.
				Rs.	Rs.	Rs.
Receipts—						
I	...	...	...	2,97,017	1,86,464	-1,10,553
II	...	...	...	11,28,730	13,13,787	+1,85,057
III	...	...	...	1,568	1,315	- 253
IV	...	...	...	1,383	1,380	- 3
V	...	...	...	33,141	29,526	- 4,615
Total, Receipts ...				14,61,839	15,32,472	+ 70,633
Expenditure A—						
I	...	...	...	3,06,426	1,66,647	-1,39,779
II	...	...	...	29,938	30,015	+ 77
III	...	...	...	64	25	- 39
V	...	...	...	28,820	25,201	- 3,619
VI	...	...	...	53,724	2,367	- 51,357
VII	...	...	...	14,065	45,249	+ 31,184
VIII	...	...	...	54,017	52,963	- 1,054
IX	...	...	...	41,169	9,610	- 31,559
Total A ...				5,28,223	3,32,077	-1,96,146
Expenditure B—						
I	...	...	...	3,01,421	3,12,886	+ 11,465
II	...	...	...	33,823	47,735	+ 13,912
III	...	...	...	19,636	18,180	- 1,456
Total B.				3,54,880	3,78,801	+ 23,921
Total, Expenditure ...				8,83,103	7,10,878	-1,72,225

The Revenue and Expenditure of the year are further classified as follows:—

I.—REVENUE.

Particulars.				Receipts.	Percentage.
				Rs.	
Major produce	...	...	...	12,55,490	82.
Minor produce	...	...	...	2,76,982	18.
Total ...				15,32,472	100.

II.—EXPENDITURE—A.

Particulars.				Charges.	Percentage.
				Rs.	
Extension and constitution	...	...	...	7,333	2.
Improvement	...	...	...	1,00,484	30.
Exploitation	...	...	...	2,24,255	68.
Total ...				3,32,077	100.

III.—EXPENDITURE—B.

Particulars.				Charges.	Percentage.
				Rs.	
Administration	...	...	...	41,101	11.
Executive	...	...	...	1,42,062	38.
Protective	...	...	...	1,95,637	51.
Total ...				3,78,800	100.

The extent of outstandings and increase or deficit of stock are shown in Forms 22, 23 and 26.

Central Circle.

The financial results of the year, as compared with those of 1911-12 and with the average of the preceding five years, were as follows:—

Including Famine Fodder Operations.

				Average of five preceding years.	1911-12.	1912-13.
				Rs.	Rs.	Rs.
Revenue	...	...	...	7,54,860	10,49,700	10,71,328
Expenditure	...	...	{ A	1,61,808	3,39,357	2,60,781
			{ B	3,88,690	4,19,110	4,27,822
Total, Expenditure				5,50,498	7,58,467	6,88,603
Surplus				2,04,362	2,91,233	3,82,725

Receipts and expenditure in connection with famine fodder operations credited and debited respectively were, receipts 2,46,334, expenditure 1,14,877, and excluding these figures the results of two years work out as follows:—

Excluding Famine Fodder Operations.

				1911-12.	1912-13.	Difference.
				Rs.	Rs.	Rs.
Revenue	...	...	...	9,26,644	8,24,994	—1,01,650
Expenditure	...	...	{ A	1,71,033	1,45,904	— 25,129
			{ B	4,19,110	4,27,822	+ 8,712
Total, Expenditure				5,90,143	5,73,726	— 16,417
Surplus				3,36,501	2,51,268	— 85,233

The decrease of Rs. 1,01,650 in gross receipts and of Rs. 85,233 in the net surplus is at first sight unsatisfactory, but is due to a great extent to abnormal and special circumstances in four divisions, *viz.*, North and West Khándesh and North and South Násik. The remaining three divisions, Poona, East Khándesh and Sátára, showed better results than in the previous year. In Poona gross receipts increased by Rs. 8,929, and the surplus by Rs. 2512, consequent on better prices realized for all sorts of forest produce in general, and in particular to keen demand for grass and grazing owing to the fodder famine of 1911-12. The financial position of this division would be even more favourable, but for no charge being made to the Military Department for the valuable grass areas handed over to them. In East Khándesh gross receipts increased by Rs. 31,086, and the surplus by Rs. 33,035, consequent on extraordinary demand for timber, fuel and fodder. In Sátára though the Division works at a loss, still gross receipts increased by Rs. 17,031, and the deficit, in spite of a slight rise in expenditure, was reduced to Rs. 3,898 from Rs. 17,131. All kinds of produce realized better prices, and the deficit may, in future years, confidently be expected to become a surplus judging by the ever increasing demand for grass, and still more by the success which has followed on a policy of improvement in communications, and which has resulted, in the case of the Vang Valley Road, in opening up hitherto unworkable forests, and in a very material increase in revenue. Further schemes in this direction are in progress, notably a road up the Koina Valley, and the utilization of the Koina River to transport fuel to Karád where it will be caught by a boom.

Turning to the four divisions in which results were not satisfactory, the following explanations are given. In all of them the mhowra crop was a failure, and whereas in 1911-12 receipts exceeded Rs. 73,000 in the year under report they were but slightly over Rs. 12,000.

Then in South Násik the system of disposing of the hirda crop was changed. Formerly the whole yield of the forests was collected departmentally and sold, and receipts were correspondingly high. Now only a percentage of the crop is taken from the villagers and sold. This change entailed a diminution in gross receipts (though not in net surplus) from Rs. 45,600 in 1911-12 to Rs. 6,230 in 1912-13. It must of course be added that, both in the case of mhowra and of hirda, the diminution in receipts was accompanied by a diminution in expenditure.

In West Khándesh the decrease both in gross receipts and in net surplus of approximately Rs. 10,000 were due to the mhowra crop.

In North Khándesh gross receipts decreased by Rs. 49,399 and net surplus by Rs. 55,361, the failure of the mhowra crop and less demand for grass and grazing dividing the amount equally.

In North Násik gross receipts were less by Rs. 9,973 and net surplus by Rs. 14,996. The fall was due to lower grazing collections, to no revenue being received as was the case in 1911-12, either from the sale of disforested lands, or from sundry credits from the old Ahmednagar-Sholápúr Division.

In South Násik gross receipts decreased by Rs. 95,073, and net surplus by Rs. 61,562. Mhowra and hirda as referred to above were largely responsible, but there was also a heavy fall in coupe revenue consequent on the unfavourable season, to heavier standard reservation in coupes, to low prices received for royalty teak, and to depression in trade generally.

Under Expenditure.—A—Conservancy and Works—the net decrease of Rs. 25,129 was due to the change in the system of hirda collection, and to small payments for purchase of mhowra seed; and the decrease would have been greater but for expenditure under Communications and Buildings having risen by nearly Rs. 23,000, no curtailment of work in this direction having been ordered by Government on account of shortage of funds, as was the case in 1911-12. Under B—Establishments, expenditure rose by Rs. 8,712, consequent mainly on all Foresters on Rs. 15 and upwards being allowed travelling allowance.

Taking a general survey of the results of the year, there is no reason to suppose that the fall in the surplus is other than purely temporary. On the contrary it may confidentially be expected that under normal conditions demand for forest produce will improve, and that the forests of the Circle will show a steady and increasing profit.

The proportion of net to gross revenue, excluding famine fodder figures, amounts to 30·4 per cent.

The forest revenue and expenditure are further classified as follows:—

I.—REVENUE.

	Receipts.		Percentage.	
	Rs.			
Major produce	3,23,662	39·2		
Minor produce	5,01,332	60·8		
Total	8,24,994	100		

II.—EXPENDITURE—A.

	Charges.		Percentage.	
	Rs.			
Extension and Constitution	4,281	2·9		
Improvement	1,07,381	73·6		
Exploitation	34,242	23·5		
Total	1,45,904	100		

—EXPENDITURE—B.

					Charges.	Percentage.
					Rs.	
Administration	...	...	...	...	55,189	12·9
Executive	...	...	...	...	1,63,173	38·2
Protective	...	...	...	...	2,09,460	48·9
Total					4,27,822	100·

Southern Circle.

Form No. 24 prepared by the Accountant General shows the details of Revenue and Expenditure of the year under report. The following statement compares the figures of the year with those of the previous year and average of the five years preceding it :—

Head.				Average of five preceding years.	1911-12.	1912-13.
				Rs.	Rs.	Rs.
Revenue	...	...	...	14,26,770	15,73,855	19,08,195
Expenditure	...	...	A	5,61,701	6,78,832	6,34,101
			B	3,08,269	3,68,614	3,76,445
Total, Expenditure				8,69,970	10,47,446	10,10,546
Surplus				5,56,800	5,26,409	8,97,649

From the above it will be seen that there was an increase in the receipts and surplus as compared with the corresponding figures of the previous and the average of five preceding years, while the charges were less than those of the previous year. In fact the gross revenue is by far the largest ever recorded. The percentage of net to gross revenue also increased from 33·4 to 47 which is partly due to the decrease in expenditure.

The following statement compares the revenue and expenditure of the year in details of budget heads with those of 1911-12 :—

Budget head.				Amount.		Difference.	
				1911-12.	1912-13.		
				Rs.	Rs.	Rs.	
Receipts	I	...	...	11,35,296	14,01,798	+ 2,66,502
	II	...	...	4,12,828	4,68,136	+ 55,308
	III	...	...	783	674	— 109
	IV	...	...	9	14	+ 5
	V	...	...	24,939	37,573	+ 12,634
Total, Receipts				15,73,855	19,08,195	+ 3,34,340	
Expenditure A	I	...	...	5,44,577	4,75,692	— 68,885
	II	...	...	1,797	2,590	+ 793
	III	...	...	151	91	— 60
	VI	...	...	12,012	12,130	+ 118
	VII	...	...	54,194	67,158	+ 12,964
	VIII	...	...	49,530	55,599	+ 6,069
	IX	...	...	16,571	20,841	+ 4,270
	Total A.				6,78,832	6,34,101	— 44,731
	Expenditure B	I	3,19,060	3,16,855	— 2,205
II		...	...	37,744	47,260	+ 9,516
III		...	...	11,810	12,330	+ 520
Total B.				3,68,614	3,76,445	+ 7,831	
Total, Expenditure				10,47,446	10,10,546	— 36,900	

With the depôts well stocked and prices ruling high, the revenue for the year was exceptionally large, this too in spite of the partial failure to supply the Railway with the stipulated number of sleepers and quantity of fuel.

The quantity of timber brought to Tavargatti Depôt was about half that of the previous year; this combined with fewer sleepers and less fuel supplied to the Railway caused a decrease of about Rs. 69,000 in expenditure under A I. Two years' (1911-12 and 1912-13) contributions to Kánara Local Board for repairs of roads, extension of *Casuarina* plantations on the coast, grain compensation and better rewards for detecting offences to low-paid subordinates and permanent travelling allowance to Round Foresters swelled to a certain extent the expenditure under the respective heads. The decrease under "Salaries" is due to the transfer of a Provincial Officer for duty under the Revenue Department in Kánara.

The percentages of value of major and minor produce to the total revenue of the year were:—

Particulars.					Receipts.	Percentages.
					Rs.	
Major produce	...	...	...	...	16,53,022	87
Minor produce	...	...	...	...	2,55,173	13
Total					19,08,195	100

The following statement exhibits the percentages of expenditure on Constitution, Works, Improvement and Establishment to the total expenditure:—

Particulars.					Charges.	Percentages.
					Rs.	
A.						
Extension and Constitution	...	...	...	...	4,893	1
Improvement	...	...	...	...	1,38,705	22
Exploitation	...	...	...	...	4,90,503	77
Total A					6,34,101	100
B.						
Administration	...	...	...	...	51,365	14
Executive	...	...	...	...	1,55,177	41
Protective	...	...	...	...	1,69,903	45
Total B					3,76,445	100

Outstandings of revenue amounting to Rs. 1,104-7-11 were written off under the orders of the Conservator.

The outstandings on account of revenue at the end of the year amounted to Rs. 4,74,258-10-6, more than double that of 1911-12, due to large sales at Tavargatti and all other timber depôts in the Circle. The outstandings due by contractors and disbursers stood at Rs. 1,65,077-15-7 against Rs. 1,66,831-7-11 at the end of the preceding year.

The estimated value of timber and other produce in depôts fell from Rs. 7,97,223 to Rs. 4,84,578, chiefly in timber, though there is an increase in quantity. The reason is that all the stock at the Tavargatti Depôt in Kánara Northern Division was sold to the last stick and very little timber could be brought in to replace it owing to the failure of the road train, and the logs brought to the road-side depôts, 8 to 15 miles away from Tavargatti, have been included in the stock in hand—but not their value.

The value of live and dead stock shows a net difference of Rs. 33,553 in favour of the year, being value of new buildings, etc.

Sind Circle.

The revenue and expenditure of the forest year compared with those of the preceding year and with the average of the past five years are as under :—

Head.	Average of past 5 years.	1911-12.	1912-13.
	Rs.	Rs.	Rs.
Revenue	4,17,240	4,07,937	4,55,699
Expenditure A	54,844	33,267	42,140
Do. B	1,33,042	1,69,183	1,72,574
Total, Expenditure ...	1,87,886	2,02,450	2,14,714
Surplus	2,29,354	2,05,487	2,40,985

The reasons for the increase of Rs. 47,762 in gross revenue are :—

- (a) Better prices obtained for coupes in all divisions except Nausháhro. due to a good demand for fuel and keen competition.
- (b) Sale of burnt areas in the Sukkur and Nausháhro Divisions.
- (c) Sale of revenue jungles in the Hyderabad Division.
- (d) Sale of fuel obtained from thinnings in the Jerruck Division.

The increase of Rs. 8,873 under A.—Conservancy and Works is due to extensive irrigation works undertaken during the year under report. The works had been postponed from the previous year by order of Government, to effect economy. The amount is Rs. 12,704 below the five years' average.

The increase of Rs. 3,391 under B—Establishment is due to—

- (a) Increased pay to officers of the Imperial and Provincial Services under the time-scale.
- (b) Local allowance of Rs. 50 to Mr. Irani, Divisional Forest Officer, Sukkur, from September 1911.
- (c) Payment of daily allowance to clerks on tour instead of permanent travelling allowance from December 1911.
- (d) Grain compensation allowance to subordinates.

The revenue and expenditure of the year are further classified as follows :—

I.—REVENUE.

Particulars.	Receipts.	Percentage.
	Rs.	
Major produce	3,43,355	75
Minor produce	1,12,344	25
Total	4,55,699	100

II.—EXPENDITURE A.

Particulars.	Charges.	Percentage.
	Rs.	
Extension and Constitution ... ..	.....	.....
Improvement	30,708	73
Exploitation	11,432	27
Total	42,140	100

III.—EXPENDITURE B.

Particulars.					Charges.	Percentage.
					Rs.	
Administration	...	...	...	...	30,887	12
Executive	...	...	...	...	64,057	37
Protective	...	...	...	...	77,630	51
Total					1,72,574	100

The revenue outstanding on 30th June 1913 was Rs. 1,47,986 against Rs. 1,43,734 on the same date last year. This represents instalments payable by coupe contractors and others, which are not recoverable until after the close of the year. The debts are good ones.

Bhai Jethmal Wadhmal still owes Rs. 6,500 for the lac contract of the Jerruck Division for 1908-09. The Collector of Hyderabad writes that his surety, Lekhraj Khimandas, has appealed to the Judicial Commissioner of Sind. No further steps can be taken till the appeal is decided.

A sum of Rs. 3,038-4-0 is due from Chandiram Karamsing for a coupe contract of 1909-10 in the Jerruck Division. The Collector of Hyderabad writes that proceedings for the recovery of the money have been suspended pending the disposal of the appeal filed by Chandiram in the Court of the Judicial Commissioner of Sind.

CHAPTER IV.

ADMINISTRATION.

Northern Circle.

The administration of the Northern Circle was carried on by the following Officers during the year:—

1st July 1912 to 27th January 1913	...	Mr. W. F. D. Fisher.
28th January 1913 to 13th February 1913	...	„ G. E. Marjoribanks.
14th February 1913 to 30th June 1913	...	„ G. R. Duxbury.

The Forest divisions were held by the following Officers:—

<i>Panch Maháls</i>	..	By Mr. D. R. S. Bourke, throughout the year.
<i>Surat</i>	...	By Mr. G. E. Marjoribanks until the 3rd May 1913 when Mr. Bourke took temporary charge to the end of the forest year.
<i>North Thána</i>	...	{ By Mr. C. E. L. Gilbert, from 1st July 1912 to 15th August 1913. By Mr. J. H. Irani, from 16th August 1912 to 30th June 1913.
<i>Central Thána</i>	...	By Mr. R. W. Inder, throughout the year.
<i>South Thána</i>	...	By Mr. A. N. Master, throughout the year.
<i>Kolába</i>	...	By Mr. V. D. P. Rebeiro, throughout the year.

Mr. J. B. Brooks joined the Imperial Forest Service during the year under report and was posted under the Divisional Forest Officers of Surat and Central Thána for successive periods of three months each.

Mr. E. O. Sampson was appointed a Probationary Extra Assistant Conservator in January 1913.

Mr. R. H. Madan, Extra Deputy Conservator of Forests, retired in May 1913 after a service of 30 years, and accepted the appointment of Conservator of Forests, Baroda State.

Among Rangers Messrs. S. H. Vaze and G. D. Ghaisas and among Foresters Messrs. G. B. Nandlaskar and Ganesh Govind retired during the year.

The work of the clerical establishment continues good except in Central Thána where it is reported not entirely satisfactory in part due to changes, and in part to lack of co-operation between the clerks, and in South Thána where service is unpopular. Matters have, however, lately improved in both offices.

Among the protective staff Mr. G. R. Patkar has earned praise for his all-round good work in North Thána, and Mr. K. V. Mankikar for his road work in Surat. Messrs. V. G. Bhalerao, H. B. Vaidya, A. S. Nachan, Manumia Sarfuma, Sajisha Husseinsha, C. K. Amin and R. S. Deo are also mentioned for good work by their respective Divisional Forest Officers.

The following table shows casualties during the year :—

Total Staff.	D ths.	Resignations.	Dismissals.	Retirements.	Suspensions.
1,091	15	24	11	8	38

The new quinine treatments supplied in Surat Dángs were reported both popular and effective.

Fines were 248 and degradations 19.

Under existing circumstances punishments are bound to be fairly severe. The average beat guard gets less than a labourer in Bombay and cares little for punishment. A literate guard in Thána and Kolába objects to work as a beat guard at all and becomes a round guard before he is really experienced or old enough to be careful.

In places recruitment is most difficult, and it is suggested that for unhealthy parts or where labour is in great demand a deputation allowance should be given.

In the Tánsa catchment area Aghai and Nándgaon rounds out of a total staff of 11, 2 round guards died during the year, 2 beat guards left without resigning, one resigned and 4 went on leave suffering from malarial fever: this is a striking case in point.

The relations between the Revenue and Forest Departments were satisfactory in all divisions. In the Kolába Division, the Mámlatdárs of Mahád and Karjat and the Mahálkari of Nágothna are mentioned for their valuable assistance in forest protection.

All divisional offices were inspected by the writer of the report except Kolába which Mr. Fisher visited early in the working season. Where possible a range office was inspected in every division.

Twelve students were sent to the Thána Forest School during the year, of whom 10 passed, 1 failed in the final examination and the other was absent ill. A revised syllabus was drawn up in May 1913 to be taught at the forthcoming class. Mr. K. B. Gokhale was the Instructor during the monsoon months of 1912.

Central Circle.

The Circle was in charge of Mr. G. P. Millett from 1st July to 18th April 1913 and of Mr. L. Napier thereafter to the end of the year.

Details of the charges of divisions held by various officers are no longer required to be given, but Poona Working Plans and North Násik alone obtained continuity of administration throughout the year under their respective officers, while in all other divisions, transfers or the taking of leave, entailed in three cases two changes, and in two cases three changes.

On the work of Divisional and Sub-Divisional officers the Conservator, having been transferred to the Circle towards the close of the year, will only comment to the extent of saying that both his predecessor and himself had every reason to appreciate the efforts made. The success attained in fire protection speaks for itself, as does also the fact that administration was everywhere carried out without friction, no easy matter in a year of scarcity when the forests are called upon to provide for so many more than the ordinary outside interests. Famine Fodder Operations too add much to a Divisional Forest Officer's labours; they form the subject of a special report and in which the services of various officers will be detailed, but mention must be made here of the very satisfactory work done by Mr. Gilbert in South Násik.

The upper protective establishment on the whole worked well, though various Range Officers and Foresters had to be reduced for unsatisfactory conduct. The lower protective establishment still leaves much to be desired, and no appreciable improvement is found in the class of men that come forward for the recruitment of the Beat Guard grades. It is true that since the reorganization of a few years back, the pay is a nearer approach to a living wage than it was, but the fact remains that literate men are not attracted by the life or prospects of a Beat Guard, and the end is, not only is the supply inadequate of men suitable for advancement to the grade of Round Forester or Guard in which literacy is essential, but also stagnation in promotion is so great amongst the illiterate men, that incentives to good work are almost entirely wanting. How the difficulty is to be got over is not clear; the Forester's class is of use in training the better men amongst the Beat Guards for eventual advancement to Round Forester, but with literate men unwilling to come forward to serve in the Beat Guards grades, even for the limited time necessary for them to acquire a practical knowledge of forest work and to be able to assimilate the teaching given at the class, the supply does not keep pace with the demand. The casualties in the protective staff were as follows: dismissals showing an improvement on last year, deaths 16, retirements 21, dismissals 25, resignations 19. A further point which tends to keep men from entering the lower grades of the Forest Department is the pension question, for no man of less than Rs. 15 can hope for more than a pension of Rs. 4 after 30 years' service. With the ever increasing work that is demanded, the inducement is not considered sufficiently attractive.

Of the clerical establishment, Mr. T. G. Mahajan, the Conservator's Head Clerk, went on leave preparatory to retirement after 35 years' excellent and faithful service to Government. Divisional clerks are everywhere reported to have given satisfaction. Recruitment, however, in this branch also is not on a sound footing; clerical posts consist of firstly those in the Circle and Divisional offices, a limited number but with prospects of promotion by yearly increment, and secondly of a very large number of Range office clerks on fixed pay of Rs. 20, and no hope of promotion to a Divisional office for a great number of years. Either a man has to be appointed direct to the former class, and the inclination to do so is great when a really suitable candidate comes forward, or else he has to be appointed as a Range clerk. The prospects of the latter alternative entirely fail to attract good men, and with some reason, while the former alternative makes the prospects of the Range clerks even worse than it naturally is. The Department thus falls between two stools.

Owing to pressure of Famine Fodder Operations, and to no officers' services being available for instruction, the Forester's class was not held during the year.

Southern Circle.

Mr. L. Napier held charge of the Circle from 23rd October 1912 to 16th April 1913. Mr. W. E. Copleston officiated from 20th to 22nd October 1912 and from 17th to 20th April 1913. Mr. T. R. Bell was in charge for the rest of the year.

The changes which occurred during the year among gazetted officers were as follows:—

Imperial Officers.—Mr. T. R. Bell was on combined leave from 20th October 1912 to 20th April 1913. Messrs. A. G. Edie and W. A. Miller went home on combined leave respectively from 2nd and 4th May 1913. Mr. G. S. Butterworth was on special leave on private affairs from 31st August to 4th October 1912.

Provincial Officers.—Mr. S. B. Bendigeri, on return from combined leave, was posted to Kánara Southern Sub-division with effect from 1st June 1913. Mr. R. R. Hattangadi was on two months and 15 days' privilege leave from 15th September 1912. Mr. G. S. Dangi was absorbed in the permanent cadre of Extra Assistant Conservator with effect from 12th June 1913. Mr. R. A. Shirali, Ranger, 1st Grade, was made probationary Extra Assistant Conservator from 24th December 1912 and transferred to the Central Circle.

Mr. Basalkar, the student, deputed for training as Ranger, 1911-13, returned from Dehra Dun with a Lower Standard Certificate. Three students Messrs. Joshi, Arjani and Ghatgalkar selected for the 1913-15 course are under training.

Of the 11 subordinates who were sent up for training at the Belgaum Vernacular Forest School in 1912, three passed with credit and 7 ordinarily. The 11th man failed in Forest Engineering but was considered as passed as he made over 50 per cent. of marks on the whole. There was one private student from a Native State and he passed the course with credit. The class was as usual held by Mr. Hattangadi, Sub-Divisional Forest Officer, Belgaum, in addition to his own duties and the students were given as satisfactory a course of instruction as circumstances permitted. The lowest and highest marks scored were 59 and 82 per cent., respectively.

All the Divisional offices were inspected during the year and no serious discrepancies of any kind were brought to light.

During the year bad climate allowance to subordinates serving in malarious places of Kánara was sanctioned in Government Resolution, Financial Department, No. 443, dated 17th January 1913.

The health of the establishment was good, two Foresters, eleven guards, two clerks and one peon = 16 men died during the year.

Other casualties of the year were as follows:—

Retired.—1 Ranger, 3 Foresters, 6 guards, 1 clerk and 1 peon.

Resigned.—1 Forester, 21 guards and 2 peons.

The roll of punishments was rather heavy during the year. This was necessitated by the conduct of subordinates especially of those below the grade of Rangers, which was far from satisfactory. Two Foresters, 18 guards and 1 clerk were dismissed. One Forester, 38 guards, 1 clerk and 1 peon were discharged. One Ranger, 6 Foresters and 19 guards were degraded. One Forester and 5 guards were prosecuted. Nineteen men were suspended and 300 fined.

The relations between the Revenue and Forest officials continued to be as satisfactory as ever.

Services.—All Gazetted Officers worked well during the year. The Conservator was well satisfied.

The subordinate protective staff was fairly satisfactory. We are still suffering from too many of the old type of men but there is, I think, a slow but general improvement in quality. There is some difficulty in getting the proper type for Forester and many guards who are really not fit for these appointments have to be put in.

The clerical staff leave, generally, a good deal to be desired. There is a great want of system in their methods which diminishes their value. Efforts are being made, however, to surmount this fault. The men worked well on the whole.

Sind Circle.

Charge of the Circle was held by Mr. E. G. Oliver throughout the year.

The divisions and sub-divisions were held by the following officers:—

<i>Jerruck</i>	...	...	Mr. H. L. Newman, whole year.
<i>Hyderabad</i>	...	...	Dr. N. Gustasp, whole year.
<i>Nausháhro</i>	...	...	Mr. M. D. Jagtiani, whole year.
<i>Sukkur</i>	...	...	{ Mr. J. H. Irani, July 1st to August 9th, 1912. Mr. D. J. Navani, August 10th, 1912 to June 9th, 1913. Mr. A. C. Robinson, June 10th, 1913 to June 30th, 1913.
<i>Sukkur Sub-division</i>	...	...	Mr. P. U. Malkani, whole year.
<i>Working Plans Division</i>	...	...	{ Mr. D. J. Navani, July 1st to August 5th, 1912. Mr. E. G. Oliver, August 6th, 1912 to June 10th, 1913, in addition to his own duties. Mr. D. J. Navani from 11th June to 30th June 1913.

Mr. J. H. Irani, Extra Assistant Conservator of Forests, was transferred to the Northern Circle during the year.

Mr. A. C. Robinson, Extra Deputy Conservator of Forests, joined the Circle on return from furlough during the year.

Every division was visited and all the Divisional Forest Offices were examined by the Deputy Conservator during the year. They were all in a satisfactory state and no irregularities of any importance were discovered.

The following Range Offices were also examined by the Deputy Conservator:—

<i>Range.</i>			<i>Division.</i>
Sehwán	} Nausháhro.
Radhan	...	...
Garhi Yásin	...	...
Abad	} Sukkur.
Ghotki	...	...
Sukkur	...	...

Stipendiary student, S. C. Advani, completed his training at Dehra Dun on 31st March 1913 and reported himself for duty on 6th April 1913. He obtained the Lower Standard Certificate and was appointed Forester on Rs. 35 plus Rs. 15 personal allowance (*vide* Government Resolution No. 7777, dated 21st August 1913, Revenue Department).

One Government stipendiary student was sent to Dehra Dun for training as a Ranger.

The work of the Range Forest Officers, with few exceptions, is generally favourably reported on by the Divisional Forest Officers.

Of a total of 386 men punishments have been inflicted as shown below:—

Dismissals	...	...	...	19 or 4.9 per cent.
Reductions	...	...	...	19 or 4.9 do.
Fines	...	...	...	91 or 23.5 do.

It is impossible to get a good class of men for Forest Guards in Sind. For one thing education is in a very backward state. Only 11 Sub-Rangers out of a total of 47 in the Circle can read and write. (The Sub-Ranger of Sind is the Round Guard of the Presidency). Such men can earn more by working as coolies in the Public Works Department, where the rates of pay are high. Educated men will arrive in time no doubt, but then the present pay will not

attract them. It does not offer much attraction to the uneducated man now. Meantime, as the required men are not available the Department must just manage with the materials at hand. Really energetic and honest Range Forest Officers can to a certain extent make up for the shortcomings of the men under them. Such Range Forest Officers therefore deserve every encouragement.

The work of all the Divisional Forest Officers continued to be satisfactory during the year, and some real progress was made towards increased efficiency.

As regards the clerical establishment the Deputy Conservator has to acknowledge good and loyal work from his own office under the conduct of Mr. Lachiram Suratsing, the Head Clerk. The Divisional Forest Officers as a rule can say the same for their own offices. There were one or two cases during the year which called for reprimands. The quality of the personnel calls for improvement. This is a matter of time and will be brought about by the gradual retirement of the older men whose education is necessarily inferior, and the recruitment of men who have a modern education and a command of English and vernacular.

CHAPTER V.

GENERAL REMARKS.

Northern Circle.

Manganese Mining.—This was carried on as usual in the Bamankuva Mine and in the small portion of forest in the Shivrājpur Mine in the Panch Mahals. Rs. 3,645 were paid to the Department in royalties, dead rent, and surface rent.

Tahal Demonstrations.—These were given at almost every camp by the Divisional Forest Officer, North Thána, who explained mistakes as did his subordinates. In Central Thána also Rangers gave demonstrations in co-operation with Mámlatdárs; a stricter ruling for the preservation of ground shoots is required in Mokháda and parts of Khardi where clearance of the young injaili crop by charcoal merchants have denuded the máiki lands. The Divisional Forest Officer personally did much instruction in the sub-ghát villages. In South Thána, forest subordinates gave some demonstrations, while in Kolába, especially in the northern tálukas, both the Revenue and Forest Officers were particularly energetic in this respect. Proposals for the adaptation of the Thána Woodland Code to the Kolába District with certain modifications were sent up to Government by the Collector of Kolába during the year after meeting the Conservator and Divisional Forest Officer in conference.

In March 1913, an Agricultural Exhibition was held at Pen in Kolába to which specimens of forest produce as also articles manufactured therefrom were contributed and Mr. Gumaste of the forest staff read a paper on the tending of woods.

The Fowler road train sanctioned previously for the Surat Dángs was delivered in the month of April. It was found, however, that the southern portions of the road through the Baroda State on which it was intended to run were unsuitable and the engine is at present driving the saw mill in the North Dángs, until a road the upkeep of which will remain in the hands of the Forest Department can be completed to the new light railway station at Kalambe on the western frontier of the Dángs.

Famine grass operations were carried in the Tánsa catchment area under the supervision of Mr. Bijur, Extra Assistant Conservator of Forests, and near Kalyán and Badlápúr stations under Mr. Saldanha. The former assisted the subordinates of the Military grass farm who in turn had a contractor; the latter dealt with his own contractors, a system which proved

the more satisfactory of the two, both as regards quick work and obedience to departmental orders.

The remarks made by Collectors of Districts in forwarding the Administration Reports of their Divisional Forest Officers were as follows:—

Panch Maháls.—“Forwarded with compliments.

2. The coupes sold much better than they did last year, when somewhat pessimistic feelings prevailed.

3. The working plan did not have to be suspended as was apprehended at one time.

4. Fire protection has improved considerably chiefly in Godhra and Kálol and Dohad in the order named.

5. The plan mentioned in para. 63 will facilitate matters.

6. The present Collector was practically not in charge during the year, but he has had opportunities since of judging, and he considers that Mr. Bourke has worked exceedingly well, and that Mr. Patél has zealously seconded Mr. Bourke's efforts.”

Surat.—“Forwarded with compliments.

2. Special attention is invited to para. 13 (end). The value of the Southern Dángs forest is held in suspense until this road is linked up.

3. There seems to me an error in the enormous quantity of firewood (over 7½ crores of cubic feet) which would have kept a big railway administration busy for a year to handle, said to have been extracted by privilege-holders. Perhaps a decima point has gone astray?

4. Enquiry is being made as to why the Fowler train failed to negotiate the very road which the agents inspected and pronounced suitable. It is hoped it will not similarly fail in the Southern Dángs: but we must see whether there has been any misrepresentation.

5. Everything else in the report is satisfactory and does credit to Mr. Marjoribanks' administration. The incidence of fever has been more severe. It is not stated whether the attempt to use mosquito curtains has been given up.”

Thána.—“Forwarded with compliments to the Conservator of Forests, Northern Circle.

2. The forest revenue continues to expand; the total profit for the district this year is Rs. 8,70,971, an increase of Rs. 1,16,396 over the figures of last year. The prices of timber have risen considerably and the demand for charcoal in Bombay has increased enormously of recent years.

3. Large as the forest transactions are, they would be still larger if the district facilities of communication were improved. The Talasari Mahál cannot be worked for want of roads, and 60 coupes in other parts of the district could not be sold chiefly because of the difficulties of transport. The programme of forest roads has now been revised and it is to be hoped that greater progress will be made in future in the construction of those roads which are essential for the proper exploitation of the forests. Some of the roads would earn the cost of their construction in a very short time; the Udhwa-Kase Road and the Parli-Khardi Road are examples.

The Divisional Forest Officer, Central Thána, draws attention to the congestion of traffic on the G. I. P. particularly at Khardi and its prejudicial effect on coupe prices. This was no doubt accentuated this year by the famine grass operations carried on about Khardi.

4. There is a noticeable rise in the number of offences in Central Thána, a slight increase in North Thána and a decrease in South Thána.

The Divisional Forest Officer, North Thána, suggests the establishment of an Honorary Magistrate's Court at Manor, the head-quarters of the Máhim Range; it would no doubt be a considerable convenience to the Forest Department, but unfortunately there is at Manor no suitable person for the post.

5. The figures of area burnt show a noticeable decline in all three divisions: where 100 acres were burnt last year in the district, only 35 were burnt this year. This is probably due far more to climatic reasons than to anything else, though in saying this the Collector does not wish to depreciate the efforts of the Forest Officers in spreading the gospel of protection of the forests from fire. The heavy rain at the end of November, which varied from 6 inches in Umbargaon to 2½ inches in Máhim, must have kept the forests green longer than usual and the period of risk was shortened too by the early break of the monsoon.

6. Impoundings were 33 per cent. more numerous this year than last in Central Thána; the other divisions show a slight decrease. The impoundings of agriculturists' cattle have declined to a marked degree in South Thána, but there was in this division a considerable increase in the number of sheep and goats impounded, belonging, as the Divisional Forest Officer reports, to Kathodi charcoal burners.

7. Two out of the three Divisional Forest Officers comment on the difficulty of getting suitable men for Round Guards and the low rate of pay of Beat Guards. The difficulty is presumably felt also in North Thána.

All departments are being adversely affected by the prevailing high prices; the only remedy is a revision of the pay throughout.

8. In last year's review the Collector had occasion to comment on the large number of punishments; he is glad to see that there has been an improvement in this respect in Central and South Thána. In North Thána, the record is even worse than last year.

9. It is gratifying to note a great improvement in the attitude of the people towards forest conservancy in Central Thána and greater readiness on the part of the people of North Thána to assist in the prevention of forest fires. In the case of several villages of Máhim Range and a few in other ranges special warnings have been issued that if the wild tribes do not mend their ways their privileges of removing dead wood for sale and barter will be permanently taken away."

Kolába.—"Forwarded with compliments with the following remarks:—

2. Paras. 7-8. Undersigned believes 'dalhi' plots to be mischievous, and hopes to do what he can towards reducing them as occasion offers. The proper policy towards the Thákurs and Kátkaris is, he believes, to turn them from forest nomads that they are into much needed labourers; thence into agriculturists if they are fit for it; but not straight into agriculturists. Instead of 'dalhi' plots they might be given house sites and small holdings in 'Gurcharan' near labour centres such as Panvel and the railway.

3. Paras. 31-33. Communal penalties and rewards.—More rewards might be recommended, as in the case of good málki tahál (para. 36). It is feared the penalties do not generally fall directly on the prime offenders, who are largely landless and cattleless, but there seems no other way of reaching the latter, and the villagers will come and are coming to see that the village forest is virtually their joint possession which it is their duty to protect.

4. Para. 34. Wood depôts for local supply.—The failure, expensive as it was, is not, in undersigned's opinion, a matter for reproach. It has demonstrated the sad fact that licit wood cannot compete locally with illicit, and the fact needed demonstration.

5. Paras. 35-37. Tahál.—There is good hope that the Southern Division will gradually follow the Northern in reboisement of málki lands. It has been back probably through (1) greater poverty and ignorance, (2) distance from Thána, the home of tahál reform, (3) it is feared the illiberal influence of the Khots. Improvement, as Mr. Rebeiro says, may take ten years to emphasize itself. But meanwhile the undersigned believes in no remission of practical demonstration. It is impossible to send village officers out with ráb cutters, and there seems no third means to educating the people to do their own forestry. Local officers deny that labourers and Kátkaris absent themselves from the demonstrations.

6. Para. 50. The undersigned agrees with the Divisional Forest Officer so far as the former's information carries him.

7. Para. 83. Undersigned will try to insist on tiled roofs for new houses.

8. Para. 94. No married man in this district ought to be expected, in undersigned's opinion, to live honestly on Rs. 9. Kolába rates of living at least in the north are largely affected by the high rates of Bombay, thus establishing a special justification for favourable treatment.

9. Mr. Rebeiro appears to the undersigned to be a most active and conscientious Forest Officer and has always been ready to advise on revenue-forest matters. As para. 86 shows his administration has been marked by great financial prosperity, as well as in other ways of progress."

Central Circle.

Owing to scarcity of fodder, Famine Fodder Operations had again to be undertaken by the Forest Department. No detailed account of them is here given, as a special report covering the operations, both in this Circle and elsewhere, will be submitted to Government by Mr. Millett, Senior Conservator, under whose direction they were carried out. It will be sufficient to mention that all demands from affected districts were fully and promptly met, and that

Government have in hand, stored in hydraulic pressed bales in pakka sheds in the West Khándesh Division, the 25 lákhs of lbs. which Mr. Bhiladwala under his agreement has to keep as reserve at the disposal of Government should necessity arise. This latter is not now likely to be the case, and the reserve will be duly renewed in the coming season at no cost to Government, Mr. Bhiladwala disposing of the present stock for his own use on payment of royalty fees to Government, and replacing it by the new grass free of charge. The total quantity of grass collected for famine purposes, and the total receipts and expenditure on its account, have been noted in the body of the report under respectively the heads Minor Forest Produce (Grass and Grazing) and Financial Results.

The following remarks may be made on various points noted by Collectors in their forwarding memoranda and which have not already received attention in this report:—

Sátára Collector's paragraph 5.—“Road extension is being carried on to the limit of funds available. For the proposed boom at Karád, the Divisional Forest Officer has, in consultation with the Public Works Department, worked out estimates of cost which should not exceed Rs. 1,000. Funds have been made available by the Conservator, and the purchase of the required hawsers and winches is in progress. The boom is admittedly an experiment and cannot be tested till next monsoon, but, if successful, it will amply repay its small cost by mitigating the scarcity of firewood that now prevails in the district and by enabling valuable, but otherwise inexplotable forests, to be brought under working. For the Mahableshtar and Panchgani fuel supply, the Divisional Forest Officer is working out a scheme for retail sale depôts.”

North Násik.—“The damage to the anjan trees which the Collector remarks on as the result of the concessions of the last two years, doubtless refers to the destruction of the seed on the trees that inevitably accompanies the removal of the leaves by the people.”

East Khándesh.—“The Bhil settlements referred to are in the Satpudas where there are no other villages of any sort, and where labour for fire protection and other forest works cannot be obtained. As a cultivator the Bhil is not a success; without tagái he cannot till the lands given him and will not remain at the settlement—given tagái for the purchase of cattle, and it is only a question of months before he kills the animal by neglect or ill-treatment; the land again falls out of cultivation and the tagái cannot be recovered. Nevertheless without these settlements, fire protection could not have improved as it has done in recent years, and there is always the difficulty that none but the Bhil can live permanently in these hills.”

North Khándesh—Collector's paragraph 9.—“The rest house at Dhadgaon in the Akráni is entered in this year's list of major works, and will it is hoped be built in 1914-15. Extension both of buildings and communications is very necessary in this unhealthy and out-of-the way tract, for at present roads are non-existent, and except at Toranm. there is no accommodation for touring officers; while the nearest dispensaries are far away in the plains at Táloda and Sháháda. A road will be surveyed this season by the Forest Department and, if feasible, should be of much use in opening up the country.”

The cattle breeding experiments started three years ago in the Akráni under the superintendence of the Forest Department were continued, but with moderate success, for though two bulls are kept at convenient points, and the charges made are limited to the actual expenses necessary to feed the cows for the period they are kept, *viz.*, from October to May, and though the young stock that has so far been born is decidedly promising, yet there is a disinclination on the part of the people to send their best cows for service.

The relations of Forest Officers with Revenue Officers during the year left nothing to be desired. The remarks made by Collectors of districts in forwarding Divisional Forest Officers' Administration Reports were as follows:—

East Khándesh.—“The undersigned has few remarks to offer, having been in charge of the district less than three months and not at all during the touring season.

“A favourable feature of the report seems to be the decrease in the number of fires.

“In regard to Mr. Milne's remarks in paragraph 22, what has been done is to call the Magistrates' attention to the provisions of sections 25 and 32 of the Act. The Act contemplates imprisonment as a penalty for offences against its provisions, but there seem to be few subordinate Magistrates capable of disabusing their minds of the idea that offences against special or local laws are venial affairs which can be adequately met by

small fines. These fines often amount to little more than a tax on the profits of deliberate and persistent breach of the law, and therefore cannot possibly be deterrent, especially in the case of those offences of which the detection is difficult and comparatively rare. While Magistrates often err on the side of leniency, it is at the same time, undersigned thinks, the duty of the Forest Officers prosecuting in these cases to press for adequate sentences.

Paragraph 76.—The Bhil settlements do not seem to be altogether a success. In one of them there has already been default in the payment of tagái advanced, and it is proposed to give the lands to Kunbis on their paying up the arrears.”

West Khándesh.—“The general protection was on the whole satisfactory and the slight increase in the number of offences has been explained by the Divisional Forest Officer. The decrease in the number of undetected cases, and especially fire cases, is an indication of greater vigilance. The marked decrease in the area affected by forest fires is highly gratifying. It reflects credit upon the department as well as the people and shows that the old antipathy is being replaced by a tolerant feeling. It is a very wholesome sign of the increased interest taken in protective work by the people.

“The impoundings of cattle again show a large increase, and could have been avoided if the people who were permitted to graze their cattle in the closed portion of the forest had been warned sufficiently a few days before the said forests were closed. The impounding of cattle, though perfectly legal, is generally the cause of discontent and heart burning amongst the people. The grant of extended grazing facilities, the need for which has been growing every day, is expected to produce better results.

“The result of the experiments on the production and extension of lac was not satisfactory but the reason is obvious. It is due to the inefficiency of the subordinate entrusted with the work. With greater interest in the work, the result may be more encouraging.

“The financial results are rather unfavourable, but Mr. Sothers has given reasons.”

North Khándesh.—“It is gratifying to note that satisfactory progress was made in the repairs and construction of forest roads.

“Though the number of offences has remained almost stationary, the number of undetected cases has materially gone down. The large number of warnings shows that the offenders were treated with leniency. The number of prosecutions instituted for offences against general protection was comparatively small, and the results obtained were quite satisfactory.

“The special measures adopted for fire protection proved effectual and resulted in a material reduction in the number of fires and the area burnt, specially in Táloda and Sháháda. The Akráni range lost the most and requires more vigilant supervision, but it is the most difficult place too in the absence of better means of communication.

“The number of cattle impounded from closed forests shows a large increase except in the case of goats. Perhaps a large number of these impoundings could have been avoided if timely warning had been given to the villagers. The privilege of free grazing is an important factor in enlisting the sympathy of the forest inhabitants and in securing their co-operation to prevent forest fires.

“The “Agriculture-cum-Forestry” system does not appear to have been successful so far. The experiments on the propagation of lac seem to have been carried on with care.

“The financial results of the year are not quite good compared with the last year but Mr. Starte has given reasons for the fluctuations.

“The Collector has read with interest the commendations bestowed upon the Rangers in fire protection work. Mr. Starte himself deserves credit for his efficient supervision.

“A dispensary and a rest house at Dhadgaon in Akráni are no doubt absolutely necessary, and are under consideration. The proposal to have a daily postal service to Dhadgaon is also engaging the attention of the Postal Department.”

North Násik.—“It is clear that the concessions given in the last two years for taking anjan leaves have very seriously damaged the growth, thus reducing what must be regarded as a fodder reserve for years of real famine. This was not such a year, yet Mr. Dalia recommended that permission should be given to pick the growing leaves in June. It seems that my refusal to support his recommendation was thoroughly justified.”

South Násik.—“It is hardly correct to say that the tahal supply in Peint is more than sufficient. Some villages have much more than they want, but some have much less and some none at all. It is in those that have a little but not enough that the trees are most damaged; the leading shoot is spared, but nothing else, and I have even seen trees of the sacred Ficus tribe cut to supplement the supply from Sadada trees. Those villages that

have none at all seem to get on remarkably well; they only have to take the trouble to pick up their cowdung.

"In general I agree with Mr. Gilbert's remarks on this subject.

"It is unfortunate that punitive rates and deprivals of privileges have had to be continued in so many villages. But the people round Igatpuri, especially, have to be dealt with strictly. No doubt the great demand of fuel there is the chief reason. I am glad to say that I need not repeat my remarks of last year about reckless prosecutions."

Poona.—"When I took over charge of this district I found that the reserved forests to be handed over to the Revenue Department had not yet been classified into cultivable and non-cultivable. The question of working reserved forests by village agency is being dealt with by the Sub-divisional Officers on lines laid down by me where the forest is worth preserving. Where suitable, village panchayats are being formed for the management of forest and grazing areas.

"The bridle path from Kothrun to Lonavla, so far as I was able to inspect it, is a most useful piece of work, and is of the greatest possible advantage to the villages in the hill tracts.

"Mr. Thomson will be asked to submit a special report on forest crimes. As I have no experience of the district I accept Mr. Thomson's explanation that the increase is due to efficient supervision. The crime of illicit felling is difficult to detect in hill villages where supervision cannot be effectively carried out without a large establishment entailing prohibitive expense. More than 50 per cent of the offences are illicit felling, and there is no reason to suppose a sudden access of crime in this direction. It is only reasonable, therefore, to assume that increased supervision under Mr. Thomson's regime has brought more offences to light. The percentage of acquittals, however, shows that cases were not carefully scrutinised before being sent to the courts. The necessity of inflicting deterrent sentences will be brought to the notice of the Magistracy. Such cases that have been proved since my arrival in the district have, however, been more adequately punished than I have found in other districts.

"The increase in fires from 38 to 51 is a paper increase as the real question at issue here is the area destroyed. This fell from 5,255 acres in 1910-11 and 1,620 acres in 1911-12 to 938 in 1912-13, and these figures are most satisfactory reading. The orders of Government to check fires by increasing grazing fees of the village have not been lost sight of.

"The number of impoundings is still large; it is due to the fact that the concessions so generously granted have been taken to mean that fees may be avoided. A steady infliction of double fees will gradually correct this misapprehension. I consider these impoundings are not due to insufficient grazing facilities so much as to the desire of the villagers to dodge grazing fees.

"The financial results show Rs. 36,991 as against an average of Rs. 23,287.

"In conclusion the report shows that in every branch of forest administration Mr. Thomson is effecting improvements with commendable thoroughness and attention to detail."

Sátára.—"In respect of fire-protection the position is on the whole very satisfactory; there appears to be no deliberate burning of the forest for the sake of the resultant grass. Cattle trespass occurs, however, on a seriously large scale. The effect of doubling the grazing fee has not been tried, and the villages in which this form of forest offence is common, will now be warned that the grazing fee will be raised to 4 annas unless there is a marked improvement in this respect. The Collector proposes to discuss with Mr. Wallinger the measures that are best calculated to deter the owners of sheep and goats from grazing those animals in the forest.

"The fruit plantations appear to the Collector to be deserving of strong support. The Lingmala pears are excellent cooking fruit. The Gureghar plantation may lead to important results.

"The Collector agrees with Mr. Wallinger's remarks regarding the destruction of reserved trees in occupied land. Teak grows well in the western talukas of the district and the value of the timber, like the cost of firewood, is always rising. The reversal of the present policy and measures for the reboisement of occupied land seem to the Collector to deserve the serious consideration of Government.

"The scarcity of firewood, which is already felt severely, will probably become more acute unless the supplies in the Koyna Valley can be tapped. The proposed boom at Karad, if successful, and if the obstruction at Nisra can be passed, will solve the question for Karad and the neighbourhood. But a road from Sátára to tap the upper part of the Koyna Valley seems urgently needed for the exploitation both of fuel and of grass. The Collector is strongly in favour of the extraction of forest grass in normal years as well as in years of scarcity. At Mahableshwar and Panchgani there seems to be nothing for it but the opening by the Department of retail depôts for the sale of firewood.

"The Collector endorses with pleasure Mr. Wallinger's remarks regarding the cordiality of the relations between the Forest and the Revenue Departments."

Southern Circle.

The year was a favourable one; there was a plentiful monsoon throughout the Circle; it was abnormally heavy in Kánara and Belgaum and the beneficial effects lasted right through the hot weather. The good cereal and cotton crops everywhere resulted in a large demand for forest produce. The timber market was better than it has ever been and the depôts generally were emptied of their contents. The prices for teak, matti, blackwood were exceptionally high.

The gross revenue was the largest on record; the net revenue was also the highest ever realized. And this notwithstanding the failure of the road-engine in the North Kánara Division.

All the *Strobilanthes* that did not flower last year died this year and nearly all the remaining bamboos seeded.

There were no mining operations to speak of.

The Fowler train proved an absolute failure. The roads are too lightly metalled and its weight simply ground the surface to pieces. The machinery and driving gear are too exposed and wore rapidly through the dust getting in. Inexperienced and careless mechanics had also to be reckoned with. The cost per ton-mile worked out to annas 12-9, whereas the calculation of the vendors stands at anna 1. Ordinary carts cost annas 6-2. The actual work done was small and much timber consequently still remains behind in the jungle depôts. The engine of the train is now working a second saw-mill for which there is plenty of material to cut up. We learn now, when it is too late, that these trains have failed everywhere in India where they have been tried on forest work. Before the train was bought all reports were favourable.

Something must be done to carry timber from Dandeli to Tawargatti. Carts are not to be had in sufficient numbers. A tramway is under consideration.

The Bajac windlass, a French machine, carrying 600 metres of wire rope and worked by a pair of buffaloes, was purchased to drag logs up steep slopes and has proved an unqualified success on the precipitous sides of the Kaneri Nalla which have remained unexploited up to now owing to impossibility of getting the logs up. The windlass cost Rs. 1,500 and is better than any elephant.

The monorail was again mismanaged by the contractor to whom it was lent, but we hope to make it pay.

The working of the little tramway in the Kodibag depôt has not been very successful; the rails are too light for the big logs and get bent; also a crane is required to lift the timber on to the trucks.

The outturn from the old saw mill in Kánara North Division was hampered by the failure of contractors bringing in sleeper pieces and by the bursting of the dam of the tank that supplied the water in the busiest season.

The three Gund elephants worked well; the calculated net profit on this work is Rs. 6,065. The old male has been behaving properly of late and has given little trouble.

Two Government buffaloes were not so profitable as last year. Six died from some sickness; the veterinary man summoned to pronounce on the cause of death ascribed it to heat-stroke. It was probably some poisonous herb.

The telephone lines were installed during the year. That in Kánara Eastern Division was of great use; that in Northern Division was interrupted frequently by falling trees and the machines got out of order, probably through ignorance of subordinates.

Mr. Copleston constructed a cart-track from Gund to the passage over the Kaneri Nalla and thence to Potoli. It is of great utility and facilitates the movement of carts and timber into and out of Gund and the somewhat (formerly) inaccessible Aurli and Hudsa jungles. These improvements in communication are

gradually enabling us to handle produce that was formerly unreachable and considerably economise in expenditure of export.

Some villages in Dhárwár were placed under forest management with the Divisional Forest Officer as Assistant Collector and the Ranger as Mahálkári. It is expected that this will greatly facilitate fire-protection and preservation of the jungles. It is too early yet for results to be gauged.

The betta work under Mr. Hiley is finished in Sirsi. That in Siddápur is well in hand and the whole thing will probably be finished next year.

The soppin assignment work in Ankola is being carried out under the management of the Revenue Department and progress is being made; it will take some time to finish it. Ankola is being done; once that is finished the other tálukas will not take as long.

Mr. Hodgson has been effecting much good work in Belgaum in the matter of weaning the people from kumri. In many cases these people have asked for rice-lands, saying they do not want kumri.

Some experiments were made in departmental grass cutting by Mr. Hodgson which resulted in little profit. Further attempts will be made. He is also trying to awaken a trade in charcoal which should prove profitable eventually.

Eighty-six shooting licenses were issued during the year. Two cases of poaching were taken into court but both ended in discharge for want of sufficient evidence. The present Game Rules do not work satisfactorily and the Collector of Kánara and myself have drafted new ones to be submitted to Government.

A conference of Forest Officers was held in Poona at which all the men from the Circle were present. It was held in September and good work was done.

The Collectors, in forwarding the various divisional administration reports, make the following remarks:—

Kánara Northern Division:—

“The success of measures for fire-protection in organized forests is noticeable. It is mainly the result of patient and continuous endeavour on the part of the Divisional Forest Officer and the establishment under him.

The report is a record of a very satisfactory year's work, notwithstanding many difficulties.”

Kánara Southern Division:—

“Mr. Butterworth continues to administer his charge with efficiency.”

Kánara Eastern Division:—

“The successful results of measures for fire protection are of course partly attributable to the character of the season, but this was only a contributory cause, and the results are principally due to the system of combining reward with punishment in dealing with the villagers.

The proposal to put certain hamlets in charge of the Divisional Forest Officer has, it is understood, been forwarded to Government.”

Kánara Western Division:—

“The acquittals in cases brought to trial are to some extent due to the attitude of the Kárwár Third Class Magistrate, but the long delays that frequently occur between detection of offences and eventual prosecution have a good deal to do with the results.”

Belgaum.—“The Collector has nothing but commendation for Mr. Hodgson's work from the administrative point of view. His schemes and achievements with regard to road improvements, fire protection, employment of Berad labourers, additional cattle pounds, strict punishment for forest offences and liberal concessions for cooperation in forest protection, grazing and forest privileges and kumri are sound and tend to the people's comfort and profit.”

Dhárwár.—“Mr. Sátírawála nas toured with much activity and in his relations with the Revenue Department has shown invariable courtesy and good sense. In his dealings with villagers he is tactful and sympathetic and always ready to attend to the very few complaints that reach him through the Collector. So far as the latter can judge from the absence of any serious complaints, and the results recorded in the report, the charge has been thoroughly well administered during the past year.”

Bijapur.—"The cases of wilful incendiarism do not appear to have been brought to the notice of the District Magistrate. Such criticism of magisterial action is out of place in an administration report and unfair to the magistrates concerned. Each case has to be viewed on its merits and it is open to the Divisional Forest Officer to move the District Magistrate for enhancement of sentences where the facts require such a course. General animadversions or fine averages cannot convince.

Mr. Limaye is entitled to credit for his vigorous administration of the Division during the year."

Sind Circle.

In accordance with an agreement entered into with the Deputy Assistant Director of Supplies, 4th (Quetta) Division, 823,000 cubic feet of fuel were supplied to the Military Department at Quetta from the coupes of the Sukkur Division. The contractors who bought the coupes from the Forest Department were bound under their agreements to supply the above during the cold season. The arrangement has worked well for the last two years.

The plantation at Kot-Sultan mentioned in last year's report (page 87) was only a very qualified success, and will continue as such till water is available in larger quantity. Given plenty of water, it would be possible to raise a fine stock of trees, which would be a very valuable asset in that part of the country. The efforts of the Department are at present confined to saving the stock already raised rather than to any further extension of operations.

The civil suit instituted by one Chandiram, a forest contractor in the Jerruck Division, against the Collector of Hyderabad for alleged breach of terms of his coupe agreement by the Forest Department was decided in favour of the Department, but an appeal against this order has been filed in the court of the Judicial Commissioner of Sind. The appeal is not yet decided.

There was a theft of Rs. 322-10-0 Government money in the Mulchand Range, Jerruck Division, the Range Forest Officer's cash box being removed bodily from his sleeping tent at night. The theft was reported to the Police at once, but the thieves have not yet been discovered. The Commissioner in Sind has (since the close of the year) sanctioned the writing off of this money, the Range Forest Officer being exonerated from blame.

The depôt hitherto maintained at Keti Bunder for checking the passes covering forest produce in transit was found superfluous, and was abolished during the year, the staff being usefully employed elsewhere in the division.

The Tigir Forest Range (Naushábro Division) was, with the approval of the Commissioner in Sind, renamed the Radhan Range.

A feature of the year was the large amount of timber and fuel exported from the Khairpur State and imported into Sukkur and Larkana districts. The State authorities are getting rid of the old *shikargahs* (shooting preserves) and giving the lands out for cultivation. The *shikargahs* are going for a mere song, and the Sukkur market especially is glutted with wood. This renders it difficult to sell the Government coupes at a fair price. A falling off in prices is inevitable for the next few years, after which things may be expected to right themselves.

At the beginning of June the first Forest Conference ever held in Sind was assembled. There were 7 officers present (all that were then in Sind). Six papers were read and discussed. A full report of the proceedings was submitted to the Commissioner in Sind, and proposals for new grazing rules and the introduction of game laws into Sind were made. These are now under consideration. The matter of superfluous office work was fully discussed and orders were afterwards issued by the Deputy Conservator as the result of these discussions. These orders will have the effect of reducing the office work and at the same time increasing the efficiency of the Department.

The relations between the Forest Department and other Government Departments were amicable and satisfactory. It is gratifying to have this statement borne out by the officers of those other Departments. True, a difference of opinion did arise between the Forest and Riverain Police in Hyderabad Division,

but the Deputy Conservator brought about a meeting of the Assistant Superintendent of Police and the Divisional Forest Officer in his own camp, and the matter was satisfactorily explained and the friction removed.

The following remarks are selected from those made by the Collectors and the Deputy Commissioner, Upper Sind Frontier, when forwarding the Administration Reports of the Divisional Forest Officers.

Sukkur Division.—By Mr. J. R. Martin, Deputy Commissioner, Upper Sind Frontier :—

“The comparative freedom from forest fires is a matter for congratulation. The measures taken as a punishment for the many offences of this nature in the preceding year, namely the enhancement of fees and suspension of free grazing in certain areas, are still in force in this district. On the other hand, the Conservator was good enough to open the forests upto 30th November for free grazing on account of the fodder famine which existed. The concession was of the utmost value, especially in the eastern part of the district. The same scarcity of fodder prevails again there this year, and the privilege of free grazing has been re-granted to cattle owners in that locality and should enable them to carry on till fodder becomes available. The liberal attitude of the Department in this matter has been much appreciated.”

Hyderabad Division.—

By Mr. P. W. Monie, Collector of Nawábsháh :—

“*Paragraph 11.*—The claim in respect to land in front of Lakhat forest has been admitted. The Divisional Forest Officer is being consulted regarding the claims which were made in 1911-12 and which are still, he says, undecided.

Paragraphs.—36-47, Forest offences ; and *53-54*, Impounding of cattle.

The figures relating to the Sakrand Range call for no comments.

The relations of the people with the Forest Department were satisfactory in the Sakrand Range, and no complaints have been received since the Nawábsháh District came into existence.”

By Mr. G. A. Thomas, Collector of Hyderabad :—

“*Paragraph 34.*—The figures of offences are less a subject of congratulation than at first appears. The reduction is closely proportionate to the reduction of grazing fees quoted in paragraph 77, and the cause is the same in both cases. Presumably the Divisional Forest Officer has not adopted the new method of classification introduced by the Conservator's orders cited in paragraph 33 of the Jerruck Divisional Forest Officer's report. The rise in the number of “other offences” is sufficiently remarkable to require some elucidation.”

By Mr. W. F. Hudson, Collector of Karachi :—

“It is satisfactory to note that no prosecutions were launched during the year under report and that there was a drop in the number of forest offences in the Unerpur Range. The number of fires also showed a decrease.”

Jerruck Division.—

By Mr. W. F. Hudson, Collector of Karachi :—

“The undersigned has very few remarks to make, as it is a long time since he had any personal acquaintance with the forest of the Jerruck Division, and the whole question of forest administration in Sind was discussed very fully by Mr. Lawrence in his remarks on last year's report.

Paragraph 11.—The settlement report in connection with this area was written several years ago, but for some inexplicable reason the papers were lost. Copies have now been obtained, and the report has been submitted to Government.

Paragraph 37.—Six separate fires occurred within a week in the Huderani forest and all of them in circumstances which pointed to deliberate incendiarism. As the villagers in the neighbourhood had already been subjected to double grazing fees, it appeared necessary to take stronger measures, and the Collector accordingly closed the forest for a year to all grazing. Steps have been taken to explain to those concerned the reasons for this action, and it is hoped that they will profit by the lesson.

Paragraph 89.—The undersigned has been glad to note, during the short time that he has held charge of the Karachi District, that the relations between the Forest Department and other Departments are decidedly satisfactory. This is worthy of record, since it has not always been the case either here or elsewhere in this Province.”

By Mr. G. A. Thomas, Collector of Hyderabad :—

“Only one Range, *viz.*, the Katiar Range in the Jerruck Forest Division, falls within this district and there is practically nothing of importance connected with this Range calling for special notice.

A dispute arose during the year between the Forest Department and Mir. Mahomed Bux Khan regarding the latter's right to certain karias, the Divisional Forest Officer refusing to permit the Jagirdar to carry out clearance work until he had proved his claims to the canal. The matter is still pending.

Paragraph 25.—In undersigned's opinion it is regrettable that figures of the offence of illicit cattle grazing in open forest should be excluded from the statement of offences. In a province where this is the commonest form of forest crime it would be useful to have a comparative statement of such offences in the annual Administration Report."

Nausháhro Division.—

By Mr. J. E. B. Hotson, Collector of Larkana :—

"Several claims to kachas are still under correspondence. So many conflicting interests are involved that delays are almost inevitable.

From time to time the question arises whether the subordinate officers of the Forest Department have not too much power to compound cases. The number of cases which come into court, with not very satisfactory results, is extremely small, while complaints are rife of the exactions of the minor officials: unluckily these complaints are too vague to be followed up. The figures in this report appear, however, to demolish one very frequently repeated statement that the grazing fees collected as composition for fines bear a very high proportion to those paid in advance for permits. The grazing fines seem to have been only Rs. 268 against Rs. 6,724. The statistics of fires show a great improvement over last year, due, no doubt, chiefly to the better season.

By Mr. P. W. Monie, Collector of Nawábsháh :—

"The claim of the Forest Department to kacha land in Khairodero has been referred to the Commissioner in Sind. The disposal of the remaining cases affecting this district will be expedited."

REMARKS OF THE COMMISSIONER, NORTHERN DIVISION, ON
THE FOREST ADMINISTRATION REPORT OF THE NORTHERN
CIRCLE FOR THE YEAR 1912-13.

No. 3776 of 1913.

REVENUE DEPARTMENT.

Ahmedabad, Shah-i-Bagh, W. D. No. 1.

26th September 1913.

The forest area diminished by 660 acres chiefly on account of the clearance of the old Modása Reserves to make way for cultivation. No advance towards a decision on the question whether the Chikhli-Bulsar Range should be disforested or retained and added to has been made, as the present Conservator desires to inspect the land before making any recommendations. Very little demarcation work remains to be done in this Division; the revision of the Dangs boundary has been completed. Appreciable progress was made with the extension of road communications in the Dangs and Central Thána.

2. The total number of offences against the forest, though slightly in excess of the three years' average, yet shews a satisfactory decrease as compared with the figures for the year 1911-12. Compounded cases of unauthorised fellings and illegal grazing numbered far more than the average, while undetected cases were fewer than usual. Fires were less numerous than before, a result partly due to heavy rain late in the season and an early monsoon. Of the 253 cases taken into court 220 or 87 per cent. resulted in the conviction of the offenders. Everywhere except in Central and South Thána the number of animals impounded for trespass on forest fell off, the falling off being most noticeable in the Panch Maháls where scarcity of fodder was not prevalent as in 1911-12. In the Surat Division the impounding of cattle appears to have been reduced to a minimum.

3. The financial results of the year's working were very satisfactory, the net surplus of income over expenditure being (exclusive of famine fodder figures) Rs. 7,96,332, despite a considerably increased expenditure on roads, buildings, the purchase of a road-train and revision of the pay of the establishment.

4. Punishments numbered only 316 as against 613 in the preceding year; 248 of these took the form of fining. The Conservator's suggestion that a deputation allowance should be granted in all unhealthy localities or where labour is in great demand should be dealt with in a separate reference and not in an Administration Report.

R. P. BARROW,

Commissioner, Northern Division.

REMARKS OF THE COMMISSIONER, SOUTHERN DIVISION, ON
THE FOREST ADMINISTRATION REPORT OF THE NORTHERN
CIRCLE (ONLY SO FAR AS THE KOLÁBA DIVISION IS CON-
CERNED) FOR THE YEAR 1912-13.

No. 3387 of 1913.

REVENUE DEPARTMENT.

Belgaum, 14th October 1913.

Submitted to Government.

2. The year has been a normal one as far as the Kolába District is concerned and the Commissioner has no remarks to offer.

W. D. SHEPPARD,

Commissioner, Southern Division.

REMARKS OF THE COMMISSIONER, CENTRAL DIVISION, ON THE
FOREST ADMINISTRATION REPORT OF THE CENTRAL CIRCLE
FOR THE YEAR 1912-13.

No. 4280 of 1913.

Poona, 8th November 1913.

Submitted to Government in the Revenue Department.

2. Though the rains had not failed during the year under report over so large an area as in the preceding year, the demand for forest grass was even greater in the former than in the latter year. The receipts showed an increase of Rs. 32,003 or about 10 per cent. over the preceding year's receipts. As the tendency on the part of the better class of cultivators to grow the more remunerative crops such as cotton and groundnut in preference to fodder crops continues, grass naturally comes to be more extensively used and the value of Government forests becomes more and more appreciated in the interests of the cattle of the country. Throughout the present report there are unmistakable indications of a better state of feeling prevailing on the part of the people towards forest officers and forest methods—the result of a better appreciation of the usefulness of forests to their general well-being.

Famine fodder operations were carried out during the year in the South Nasik and West Khandesh divisions but on a much smaller scale than during the preceding year. A separate report on this subject is promised by the Conservator.

In reviewing the Forest Administration Report of this Presidency for 1911-12 the Government of India commented on the unsuitability, inadequacy or inaccuracy of some of the existing working plans (Government Resolution No. 7262 of the 5th August 1913). No progress in the matter of bringing these plans up to date was made in the year under report, and no fresh plan was submitted for sanction. It is understood that Divisional Forest Officers have collected the necessary data in many cases; but that examination by a trained and experienced Working Plan Officer is necessary before action can be taken. The Commissioner concurs with the Conservator in thinking that the appointment of such an officer is urgently needed.

3. In respect of communications the Conservator makes special reference to the Borzar Charanmal section of the road between Pimpalner and Nawapur in West Khandesh. A separate report on the subject submitted by Mr. Napier is under consideration in consultation with the Collector and the Superintending Engineer and will be shortly submitted to Government.

4. The statistics relating to forest protection are not very encouraging. The number of forest offences shows an increase from 7,536 in the preceding year to 8,643 in the year under report—an increase of nearly 15 per cent. The increase, however, amounted to only 540 over the average of the three preceding years, and much of it may be attributed to more efficient supervision on the part of establishments and the failure of the harvest. The only serious crime committed during the year related to a combination of the inhabitants of three villages in Sangamner and Akola talukas in the Ahmednagar district to commit systematic thefts of timber and to thwart the efforts of the authorities at detection. The punishment inflicted on these villages, *viz.*, the quartering of additional police, will, it is hoped, serve as a deterrent on similar attempts in future.

5. The number of animals impounded for trespass in closed forests or for other offences against the grazing rules was 1,02,269 in the past year against 76,682 in the preceding year. About 28 per cent. of the increase of 25,587 occurred under sheep and goats, which are now practically excluded from all forests except those under the management of the Revenue Department and 2,015 or 8 per cent. under animals impounded owing to their owners' refusal to pay the grazing fees. Setting aside these there still remains a large increase of 16,092 over last year's number of horned cattle impounded, the East and

West Khandesh divisions, the two Nasik divisions and the Poona division contributing mainly to this increase. In most cases the early cessation of the last year's rains was responsible for the increase, as was also, in a lesser degree, the influx of cattle from non-forest regions to the forests. The Collector of West Khandesh remarks that much of the impoundings in that district could have been avoided, had the people been warned a few days before the forests were closed, but the Commissioner does not agree. Apparently the offenders were mainly strangers from some distance across the Nasik border, and no amount of warning is likely to have affected them. Generally speaking the Commissioner does not consider that the number of impoundings was larger than the circumstances of the year justified. With the increase in the area under non-fodder crops people are yearly becoming more and more dependent on the forests and it is obvious that if there is to be any grass at all a closure at certain periods of the year must be enforced. If this is not done, there will be no grass for anyone.

6. It is very satisfactory to note that the contraction in the area traversed by forest fires continued this year also and that there was a reduction of 63,504 acres or 62 per cent. over the previous year's total. As pointed out by the Conservator the falling off is not merely casual, for, in the three Khandesh divisions in which by far the greater portion of the total area is annually burnt, there has been a steady and marked decrease from 3,38,114 acres in 1908-09 to 35,119 acres in 1912-13 or nearly one-tenth. The improvement is due as much to the vigilance and preventive measures used by the Department as to the willing and timely assistance which the people have now learned to give to Government in preventing and putting down fires.

7. No definite results were obtained during the year in the matter of lac culture, experiments in connection with which were continued in the East and West Khandesh districts. As the quality of Khandesh lac is reported to be very good and its cultivation a valuable source of revenue, the experiments will be continued.

8. Forest demarcation is not very heavily in arrears in any division, except the South Nasik division where no less than 935 miles of forest boundary remain to be demarcated. It is very desirable that some special arrangements should be made to accomplish this work within a reasonable time.

9. As regards the collection of hirda the royalty system sanctioned in Government Resolution No. 7083 of the 31st July 1912 was tried during the year and promises to be more successful than any of the systems tried before. That it is a hopeful scheme is indicated by the fact that the price realized (Rs. 7,221) in a year of scanty crop was exceeded only once before under other methods. The separate report on the subject submitted by the Conservator is being forwarded to Government.

10. Tahal cutting demonstrations were held by the Divisional Forest Officer, Poona, in the Lonavla range and it was found that the people were fully acquainted with the correct principles. In the Peint Range in the Nasik district, the Divisional Forest Officer was not able to pay much attention to this matter and he as well as the revenue officers propose to devote special attention to the subject this season.

11. The transactions connected with famine fodder operations resulted in receipts to the amount of Rs. 2,46,334 and expenditure to the amount of Rs. 1,14,877. Omitting these from consideration, the surplus of departmental income over expenditure was Rs. 2,51,268. This was smaller by Rs. 85,233 than the surplus of the preceding year and higher by Rs. 46,906 than the average of the surpluses of the five years ending with 1911-12. The decrease in the surplus is due to abnormal and special circumstances in the North and West Khandesh and in the North and South Nasik divisions. In all these divisions the mhowra crop was a failure. In the South Nasik division the decrease is also attributed to a change in the system of the disposal of the hirda crop.

12. Generally speaking the report is highly satisfactory and reflects the highest credit on Mr. Millett, Mr. Napier, and all concerned.

G. S. CURTIS,
Commissioner, C. D.

REMARKS OF THE COMMISSIONER, SOUTHERN DIVISION, ON
THE FOREST ADMINISTRATION REPORT OF THE SOUTHERN
CIRCLE FOR THE YEAR 1912-1913.

The year under report establishes a fresh record in the matter of gross and nett receipts which have respectively risen to Rs. 19,08,195 and Rs. 8,97,649 against averages of Rs. 14,26,770 and Rs. 5,56,800. This result is attributable to a strong demand for wood of all kinds, a consequent rise in prices and a full supply of timber in the various depôts. Equally good results may be anticipated in the future but only if exploitation can be fully maintained and developed, and it is unfortunate that a set-back in this direction has to be recorded in the failure of the Fowler road train from which much was expected. Of the three other improvements the most successful is the Bajac windlass which effectively drags logs up the steepest slopes.

2. In other respects also the year has been a success. Fire protection has shown excellent results and it would seem that the patient efforts of many years of work are proving ultimately successful. A firmer control of the forests is indicated in the increase in the number of offences recorded and brought to book, while consideration for the needs of the people is shown in the measures taken for the supply of local needs.

3. A small beginning has been made during the year in the matter of placing in-forest cultivation in the hands of the Forest Department. There are many portions of the Kánara District where this can be done with advantage both to the cultivators and the forests, and it is to be hoped that the system will be gradually extended.

4. Mr. Bell and his officers are again to be congratulated on the result of the year's work.

W. D. SHEPPARD,
Commissioner, Southern Division.

Belgaum, 20th October 1913.

No. 3488 of 1913.

*Office of the Commissioner, Southern Division,
Belgaum, 20th October 1913.*

Submitted to Government in the Revenue Department.

W. D. SHEPPARD,
Commissioner, Southern Division.

REMARKS OF THE COMMISSIONER IN SIND ON THE FOREST
ADMINISTRATION REPORT OF THE SIND CIRCLE FOR THE
YEAR 1912-13.

No. 4043 OF 1913.

REVENUE DEPARTMENT.

*Office of the Commissioner in Sind,
Karachi, 5th December 1913.*

Submitted to Government.

2. The forest settlement work done during the year under report was very small. Out of 38,704 acres due for settlement, only 274 acres were settled. The bulk of the work (32,152 acres) is pending in the Sukkur division. The special attention of district officers is being drawn to the necessity for the early completion of the remaining settlements. The progress made in the division of forests into compartments was again poor, but the Deputy Conservator explains that the area of 124,023 acres which still remains undivided consists almost entirely of newly-formed kachas, which owing to the growth of jungle being very small are not yet fit for sub-division.

3. The total number of forest offences reported during the year was 951 as against 4,166 in the preceding year. The decrease occurs under every head excepting that of "other offences" and is due principally to the fact that, while cases of illicit grazing compounded under section 67 of the Indian Forest Act were treated as offences in the previous reports, they have not been so treated in this report. The Commissioner doubts the correctness of the statement of the Deputy Conservator on this point contained in Chapter II-3 (a) General Protection. A reference to the statements at pages 16, 18 and 19 of the Forest Administration Report for the year 1910-11 seems to indicate that cases of illicit grazing compounded under the Act are counted as offences in the Presidency Proper. Moreover, there is no reason for omitting information of this nature from a Forest Administration Report. Unless, therefore, the practice referred to by the Deputy Conservator does exist in the Presidency Proper, he should conform to the old practice of treating such cases as offences.

Questions relating to the adoption of measures for the decrease of forest offences including forest fires were discussed by the forest officers at the conference held in Karachi in June last. A copy of the printed proceedings of the conference is attached* for the information of Government. The Commissioner has passed orders on the proposals of the conference in respect of the grazing fees, and the minimum period for which a pass should be valid, and a copy of his orders is being submitted separately to Government with reference to paragraph 4 of their Resolution No. 7262 of 5th August 1913. The Commissioner trusts that the concessions which he has now ordered to be made and which are even more liberal than those which were proposed at the conference will have an appreciable effect in lessening the number of offences.

Out of 126 cases taken into court, 75 were decided during the year. Of these 57 cases ended in conviction and 18 in acquittal.

4. It is gratifying to note that there has been a large decrease in every division in the number of forest fires and in the area burnt. There were in all 106 fires and the average area burnt amounted to 35 acres, the corresponding figures for the previous year being 262 and 87. The decrease is attributed to (1) a better inundation, (2) the opening of hitherto closed areas for pasture and (3) the energy and zeal of forest officers.

5. The number of cattle impounded fell to 14,472 from 18,117 in the preceding year. The causes of the decrease have been explained by the Deputy Conservator in Chapter II-3 (c) Protection from cattle.

* Not printed.

6. The results of the attempts made in the Hyderabad division to extend the lac bearing area are reported to be very poor owing principally to an exceedingly hot season. Further experiments are being made in Hyderabad and Jerruck divisions. The results of these will be awaited.

7. The area exploited during the year under report rose from 22,486 acres 13 gunthas to 24,623 acres 35 gunthas and the realizations from Rs. 2,50,979 to Rs. 2,78,979. The average revenue per acre was Rs. 11.33 as against Rs. 11.11 in the preceding year.

8. There was an increase of Rs. 47,762 in the gross forest revenue during the year. This is attributed to (a) great demand for fuel and keen competition, (b) sale of burnt area in the Sukkur and Naushahro divisions, (c) sale of revenue jungles in the Hyderabad division and (d) sale of fuel obtained from thinnings in the Jerruck division. The increase of Rs. 8,873 in the amount of expenditure under "Conservancy and Works" is due to extensive irrigation works having been undertaken during the year. The surplus revenue was Rs. 2,40,985 as against Rs. 2,05,487 in the preceding year.

9. The arrangement made with the Military authorities for the supply of fuel to the Quetta garrison continued to work satisfactorily.

10. Mr. Oliver who was in charge of the Circle throughout the year has administered his circle with success and efficiency. He has displayed marked energy and initiative. Under his guidance the conference which he convened in June and which was the first of its kind ever held in Sind arrived at valuable conclusions on several matters of forest policy and administration, which had long been under consideration.

W. H. LUCAS,
Commissioner in Sind.

M. J. 3-12.

APPENDICES.

FORM No. 7.—Area of Reserved Forests, 1912-1913.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1912.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1913.		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	
NORTHERN CIRCLE.											
Panch Mahals	Panch Mahals.	Reserved	212,225 0	331 385	1 0	26 0	212,200 0	331 360	839 29-1-1913.	8440 12-9-1912.	
Surat	Surat	Do.	*51,791 0	80 591	...	...	51,791 0	80 591	...	*Mistake in figures given in previous year now rectified.
Co. Dangs (leased)	Do.	Do.	211,795 0	330 595	...	...	211,795 0	330 595	.....	
North Thána	Thána	Do.	214,141 0	334 381	...	...	214,141 0	334 381	.....	
Central Thána	Do.	Do.	236,343 0	369 183	1 0	...	236,344 0	369 184	839 29-1-1913.		
South Thána	Do.	Do.	212,734 0	332 254	...	...	212,734 0	332 254	.....	
Kolába	Kolába	Do.	288,336 0	450 336	...	36 0	288,300 0	450 300	10351 12-11-1913, 10215 6-11-1912,	838 28-1-1913, 10821* 3-9-1911 &	*Rectification which was not accounted for in 1909.
Ahmedabad	Ahmedabad	Do.	13,051 0	20 251	...	952 0	12,099 0	18 579	8585 18-9-1912,		
Total, Northern Circle.			1,440,416 0	2,250 416	2 0	1,014 0	1,439,404 0	2,249 44			
CENTRAL CIRCLE.											
East Khándesh	East Khándesh.	Reserved	518,576 0	810 176	*182 0	†7,854 0	511,104 0	798 384	*8756 22-10-1912, 9004 30-9-1912.	†8741 22-7-1912,	
West Khándesh	West Khándesh.	Do.	494,736 0	773 16	...	*203 0	494,533 0	772 453	*7335 6-8-1912.		
North Khándesh	Do.	Do.	555,768 0	868 246	...	...	555,768 0	868 246	.....	
South Násik	Násik and Ahmednagar.	Do.	487,058 0	761 18	*52 0	†87 0	487,023 0	760 623	*4617 14-1-1913, 8781 23-9-1912, 5507 11-6-1912, 7613 10-8-1913, 8441A 9-9-1912,	†7854 20-8-1912, 5218 4-6-1912, 7612 10-8-1913, 8192 31-8-1913, 9220 7-10-1912.	
North Násik	Násik, Ahmednagar and Sholápur.	Do.	698,406 0	1,560 6	*15 0	†1,201 0	697,220 0	1,558 100	*2125 4-3-1913, 6788 22-7-1913, 8017 25-8-1913, 123 6-1-1913, & 4525A 12-5-1913.	†8270 4-6-1912, 7509 10-8-1912, 9523 15-10-1912, 8615 4-4-1913,	

FORM No. 7.—Area of Reserved Forests, 1912-1913—continued.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1912.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1913.		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	
CENTRAL CIRCLE—continued.											
Foona	Poona and Ahmednagar.	Reserved	456,023 0	712 343	4 0	† 139 0	456,938 0	712 208	*5228 4-6-1912. 6737 22-7-1912. 11773 28-12-1912. 3524 and 16-4-1913.	† 5025 28-5-1912. 9788 23-10-1912. 2775 25-3-1913.	
Sitara	Sitara	Do.	453,079 0	707 589	*890 0	453,769 0	709 9	*4091 29-4-1912. 6216 4-6-1912. 6217A 4-6-1912. 6238 9-7-1912. 6374 10-7-1912. 6374B 10-7-1912. 8066 28-8-1912. 9015 30-9-1912. 11793 28-12-1912. 510 20-1-1913. 578 21-1-1913. 3514 14-4-1913 and 12-4-1913.	4092 29-4-12. 5217 4-6-19.2. 6320 6-7-1912. 6339 9-7-.912. 6374A 10-7-1912. 7043 30-7-1912. 8067 28-8-1912. 11265 9-12-1912. 509 20-1-1913. 586 20-1-1913. 1071 4-2-1913. 3516	
	Do.	(Leased)	232 0	0 232	.....	.....	232 0	0 232		
		Total, Central Circle.	3,963,876 0	6,193 356	943 0	9,284 0	3,956, 35	6,180 335			
SOUTHERN CIRCLE.											
Kánara, N. D.	Kánara	Reserved	577,436 0	902 0	(a) 74 0	(b) 104,768	472,741 0	738 0	(a) 8971 30-9-1912.	(b) Transferred to Kanara W. D.	
Kánara, S. D.	Do.	Do.	554,631 0	868 0	(c) 799 0	(d) 28 0	555,404 0	868 0	(c) 4146 28-4-1912, 6337A 9-7-1912, 8972 30-9-1912 and (d) 6534 16-7-1912, 10000 28-10-1912, and 30-4-1913.	6337 9-7-1912, 7538 13-8-1912, 10001 23-10-1912. 9013 30-9-1912, 4057	
Kánara, E. D.	Do.	Do.	419,597 0	656 0	(e) 5 0	(f) 5,182 0	414,330 0	647 0	(e) 8973 30-9-1912, 21 gunthas added owing to mistake in measurement subsequently rectified. (f) 7852 20-8-1912, 10390 11-11-1912, 5177 acres transferred to Kanara W. D. 9-7-1912.	8014 30-9-1912, 6338	
Kánara, W. D.	Do.	Do.	442,182 0	691 0	(g) 100,944 0	(h) 3 0	552,078 0	868 0	(h) 6301 and 17-7-1912, 11495 17-12-1912.	(g) The addition is the area transferred from N. D. Kánara and E. D. Kanara.	
Belgaum	Belgaum	Do.	428,220 0	669 0	(i) 14 0	(j) 560 0	427,674 0	668 0	(i) 7045 30-7-1912, 6997 29-7-12, and 7-1-1913.	(j) 10235 5-11-1012, 142	
Dhárwár	Dhárwár	Do.	240,910 0	376 0	(k) 614 0	(l) 528 0	240,998 0	377 0	(k) 5719 18-6-1912, 2325 11-3-1913, and (l) 8164 9-9-1912, and 23-9-1912.	10388 11-11-1912, 2020 18-3-1913. 8782	
Bijápúr	Bijápúr	Do.	177,261 0	277 0	.....	(m) 27 0	177,234 0	277 0	(m) 10556 18-11-1912.	
Batnágiri	Batnágiri	Do.	12,049 0	19 0	2 0	.....	12,051 0	19 0		Correction in totals former figures.
		Total, Southern Circle	2,852,145 0	4,456 0	111,452 0	111,092 0	2,852,505 0	4,457 0			

APPENDICES.

FORM No. 7.—Area of Reserved Forests, 1912-1913—concluded.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1912.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1913.		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	
SIND CIRCLE.	Sukkur	Ding	1,635 0	2 355	.....	53 0	1,577 0	2 297	No. 2354 of 11-3-1913.	+ Gained by action of the river.
		Other Forests...	230,263 0	359 503	+3,801 0	-3,600 0	230,464 0	360 64	.....	- Lost by do.
		Upper Sind Frontier.	51,834 0	81 44	+3,102 0	-2,659 0	52,327 0	81 487	.....	.....
		Total	233,732 0	443 282	6,903 0	6,317 0	284,368 0	444 208	.....	.....
	Nansháhr	Sukkur	Forest	32,175 0	50 175	32,175 0	50 175	+ Gained by action of the river.
		Lárkána	Shahgar Dhan-dhan.	1,207 0	1 567	5 0	1,212 0	1 572	No. 7515 of 10-3-1912.	- Lost by do.
		Other Forests...	56,615 0	88 295	+427 0	-495 0	56,547 0	88 227	.....	.....
		Nawabshah.	Forests	58,677 0	91 437	+3,401 0	-5,532 0	56,546 0	88 228
	Total	148,674 0	232 194	3,833 0	6,027 0	146,480 0	228 560	.....	.....
	Hyderabad	Hyderabad.	Narkeli	4,254 0	6 414	63 0	4,317 0	6 477	No. 5707 of 18-6-1912.
Nuralabad			2,729 0	4 169	138 0	.....	2,867 0	4 307	Do.	.....
Jamshabad			635 0	0 635	4 0	.....	639 0	0 639	Do.	.....
Bhanote No. I.			963 0	1 320	49 0	.....	1,009 0	1 369	Do.	.....
Other Forests...			66,719 0	104 159	.....	-1,435 0	65,284 0	102 4	.....	.....
Karáchi		Railo Bada	1,342 0	2 62	4 0	.....	1,346 0	2 65	No. 576 of 21-1-1913.	+ Gained by action of the river.
		Other Forests...	27,230 0	42 400	+300 0	-1,049 0	26,531 0	41 291	.....	- Lost by do.
Nawabshah.		Forests	49,861 0	77 531	.....	-811 0	49,050 0	76 410	.....	.....
Total	153,730 0	240 180	558 0	3,295 0	151,043 0	236 3	.....	.....	
Jerruck	Hyderabad	Husri	171 0	0 171	.....	154 0 17 0	.....	.....	G. R. No. 2780 of 23-3-13.	+ Gained by action of the river.
		Other Forests...	15,633 0	24 323	+2,972 0	-1,020 0	17,635 0	27 355	.....	- Lost by do.
	Karáchi	Panwar	4,000 0	6 160	+959 0 11 0	.....	4,870 0	7 390	G. R. No. 9497 of 14-10-1912.	* Due to rectification.
		Kacho Surjani.	3,591 0	5 391	*165 0 +247 0	.....	4,003 0	6 103	.....	.....
		Other Forests...	114,620 0	179 60	7,345 0	-3,436 0	118,529 0	185 129	.....	.....
	Total	138,065 0	215 465	11,599 0	4,627 0	145,037 0	226 397	.....	.....
Total, Circle.	Sind	724,301 0	1,131 461	22,893 0	20,266 0	726,028 0	1,135 528	.....	.....
GRAND TOTAL	8,980,738 0	14,031 593	135,290 0	141,656 0	8,974,373 0	14,022 267	.....	.....	

FORM No. 7-A.—Area of Protected Forests, 1912-1913.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1912.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1913.		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
NORTHERN CIRCLE.										
Surat Dangs (leased).	Surat	Protected	208,013 0	325 13	.....	.....	208,013 0	325 13	.....
North Thána	Thána	Do.	93,499 0	146 59	.....	*6 0	93,493 0	146 53	1760 2800 19-2-1912, 19-3-1912, and 9548 15-10-1912.	
Central Thána	Do.	Do.	64,527 0	100 527	*419 0	†12 0	64,934 0	101 294	*1155 19757 6-2-1912, 22-10-1912, and 1002 28-11-1912.	
South Thána	Do.	Do.	98,116 0	153 196	.....	*2 0	98,114 0	153 194	.....	* Transferred for building of Police lines.
Kolába	Kolába	Do.	46,747 0	73 27	*11 0	†58 0	46,700 0	72 620	*8193 17290 31-8-1912, 5-8-1912, 8465 8536 9-9-1912, 15-9-1912, 10215A 9733 5-11-1912, 22-11-1912, and 1531 17-2-1913.	
Total, Northern Circle			510,802 0	798 182	430 0	78 0	511,254 0	798 534		
CENTRAL CIRCLE.										
South Násik	Násik and Ahmednagar.	Protected	62,938 0	98 218	.....	.....	62,938 0	98 218	.....
Sátára	Sátára	Do.	658 0	1 18	.....	.....	658 0	1 18	.....
Total, Central Circle			63,596 0	99 236	.....	.....	63,596 0	99 236		
SOUTHERN CIRCLE.										
Kánara, N. D.	Kánara	Protected	9,162 0	14 0	.....	2,814 0	6,348 0	10 0	.....	Transferred to W. D., Kanara.
Kánara, S. D.	Do.	Do.	69,444 0	109	.....	.....	69,444 0	109 0	6918 28-1-1913.	
Kánara, E. D.	Do.	Do.	3,129 0	5 0	.....	2 0	3,427 0	5 0	716 34-1-1913.	
Kánara, W. D.	Do.	Do.	3,393 0	5 0	2,814 0	.....	6,207 0	9 0	.....	Transferred from N. D., Kanara.
Belgaum	Belgaum	Do.	6,777	11 0	.....	.....	6,777 0	11 0	.....
Total, Southern Circle			92,205 0	144 0	2,814 0	2,816 0	92,203 0	144 0		
SIND CIRCLE.										
Sukkur	Upper Sind Frontier.	Dickenson	585 0	0 585	.....	.....	585 0	0 585	.....
Total, Sind Circle			585 0	0 585	.....	.....	585 0	0 585		
GRAND TOTAL			667,288 0	1,042,363	3,244 0	2,894 0	667,638 0	1,043 75		

FORM No. 7-B.—Area of Forest Proper, Reserved or Mixed Fuel and Fodder Reserves under the management of the Forest Department for 1912-1913.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1912.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1913.		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
NORTHERN CIRCLE.			Acres.	Sq. m. a.	Acres.	Acres.	Acres.	Sq. m. a.		
Panch Maháls ...	P a n c h Maháls.	Reserved ...	212,225	331 385	1	26	212,200	331 360	Vide Form No. 7.	
Surat ...	Surat ...	Reserved and Protected.	463,507	724 147	...	...	463,507	724 147	.....
North Thána ...	Thána ...	Reserved	214,141	334 381	...	...	214,141	334 381	.....
Central Thána ...	Do. ...	Reserved and Protected.	238,894	373 174	1	...	238,895	373 175	Vide Form No. 7.	
South Thána ...	Do. ...	Do. ...	218,377	341 137	...	...	218,377	341 137	.....
Kolába ...	Kolába ...	Do. ...	269,967	421 527	...	36	269,931	421 491	Vide Form No. 7.	
CENTRAL CIRCLE.										
Total, Northern Circle.			1,617,111	2,526 471	2	62	1,617,051	2,526 411		
East Khándesh...	East Khándesh.	.....	497,580	777 300	†182	*2,719 } †7,283 }	487,760	762 80	†Vide Form No. 7.	*Formerly transferred to Pasture lands taken into account during this year.
West Khándesh.	West Khándesh.	.....	346,591	541 351	...	...	346,591	541 351	.....
North Khándesh.	Do. ...	.....	555,766	868 246	...	...	555,766	868 246	.....
South Násik ...	Násik and Ahmednagar.	.....	419,830	655 680	†52	*87	419,795	655 595	.....
North Násik ...	Násik, Ahmednagar and Sholápur.	.....	449,917	702 637	†15	*534	449,398	702 118	.....
Poona ...	Poona and Ahmednagar.	.....	268,394	419 234	†4	*139 } §889 }	267,370	417 490	.....	§ Transferred to Pasture land and handed over to Revenue Department.
Sátára ...	Sá ra ...	.....	328,998	514 38	†690	...	329,688	515 88	.....
SOUTHERN CIRCLE.										
Total, Central Circle.			2,867,076	4,479 516	943	11,651	2,856,368	4,463 48		
Kánara N. D. ...	Kánara ...	Reserved and Protected.	586,598	916	74	107,581	479,091	749	.....
Kánara S. D. ...	Do. ...	.....	624,075	975	799	26	624,848	976	.....
Kánara E. D. ...	Do. ...	.....	422,935	661	5	5,184	417,756	653	.....
Kánara W. D. ...	Do. ...	.....	445,526	696	112,757	3	558,280	872	.....
Belgaum ...	Belgaum ...	.....	400,984	627	14	560	400,438	626	.....
Dhárwár ...	Dhárwár ...	.....	142,782	223	614	...	143,396	224	.....
Bijápur ...	Bijápur ...	.....	139,537	218	...	27	139,510	218	.....
Ratnágiri ...	Ratnágiri ...	.....	12,049	19	2	...	12,051	19	.....
Total, Southern Circle.			2,774,486	4,335	114,265	113,381	2,775,370	4,337		
SIND CIRCLE.										
Sukkur ...	Sukkur and Upper Sind Frontier.	Forests ...	284,367	444 207	*6,903	*6,317	284,953	445 153	*Vide Form No. 7.	
Naushábro ...	S u k k u r, Lá r k á n a and Návabshah.	Do. ...	148,674	232 194	*3,833	*6,027	146,480	228 560	.....
Hyderabad ...	Hyderabad, Karáchi and Nuwábshah.	Do. ...	153,780	240 180	*558	*3,295	151,048	236 3	...	
Jerruck ...	Hyderabad and Karáchi.	Do. ...	138,065	215 465	*11,599	*4,627	147,037	226 397	.....
Total, Sind Circle			724,886	1,132 406	23,893	20,266	727,513	1,136 473		
GRAND TOTAL...			7,983,559	12,474 113	138,103	145,360	7,976,302	12,463 292		

FORM No. 7-C.—Area of Fodder Reserves and Pasture Lands under the management of the Revenue Department for 1912-1913.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1912.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1913.		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
NORTHERN CIRCLE.			Acres.	Sq.m. a.	Acres.	Acres.	Acres.	Sq.m. a.		
Surat	Surat	Reserved	8,092	12 412	...	...	8,092	12 412	...	Vide remarks in Form No. 7.
North Thána	Thána	Protected	93,499	146 59	...	6	93,493	146 53	Vide Form No. 7A.	
Central Thána	Do.	Do.	61,976	96 536	419	12	62,383	97 303	Do.	
South Thána	Do.	Do.	92,473	144 313	...	2	92,471	144 311	Do.	
Kolába	Kolába	Do.	65,116	101 476	11	58	65,069	101 429	Do.	
Ahmedabad	Ahmedabad	Reserved	13,051	20 251	...	952	12,099	18 579	Vide Form No. 7.	
Total, Northern Circle			334,207	522 127	430	1,080	333,607	521 167		
CENTRAL CIRCLE.										
East Khándesh	East Khándesh.	.....	20,996	32 516	* 2,719	† 371	23,344	36 304	† Vide Form No. 7.	* Formerly transferred from Forest Proper lands taken into account during this year.
West Khándesh	West Khándesh.	.....	143,145	231 305	...	† 203	147,942	231 102	...	
North Khándesh	Do.	.....	.....	...	...	...	.....	...	...
South Násik	Násik and Ahmednagar.	.....	130,166	203 246	...	...	130,166	203 246	...	
North Násik	Ahmednagar and Sholápur.	.....	548,489	857 9	...	† 667	547,822	855 622	...	
Poona	Poona	.....	187,630	293 110	§ 888	...	188,518	294 358	Vide Form No. 7.	§ Transferred from Forest Proper lands and handed over to Revenue Department.
Sátára	Sátára	.....	124,971	195 171	...	...	124,971	195 171	...	
Total, Central Circle			1,160,397	1,813 77	3,607	1,241	1,162,763	1,816 523		
SOUTHERN CIRCLE.										
Belgaum	Belgaum	.....	34,012	53 0	...	...	34,01	53 0	...	
Dhárwár	Dhárwár	.....	98,128	153 0	...	526	97,602	152 0	...	
Bijápur	Bijápur	.....	37,72	59 0	...	...	37,724	59 0	...	
Total, Southern Circle			169,864	265 0	...	526	169,338	264 0		
SIND CIRCLE.					Nil.					
GRAND TOTAL			1,664,468	2,600,204	4,037	2,797	1,665,708	2,602 50		

ABSTRACT OF FORMS Nos. 7, 7-A, 7-B and 7-C for 1912-13.

Division.	In charge of the Forest Department.					In charge of the Revenue Department.				Total Forest Area.	Remarks.
	Reserved Forest.			Protected Forest.		Reserved Forest.			Protected Forest.		
	Forest proper.	Pasture reserves.	Fuel and Fodder reserves.	Forest proper.	Pasture reserves.	Forest proper.	Pasture reserves.	Fuel and Fodder reserves.	Pasture reserves.		
NORTHERN CIRCLE.	Sq.m. a.	Sq. m.	Sq. m. a.	Sq.m. a.	Sq. m.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	
Panch Maháls	331 360	.....	...	...	.....	...	.....	...	...	33 360	
Surat	399 134	.....	...	325 13	.....	...	12 412	...	...	736 559	
North Thána	334 381	.....	...	...	.....	...	.....	...	146 53	480 434	
Central Thána	369 184	.....	...	3 631	.....	...	.....	...	97 303	470 478	
South Thána	332 254	.....	...	8 523	.....	...	.....	...	144 311	485 448	
Kolába	418 42	.....	3 449	...	.....	...	28 449	...	72 620	523 280	
Ahmedabad	.....	.....	...	...	.....	...	.....	18 579	...	18 579	
Total	2,185 75	.....	3 449	337 527	.....	...	41 221	18 579	461 7	3,047 578	
CENTRAL CIRCLE.											
East Khándesh	762 80	.....	...	...	.....	...	36 304	...	...	798 384	
West Khándesh	410 324	.....	131 27	...	.....	...	231 102	...	...	772 453	
North Khándesh	868 246	.....	...	...	.....	...	.....	...	...	868 246	
South Násik	644 495	.....	...	11 100	.....	...	115 87	1 41	87 118	859 201	
North Násik	702 118	.....	...	...	.....	...	527 358	328 264	...	1,558 100	
Poona	397 509	.....	19 621	...	.....	...	294 358	...	...	712 208	
Sátára	514 70	.....	...	1 18	.....	...	189 516	5 295	...	710 259	
Total	4,299 562	.....	151 8	12 118	.....	...	1,394 445	334 600	87 118	6,271 571	
SOUTHERN CIRCLE.											
Kánara, Northern	738 0	.....	...	...	10	...	.....	...	...	748 0	
Kánara, Southern	550 0	318	...	108 0	.....	...	.....	...	...	976 0	
Kánara, Eastern	520 0	128	...	...	5	...	.....	...	...	653 0	
Kánara, Western	704 0	159	...	...	10	...	.....	...	...	873 0	
Belgaum	614 0	.....	...	11 0	.....	1 0	50 0	3 0	...	679 0	
Dhárwár	200 0	14	10 0	...	.....	...	152 0	...	...	376 0	
Bijápur	214 0	.....	4 0	...	.....	...	59 0	...	...	277 0	
Ratnágiri	14 0	5	...	...	.....	...	.....	...	...	19 0	
Total	3,554 0	624	14 0	119 0	25	1 0	261 0	3 0	...	4,601 0	
SIND CIRCLE.											
Sukkur	444 209	.....	...	0 585	.....	...	.....	...	...	445 153	
Naushahro	223 560	.....	...	...	.....	...	.....	...	...	228 560	
Hyderabad	236 3	.....	...	...	.....	...	.....	...	...	236 3	
Jerruck	226 397	.....	...	...	.....	...	.....	...	...	226 397	
Total	1,135 528	.....	...	0 585	.....	...	.....	...	...	1,136 473	
GRAND TOTAL	11,174 527	624	168 457	469 590	25	1 0	1,697 26	356 539	548 125	15,065 342	

APPENDICES.

FORM No. 8.—Statement showing the Progress made in, and the

Name of Forest Division.	Name of Civil District or Territory.	Area already settled at commencement of the year.	AREAS FINALLY SETTLED DURING THE YEAR.					
			Number and date of Government order according to final sanction to the Settlement.	Name of Forest settled.	Area in square miles.	Expenditure incurred during the year on areas finally settled.		Entire cost per square mile of areas finally settled during the year.
						In Forest Accounts.	In other Accounts.	
1	2	3	4	5	6	7	8	9
NORTHERN CIRCLE.			Sq. m.			Rs.	Rs.	Rs.
<i>Reserved Forests.</i>								
Panch Maháls ...	Panch Maháls ...	332	...	.....	...	...	...	...
Surat ...	Surat ...	68	...	.....	...	...	...	...
North Thána ...	Thána ...	335	...	.....	...	...	...	...
Central Thána ...	Do. ...	369	...	.....	...	...	...	...
South Thána ...	Do. ...	332	...	.....	...	...	...	...
Kolába ...	Kolába ...	451	10351 12-11-12.	Gharapuri ...	000027	...	...	...
	Total ...	1,887	...	.....	000027	...	...	...
<i>Protected Forests.</i>								
North Thána ...	Thána ...	146	...	.....	...	...	...	...
Central do. ...	Do. ...	101	...	.....	...	...	...	...
South do. ...	Do. ...	153	...	.....	...	...	...	...
Kolába ...	Kolába ...	73	8193 31-8-12.	.....	017	...	...	...
	Total ...	473	...	.....	017	...	...	...
	Total, Northern Circle ...	2,360	...	.....	017027	...	...	...
CENTRAL CIRCLE.								
<i>Reserved Forests.</i>								
East Khándesh ...	East Khándesh ...	810	9756 22-10-12.	Meharun ...	182 640	...	...	...
West Khándesh ...	West Khándesh ...	773	...	.....	...	...	...	...
North Khándesh ...	North Khándesh ...	868	...	.....	...	...	...	...
South Násik ...	South Násik ...	761	4617 7454 14-5-12 21-8-12 8781 23-9-12	.....	52 640	...	...	...
North Násik ...	North Násik ...	1,560	2175 4-8-13	Hiswalden ...	15 640	...	...	...
Poona ...	Poona ...	713	5223 4-6-12	Ambare ...	4 640	...	...	...
Sátára ...	Sátára ...	708	*	.....	150 640	...	...	...
	Total ...	6,193	...	.....	303 1640	...	...	...
<i>Protected Forests.</i>								
South Násik ...	South Násik ...	98	...	.....	...	...	...	...
Sátára ...	Sátára ...	1	...	.....	...	...	...	...
	Total ...	99	...	.....	...	...	...	...
	Total, Central Circle ...	6,292	...	.....	1303 640	...	...	...

Expenditure incurred on, Forest Settlements during 1912-1913.

AREAS UNDERGOING SETTLEMENT.						Remarks.
At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing Settlement.		
Name of Tract.	Area in square miles.	Name of Tract.	Area in square miles.	In Forest Accounts.	In other Accounts.	
10	11	12	13	14	15	16
.....	...	.....	...	Rs. ...	Rs. ...	
.....	
.....	
.....	
.....	
.....	132 640	.....	18 640	1,518	...	
.....	132 640	.....	18 640	1,518	...	
.....	
.....	
.....	
.....	
.....	132 640	.....	18 640	1,518	...	
.....	271 640	.....	...	...	...
.....	334 640	.....	64 640	...	...
.....	6 640	.....	...	...	...
.....	15 640	.....	73 640	...	...	* 4091 29-4-12
.....	117 640	.....	8 640	...	...	4092 29-4-12
.....	234 640	.....	72 640	...	...	5216 4-6-12
.....	173 640	.....	373 640	...	...	5217 and 4-8-12
.....	510 640	.....	589 640	...	...	6320 8-7-12
.....	...	.....	...	...	...	6374 9-7-12
.....	...	.....	...	...	...	6374 9-7-12
.....	...	.....	...	...	...	6374A 10-7-12
.....	...	.....	...	...	...	6374B 10-7-12
.....	...	.....	...	...	...	7043 30-7-12
.....	...	.....	...	...	...	8066 29-8-12
.....	...	.....	...	...	...	8067 28-8-12
.....	...	.....	...	...	...	9015 30-9-12
.....	...	.....	...	...	...	11265 9-12-12
.....	...	.....	...	...	...	11798 28-12-12
.....	...	.....	...	...	...	509 20-1-13
.....	...	.....	...	...	...	510 30-1-13
.....	...	.....	...	...	...	578 21-1-13
.....	...	.....	...	...	...	596 20-1-13
.....	...	.....	...	...	...	1071 4-2-13
.....	...	.....	...	...	...	8514 14-4-13
.....	6510 640	.....	589 640	...	...	5516 14-4-13

FORM No. 8.—Statement showing the Progress made in, and the

Name of Forest Division.	Name of Civil District or Territory.	Area already settled at commencement of the year.	AREAS FINALLY SETTLED DURING THE YEAR.					
			Number and date of Government order according to final sanction to the Settlement.	Name of Forest settled.	Area in square miles.	Expenditure incurred during the year on areas finally settled.		Entire cost per square mile of areas finally settled during the year.
						In Forest Accounts.	In other Accounts.	
1	2	3	4	5	6	7	8	9
SOUTHERN CIRCLE.			Sq. m.			Rs.	Rs.	Rs.
<i>Reserved Forests.</i>								
Kánara, Northern...	Kánara ...	902	8971 30-9-12	Haliyal ...	·12	...	...	...
Do. Southern...	Do. ...	866	4146, 6337A, 26-4-12 9-7-12 7588 13-8-12	Sirsi ...	1·19	...	...	...
			6337 9-7-12					
Do. Eastern ...	Do. ...	656	8972, 10001, 30-9-12 28-10-12	Bhatkal ...	·04	...	...	...
			8973 30-9-12					
Do. Western ...	Do. ...	691	...	.....	...	...	...	...
Belgaum ...	Belgaum ...	669	7045 30-7-12	Khánápur ...	·02	...	...	...
Dhárwár ...	Dhárwár ...	376	10388, 2620, 12-11-12 18-3-13 2355 11-3-13	Dhárwár ...	·92	...	...	...
			5719 18-6-12					
Bijápur ...	Bijápur ...	277	...	.....	...	...	...	...
Ratnágiri ...	Ratnágiri ...	19	...	.....	...	...	...	...
	Total, Reserved Forest ...	4,456	...	.....	2·36	...	...	...
<i>Protected Forests.</i>								
Kánara, Northern...	Kánara ...	14	...	.....	...	...	...	...
Do. Southern ...	Do. ...	109	...	.....	...	...	...	...
Do. Eastern ...	Do. ...	5	...	.....	...	...	...	...
Do. Western...	Do. ...	5	...	.....	...	...	...	...
Belgaum ...	Belgaum ...	11	...	.....	...	...	...	...
	Total, Protected Forest ...	144	...	.....	...	...	...	...
	Total, Southern Circle ...	4,600	...	.....	2·36	...	...	...

Expenditure incurred on, Forest Settlements during 1912-1913—continued.

AREAS UNDERGOING SETTLEMENT.						Remarks.
At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing Settlement.		
Name of Tract.	Area in square miles.	Name of Tract.	Area in square miles.	In Forest Accounts.	In other Accounts.	
10.	11	12	13	14	15	16
				Rs.	Rs.	
.....	
.....	} 26 acres and 9 gunthás have been disforested during the year.
.....	
.....	5 acres and 8 gunthás were disforested during the year.
.....	3 acres and 9 gunthás were disforested during the year.
.....	560 acres and 24 gunthás were disforested during the year.
.....	} 525 acres and 34 gunthás were disforested during the year.
.....	
.....	26 acres and 39 gunthás were disforested during the year.
.....	
.....	
.....	1 guntha has been disforested during the year.
.....	2 acres and 8 gunthás have been disforested during the year.
.....	
.....	
.....	

FORM No. 8.—Statement showing the Progress made in, and the

Name of Forest Division.	Name of Civil District or Territory.	Area already settled at commencement of the year.	AREAS FINALLY SETTLED DURING THE YEAR.						
			Number and date of Government order according to final sanction to the Settlement.	Name of Forest settled.	Area in square miles.	Expenditure incurred during the year on areas finally settled.		Entire cost per square mile of areas finally settled during the year.	
						In Forest Accounts.	In other Accounts.		
1	2	3	4	5	6	7	8	9	
SIND CIRCLE.			Sq. m.				Rs.	Rs.	Rs.
Sukkur	Sukkur and Upper Frontier.	444	...	.....	...	...	...	...	...
	Total ...	444	...	.....	...	...	...	...	...
Naushábro	Sukkur, Lárkána and Nawabshah.	232	No. $\frac{7515}{10-8-12}$	Shahgar Dhandhon Forest.	$0 \frac{5}{640}$	...	...	...	...
	Total ...	232	...	.....	$0 \frac{5}{640}$	...	...	...	...
Hyderabad	Hyderabad, Karáchi and Nawabshah.	240	No. $\frac{5707}{18-6-12}$	Muralabad Forest...	$0 \frac{138}{640}$	...	...	...	...
				Jamolabad Forest...	$0 \frac{4}{640}$	...	...	...	...
				Bhanote No. 1 Forest.	$0 \frac{49}{640}$	...	...	...	...
				Nurketi Forest ...	$0 \frac{63}{640}$	...	...	...	...
			No. $\frac{576}{21-1-13}$	Railo Bado Forest.	$0 \frac{4}{640}$	...	...	...	...
	Total ...	240	...	.....	$0 \frac{258}{640}$	...	...	...	...
Jerruck	Karáchi and Hyderabad.	216	No. $\frac{5180}{30-5-11}$	Panwhar Forest ...	$0 \frac{11}{640}$	...	...	...	...
	Total ...	216	...	.....	$0 \frac{11}{640}$	...	...	...	...
	Total, Sind Circle ...	1,132	...	.....	$0 \frac{274}{640}$	...	...	...	...
	GRAND TOTAL...	14,384	...	.....	4,278	...	...	...	...

Expenditure incurred on, Forest Settlements during 1912-1913—concluded.

AREAS UNDERGOING SETTLEMENT.						Remarks.
At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing Settlement.		
Name of Tract.	Area in square miles.	Name of Tract.	Area in square miles.	In Forest Accounts.	In other Accounts.	
10	11	12	13	14	15	16
Ghotki Taluka ...	0 $\frac{565}{640}$	Sukkur Taluka ...	8 $\frac{120}{640}$	Rs. ...	Rs. ...	
Shikarpur Taluka ...	2 $\frac{140}{640}$	Shikarpur Taluka.	8 $\frac{436}{640}$	...	...
		Garhi Yasin Taluka.	0 $\frac{590}{640}$	...	...
		Rohri Taluka ...	1 $\frac{168}{640}$	...	...
		Pano Akil Taluka.	24 $\frac{354}{640}$	...	...
		Ghotki Taluka ...	11 $\frac{404}{640}$	...	...
.....	3 $\frac{65}{640}$	.....	50 $\frac{152}{640}$	...	...
Labdarya Taluka ...	2 $\frac{306}{640}$	.....	...	...	...
Garhi Yasin Taluka ...	0 $\frac{251}{640}$	.....	...	...	...
Sehwan Taluka ...	0 $\frac{5}{640}$	.....	...	...	...
.....	2 $\frac{562}{640}$	.....	...	...	...
Hala Taluka ...	0 $\frac{175}{640}$	.....	...	...	...
Do. ...	0 $\frac{254}{640}$	.....	...	...	...
Hyderabad Taluka ...	0 $\frac{32}{640}$	.....	...	...	...
Kotri Taluka ...	0 $\frac{4}{640}$	.....	...	...	...
.....	
.....	0 $\frac{465}{640}$	.....	...	...	...
Sujawal Taluka ...	3 $\frac{340}{640}$	.....	...	...	...
.....	3 $\frac{340}{640}$	.....	...	...	...
...	10 $\frac{152}{640}$	.....	50 $\frac{152}{640}$	...	...
.....	17 $\frac{154}{640}$	.....	51 $\frac{119}{640}$	1,518	...	

FORM No. 9.—Record of Demarcation and Maintenance of Boundaries, 1912-1913.

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
NORTHERN CIRCLE.										
Panch Mahals ...	.....	2	940.	951	7	101	1,059	.....	38 0 0	
Burst ...	.....	835	.....	835	.....	103	938*	.....	727 0 0	*The increase of about 4 miles is due to revision survey of Dangs boundary.
North Thána ...	.....	3	965	968	.....	19	987	.....	72 0 0	
Central Thána ...	.....	.....	875	875	.....	114	989	.....	784 0 0	
South Thána ...	.....	.....	897	897	.....	59	956	10 0 0	180 0 0	Besides this, Rs. 29-12-0 were spent in connection with demarcating the boundary line of Tansa lake; will be recovered from Municipality.
Kolába ...	170	1,243	.....	1,413	493†	72	1,978	1,961 0 0	697 0 0	†The increase is due to the actual calculation made.
Total, Northern Circle ...	170	2,083	3,686	5,939	500	468	6,907	1,971 0 0	2,948 0 0	
CENTRAL CIRCLE.										
East Khándesh ...	.....	2,148	.....	2,148	.....	107	2,255	.....	74 0 0	
West Khándesh ...	.....	769	.....	769	.....	67	838	.....	234 0 0	
North Khándesh ...	.....	309	.....	309	.....	52	361	.....	189 0 0	
North Násik ...	48	1,519	138	1,735	48	116	1,894	391 0 0	268 0 0	
South Násik ...	52	.....	2,915	2,997	935	575	4,507	336 0 0	164 0 0	
Poona ...	43	.....	2,620	2,663	51	246	2,960	447 0 0	390 0 0	
Sátára ...	.....	156	5,116	5,272	67	100	5,139	.....	498 0 0	
Total, Central Circle ...	143	4,931	10,819	15,893	1,096	1,263	18,252	1,234 0 0	1,817 0 0	Total expenditure, Rs. 3,051.
SOUTHERN CIRCLE.										
Kánara, Northern ...	.....	.....	1,433	1,433	29	92	1,554	.....	.....	Rs. 142 under A-VIIIa not included in this return represents the pay and travelling allowance of the Surveyor engaged in demarcating coupes.
Do. Southern ...	87	.....	4,512	4,599	.....	112	4,711	307 0 0	6 0 0	Rs. 694 cost of establishment is excluded.
Do. Eastern ...	.....	4	1,574	1,578	3	48	1,629	.....	17 0 0	Pay and travelling allowance of Surveyor ... 391 Clearing interior lines ... 8 Marking 132' strip adjoining cultivation and Bettas ... 130 Ra. 593 not included in this statement.

N.B.—Boundaries include, besides the outer perimeter, the limits of enclosures of private or other lands within the forests, but not the limits of Sub-division, such as blocks, compartments, coupes.

APPENDICES.

FORM No. 9.—Record of Demarcation and Maintenance of Boundaries, 1912-1913—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.										
Kánara, Western ...	Miles.	Miles. 14	Miles. 1,603	Miles. 1,617	Miles.	Miles. 158	Miles. 1,775	Rs. a. p.	Rs. a. p. 0 0	Rs. 6 on account of working plans charges, Rs. 15 on account of advertisement charges and Rs. 2 for carriage of survey instruments not included in this return. Pay, travelling allowance of Surveyor and contingencies Rs. 536 not included in this return.
Belgaum ...	10	3	1,746	1,759	130	140	2,029	130 0 0	22 0 0	
Dhárwár ...	11	602	44	657	54	4	715	87 0 0	30 0 0	
Bijápúr ...	2	19	899	920	5	25	950	2 0 0	27 0 0	
Rainágeri ...	....	....	140	140	....	69	209	....	....
Total, Southern Circle ...	110	642	11,951	12,703	221	643	13,572	476 0 0	110 0 0	
SIND CIRCLE.										
Sukkur ...	Miles. ft. 12 1,947	Miles. ft. 928 3,544	Miles. ft.	Miles. ft. 941 211	Miles. ft.	Miles. ft. 183 181	Miles. ft. 1,129 392	....	....
Naushábro ...	1 3,960	501 4,188	....	503 2,868	....	83 2,396	586 5,264	....	....
Hyderabad ...	2 4,000	342 5,044	....	345 3,764	....	183 4,839	529 3,323	....	....
Jerruck ...	4 0	294 1,693	....	298 1,693	....	188 5,225	437 1,633	....	....
Total, Sind Circle ...	20 4,627	2,067 3,909	....	2,088 3,256	....	644 2,081	2,733 57	....	....
GRAND TOTAL ...	443 4,627	9,723 3,909	20,456	36,623 3,256	1,817	3,023 2,031	41,464 57	3,691 0 0	4,875 5 0	

AREAS SURVEYED AND UNDER SURVEY																	
Division.	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.			Total cost.	Previous.	Of the year.	Total Cost.	With details of Growing Stock.		Without details of Growing Stock.		Total Cost.	Previous.	Of the year.	Total Cost.
	Pre-vious.	Of the year.	Pre-vious.	Of the year.	Pre-vious.					Of the year.	Pre-vious.	Of the year.					
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.																	
Northern Circle	
CENTRAL CIRCLE.																	
<i>Reserved Forests.</i>																	
East Khândesh	229	...	.....	.....	...	...	...	...	497	...	.....	...	...	...
West Khândesh	676	...	.....	.....	...	...	...	...	1	...	.....	96	...	...
North Khândesh	645	...	.....	.....	...	...	...	...	...	...	.....	...	...	...
South Násik	2,011	...	.....	.....	...	...	...	...	...	...	.....	...	...	...
North Násik
Poona	525	...	.....	.....	...	...	...	...	...	...	.....	...	...	...
Sátára	530	...	.....	.....	...	...	...	...	...	...	.....	...	...	...
Total	4,616	...	.....	.....	...	...	...	...	498	...	.....	96	...	...
<i>Protected Forests.</i>																	
South Násik	87	...	.....	.....	...	...	...	...	...	...	.....	...	...	...
North Násik
Sátára		1
Total	88	...	.....	.....	...	...	...	...	...	...	.....	...	...	...
Total, Central Circle.	4,704	...	.....	.....	...	...	...	...	498	...	.....	96	...	...
SOUTHERN CIRCLE.																	
Kánara	
Belgaum	
Dhárwár	
Bijápur	
Ratnágiri	
Total, Southern Circle	
SIND CIRCLE. (No return)																	
GRAN TOTAL	4,704	...	.....	.....	...	...	...	...	498	...	.....	96	...	...

under Survey during the year 1912-1913.

DURING THE YEAR.										COST.			REMARKS.	
CHAIN AND COMPASS OR OTHER SURVEYS BY LOCAL OFFICERS.										Total Forest area at end of the year, as per Form No. 7.	Previous.	Of the year.		Entire cost of all Surveys to end of the year.
With Interior Details.					Boundary Surveys.									
4-inch or over.		Under 4-inch.		Total Cost.	Pre-vious.	Of the year.	Total Cost.	Areas remain- ing to be taken under Survey.						
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.		
...	3,048	.....	.....	.....
...	73	709	24,084 0 0	.....	24,084 0 0		
...	778	63,694 0 0	.....	63,694 0 0		
...	223	868	1,371 0 0	.....	1,371 0 0		
...	308	781	2,40,589 0 0	.....	2,40,589 0 0		
...	1,558	712				1,11,290 0 0
...	187	709	62,569 0 0	62,569 0 0		
...	970	6,180	5,03,597 0 0	.....	5,03,597 0 0		
...	7,085 0 0	.....	7,085 0 0		
...	5,10,683 0 0	.....	5,10,682 0 0		
...	11	98	.....	.....	.....
...	1	.....	.....	.....
...	11	99	.....	.....	.....
...	981	6,279	.....	.....	.....
...	3,250	3,79,404 0 0	.....	3,79,404 0 0		
...	679	57,104 0 0	.....	57,104 0 0		
...	378	28,095 0 0	.....	28,095 0 0		
...	277	.....	.....	.....
...	19	581 0 0	.....	581 0 0		
...	4,601	4,63,184 0 0	.....	4,63,184 0 0		
...	1,137	.....	.....	.....
...	981	15,065	9,73,868 0 0	.....	9,73,868 0 0		

* Represents cost of arrear mapping fees and cannot conveniently be distributed among the several Divisions.

FORM No. 11.—Progress made in Working Plans, 1912-1913.

Division.	AREAS FOR WHICH WORKING PLANS HAVE BEEN SANCTIONED BY LOCAL GOVERNMENT.		AREAS FOR WHICH WORKING PLANS ARE BEING COMPILED.		Areas for which Working Plans have still to be taken in hand.	Areas for which Working Plans are not at present required.(a)	Total Forest area as in Form No. 7	Entire cost per square mile of Working Plans completed.	REMARKS.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.					
1	2	3	4	5	6	7	8	9	10
NORTHERN CIRCLE.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs. a. p.	
Panch Maháls	332	...	...	...	...	...	332	...	
Surat	68	...	...	159	497	...	724	44 0 0	
North Thána	335	...	...	...	...	...	335	...	
Central Thána	369	...	...	...	...	4	373	...	
South Thána	331	...	...	...	1	9	341	...	
Kolába	415	...	...	...	...	35	450	...	
Total, Northern Circle...	1,850	...	...	159	498	48	2,555*	44 0 0	* This is exclusive of the area in charge of the Revenue Department, with the exception of 29 sq. miles in the Kolába Division.
CENTRAL CIRCLE.									
East Khándesh	699	...	52	8	...	3	762	...	
West Khándesh... ..	73	...	96	...	162	211	542	...	
North Khándesh	564	...	...	...	...	301	868	...	
North Násik†	437	...	...	...	...	235	702	...	
South Násik	395	89	...	...	...	172	656	23 0 0	
Poona	189	...	...	...	...	229	418	...	
Sátára	64	...	...	...	100	351	515	...	
Total, Central Circle.	2,451	89	148	8	262	1,505	4,463†	23 0 0	† This is exclusive of the area in charge of the Revenue Department.
SOUTHERN CIRCLE.									
Kánara, Northern	431	...	9	...	...	308	748	372 0 0	
Kánara, Southern	39	...	134	...	98	705	976	189 0 0	
Kánara, Eastern	363	...	36	13	63	178	653	227 0 0	
Kánara, Western	187	77	...	...	254	355	873	194 0 0	
Belgaum	182	...	149	302	...	46	679	96 0 0	
Dhárwár	47	...	...	130	...	199	376	39 0 0	
Bijápur ... ..	...	...	...	...	277	...	277	...	
Ratnágiri ... ..	...	...	...	...	19	...	19	...	
Total, Southern Circle...	1,249	77	328	445	711	1,791	4,601	...	
SIND CIRCLE.	Sq. m. ac.	Sq. m. ac.	Sq. m. ac.	Sq. m. ac.	Sq. m. ac.	Sq. m. ac.	Sq. m. ac.	Rs. a. p.	
Sukkur	420 468	...	...	...	*1 173	†22 207	445 153	22 5 6	* New reservation notified under section 19 of the Indian Forest Act.
Nausháhro	202 176	...	...	...	*1 127	†25 257	228 560	18 11 9	† Area of protected forests.
Hyderabad	225 142	...	...	...	*7 236	†3 265	236 3	37 13 0	† Newly acquired kachas which, though handed over to the Forest Department, have not been notified yet as Reserved Forests.
Jerruck	183 214	...	...	...	*32 262	†10 561	226 397	27 15 1	
Total, Sind Circle ...	1,031 360	...	...	...	43 103	62 10	1,136 473	...	
GRAND TOTAL ...	6,581 360	166	476	612	1,514 103	3,406 10	12,755 473§	...	§ This is exclusive of the areas in charge of the Revenue Department in the Northern and Central Circles, as stated above.

(a) Areas entered in column 7 should not be entered in column 6.

FORM No. 12.

NEW WORKS UNDERTAKEN DURING THE YEAR.							
Division.	Buildings.		Roads and Paths.			Other Works.	Total Expended on New Works.
	Description of Building.	Expenditure incurred.	Description of Road or Path.	Length of Road or Path.	Expenditure incurred.	Expenditure incurred.	
1	2	3	4	5	6	7	8
	NORTHERN CIRCLE.			Miles.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Panch Mahals ..	Houses for Forest Subordinates ...	2,100	.....	.....	.....	1,115 0 0	3,215 0 0
Surat ...	Rest House	2,694	Cart Roads ...	16	6,415 0 0	1,810 0 0	18,434 0 0
	2 Sets of Police lines'	4,386					
	Houses for Subordinates... ..	3,149					
North Thana ...	Houses for Forest Subordinates ...	4,031	.....	.....	.....	.....	4,031 0 0
Central Thana ...	Houses for Forest Subordinates ...	4,808	Mangrul Road ...	.....	2,912 0 0	.....	7,720 0 0
South Thana ...	.....	.....	.....	.....	.....	192 0 0	192 0 0
Kolaba	Houses for Forest Subordinates ...	1,408	Kondvi Divanmal... ..	1	1,388 0 0	.....	2,794 0 0
	Total, Northern Circle ...	22,554		.....	10,715 0 0	3,117 0 0	36,386 0 0
	CENTRAL CIRCLE.						
East Khândesh ...	Forest Guards' post three roomed at Va. zapur in Chopda Range.	1,050	.....	.....	.....	.....	.....
	Forest Depôts in the following Ranges:—						
	Raver	Rs. 1,430					
	Faizpur in Mawal Range	1,430					
	Well at Raver	101	.....	.....	.....	101 0 0	
	Total ...	3,910			.....	101 0 0	4,011 0 0
West Khândesh ...	Construction of a Forest Guards' post at Dhaner.	794	Road in Nawapur Depôt.	.....	250 0 0	.....	.....
	Construction of a Forest Guards' post at Hatti.	1,070					
	Construction of a Forest Guards' post at Khoksa.	1,100					
	Part construction of a Forest Guards' post at Kholvihir.	300					
	Construction of a Depôt at Dangshir-wada.	858					
	Total ...	4,122		.....	250 0 0	.....	4,372 0 0

and Buildings during 1912-1913.

REPAIRS EXECUTED DURING THE YEAR.							REMARKS.
Buildings.		Roads and Paths.			Other Works.	Total Expended for Repairs.	
Description of Building.	Expenditure incurred.	Description of Road or Path.	Length repaired.	Expenditure incurred.	Expenditure incurred.	Total Expended for Repairs.	
9	10	11	12	13	14	15	16
	Rs.		Miles.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Divisional Forest Officer's bungalow.	30	.....	...	.....	226 0 0	336 0 0	
Houses for Forest Subordinates ...	80						
Repairs to houses and posts ...	2,826	Cart roads ...	156	1,622 0 0	674 0 0	5,122 0 0	
Houses for Forest Subordinates..	760	Cart roads ...	7	395 0 0	.....	1,155 0 0	Besides Rs. 213 were paid to District Local Board, being $\frac{1}{4}$ the share for making Udhwa Kase Road.
Houses for Forest Subordinates...	284	Cart roads ...	...	156 0 0	77 0 0	517 0 0	
Bungalow at Tansa and houses for Forest Subordinates.	415	Cart roads ...	...	44 0 0	.....	459 0 0	
Houses for Forest Subordinates ...	405	Cart roads ...	...	70 0 0	.....	475 0 0	
	4,800		...	2,287 0 0	977 0 0	8,064 0 0	
Forest Guards' depôts in the following Ranges:—							
Chopda Range. { Lasur ...	22	Chopada Range—					
{ Dhanora ...	16	Deozari to	2	212 0 0	.....	.....
{ Chopda ...	11	Nizardeo.					
		Deozari to	6				
Rest-houses in the following Ranges:—		Mograel.					
Chopda Range	116	Mamalda to	5				
Gangapuri Kaver Range	26	Gorade.					
Langraamba Mawal Range	359	Kaver Range—					
Guards' huts in the following Ranges:—		Cart roads ...	8	249 0 0	.....	.....
Chalisgaon Range	49	Yaval Range—					
Kaver do.	3	Mograel to	18	120 0 0	.....	.....
		Tinshamli.					
		Tinshamli to	18	375 0 0	.....	.....
		Murudbari road.					
	602		57	956 0 0	.....	1,558 0 0	
Forest Depôt at Khandbara	35	Borzar to	2	403 0 0	.....	.....
Do. at Nandurbar	15	Charanmal road.					
Do. at Chinchpada	2	Kalambari road.	1	665 0 0	.....	.....
Bungalow at Laling	27	Road in Nawapur	...	250 0 0	.....	.....
House and stable for Ranges at Nawapur.	12	Depôt compound.					
Posts at Umarpatta, Charanmal and Shenwad.	464						
	555		3	1,818 0 0	.....	1,873 0 0	

NEW WORKS UNDERTAKEN DURING THE YEAR.							
Division.	Buildings.		Roads and Paths.			Other Works.	Total Expended on New Works.
	Description of Building.	Expenditure incurred.	Description of Road or Path.	Length of Road or Path.	Expenditure incurred.	Expenditure incurred.	
1	2	3	4	5	6	7	8
	CENTRAL CIRCLE—continued.	Rs.		Miles.	Rs.	Rs.	Rs.
North Khandesh.	Talatis' quarters at Dhadgaon, Akrani Range.	3,916	Akrani Range— Telkhadi Teran- mal path.	18	245	.....	.....
	Forest Guards' quarters in the following Ranges:—		Shirpur West Range—				
	Shahada Range	1,311	The Bhurki Wasardi road.	5	2,041	.....	.....
	Shirpur West	70					
	Do. East	1,225					
	Taloda Range	1,650					
	Total ...	8,172		28	2,286	.....	10,458
North Nasik	Baglan Range— Forest Guards' posts	1,258	.....	.....	.....	.....	.....
	Kalwan Range— Forest Guards' posts	708					
	Total ...	1,966		.....	.....	.....	1,966
South Nasik	Forest Guards' posts at Nasalgaon and Trimbak.	1,500	Hadpada to Dolo- hol.	6	580	.....	.....
	Total ...	1,500		6	580	.....	2,060
Poona	Forest Guards' posts at Rajur and Ghatghar.	1,549	Bhimashankar Ghoda to Bhima- shankar bunga- low.	.....	106	.....	.....
	Total ...	1,549		.....	106	.....	1,655
Satara	Forest Guards' posts in the following Ranges:—		Construction of the following roads:—				
	Jawali	850	Yang Valley road.	5	1,197	.....	.....
	Karad	1,526	Koira Valley road.	8	1,810	.....	.....
	Patan	1,825					
	Mahabaleshwar	15					
	Deepening of wells in Karad and Patan Ranges.	.....		.....	.....	850	.....
	Total ...	4,216		8	2,507	850	7,078
	Total, Central Circle ...	25,495		87	5,720	451	31,615

and Buildings during 1912-1913—continued.

REPAIRS EXECUTED DURING THE YEAR.							REMARKS.
Buildings.		Roads and Paths			Other Works,	Total Expended for Repairs.	
Description of Building.	Expenditure incurred.	Description of Road or Path.	Length repaired.	Expenditure incurred.	Expenditure incurred.		
9	10	11	12	13	14	15	16
	Rs.		Milca.	Rs.	Rs.	Rs.	
Repairs to existing buildings in the following ranges:—		Akrani Range—					
Akrani	30	Chanseli—	13	436	.....	.....
Shahada	49	Dhadgaon,					
Shirpur East	599	Mundalwad—					
Do. West	120	Kakrapathi					
Taloda	246	Road.					
		Tormal Kala-	29	31	.....	.....
		pani road.					
		Existing foot-	26	110	.....	.....
		paths.					
		Taloda Range—					
		Chanseli Bari	4	74	.....	.....
		road.					
	1,044		52	653	.....	1,697	
Kalwan Range—							
Two Forest Guards' huts ...	10	.....	...	.....	.....	.....
	10					10	
Forest Guard's hut at Wani,							
Dindori Range	4	Ambi Bahuli	8	116	.....	.....
		road.					
		Kharse Bhaoda	...	2	.....	.....
		road.					
		Ambechankada...	...	25	.....	.....
		Hatti Behedpada.	1	62	.....	.....
		Tate Ambit road.	5	29	.....	.....
		Ambit Kumshet.	5	26	.....	.....
	4		19	260	.....	264	
Bhimashankar and Ambavne		Bhimashankar	...	10	.....	.....
Bungalows—		Bungalow road.					
Grass tatis, white washing,	101	Bhorgiri Lonawla	9	466	.....	.....
making gate-entrances, etc.		bridle path.					
Forest Guards' posts at Kuse-	35	Lonawla Bhima-	10	1,010	.....	.....
gaon.		shankar road.					
		Wandre Khind	9	1,002	.....	.....
		Kusur road.					
	136		28	2,488	.....	2,624	
Forest Guards' posts and Depôts		Vangvalley road.	11	499	.....	.....
in the following Ranges:—		Koinavalley road.	11	3,000	.....	.....
Javli	85	Javli	26	62	.....	.....
Karad	12	Karad	1	19	.....	.....
Mahableshwar	43	Mahableshwar	28	130	.....	.....
Patan	290	Patan	10	24	.....	.....
Satará	30	Satará	14	37	.....	.....
Shirála	12	Shirála	20	45	.....	.....
Wai	2	Improvement of	...	.....	77	.....
		camping ground.					
	474		121	3,816	77	4,367	
	2,825		280	9,491	77	12,393	

NEW WORKS UNDERTAKEN DURING THE YEAR.							
Divis. on.	Buildings.		Roads and Paths.			Other Works.	Total Expended on New Works.
	Description of Building.	Expenditure incurred.	Description of Road or Path.	Length of Road or Path.	Expenditure incurred.	Expenditure incurred.	
1	2	3	4	5	6	7	8
	SOUTHERN CIRCLE.			Miles.			Rs.
Kánara, Northern...	Rest-houses Houses for Subordinate Establishment .	1,374 54	Cart roads ...	5	1,822	.....	.....
	Total ...	1,428		.....	1,822	.....	3,250
Kánara, Southern...	Rest-houses Houses for Subordinate Establishment .	1,812 175	Cart roads ...	½	361	.....	.....
	Total ...	1,987		.....	361	.....	2,348
Kánara, Eastern ...	Rest-houses Houses for Subordinate Establishment...	567 924	Cart roads ... Cycle paths ... Others ...	½ ½	50 4 .....	..... ..... 1,609	...............
	Total ...	1,491		.....	54	1,609	3,154
ánara, Western ...	Rest-houses Houses for Subordinate Establishment .	3,491 4,184	Others ...	.....	.....	135	.....
	Total ...	7,675		.....	.....	135	7,810
Belgum	Head-quarter Houses Houses for Subordinate Establishment .	3,674 117	Bridges ... Others ...	..... .....	1,134 .....	..... 90	.....
	Total ...	3,791		.....	1,134	90	5,015
D. arwár	Houses for Subordinate Establishment .	550	.....	.....	.....	.....	.....
	Total ...	550		.....	.....	.....	550
Bijápúr ... ..	.....	.....	.....	.....	.....	.....	.....
Katnágiri ... ..	.....	.....	.....	.....	.....	.....	.....
	Total, Southern Circle ...	16,922		.....	3,871	1,834	22,127

and Buildings during 1912-1913—continued.

REPAIRS EXECUTED DURING THE YEAR.							REMARKS.
Buildings.		Roads and Paths.			Other Works.	Total Expended for Repairs.	
Description of Building.	Expenditure incurred.	Description of Road or Path.	Length repaired.	Expenditure incurred.	Expenditure incurred.		
9	10	11	12	13	14	15	16
	Rs.		Miles.	Rs.	Rs.	Rs.	
Rest-houses and houses for Subordinate Establishment.	739	Cart roads ... Other works ...	67 ...	7,935 .....	..... 638	..... .....	Rs. 10,000 contributed for repairs of Local Board roads has been excluded.
	739		...	7,935	638	9,312	
Houses for Subordinate Establishment.	358	Cart roads .. Other works ...	4 ...	194 .....	..... 24	..... .....
	358		...	194	24	578	
Rest-houses ... Head quarter houses and houses for Subordinate Establishment.	75 1,008	Cart roads ... Others ...	27 ...	5,334 .....	..... 21	..... .....
	1,173		...	5,334	21	6,528	
Rest-houses ... House for Subordinate Establishment.	945 562	Cart roads ... Light Railway ... Others ...	... ... ...	1,085 16 .....	..... ..... 56	..... ..... .....	Rs. 10,000 contributed to Local Boards for repairs of roads. " 124 Pay of temporary Establish m e n excluded.
	1,507		...	1,101	56	2,664	
Rest-houses ... Head quarter houses ... Houses for Subordinate Establishment.	133 25 370	Cart roads ... Tools on road works. Others ...	63	2,508 116 .....	..... ..... 15	..... ..... .....
	528		...	2,619	15	3,162	
Rest-house ... Head quarter houses ... Houses for Subordinate Establishment.	40 398 16	Cart roads ... Metal and impliments for road works.	7	1,149 1,035 .....	..... ..... .....	..... ..... .....
	452		...	2,184	.....	2,636	
Houses for Subordinate Establishment.	20	.....	..	.....	.....	20	
Houses for Subordinate Establishment.	10	.....	...	.....	.....	10	
	4,767		...	19,367	754	24,908	

NEW WORKS UNDERTAKEN DURING THE YEAR.							
Division.	Buildings.		Roads and Paths.			Other Works.	Total Expend- ed on New Works.
	Description of Building.	Expenditure incurred.	Description of Road or Path.	Length of Road or Path.	Expenditure incurred.	Expenditure incurred.	
1	2	3	4	5	6	7	8
	SIND CIRCLE.	Rs. a. p.		Miles.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Sukkur ...	Re-construction of office room for the Range Forest Officer, Mirpur, at Mirpur.	760 0 0	Other works ...	.....	.....	1,103 0 0	.....
	Part construction of a pucca wall in the Rahuja Nursery.	906 0 0					
	Other petty works	19 0 0					
	Total ...	1,685 0 0		.....	.....	1,103 0 0	2,788 0 0
Naushahre ...	Verandah to the rest-house for Forest Subordinates.	92 0 0	Other works ..	.....	.....	655 0 0	.....
	Total ...	92 0 0		.....	.....	655 0 8	747 0 0
Hyderabad ...	Additions to the rest-house for Forest Subordinates.	152 0 0	Other works ...	.....	.....	356 0 0	.....
	Total ...	152 0 0		.....	.....	356 0 0	508
Jerruck ...	.....	.....	Other works ..	.....	.....	105 0 0	.....
	Total ...	.....		.....	.....	105 0 0	105 0 0
	Total, Sind Circle ...	1,929 0 0		.....	.....	2,219 0 0	4,148 0 0
	Grand Total ...	66,840 0 0		.....	19,815 0 0	7,821 0 0	94,276 0 0

and Buildings during 1912-1913—continued.

REPAIRS EXECUTED DURING THE YEAR.							REMARKS.
Buildings.		Roads and Paths.			Other Works.	Total Expended for Repairs.	
Description of Building.	Expenditure incurred.	Description of Road or Path.	Length repaired.	Expenditure incurred.	Expenditure incurred.		
9	10	11	12	13	14	15	16
	Rs. a. p.		Miles.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Inspection bungalows and houses for Subordinate Establishments.	567 0 0	Other works ...	...	.....	720 8 0	.....
	567 0 0		...	.....	720 0 0	1,287 0 0	
Houses for Subordinate Establishments.	233 0 0	Other works ...	...	.....	720 0 0	....
	233 0 0		...	.....	720 0 0	953 0 0	
Inspection bungalows and houses for Subordinate Establishments.	639 0 0	Other works ...	...	.....	785 0 0	.....
	639 0 0		...	.....	785 0 0	1,424 0 0	
Houses for Subordinate Establishments.	239 0 0	Other works ...	...	.....	3,858 0 0	.....
	239 0 0		...	.....	3,858 0 0	4,147 0 0	
	1,728 0 0		...	.....	6,083 0 0	7,811 0 0	
	14,140 0 0		...	31,145 0 0	7,891 0 0	53,176 0 0	

FORM NO. 13.—Register of breaches of Forest Rules during 1912-1913.

Forest Division.	Cases pending from 1911-1912.	NEW CASES OF THE YEAR.						Total cases.	DISPOSED OF DURING THE YEAR.						Cases pending at close of year.	Cases withdrawn.
		Injury to forest by fire.	Unauthorized felling or appropriation of wood & minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	Convictions.		Acquittals.		Total.					
							Cases.		Persons.	Cases.	Persons.	Cases.	Persons.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
NORTHERN CIRCLE.																
Panch Mahals ...	{ (A) ... 5 (B) ... 53 (C) ...	4	15	1	...	20	25	17	39	1	3	18	42	7	...	
		6	553	305	27	891	944	884	1,809	...	...	884	1,809	60	...
		107	180	1	...	288	288	...	...	...	...	...	...	...	...
Total ...	58	117	748	307	27	1,199	1,257	901	1,848	1	3	902	1,851	67	...	
Surat ...	{ (A) ... (B) ... (C) ...	16	3	1	1	21	21	14	31	1	1	15	32	6	...	
		8	40	33	10	91	91	73	141	...	...	73	141	18	...
		5	4	1	1	11	11	...	...	...	...	...	...	...	...
Total ...	...	29	47	35	12	123	123	87	172	1	1	88	173	24	...
North Thána ...	{ (A) ... (B) ... (C) ...	1	3	1	...	5	14	14	27	...	...	14	27	...	...
		2	164	163	36	365	365	328	784	...	...	328	784	...	...
		41	170	...	...	211	211	...	...	...	...	...	...	...	...
Total ...	9	44	337	164	36	581	590	342	811	...	...	342	811	37	...
Central Thána ...	{ (A) ... (B) ... (C) ...	11	5	2	1	19	33	20	28	8	12	28	40	5	...	
		...	345	350	47	742	742	742	1,455	...	...	742	1,455	...	...
		54	206	5	7	272	272	...	...	...	...	...	...	...	...
Total ...	14	65	556	357	55	1,033	1,047	762	1,483	8	12	770	1,495	5	...	
South Thána ...	{ (A) ... (B) ... (C) ...	3	22	20	2	47	64	49	94	4	19	53	113	11	...	
		1	195	266	27	489	520	489	1,291	...	...	489	1,291	31	...
		41	127	...	...	168	168	...	...	...	...	...	...	...	...
Total ...	43	45	344	286	29	704	752	538	1,385	4	19	542	1,404	42	...	
Kolába ...	{ (A) ... (B) ... (C) ...	6	130	5	8	149	196	106	231	19	25	125	256	71	...	
		15	383	205	55	658	727	641	1,067	...	...	641	1,067	86	...
		38	224	...	...	262	262	...	...	...	...	...	...	...	...
Total ...	116	59	737	210	63	1,069	1,185	747	1,298	19	25	766	1,323	157	...	
Total ...	{ (A) ... (B) ... (C) ...	41	178	30	12	261	353	220	450	33	60	253	510	100	...	
		32	1,680	1,322	202	3,236	3,389	3,157	6,547	...	...	3,157	6,547	232	...
		286	911	7	8	1,212	1,212	...	...	...	...	...	...	...	...
Total, Northern Circle ...	245	359	2,769	1,359	222	4,709	4,954	3,377	6,997	33	60	3,410	7,057	332	...	
CENTRAL CIRCLE.																
East Khándesh ...	{ (A) ... (B) ... (C) ...	4	54	32	12	102	115	89	284	9	26	98	310	17	...	
		...	378	267	54	699	699	699	1,992	...	...	699	1,992	...	...
		6	86	3	...	95	95	...	...	...	...	...	...	...	...
Total ...	13	10	518	302	66	896	909	788	2,276	9	26	797	2,302	17	...	
West Khándesh...	{ (A) ... (B) ... (C) ...	9	5	3	...	17	20	19	60	...	...	19	60	1	...
		4	216	411	20	651	651	651	1,681	...	...	651	1,681	...	...
		34	73	4	...	111	111	...	...	...	...	...	...	...	...
Total ...	3	47	294	418	20	779	782	670	1,741	...	...	670	1,741	1	...
North Khándesh .	{ (A) ... (B) ... (C) ...	4	13	2	27	46	66	59	112	4	20	63	132	3	...	
		17	207	142	365	731	731	731	1,797	...	...	731	1,797	...	...
		8	68	1	1	78	78	...	...	...	...	...	...	...	...
Total ...	20	29	288	145	393	855	875	790	1,909	4	20	794	1,929	3	...	
North Násik ...	{ (A) ... (B) ... (C) ...	1	26	7	7	41	50	34	122	5	9	40	131	10	1	
		1	617	794	54	1,466	1,466	1,466	3,362	...	...	1,466	3,362	...	...
		5	164	...	3	172	172	...	...	...	...	...	...	...	...
Total ...	9	7	807	801	64	1,679	1,688	1,500	3,484	5	9	1,506	3,493	10	1	

(A) cases taken into court.
(B) cases compounded.
(C) cases undetected.

* 31 cases were shown as pending by mistake last year instead of 14.
† One case was subsequently compounded.
‡ Out of 51 cases 3 were subsequently compounded and one was withdrawn.

FORM No. 13.—Register of breaches of Forest Rules during 1912-1913—continued.

Forest Division.	Cases pending from 1911-1912.	NEW CASES OF THE YEAR.					Total new cases of the year.	Total cases.	DISPOSED OF DURING THE YEAR.						Cases pending at close of year.	Cases withdrawn.
		Injury to forest by fire.	Unauthorized felling or appropriation of wood & minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total			Convictions.		Acquittals.		Total.			
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
CENTRAL CIRCLE—																
<i>continued.</i>																
South Násik ...	{ (A) ... 12	2	84	11	2	49	61	44	156	4	48	48	204	18	...	
	{ (B)	4	636	408	61	1,109	1,109	1,109	2,722	...	...	1,109	2,722	...	...
	{ (C)	29	138	1	36	204	204	...	...	...	...	...	...	...	...
Total ...	12	35	808	420	99	1,362	1,374	1,153	2,878	4	48	1,157	2,926	18	...	
Poona ...	{ (A) ... 5	2	16	14	2	34	39	29	103	5	19	34	122	5	...	
	{ (B)	11	772	650	78	1,511	1,511	1,511	3,350	...	...	1,511	3,350	...	...
	{ (C)	38	148	1	1	188	188	...	...	...	...	...	...	...	...
Total ...	5	51	936	665	81	1,733	1,738	1,540	3,453	5	19	1,545	3,472	5	...	
Sátára ...	{ (A) ... 5	1	26	45	8	80	85	64	209	3	5	67	214	18	...	
	{ (B)	13	481	587	86	1,167	1,167	1,167	1,941	...	...	1,167	1,941	...	...
	{ (C)	27	64	...	1	92	92	...	...	...	...	...	...	...	...
Total ...	5	41	571	632	95	1,339	1,344	1,231	2,150	3	5	1,234	2,155	18	...	
Total ...	{ (A) ... 67	23	174	114	58	369	436	338	1,046	30	127	368	1,173	67	1	
	{ (B)	50	3,307	3,259	718	7,334	7,334	7,334	16,845	...	...	7,334	16,845	...	...
	{ (C)	147	741	10	42	940	940	...	...	...	...	...	...	...	...
Total, Central Circle ...	67	220	4,222	3,383	818	8,643	8,710	7,672	17,891	30	127	7,702	18,018	67	1	
SOUTHERN CIRCLE.																
Kánara, Northern	{ (A) ... 13	2	3	4	...	9	22	15	27	1	1	16	28	6	...	
	{ (B) ... 22	4	45	207	18	274	296	250	525	...	...	250	525	46	...
	{ (C)	60	19	1	1	81	81	65	...	...	...	65	...	16	...
Total ...	35	66	67	212	19	364	399	330	652	1	1	331	553	68	...	
Kánara, Southern	{ (A) ... 54	7	92	1	3	103	157	63	172	14	38	82	210	75	...	
	{ (B) ... 235	7	906	39	144	1,096	1,331	888	1,938	...	...	888	1,938	442	1
	{ (C) ... 30	99	76	...	...	175	205	205	...	...	...	205	...	...	...
Total ...	319	113	1,074	40	147	1,374	1,693	1,161	2,110	14	38	1,175	2,148	517	1	
Kánara, Eastern	{ (A) ... 7	3	1	1	2	7	14	7	15	4	11	11	26	3	...	
	{ (B) ... 17	12	188	61	18	279	296	255	418	...	...	255	418	41	...
	{ (C) ... 36	90	80	3	10	183	219	204	...	...	...	204	...	10	5
Total ...	60	105	269	65	30	469	529	466	433	4	11	470	444	54	5	
Kánara, Western	{ (A) ... 9	2	30	7	3	42	51	14	60	19	34	33	94	18	...	
	{ (B) ... 9	10	467	25	15	517	526	526	1,262	...	...	526	1,262	...	...
	{ (C)	33	42	...	1	76	76	76	...	...	...	76	...	...	...
Total ...	18	45	539	32	19	635	653	616	1,322	19	34	635	1,356	18	...	
Belgaum ...	{ (A) ... 17	4	7	5	1	17	34	18	23	6	23	24	49	10	...	
	{ (B) ... 99	11	532	835	43	1,421	1,520	1,277	2,636	...	...	1,277	2,636	243	...
	{ (C)	79	219	4	...	302	302	296	...	...	...	296	...	6	...
Total ...	116	94	758	844	44	1,740	1,856	1,591	2,662	6	23	1,597	2,685	259	...	
Dhárwár	{ (A) ... 12	2	16	2	1	21	33	22	49	5	10	27	59	6	...	
	{ (B) ... 22	6	143	103	41	293	315	277	774	...	...	277	774	8	...
	{ (C)	75	73	...	...	148	148	148	...	...	...	148	...	...	...
Total ...	34	83	212	105	42	462	496	447	823	5	10	452	833	44	...	

FORM No. 13.—Register of breaches of Forest Rules during 1912-1913—concluded.

Forest Division.	Cases pending from 1911-1912.	NEW CASES OF THE YEAR.						DISPOSED OF DURING THE YEAR.							
		Injury to forest by fire.	Unauthorised felling or appropriation of wood & minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	Total cases.	Convictions.		Acquittals.		Total.		Cases pending at close of year.	Cases withdrawn.
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SOUTHERN CIRCLE <i>—(continued).</i>															
Bijapur	{ (A) ... 6 (B) ... 22 (C) ...	3	25	35	6	69	75	56	161	8	23	64	184	11	...
	{ (A) ... 22 (B) ... 41 (C) ...	...	156	240	28	424	446	411	1,167	...	...	411	1,167	35	...
	{ (A) ... 41 (B) ... 26 (C) ...	...	26	3	...	70	70	70	...	...	...	70	...	...	...
Total	28	44	207	278	34	563	591	537	1,328	8	23	545	1,351	46	...
Ratnagiri	{ (A) ... 1 (B) ... 13 (C) ...	...	28	...	4	33	46	24	45	...	...	24	45	22	...
	{ (A) ... 1 (B) ... 1 (C) ...	...	1	...	...	2	2	2	...	...	...	2	...	...	...
Total	14	2	29	...	4	35	49	27	47	...	...	27	47	22	...
Total	{ (A) ... 119 (B) ... 439 (C) ... 66	23	174	55	16	268	387	201	512	57	140	258	652	129	...
	{ (A) ... 439 (B) ... 51 (C) ... 478	51	2,465	1,510	311	4,337	4,776	3,908	8,765	...	...	3,908	8,765	867	1
	{ (A) ... 66 (B) ... 478 (C) ...	478	536	11	12	1,037	1,103	1,066	...	...	...	1,066	...	92	5
Total, Southern Circle	624	552	3,175	1,576	339	5,642	6,266	5,175	9,277	57	140	5,232	9,417	1,028	6
SIND CIRCLE.															
Sukkur	{ (A) ... 21 (B) ... (C) ...	6	43	11	7	67	88	39	66	17	74	58	140	32	...
	{ (A) ... 34 (B) ... 309 (C) ...	...	309	...	1	310	310	310	464	...	...	310	464	...	...
	{ (A) ... 34 (B) ... 133 (C) ...	34	133	...	...	167	167	...	...	...	...	...	...	...	...
Total	21	40	485	11	8	544	565	349	530	17	74	366	604	32	...
Naushahro	{ (A) ... 4 (B) ... (C) ...	...	2	1	3	6	10	2	2	1	1	3	3	7	...
	{ (A) ... 18 (B) ... 72 (C) ...	...	72	...	11	83	83	83	83	...	...	83	83	...	...
	{ (A) ... 18 (B) ... 2 (C) ...	18	2	...	...	20	20	...	...	...	...	...	...	...	...
Total	4	18	76	1	14	109	113	85	85	1	1	86	86	7	...
Hyderabad	{ (A) ... 2 (B) ... (C) ...	...	8	1	5	14	16	11	28	...	...	11	28	5	...
	{ (A) ... 19 (B) ... 142 (C) ...	...	142	...	20	162	162	162	165	...	...	162	165	...	...
	{ (A) ... 19 (B) ... 9 (C) ...	19	9	...	...	28	28	...	...	...	...	...	...	...	...
Total	2	19	159	1	25	204	206	173	193	...	...	173	193	5	...
Jerruck	{ (A) ... 2 (B) ... (C) ...	1	6	2	1	10	12	5	10	...	...	5	10	7	...
	{ (A) ... 4 (B) ... 55 (C) ...	4	55	...	...	59	59	53	54	...	...	53	54	6	...
	{ (A) ... 30 (B) ... 5 (C) ...	30	5	...	...	35	35	...	...	...	...	...	...	...	...
Total	2	35	66	2	1	104	106	58	64	...	...	58	64	13	...
Total	{ (A) ... 29 (B) ... (C) ...	7	59	15	16	97	126	57	108	18	75	75	181	51	...
	{ (A) ... 4 (B) ... 578 (C) ...	4	578	...	32	614	614	608	766	...	...	608	766	6	...
	{ (A) ... 101 (B) ... 149 (C) ...	101	149	...	...	250	250	...	...	...	...	...	...	...	...
Total, Sind Circle	29	112	786	15	48	961	990	665	872	18	75	683	947	57	...
GRAND TOTAL	{ (A) ... 307 (B) ... 592 (C) ... 66	94	585	214	102	995	1,302	816	2,114	138	402	954	2,516	347	1
	{ (A) ... 137 (B) ... 1,012 (C) ...	137	8,030	6,091	1,263	15,521	16,113	15,007	32,923	...	...	15,007	32,923	1,105	1
	{ (A) ... 66 (B) ... 1,012 (C) ...	66	2,337	28	62	3,439	3,505	1,066	...	...	...	1,066	...	32	5
	965	1,243	13,952	6,333	1,427	19,955	20,920	16,889	35,037	138	402	17,027	35,439	1,484	7

(A) means cases taken into Court.
(B) means cases compounded and let off with warning.
(C) means cases undetected.

* Out of 453 cases pending at the close of 1911-12 thirteen were transferred to A and one to C.
† This includes six fire cases left undecided from last year.

FORM No. 14.—Area of Forest Tracts protected from fire during 1912-1913.

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1911-1912.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	REMARKS.
1	2	3	4	5	6	7	8	9
			Acres.	Acres.	Acres.	Acres.	Ra. a. p.	
	NORTHERN CIRCLE.							
Pauch Mahals	Godhra	...	89,213	89,277	764	88,513	4,405 0 0	
	Kalol	...	21,533	21,533	226	21,307		
	Halol	...	28,230	28,312	3,166	25,146		
	Dohad	...	46,106	46,241	2,924	43,317		
	Jhalod	...	26,783	26,862	3,722	23,140		
	Total	...	211,915	212,225	10,802	201,423	4,405 0 0	
Surat	3 Dangs Ranges	...	417,338	419,809	1,163	418,646	6,348 0 0	
	Mandvi	...	40,601	40,889	24	40,865		
	Bulsar-Chikhli	...	2,809	2,809	...	2,809		
	Total	...	460,748	463,507	1,187	462,320	6,348 0 0	
North Thana	Mahim	...	74,366	76,440	1,110	75,330	3,344 0 0	
	Dahanu	...	78,267	79,484	156	79,328		
	Umbargaon	...	57,145	58,217	260	57,957		
	Total	...	209,778	214,141	1,526	212,615	3,344 0 0	
Central Thana	Bassein	...	53,932	54,354	240	54,114	4,527 0 0	
	Wada	...	75,848	79,728	1,985	77,743		
	Khardi	...	64,487	68,774	1,320	67,454		
	Mokhada	...	35,657	36,038	97	35,941		
	Total	...	229,924	238,894	3,642	235,252	4,527 0 0	
South Thana	Salsette	...	14,168	14,756	252	14,504	3,392 0 0	
	Kalyan	...	30,707	31,698	520	31,178		
	Bhiwandi	...	33,383	40,154	1,085	39,069		
	Shahapur	...	56,119	70,262	4,738	65,524		
	Murbad	...	55,093	55,864	6	55,858		
	Total	...	194,470	212,734	6,601	206,133	3,392 0 0	
Kolaba	Alibag	...	27,251	27,447	59	27,388	2,541 0 0	
	Pen	...	29,940	30,689	369	30,320		
	Panvel	...	27,699	28,041	74	27,967		
	Karjat	...	32,013	32,395	245	32,150		
	Khalsapur	...	21,697	21,859	75	21,784		
	Nagothna	...	34,914	35,241	22	35,219		
	Roha	...	38,943	39,148	144	39,004		
	Mangaon	...	25,965	26,104	10	26,094		
	Mahad	...	25,705	25,778	48	25,730		
	Matheran	...	1,108	1,107	...	1,107		
	Dapoli	...	2,121	2,122	5	2,117		
	Total	...	267,356	269,931	1,051	268,880		2,541 0 0
	Total, Northern Circle.			1,574,191	1,611,432	24,809	1,586,623	24,557 0 0
	CENTRAL CIRCLE.							
East Khandesh	Parola	...	68,418	37,715	84	37,631	.....
	Erandol	...	...	30,362	16	30,346	.....
	Chalisgaon	...	45,040	38,250	205	38,045	.....
	Chopda	...	95,500	107,705	146	107,559	.....
	Edalabad	...	64,619	41,346	...	41,346	.....
	Bhusawal	...	...	23,700	250	23,450	.....
	Jannar	...	53,400	40,709	311	40,398	.....
	Jalgaon	...	...	13,764	...	13,764	.....
	Raver	...	73,695	76,210	580	75,630	.....
	Yaval	...	75,525	78,000	11,057	66,943	.....
Total	...	476,187	487,761	12,649	475,112	3,392 0 0		

FORM No. 14.—Area of Forest Tracts protected from fire during 1912-1913—continued.

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1911-1912.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	REMARKS.
1	2	3	4	5	6	7	8	9
	CENTRAL CIRCLE —continued.		Acres.	Acres.	Acres.	Acres.	Rs. a. p.	
West Khándesh	Dhulia ... ..	...	75,818	75,818	...	75,818	.....
	Sindkhed ... ..	...					
	Sakri ... ..	...	135,364	145,837	4,689	141,148	.....
	Pimpalner ... ..	...	61,061	63,558	2,877	60,681	.....
	Nandurbár ... ..	...	30,414	61,378	5,393	55,985	.....
	Navápur ... ..	...					
	Total ... ..	...	302,657	346,591	12,959	333,632	4,016 0 0	
North Khándesh	Taloda ... ..	...	61,742	71,680	342	71,338	.....
	Akráni ... ..	...	192,534	194,684	6,350	188,334	.....
	Sháháda ... ..	...	72,179	83,061	100	82,961	.....
	Shirpur East... ..	...					
	Do. West ... ..	...	201,315	206,341	2,155 564	203,622	.....
	Total ... ..	...	527,770	555,766	9,511	546,255	8,917 0 0	
South Nasik	Násik ... ..	...	41,288	41,567	318	41,249	.....
	Igatpuri ... ..	...	53,102	53,637	97	53,540	.....
	Sinnar ... ..	...	31,625	31,625	41	31,584	.....
	Dindori ... ..	...	52,680	53,701	288	53,413	.....
	North Peint ... ..	...					
	South Peint ... ..	...	107,066	107,267	199	107,068	.....
	Akola ... ..	...					
	Sangamner ... ..	...	66,738	63,891	107	66,784	.....
	Rapir ... ..	...	61,242	65,103	94	65,009	.....
	Total ... ..	...	413,741	419,791	1,144	418,647	1,119 0 0	
North Násik	Malegaon ... ..	...	109,676	109,379	...	109,379	.....
	Nandgaon ... ..	...	64,546	64,651	...	64,651	.....
	Baglan ... ..	...	120,491	120,403	5	120,398	.....
	Kalwar ... ..	...	107,061	107,221	212	107,009	.....
	Chandwad ... ..	...	21,740	21,805	5	21,800	.....
	Yeola including Koper- gaon ... ..	...	25,938	25,938	...	25,938	.....
	Total ... ..	...	449,452	449,397	222	449,175	684 0 0	
Poona	Ambegaon ... ..	...	40,735	40,878	8	40,870	.....
	Dhond ... ..	...	16,340	16,340	...	16,340	.....
	Haveli ... ..	...	30,911	30,945	387	30,558	.....
	Junnar ... ..	...	46,656	46,662	44	46,618	.....
	Khed ... ..	...	45,727	46,444	17	46,427	.....
	Lonávla ... ..	...					
	Mával ... ..	...	49,061	49,770	229	49,298	.....
	Mulshi ... ..	...	26,030	26,040	243	26,040	.....
	Parandhar ... ..	...	11,314	11,315	10	11,305	.....
	Total ... ..	...	206,774	268,394	938	267,456	159 0 0	

FORM No. 14.—Area of Forest Tracts protected from fire during 1912-1913—continued.

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1911-1912.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	REMARKS.
1	2	3	4	5	6	7	8	9
	CENTRAL CIRCLE <i>—concluded.</i>		Acres.	Acres.	Acres.	Acres.	Rs. a. p.	
Sátara	Jávli	...	58,105	58,122	7	58,115	.....
	Karád	...	28,954	28,957	2	28,955	.....
	Khatáv	...	4,797	4,797	...	4,797	.....
	Mahábaleshvar	...	43,086	43,185	594	42,591	.....
	Pátan	...	74,619	74,725	104	74,621	.....
	Sátára	...	45,191	45,221	36	45,185	.....
	Shirála	...	36,126	36,151	120	36,031	.....
	Tásgaon	...	4,581	4,581	...	4,581	.....
Wái	...	33,244	33,264	2	33,262	.....	
	Total	...	328,703	329,003	865	328,138	251 0 0	
	Total, Central Circle...	...	2,765,284	2,856,703	38,288	2,818,415	18,545 0 0	
	SOUTHERN CIRCLE.							
Kánara, Northern	Haliyál	1887-88	38,435	42,530	345	42,185	2,220 0 0	
	Supa	1888-89	2,602	4,563	1,648	2,915	396 0 0	
	Bomanhalli	1887-88	38,182	38,698	270	38,428	799 0 0	
	Kulgi	"	56,326	56,729	4	56,725	1,095 0 0	
	Dandeli	"	51,059	52,003	44	51,959	1,635 0 0	
	Gund	1888-89	46,598	46,610	20	46,590	323 0 0	
	Total	...	233,202	241,133	2,331	238,802	6,368 0 0	Rs. 57 spent for the protection of Tavargatti Depot against fire and Rs. 59 spent for fire drums have been excluded.
Kánara, Southern	Sirsi	1906-07	95	108	36	72	145 0 0	
	Honávar	1900-01	5,950	6,088	...	6,088	123 0 0	
	Bhatkal	1899-1900	3,334	3,469	15	3,454	95 0 0	
	Siddapur	1910-11	54	122	20	102	33 0 0	
	Total	...	9,433	9,787	71	9,716	396 0 0	
Kánara, Eastern	Yellápur Block	13. 1888-89	21,023	29,663	18	29,645	566 0 0	
	Do.	17. 1897-98						
	Do.	12. 1902-03						
	Kirwatti Block	13. 1888-89	62,335	67,446	1,125	66,321	2,198 0 0	
	Do.	14. "						
	Do.	15. 1894-95						
	Do.	16. 1902-03	36,017	36,341	489	35,852	878 0 0	
	Bhartenalli Block	18. 1891-95						
	Do.	16. 1902-03						
	Do.	21. "	75,367	92,496	10,865	82,131	3,077 0 0	
Mundgod and Katur	22. 1888-89							
Block.	Do.							
Do.	23. 1902-03	75,367	92,496	10,865	82,131	3,077 0 0		
Do.	16. "							
Teak pole area	...	1909-10						
	Total	...	194,742	225,946	11,997	213,949	6,719 0 0	
Kánara, Western	Kárwár	...	37,332	6,497	6	6,491	626 0 0	
	Kadra	1887-88						
	Ankola	...	44,873	156,870	230	156,640	749 0 0	
	Kumta	1888-89						
	Total	...	87,946	198,386	380	198,006	1,878 0 0	
Belgaum	Belgaum	1888-89	80,252	84,110	268	83,842	725 0 0	
	Khánápur, East	1886-87	42,629	47,215	942	46,273	787 0 0	
	Khánápur, Central	1910-11	76,581	77,571	787	76,784	1,231 0 0	
	Khánápur, Western	1889-90	95,990	97,023	100	96,923	502 0 0	
	Gokák	1894-95	94,080	94,525	165	94,360	978 0 0	
	Total	...	389,482	400,444	2,262	398,182	4,223 0 0	Rs. 349 spent on fire flag staffs, providing belts to fire guards and printing notices and patrol books.
Dhárwár	Dhárwár	1888-89	25,420	34,101	686	33,415	1,641 0 0	
	Kalghatgi	"	38,440	46,800	3,316	43,484	634 0 0	
	Bankápur	"	9,309	20,133	1,181	18,952	321 0 0	
	Hángal	"	10,200	13,454	971	12,483	121 0 0	
	Kod	1907-08	15,378	13,012	5,919	12,093	71 0 0	
	Total	...	98,747	132,500	12,073	120,427	2,788 0 0	

FORM No. 14.—Area of Forest Tracts protected from fire during 1912-1913—concluded.

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1911-1912.	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.	
Bijapur ...	Bágalkot ...	1889-90 ...	1,871	2,345	269	2,076	31 0 0	
	Badámi ...	" ...	1,941	1,425	176	1,249	43 0 0	
	Total ...	" ...	3,812	3,770	445	3,325	74 0 0	
Ratnágiri ...	Dápoli ...	1889-90 ...	471	473	...	473	10 0 0	
	Khed ...	1892-93 ...	6,431	6,435	...	6,435		
	Chiplún ...	" ...	798	798	...	798	10 0 0	
	Sangameshvar ...	" ...	3,101	3,101	1	3,100		
	Ratnágiri ...	" ...	277	277	...	277	10 0 0	
	Rájápur ...	" ...	322	322	...	322		
	Devgad ...	" ...	11	11	...	11	10 0 0	
	Málvan ...	" ...	625	625	...	625		
	Vengurla ...	" ...	9	9	...	9		
	Total ...	" ...	12,045	12,051	1	12,050	30 0 0	
	Total, Southern Circle.	" ...	1,029,409	1,224,017	29,560	1,194,457	22,476 0 0	
	SIND CIRCLE.							
Sukkur ...	Mirpur Range ...	Not known	34,197	42,680	523	42,157	.....
	Ghotki " ...		30,250	30,978	23	30,955	.....
	Sadhuja " ...		56,597	59,086	79	59,007	.....
	Rohri " ...		28,719	30,544	73	30,471	.....
	Abad " ...		33,472	39,190	18	39,172	.....
	Sukkur " ...		27,261	27,787	88	27,749	.....
	Kot Sultán " ...	1885-86 & 1887-88.	23,244	23,255	...	23,255	.....
	Kashmore " ...	1895-96 ...	29,328	31,433	146	31,287	.....
	Total ...	" ...	268,068	284,953	900	284,053	.....
Naushábro ...	Garhi Yásin Range ...	Not known	31,929	32,175	4	32,171	.....
	Lárkhána " ...		29,071	29,118	543	28,575	.....
	Radhan " ...		21,020	21,073	...	21,073	.....
	Sehwán " ...		23,697	22,234	329	21,905	.....
	Kandiáro " ...		40,144	41,880	63	41,817	.....
	Total ...	" ...	145,861	146,480	939	145,541	.....
Hyderabad ...	Sakrand Range ...	Not known	49,032	49,050	424	48,626	.....
	Hála " ...		46,222	46,327	39	46,288	.....
	Miáni " ...		25,745	25,566	150	25,416	.....
	Hyderabad " ...		2,223	2,223	...	2,223	.....
	Unerpur " ...		28,560	27,877	31	27,846	.....
	Total ...	" ...	151,782	151,043	644	150,399	.....
Jerruck ...	Viran Range ...	Not known	17,378	17,579	...	17,579	.....
	Ghorábári " ...		32,701	33,871	353	33,518	.....
	Sháhbandar " ...		24,604	26,347	164	26,683	.....
	Mulchand " ...		42,912	46,175	720	45,455	.....
	Katiar " ...		18,772	20,565	...	20,565	.....
	Total ...	" ...	136,367	145,037	1,237	143,800	.....
	Total, Sind Circle	" ...	702,078	727,513	3,720	723,793	.....
	GRAND TOTAL	" ...	6,070,962	6,419,665	96,377	6,323,288	65,578 0 0	

FORM No. 15.

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, &c.		By villagers, travellers, etc., passing through the forests.		By railway engines.		By lightning or by fire-balloons.	
					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.
1	2	3	4	5	6	7	8	9	10	11	12	13
NORTHERN CIRCLE.												
Panch Máhals	10	160	9	1,186	1	200	29	2,624	7	279	...	...
Surat	2	40	...	...	5	24	8	1,120	...	...	...	...
North Thána	1	3	4	66	...	...	...	...	3	79	...	...
Central Thána	3	49	5	587	...	...	19	1,012	2	45	...	...
South Thána ... ..	...	...	2	230	1	60	...	...	1	200	2	...
Kolaba	1	125	18	392	...	...	23	225	1	129	...	1,002
Total ...	17	377	38	2,461	7	284	79	4,581	14	732	2	1,002
CENTRAL CIRCLE.												
East Khándesh	4	3,648	...	...	2	603	1	173	...	...	...	...
West Khándesh	1	75	4	2,525	2	293	...	...	...	...	...	...
North Khándesh	2	512	2	1,075	1	16	16	303	...	...	...	...
South Násik ... ..	...	...	5	29	1	12	16	678	...	...	4	55
North Násik	1	3	1	57	...	...	5	162	...	...	...	...
Poona ... ..	...	...	...	...	...	...	2	27	5	104	...	...
Satára	5	5	...	...	6	55	...	...	...	...	...	...
Total ...	13	4,243	12	3,686	12	979	40	1,343	5	104	4	55
SOUTHERN CIRCLE.												
Kánara, Northern	2	20	2	226	...	...	...	...	1	25	2	3
Kánara, Southern ... ..	...	...	3	76	...	...	21	245	...	...	3	18
Kánara, Eastern	16	843	3	78	3	12	19	508	...	...	2	53
Kánara, Western ... ..	...	...	...	...	...	...	7	70	...	...	...	...
Belgaum	2	7	12	259	...	...	9	65	12	376	...	...
Dhárwár	8	91	11	2,541	...	...	25	8,252	8	379	...	...
Bijápur ... ..	...	...	3	1,024	...	...	18	3,039	...	...	...	...
Ratnágiri ... ..	...	...	1	...	...	...	...	...	...	...	...	...
Total ...	28	961	35	4,204	3	12	99	12,179	21	780	7	74
SIND CIRCLE.												
Sukkur	1	5	7	229	...	...	6	69	...	...	...	...
Naushahro ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Hyderabad ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Jerruck ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	1	5	7	229	...	...	6	69	...	...	...	...
Grand Total ...	59	5,586	92	10,580	22	1,975	224	18,572	40	1,616	13	1,131

Forest Fires during 1912-13.

RESERVE OR FIRE-TRACED AREA.												Remarks.
By Intentional Firing.								Causes Unknown.		Total (A), (B) and (C).		
In order to obtain new grass.		In order to turn out game or to reduce cover.		Maliciously fired.		Total.		No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	
No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	16
5	673	10	1,203	27	2,959	79	7,938	13	1,518	111	10,802	
...	...	1	3	...	...	14	1,147	...	...	16	1,187	
...	...	1	10	...	...	4	89	35	1,368	44	1,526	
...	...	1	6	...	...	22	1,063	35	1,943	65	3,642	
...	...	3	437	...	...	7	1,699	36	4,672	45	6,601	
...	...	...	...	1	25	25	379	15	155	59	1,051	
5	673	16	1,659	28	2,984	151	12,315	134	9,656	340*	24,809	
...	...	...	...	2	8,000	5	8,776	1	225	10	12,649	
...	...	3	525	9	5,519	14	6,337	28	4,022	47	12,959	
...	...	...	...	...	...	17	319	8	7,605	29	9,511	
...	...	2	25	1	6	21	776	6	339	35	1,144	
...	...	...	...	...	...	5	162	...	...	7	222	
...	...	...	...	5	250	12	381	39	557	51	938	
...	...	...	...	1	500	7	555	29	305	41	865	
...	...	5	550	18	14,275	84	17,306	111	13,053	220	38,288	
1	4	...	...	1	60	5	92	57	1,993	66	2,331	
1	5	1	40	5	226	21	534	79	2,215	113	2,826	
38	9,797	...	...	9	213	1	10,583	15	2,762	105	14,268	
...	...	...	...	...	...	7	70	38	382	45	452	
...	...	3	74	12	536	38	1,139	42	857	94	2,262	
2	88	...	...	1	1	34	8,632	30	5,693	83	16,957	
...	...	...	...	2	40	21	3,127	20	788	44	4,937	
...	...	1	48	...	...	...	...	1	1	2	1	
...	
42	9,894	5	162	30	1,076	207	24,177	282	14,639	552	44,031	
14	549	...	...	1	5	21	623	5	43	34	900	
...	...	...	...	...	...	...	...	18	939	18	939	
...	...	...	...	...	...	...	...	19	644	19	644	
...	...	...	...	...	...	...	...	35	1,237	35	1,237	
14	549	...	...	1	5	21	623	77	2,863	106*	3,720	
61	11,116	26	2,371	77	18,340	463	54,421	604	40,261	1,218	110,848	

* Branches of fire rules (no area burnt) :-
Panch Mahals ... 6
Surat ... 13
Total ... 19

FORM No. 16.—Area closed and open to Grazing during 1912-1913.

Division,	AREA IN SQUARE MILES.					Total area.	REMARKS.
	Closed to all animals.		Closed to browsers (camels, goats or sheep).		Open to all animals.		
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.		
1	2	3	4	5	6	7	8
NORTHERN CIRCLE.							
RESERVED FORESTS.							
Panch Mahals	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	
Surat	81 0	13 0	332 0	.....	.....	332 0	
Dangs (Leased)	6 0	62 0	68 0	.....	12 0	80 0	
North Thana ... ..	.....	.....	.....	331 0	.....	331 0	
Central do.	83 0	3 0	355 0	.....	.....	355 0	
South do.	93 0	.....	369 0	.....	.....	369 0	
Kolaba	98 0	.....	332 0	.....	.....	332 0	
Ahmedabad (Modasa)	54 0	.....	450 0	.....	.....	450 0	
.....	.....	.....	.....	.....	19 0	19 0	
Total, Reserved Forests	415 0	78 0	1,856 0	331 0	31 0	2,248 0	
PROTECTED FORESTS.							
Surat Dangs (Leased) ... ..	.....	.....	.....	.....	325 0	325 0	
North Thana ... ..	.....	.....	.....	.....	146 0	146 0	
Central do. ... ..	.....	.....	4 0	.....	97 0	101 0	
South do. ... ..	.....	.....	9 0	.....	145 0	154 0	
Kolaba ... ..	.....	.....	73 0	.....	.....	73 0	
Total, Protected Forests ... ..	.....	.....	86 0	.....	713 0	799 0	
Total, Northern Circle	415 0	78 0	1,972 0	331 0	744 0	3,047 0	
CENTRAL CIRCLE.							
RESERVED FORESTS.							
East Khándesh	226 0	7 0	464 0	.....	37 0	799 0	
West do.	100 0	.....	442 0	.....	231 0	773 0	
North do.	118 0	.....	751 0	.....	.....	869 0	
North Nasik	285 0	.....	417 0	.....	856 0	1,558 0	
South do.	96 0	14 0	536 0	.....	115 0	761 0	
Poona	23 0	44 0	350 0	.....	295 0	712 0	
Sátára	106 0	.....	468 0	.....	195 0	709 0	
Total, Reserved Forests	954 0	130 0	3,368 0	.....	1,729 0	6,181 0	
PROTECTED FORESTS.							
South Násik ... ..	.....	.....	11 0	.....	87 0	98 0	
Sátára ... ..	.....	.....	.....	.....	1 0	1 0	
Total, Protected Forests ... ..	.....	.....	11 0	.....	88 0	99 0	
Total, Central Circle	954 0	130 0	3,379 0	.....	1,817 0	6,280 0	
SOUTHERN CIRCLE.							
Kanara, Northern	280 0	.....	468 0	.....	.....	748 0	
Do. Southern	15 0	.....	961 0	.....	.....	976 0	
Do. Eastern	271 0	.....	382 0	.....	.....	653 0	
Do. Western	76 0	.....	797 0	.....	.....	873 0	
Belgaum	64 0	.....	561 0	.....	54 0	679 0	
Dhárwár	28 0	.....	196 0	.....	152 0	376 0	
Bijápur	8 0	3 0	207 0	.....	59 0	277 0	
Ratnágiri	9 0	.....	.....	.....	10 0	19 0	
Total, Southern Circle	751 0	3 0	3,572 0	.....	275 0	4,601 0	
SIND CIRCLE.							
Sukkur	48 0	.....	217 0	.....	180 0	445 0	
Nau-shávro	20 0	.....	96 0	.....	113 0	229 0	
Hyderabad	7 0	.....	52 0	.....	177 0	236 0	
Jerruck	2 0	.....	115 0	.....	110 0	227 0	
Total, Sind Circle	77 0	.....	480 0	.....	580 0	1,137 0	
GRAND TOTAL	2,197 0	211 0	9,403 0	331 0	3,416 0	15,065 0	

FORM No. 17.

GRAZING ON PAYMENT—NUMBER OF ANIMALS.														
Division.	At full rates.						At privileged rates.						Fees received.	
	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Fees received.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Actual.	Value at full rates.	
	2	3	4	5	6	7	8	9	10	11	12	13	14	
NORTHERN CIRCLE.						Rs. a. p.						Rs. a. p.	Rs. a. p.	
RESERVED FORESTS.														
Panch Maháls ...	509	570	...	...	...	783 0 0	315	339	...	...	...	112 0 0	484 0 0
Surat ...	...	...	...	...	...	.....	255	701	...	...	...	119 0 0	956 0 0
North Thána ...	...	15	...	...	...	91 0 0	357	1,368	...	...	...	413 0 0	1,301 0 0
Central do. ...	151	4,277	...	...	...	2,862 0 0	602	3,392	...	...	...	832 0 0	2,873 0 0
South do. ...	145	2,676	...	...	...	1,854 0 0	3,188	11,832	...	...	...	3,752 0 0	11,380 0 0
Kolába ...	...	71	...	...	...	71 0 0	18,055	71,384	220	...	...	12,286 0 0	89,494 0 0
Total, Northern Circle ...	805	7,739	...	...	...	5,661 0 0	22,772	89,016	220	...	...	17,514 0 0	1,06,488 0 0
CENTRAL CIRCLE.														
East Khándesh ...	897	17,489	...	...	153	18,529 0 0	39,385	199,610	...	...	385	31,084 0 0	2,39,380 0 0
West do. ...	183	932	...	...	9	1,154 0 0	9,075	60,728	...	...	461	8,997 0 0	70,264 0
North do. ...	11,721	64,583	...	...	2,178	24,806 0 0	...	...	...	...	...	.....	.....
North Násik ...	225	722	...	...	84	981 0 0	24,781	162,634	125,382	...	...	84,718 0 0	2,03,302 0 0
South do. ...	81	1,278	...	...	15	1,324 0 0	13,333	114,025	9,885	...	165	20,193 0 0	1,39,994 0 0
Poona ...	293	202	...	...	...	.....	12,587	99,053	36,363	...	511	17,873 0 0	1,15,938 0 0
Sítára ...	...	...	...	...	...	.....	33,398	107,598	...	...	...	18,033 0 0	1,40,996 0 0
Total, Central Circle ...	13,340	85,206	...	...	2,389	47,289 0 0	132,559	743,648	171,630	...	1,522	1,30,898 0 0	9,09,874 0 0
SOUTHERN CIRCLE.														
Kánara, Northern Division.	216	...	...	...	...	216 0 0	89,991	...	...	...	...	5,769 0 0	39,991 0 0
Do. Southern do. ...	28	...	...	...	...	18 0 0	104,101	78	...	1	12,909 0 0	1,04,117 0 0	
Do. Eastern do. ...	53	...	...	...	...	53 0 0	30,584	4	...	3	4,476 0 0	30,588 0 0	
Do. Western do. ...	...	...	...	...	...	.....	61,997	...	...	...	8,269 0 0	61,997 0 0	
Belgaum ...	27,460	...	...	...	...	11,901 0 0	30,300	876	...	...	...	3,842 0 0	30,519 0 0
Dhárwár ...	1,601	...	...	...	...	1,603	68,793	...	...	...	...	9,885 0 0	63,793 0 0
Bijápur ...	1,182	3,482	...	...	10	2,182 0	81,880	...	...	489	10,502 0 0	82,369 0 0	
Ratnágiri ...	...	...	...	...	...	.....	20	...	...	...	2 0 0	20 0 0	
Total, Southern Circle ...	30,540	3,482	...	...	10	15,973 0	412,666	958	...	493	55,654 0 0	4,13,394 0 0	
SIND CIRCLE.														
Sakkur ...	2,019	2,904	8,308	141	98	11,639 0	...	...	...	...	...	.....	.....
Naushábro ...	1,575	1,249	7,708	143	25	6,724 0	3	...	...	...	...	.....	.....
Hyderabad ...	1,998	2,187	17,207	...	9	18,000	...	...	...	...	...	.....	.....
Jerruck ...	1,293	1,172	2,915	311	18	6,484	2	...	...	...	...	.....	.....
Total, Sind Circle ...	6,883	7,512	36,138	921	148	37,847	11	...	...	...	...	.....	.....
GRAND TOTAL ...	122,625	39,620	921	2,547	1,06,770	1,06,770	4,90,661	172,808	...	2,016	2,04,066 0 0	14,29,756 0 0		

FORM No. 18.—Statement showing Area of Plantations in the Bombay Presidency, including Sind, for the year 1912-1913.

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 1912.	Added during the year.	Excluded during the year.	Area on 30th June 1913.	Creation.	Upkeep.	Creation.	Upkeep.			
1	2	3	4	5	6	7	8	9	10	11	12	13
						Rs.	Rs. a. p.	Rs.	Rs.	Rs.	Rs.	
NORTHERN CIRCLE.												
Panch Mahals ...	Regular plantations ...	4,189	289	...	4,428	352	866 0 0	9,999	10,992	* In former years cultural operations in coupes were included in the regular plantations. They are now relegated to their proper place. † Besides this Rs. 104 were spent for the purchase of bamboos seed. ‡ Besides this an amount of Rs. 16-1-0 was paid for the cost of plants from the Botanical gardens, Poona.
Surat ...	Do. ...	1,422	...	...	1,422	1,351	467 0 0	8,988	6,959	...	...
Central Thana ...	Do. ...	9	...	...	9	...	592 0 0	1,289	6,132	...	...
South do. ...	Do. ...	90	...	...	90	...	835 0 0	1,955	8,517	...	...
Kolaba ...	Do. ...	59	7	...	66	376	276 0 0	1,259	1,014	51	349	
	Total ...	5,769	246	...	6,015	2,079	3,036 0 0	23,390	33,614	51	349	
Panch Mahals ...	Cultural operations ...	...	35	...	85	2	...	2	...	...	...
North Thana ...	Do. ...	715	141	...	856	137†	...	1,212	...	...	...
Central do. ...	Do. ...	4,013	417	4,013	417	88†	...	88	...	...	...
South do. ...	Do. ...	187	3,745	187	3,745	24	...	45	...	...	...
	Total ...	4,915	4,338	4,200	5,053	251	...	1,347	...	...	...
	Total, Northern Circle...	10,684	4,584	4,200	11,068	2,330	3,036 0 0	24,737	33,614	51	349	
CENTRAL CIRCLE.												
East Khandesh ...	Regular plantations	* In former years cultural operations in coupes were included in the regular plantations. They are now relegated to their proper place. † Besides this Rs. 104 were spent for the purchase of bamboos seed. ‡ Besides this an amount of Rs. 16-1-0 was paid for the cost of plants from the Botanical gardens, Poona.
West do. ...	Do. ...	...	...	...	...	...	...	...	...	...	...
North do. ...	Do. ...	...	...	...	...	...	...	...	...	...	...
South Nasik ...	Do. ...	148	4	...	152	154	...	...	...	7	...
North do. ...	Do. ...	...	...	...	...	...	...	...	...	...	...
Poona ...	Do. ...	...	...	...	...	...	...	...	...	...	...
...	Do. ...	179	...	...	179	316	...	...	...	...	...
	Total ...	327	4	...	331	470	...	...	...	7	...
	Cultural operations ...	...	81	...	...	233	...	...	...	...	...
	Do. ...	...	805	...	...	909	...	...	...	...	...
	Do. ...	...	...	...	...	...	...	...	...	...	...
	13,340 ...	...	...	...	...	...	...	...	...	...	...
	...	...	115	...	...	287	...	...	...	...	...
	...	...	504	...	...	846	...	...	...	...	...
	...	...	1,194	...	...	2,438	...	...	...	...	...
	...	...	2,699	...	...	4,713	...	...	...	...	...
	...	...	2,703	...	331	5,183	...	...	...	7	...
	...	...	78	23	585	15,118	95 0 0	59,864	1,267	1,730	11,190
	...	...	37	33	261	3,246	...	6,583	15,499	...	329
	...	...	...	1,053	...	...	...	23,419	293	140	1,739
	...	...	3	265	10	10	...	1,535	...	293	3,213
	...	...	...	144	144	355	164 0 0	3,352	2,517	82	6,340
	...	...	...	1,374	1,000	18,729	259 0 0	94,753	19,576	2,245	22,811
	...	...	15	...	...	1,129	...	...	...	...	...
	...	...	...	...	...	59	...	...	...	...	...
	...	...	...	...	...	1,188	...	...	...	...	...
	...	...	...	374	1,000	19,917	259 0 0	94,753	19,576	2,245	22,811
	227	1,226	4,597 0 0	3,157	44,291	301	6,128
	12	17	246 0 0	39	1,820
	35	81	1,494 0 0	890	6,709	341	2,548
	19	34	471 0 0	362	2,767
	293	1,358	6,808 0 0	4,448	55,087	642	8,676
	8,578	27	...	1,634	828
	1,236	292	224 0 0	428	2,633
	1,019	10	1,344 0 0	1,486	6,359
	833	119	...	3,242	8,795
	...	...	...	...	...	448	1,568 0 0	6,788	18,615	...	...
	...	...	...	...	...	1,806	8,376 0 0	11,236	68,702	642	8,676
	...	...	...	...	...	29,236	11,671 0 0	1,30,726	1,21,892	2,945	81,836

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
	C. ft.	C. ft.	C. ft.		C. ft.	C. ft.	C. ft.	C. ft.		C. ft.		C. ft.			C. ft.
NORTHERN CIRCLE.															
<i>Reserved Forests.</i>															
North Thana ... ..	...	19,219	...	...	19,219	884	424,713	...	...	425,597	...	...	...	...	...
Central Thana	2,705	15,382	...	...	18,087	184	607,881	184	...	607,759	40	10,588	34	..	10,662
South Thana ... ..	...	46,268	...	...	46,268	9,139	189,237	20,448	...	218,822	...	36,280	...	...	36,280
Surat ... ..	...	1,606	...	...	1,606	1,195	17,886	3,352	...	22,433	...	...	...	...	...
Panch Mahals	2,230	3,773	...	...	6,003	256,135	48,370	436	...	304,941	...	...	...	...	...
Kolaba ... ..	...	25,865	...	...	25,865	599	107,507	2,006	...	110,112	...	...	...	...	...
Reserved Forest ...	4,935	112,113	...	...	117,048	268,136	1,895,104	26,424	...	1,689,664	40	46,868	34	...	46,942
		2,544	...	...	2,544	130	121,182	2,049	...	123,361	...	...	...	...	...
			...	...	9,928	...	76,284	986	...	77,270	...	604	...	...	604
			...	...	90,509	...	83,133	...	...	83,133	...	82,627	...	...	82,627
			...	...	102,981	130	280,599	3,035	...	283,764	...	83,231	...	...	83,231
			...	...	...	...	40,164	...	...	40,164	...	...	...	...	...
			...	...	...	904	711	...	...	1,615	...	...	...	...	...
			...	...	...	...	...	6,713	...	6,713	...	...	...	...	...
			...	...	...	904	40,875	6,713	...	48,492	...	...	...	...	...
			...	...	...	...	27,393	...	120,000	147,393	...	...	...	...	...
	39,170	1,748,971	36,172	120,000	2,169,313	40	130,099	34	...	180,173					

during the year 1912-1913 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.
...	...	...	...	...	884	448,932	...	...	444,816	5,851	1,114,740	...	980,000	2,100,591	2,515,407
...	2,804	...	...	2,804	2,929	636,165	218	...	639,312	9,400	1,068,252	...	419,000	1,490,652	2,120,064
...	...	...	...	...	9,139	271,785	20,445	...	301,370	1,128	558,677	...	2,439,960	2,999,165	3,300,535
...	...	...	...	...	1,195	19,432	3,352	...	24,039	...	83,780	...	...	83,780	107,810
...	...	...	...	...	258,365	52,143	436	...	310,944	63,460	545,840	300	961,600	1,571,200	1,882,144
...	...	...	...	...	599	133,372	2,006	...	135,977	36,090	741,566	...	...	777,646	913,623
...	2,804	...	...	2,804	273,111	1,556,850	26,458	...	1,856,458	115,919	4,112,255	300	4,794,560	9,023,034	10,870,432
...	...	...	...	...	130	123,726	2,049	...	125,905	...	806,460	...	...	306,460	432,365
...	9,824	...	...	9,824	9,598	87,022	986	...	97,626	...	1,132,280	...	...	1,132,280	1,229,006
...	...	...	...	...	...	256,269	...	...	256,269	...	267,656	...	...	267,656	523,925
...	9,824	...	...	9,824	9,723	467,037	3,035	...	479,800	...	1,706,396	...	...	1,706,396	2,186,196
...	...	...	...	...	...	40,164	...	...	40,164	...	20,960	...	...	20,960	61,124
...	...	...	...	...	904	711	...	...	1,615	40	...	...	...	...	1,655
...	...	...	...	...	...	...	6,713	...	6,713	...	...	...	...	...	6,713
...	...	...	...	...	904	40,375	6,713	...	48,492	40	20,960	...	...	21,000	69,442
...	...	...	...	...	...	82,130	...	120,000	202,180	8,616	40,380	...	7,576,000	7,624,996	7,827,176
...	12,628	...	...	12,628	283,743	2,146,981	36,236	120,000	2,586,930	124,575	5,879,991	300	12,370,560	18,875,428	

In all cases columns 5, 10, 15, 20, 25, 30 estimated; the other columns actuals. In all Divisions except Surat Range sent in. Purchases estimated—Timber, one khandy per 3 people; Fuel, 2 cart-loads = 50 c. ft. per family, value 2 as. per cart-load. Next year it is proposed to call on all Divisional Forest officers to base their estimate on the same fixed principles.

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
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.		C. ft.					
CENTRAL CIRCLE.															
East Khándesh ... ..	...	...	...	...	...	418	106,281	2,080	...	108,779	...	...	...	...	...
West Khándesh ... ..	...	14,440	...	...	14,440	...	113,087	10,905	...	123,992	...	...	...	...	...
North Khándesh ... ..	...	3,484	1,302	70	4,856	308	55,946	6,485	1,717	64,456	...	...	...	...	...
South Násik ... ..	...	834,900	...	...	834,900	8,028	1,730	5,902	...	15,680	...	...	...	...	...
North Násik ... ..	...	105,624	2,974	...	108,595	...	...	...	...	...	...	...	...	...	...
Poona	1,140	12,777	330	...	14,197	8,278	167,073	1,577	...	176,928	...	...	...	...	...
Sát 12 ... ..	...	...	...	...	...	9,405	87,645	24,620	...	120,670	...	...	...	...	...
Total, Central Circle ...	1,140	971,175	4,606	70	976,991	25,437	531,762	51,569	1,717	610,486	...	...	...	...	...

during the year 1912-1913 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.
...	1,075,510	5,250	...	1,080,760	418	1,161,791	7,330	...	1,189,539	12,240	705,042	780	...	718,062	1,907,601
...	...	...	...	...	...	127,527	10,905	...	138,432	...	356,495	1,500	100,000	457,995	596,427
...	...	...	...	...	305	59,430	7,787	1,787	69,312	...	537,000	1,860	72,220	611,080	680,392
...	...	...	...	...	8,028	836,630	5,902	...	850,560	14,061	21,533	...	125,000	160,594	1,011,154
...	...	...	...	...	...	105,624	2,974	...	108,598	153	82,200	...	...	82,353	190,951
...	...	...	...	...	9,418	179,800	1,907	...	191,125	272,553	440,481	...	...	713,034	904,159
...	...	...	...	...	8,405	87,645	24,620	...	120,670	42,905	2,233	...	...	488	165,368
...	1,075,510	5,250	...	1,080,760	26,577	2,578,447	61,425	1,737	2,668,236	341,912	2,145,034	4,140	297,220	2,738,306	5,456,542

FORM No. 19.—*Output (in cubic feet, solid) of Timber and Fuel*

Division.	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
SOUTHERN CIRCLE.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Kánara, Northern ...	1,040,677	173,223	628	...	1,214,228	2,774	98,648	...	...	101,417
Kánara, Southern ...	7,646	32,641	3,446	...	43,733	...	...	107	...	107
Kánara, Eastern ..	211,280	24,587	3,419	...	239,286	7,816	66,073	..	...	73,889
Kánara, Western ...	100,775	94,627	6,515	...	201,917	4,616	397	...	...	5,013
Belgaum ...	1,997	3,055	937	...	5,989	446	33,986	4,012	...	38,444
Dhárwár ...	327	38,128	...	...	38,455	2,486	66,251	315	...	69,052
Bijapur ...	...	...	...	...	...	...	1,963	...	...	1,963
Batnágiri ...	...	...	...	...	...	...	599	1,817	...	2,416
Total, Southern Circle ...	1,362,402	366,261	14,945	...	1,743,608	18,138	267,912	6,251	...	292,301

APPENDICES.

during the year 1912-1913 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.			
208,675	28	...	...	208,703	..... Sandalwood— Kh. mds. lbs. 1 19 10 Bark carts 2 Rejected stumps 24 Pieces 60	.....	.....
53,492	103	...	...	53,600	..... Sandalwood— Kh. mds. lbs. 41 17 10 Sandalwood— Kh. mds. lbs. 12 14 27 Bark-wood 2 Chips Cart loads 2	.....	.....
9,895	19,875	...	...	29,770	..... Sandalwood Kh. mds. lbs. 24 13 20	.....	.....
6,122	4,519	...	...	10,641	..... Sandalwood— Kh. md. lbs. 102 12 11 Chips bags No. 491 Roots, pieces 5,274 Bark carts 107	.....	.....
...	...	...	...	...	.....	1,990 Sandalwood trees 30	.....
281,184	24,530	...	...	305,714	Sandalwood— Trees 30 Kh. mds. lbs. 185 17 22 Bark Carts 107½ Rejected Stumps 24 Pieces 60 Chips Carts 2 Roots and pieces 5,274 Chips bags 491	1,990	.....

MISCELLANEOUS—continued.		TOTAL TIMBER.		
Right-holders	Total.	Government.	Purchasers.	Free Grantees.
20	21	22	23	24
.....	..... Sandalwood— Kh. mds. lbs. 1 19 10 Bark cart 2 Rejected stumps 24 Pieces 60	1,251,826 Sandalwood— Kh. mds. lbs. 1 19 10 Park cart-loads 2 Rejected stumps, 24 Pieces 60	271,894	628
.....	..... Sandalwood. Kh. mds. lbs. 41 17 10	7,646 Sandalwood Kh. mds. lbs. 41 17 10	32,641	3,553
.....	..... Sandalwood— Kh. mds. lbs. 12 14 27 Park wood 2 Chips cart loads 2	275,588 Sandalwood— Kh. mds. lbs. 12 14 27 Bark wood 2 Chips cart-loads 2	90,768	3,419
.....	.....	105,391	95,024	6,515
.....	..... Sandalwood Kh. mds. lbs. 24 13 20	12,333 Sandalwood Kh. mds. lbs. 24 13 20	56,916	4,949
.....	..... Sandalwood— Kh. mds. lbs. 102 12 11 Chips bags No. 491 Roots, pieces 5,274 Bark carts 107	8,935 Sandalwood— Kh. mds. lbs. 102 12 11 Chips bags No. 491 Roots pieces 5,274 Bark carts 107	108,898	35
.....	..... 1,990 Sandalwood Trees 30	.....	3,953 Sandalwood trees 30	.....
.....	.....	.....	599	1,817
.....	1,990 Sandalwood— Trees 30 Kh. mds. lbs. 185 17 22 Bark carts 1072 Rejected Stumps 24 Pieces 60 Chips Carts 2 Roots and pieces 5,274 Chips bags 491	1,661,724 Sandalwood— Kh. mds. lbs. 185 17 22 Bark carts 1072 Rejected stumps 24 Pieces 60 Chips carts 2 Roots and pieces 5,274 Chips bags 491	660,693 Sandalwood trees 30	21,196

during the year 1912-1913 and Agency of Exploitation—continued.

TOTAL TIMBER—continued.		FUEL.					Total.	Total Output.
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.		
.....	1,524,348 Sandalwood— Kh. mds. lbs. 1 19 10 Bark cart-loads Rejected stumps 24 Pieces 60	621,465	550,779	...	...	1,172,244	2,696,592 Sandalwood— Kh. mds. lbs. 1 19 10 Bark cart-loads Rejected stumps 24 Pieces 60
.....	43,840 Sandalwood— Kh. mds. lbs. 41 17 10	222,417	805,515	1,000	...	1,028,932	1,072,772 Sandalwood— Kh. mds. lbs. 41 17 10	
.....	369,775 Sandalwood— Kh. mds. lbs. 12 14 27 Bark wood 2 Chips cart loads ... 2	...	177,767	19,087	...	196,854	566,629 Sandalwood— Kh. mds. lbs. 12 14 27 Bark wood 2 Chips cart loads 2	
.....	206,930	15,712	1,326,710	2,547	...	1,844,969	1,551,899	
.....	74,203 Sandalwood— Kh. mds. lbs. 24 13 20	2,689,976	947,300	2,150	...	3,639,426	3,713,629 Sandalwood— Kh. mds. lbs. 24 13 20	
.....	118,148 Sandalwood— Kh. mds. lbs. 102 12 11 Chips bags No. 491 Roots and pieces 5,274 White bark cart loads 107	1,750	525,613	100	...	527,463	645,611 Sandalwood— Kh. mds. lbs. 102 12 11 Chips bags No. 491 Roots and pieces 5,274 Bark wood carts 107	
.....	3,953 Sandalwood trees 30	44,250	128,428	...	...	172,678	176,631 Sandalwood trees 30
.....	2,416	...	64,384	...	...	64,384	66,800
300,000	2,643,613 Sandalwood— Trees 30 Kh. mds. lbs. 185 17 22 Bark carts 107 Rejected stumps 24 Pieces 60 Chips carts 2 Roots and pieces 5,274 Chips bags 491	3,595,570	4,526,496	24,884	3,041,686	11,188,636	13,832,249 Sandalwood— Trees 30 Kh. mds. lbs. 185 17 22 Bark carts 107 Rejected stumps 24 Pieces 60 Chips carts 2 Roots and pieces 5,274 Chips bags 491	

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			
SIND CIRCLE.													
<i>Reserved Forests.</i>													
Sukkur	...	Actuals	...	756	1,003	84	...	1,843	173	788	295	...	1,256
		Estimate	...	628	42,765	...	...	43,393	1,590	27,545	1,604	...	30,739
		Total	...	1,384	43,768	84	...	45,236	1,763	28,333	1,899	...	31,995
Naushábro	...	Actuals	...	4	36	66	...	106	...	...	...	...	...
		Estimate	...	...	50,150	...	...	50,150	160	3,080	...	...	3,240
		Total	...	4	50,186	66	...	50,256	160	3,080	...	...	3,240
Hyderabad	...	Actuals	...	153	764	171	...	1,088	...	94	...	...	94
		Estimate	...	20	60,900	...	...	60,920	50	2,169	50	...	2,269
		Total	...	173	61,664	171	...	62,008	50	2,263	50	...	2,363
Jerruck	...	Actuals	...	...	24	328	...	352	23	...	...	...	23
		Estimate	...	...	...	...	...	...	...	55,386	341	...	55,727
		Total	...	...	24	328	...	352	23	55,386	341	...	55,750
Total, Sind Circle		...	1,561	155,642	649	...	157,852	1,996	89,062	2,290	...	93,348	
GRAND TOTAL		...	1,372,436	1,753,361	20,200	70	3,153,267	314,741	2,632,707	96,282	121,717	3,165,447	

APPENDICES.

during the year 1912-1913 and Agency of Exploitation—concluded.

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.	C. ft.	C. ft.
...
...
...
...	...	...	...	...	...	...	114
...	...	...	...	...	447	100,571	814
...	...	...	...	...	447	100,571	928
...
...
...
...	...	349	...	349	...	...	...
...	43,810	...	...	43,810	...	...	...
...	43,810	349	...	44,159	...	...	...
...	43,810	349	...	44,159	447	100,571	928
281,224	198,439	333	...	480,046	447 Sandalwood— Trees 30 Kd. mds. lbs. 185 17 22 Bark Carts 1072 Rejected Stumps 24 Pieces 60 Chips Carts 2 Boots. and pieces 5,274 Chips bags 491	1,190,699	6,178

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.
.....	.....	929	1,791	1,379
.....	.....	2,218	70,310	1,604
.....	.....	3,147	72,101	1,983
.....	114	4	36	180
.....	101,832	607	153,801	814
.....	101,946	611	153,837	994
.....	.....	153	858	171
.....	.....	70	63,069	50
.....	.....	223	63,927	221
.....	.....	23	24	677
.....	.....	.....	90,196	311
.....	.....	23	99,220	1,018
.....	101,946	4,004	389,085	4,216
.....	1,197,324 Sandalwood— Trees 30 Kh. mds. lbs. 185 17 22 Bark carts 107½ Rejected Stumps 24 Pieces 60 Chips Carts 2 Roots and pieces 5,274 Chips bags 491	1,976,048 Sandalwood— Kh. mds. lbs. 185 17 22 Bark carts 107½ Rejected stumps 24 Pieces 60 Chips carts 2 Roots and pieces 5,274 Chips bags 491	5,775,206 Sandalwood trees 30	123,043

during the year 1912-1913 and Agency of Exploitation—concluded.

TOTAL TIMBER—continued.		FUEL.					TOTAL.
Right-holders.	Total.	Government.	Purchasers.	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.
.....	3,099	86,459	3,705,716	..	...	3,792,175	3,795,274
.....	74,132	3,149	1,361,744	405	...	1,365,298	1,439,430
.....	77,231	89,608	5,067,460	405	...	5,157,473	5,234,704
.....	220	100,102	915,477	...	...	1,015,579	1,015,799
.....	155,222	1,053	590,274	...	178,022	769,349	924,571
.....	155,442	101,155	1,505,751	...	178,022	1,784,928	1,940,370
.....	1,182	93,508	3,834,550	...	...	3,928,058	3,929,240
.....	63,189	641	3,322,013	...	...	3,322,654	3,385,843
.....	164,371	94,149	7,156,563	...	...	7,250,712	7,315,083
.....	724	36,354	2,174,024	...	...	2,210,378	2,211,102
.....	99,537	926	3,391,518	...	...	3,392,444	3,491,981
.....	100,261	37,280	5,565,542	...	...	5,602,822	5,703,033
.....	397,305	322,192	19,295,316	405	178,022	19,795,935	20,193,240
421,787	8,296,084 Sandalwood— Trees 30 Kh. mds. lbs. 185 17 22 Bark carts 107½ Rejected stumps 24 Pieces 60 Chips carts 2 Roots and pieces 5,274 Chips bags 491	4,384,249	31,846,837	29,729	15,887,488	52,148,303	60,444,387 Sandalwood— Trees 30 Kd. mds. lbs. 185 17 22 Bark carts 107½ Rejected stumps 24 Pieces 60 Chips carts 2 Roots and pieces 5,274 Chips bags 421

FORM No. 20.—Outturn of Minor Forest Produce during 1912-1913.

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.										
<i>State Forests.</i>										
Palm leaves	Rs. ....	...	1,690 0 0	...	...	...	...	.....	1,690 0 0
Karvi	1,220 0 0	...	...	...	...	.....	1,220 0 0
Grass and grazing	41,147 0 0	...	...	...	2,71,528	.....	3,12,675 0 0
Bamboo seed	308	...	.....	...	...	...	...	.....	308 0 0
Bamboos	58,215 0 0	...	108	...	10,416	.....	38,739 0 0
A'pta and Tembhurni leaves	11,341 0 0	...	...	...	...	.....	11,341 0 0
Hirda nuts	2,635 0 0	...	...	...	...	.....	2,635 0 0
Chilhari bark	1,001 0 0	...	...	...	...	.....	1,001 0 0
Gum	3,461 0 0	...	...	...	...	.....	3,461 0 0
Mhowra seed	2,468 0 0	...	...	...	...	.....	2,468 0 0
Shikekái	500 0 0	...	...	...	...	.....	500 0 0
Stones	22 0 0	...	...	...	...	.....	22 0 0
Sali wood	62 0 0	...	...	...	...	.....	62 0 0
Manganese ore	3,645 0 0	...	...	...	...	.....	3,645 0 0
Miscellaneous	61	...	352 0 0	...	2	...	61,632	.....	62,047 0 0
Total, State Forests	369	...	97,759 0 0	...	110	...	3,43,576	.....	4,41,814 0 0
<i>Leased Forests.</i>										
A'pta and Tembhurni leaves	321 0 0	...	...	...	...	.....	321 0 0
Mhowra seed	41 0 0	...	...	...	...	.....	41 0 0
Rosha oil	306 0 0	...	...	...	...	.....	306 0 0
Grass and grazing	1,744 0 0	...	...	...	...	.....	1,744 0 0
Miscellaneous	2,029 0 0	...	...	...	...	.....	2,029 0 0
Total, Leased Forests	4,441 0 0	...	...	...	...	.....	4,441 0 0
Total, Northern Circle	369	...	1,02,200 0 0	...	110	...	3,43,576	.....	4,46,255 0 0
CENTRAL CIRCLE.										
Hirda and Shikekái	* Kh. 156	7,522	...	12,149 0 0	...	...	...	...	.....	19,671 0 0
Mhowra seed	Tons. 93-2-1-16	11,999	...	110 0 0	...	...	...	...	.....	12,109 0 0
Rosha grass	10,616 0 0	...	...	...	...	.....	10,616 0 0
Leaves, pods, bark, etc.	8,889 0 0	...	...	...	24	.....	8,913 0 0
Fruits	1,449 0 0	...	...	...	...	.....	1,449 0 0
Earth, stone, murrum, etc.	42	...	2,799 0 0	...	315	...	300	.....	3,456 0 0
Grass and grazing	3,61,116 0 0	...	...	...	31,132	.....	3,92,248 0 0
Famine Fodder	2,46,289	...	.....	...	...	...	...	.....	2,46,289 0 0
Miscellaneous	517 0 0	...	...	...	...	.....	517 0 0
Bamboos	No. 450	16	12,01,246	14,230 0 0	19,583	231	3,200	32	.....	14,509 0 0
Tahal	3,625	.....	3,625 0 0
Total, Central Circle	* Kh. 156 Tons. 93-2-1-16 No. 450	2,65,868	12,01,246	4,11,875 0 0	19,583	546	3,200	35,113	.....	7,12,402 0 0
SOUTHERN CIRCLE.										
Bamboos	45,05,659	48,447 0 0	32,172	265	...	...	45,37,831	48,712 0 0
Grass and grazing	18,938	28,448	74,685 0 0	...	1,611	...	...	18,938	1,01,744 0 0
Hirda, Cinnamon, Shikekái	36,526 0 0	...	...	...	...	.....	36,526 0 0
Honey, Wax, Surgi
Nux Vomica, Ramfal and Rampatri.
Hulgal seeds	1,044 0 0	...	...	...	...	.....	1,044 0 0
Tunri leaves	1,779 0 0	...	...	...	...	.....	1,779 0 0
Baine trees	309 0 0	...	...	...	...	.....	309 0 0
Kadnis	7 0 0	...	...	...	...	.....	7 0 0
Stakes or pegs, thorns and creepers.	383 0 0	...	22	...	...	.....	405 0 0
Carried over

* For Rs. 1,291 no quantity is shown since this revenue is of last year's hirda.

FORM No. 20.—*Outturn of Minor Forest Produce during 1912-1913—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
		Rs.		Rs. a. p.		Rs. n. p.		Rs.		Rs. a. p.
Brought forward ...	...	...	.....	.....	...	...	...	...	.....	.....
SOUTHERN CIRCLE—<i>continued.</i>										
Canes	...	...	.....	646 0 0	...	...	...	...	.....	646 0 0
Tapping fees	...	...	.....	1,530 0 0	...	...	...	...	.....	1,530 0 0
Quarrying fees	...	...	.....	8,727 0 0	...	988 0 0	...	...	.....	9,715 0 0
Tali palm trees	...	...	.....	2,060 0 0	...	...	...	...	.....	2,060 0 0
Tali palm leaves	...	...	.....	660 0 0	...	...	...	...	.....	660 0 0
Dhup	...	...	.....	240 0 0	...	...	...	...	.....	240 0 0
Undi seeds	...	...	.....	20 0 0	...	...	...	...	.....	20 0 0
Silk cotton	...	...	.....	300 0 0	...	...	...	...	.....	300 0 0
Karvi	...	...	.....	56 0 0	...	...	...	...	.....	56 0 0
Soppu	...	...	.....	9 0 0	...	...	...	...	.....	9 0 0
Fishing permit	...	...	.....	2 0 0	...	...	...	...	.....	2 0 0
Gum	...	...	.....	1,418 0 0	...	...	...	...	.....	1,418 0 0
Prickly-pear	...	...	.....	2 0 0	...	...	...	...	.....	2 0 0
Bandurbi	...	...	.....	390 0 0	...	...	...	...	.....	390 0 0
Tarvad bark	...	...	.....	5,846 0 0	...	...	...	...	.....	5,846 0 0
Kakki bark	...	...	.....	1,995 0 0	...	...	...	...	.....	1,995 0 0
Bábul pods	...	...	.....	1,198 0 0	...	...	...	...	.....	1,198 0 0
Bábul and Mattal leaves	...	...	.....	36 0 0	...	...	...	...	.....	36 0 0
Fruits	...	...	.....	5 0 0	...	...	...	...	.....	5 0 0
Miscellaneous	...	...	.....	149 0 0	...	...	...	...	.....	149 0 0
Total, Southern Circle ...	...	28,448	.....	1,88,464 0 0	...	2,888 0 0	...	...	.....	2,19,798 0 0
SIND CIRCLE.										
Sukkur.	Vegetables, fruits and flowers.	56	.....	.....	...	...	...	...	.....	56 0 0
	Fruit	135	.....	.....	...	...	...	...	.....	135 0 0
	Plant	1	.....	.....	...	...	...	...	.....	1 0 0
	Mango fruit	1	.....	Contract.	275 0 0	...	...	...	Contract.	275 0 0
	Kanh grass	...	...	205 bundles.	13 0 0	4 Cart-loads = 8 bundles.	2 0 0	...	218 bundles.	15 0 0
	Bábul pods	...	...	Contract.	577 0 0	...	...	...	Contract.	577 0 0
	Kandi pods	...	...	.....	4 0 0	...	...	...	.....	4 0 0
	Sur-reed grass	...	...	Contract.	986 0 0	...	...	...	Contract.	986 0 0
	Jow brushwood	...	...	595 bundles.	37 0 0	4 Cart-loads = 8 bundles.	2 0 0	...	593 bundles.	39 0 0
	Dabh grass	...	...	766 bundles	48 0 0	...	...	...	766 bundles.	48 0 0
	Bábul seed	...	...	.....	31 0 0	...	...	...	.....	31 0 0
	Lopping of bábul, bah-an and kandi branches.	...	...	643	37 0 0	...	...	...	643	37 0 0
	Sur-reed	...	...	1 Cart load.	1 0 0	...	...	...	1	1 0 0
	Straws	...	...	1 do.	1 0 0	...	...	...	1	1 0 0
	Grazing	...	...	...	11,639 0 0	...	6,417 0 0	...	5,608	23,664 0 0
Total ...	...	192	.....	13,649 0 0	...	6,421 0 0	...	5,608	25,870 0 0	
Nausádro.	Babul seed	5 Mds.	7	.....	.....	...	...	...	5 Mds.	7 0 0
	Kandi seed	0 16	2	.....	.....	...	...	...	16 scers.	2 0 0
	Lye brushwood	...	...	35 Cart-loads.	22 0 0	...	...	...	35 Cart-loads.	22 0 0
	Sur-glass	...	...	Contract.	578 0 0	...	...	...	Contract.	578 0 0
	Kanh grass	...	...	.....	...	68 bundles.	4 0 0	...	68 bundles.	4 0 0
	Bábul pods	...	...	Contract.	1,635 0 0	...	...	...	Contract.	1,635 0 0
	Ber fruit	...	...	Do.	6 0 0	...	...	...	Do.	6 0 0
	Jow brushwood	...	...	100 bundles.	6 0 0	20 bundles.	1 0 0	...	120 bundles	7 0 0
	Lopping of kandi and bábul, branches.	...	...	156 No.	10 0 0	...	...	...	156 No.	10 0 0
	Bábul seed	...	...	15 Mds.	15 0 0	...	...	...	15 Mds.	15 0 0
Grazing	...	...	.....	6,724 0 0	...	791 0 0	...	2,821	10,326 0 0	
Total ...	...	9	.....	8,996 0 0	...	796 0 0	...	2,821	12,522 0 0	

FORM No. 20.—*Outturn of Minor Forest Produce during 1912-1913—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. a. p.		Rs. a. p.		Rs.	Mds. s.	Rs. a. p.
SIND CIRCLE—<i>continued.</i>										
Hyderabad.	Bábul seed ...	21 Mds.	48	.....	.....	...	...	...	21 Mds.	48 0 0
	Vegetables ...	...	35	.....	.....	...	...	...	.....	35 0 0
	Fruit ...	Contract.	300	.....	.....	...	...	...	Contract.	300 0 0
	Reeds ...	50 bundles.	6	.....	.....	...	...	...	50 bundles.	6 0 0
	Babul bark ...	...	297	.....	.....	...	...	...	.....	297 0 0
	Bábul pods ...	...	...	Contract.	21,749 0 0	...	...	...	Contract.	21,749 0 0
	Lac ...	...	...	Do.	4,600 0 0	...	...	...	Do.	4,600 0 0
	Sur reed grass ...	...	...	Do.	2,100 0 0	...	...	...	Do.	2,100 0 0
	Chabar and Dubh grass ...	...	...	378 Mds.	24 0 0	...	...	...	378 Mds.	24 0 0
	Jow brushwood ...	...	...	733 bundles.	46 0 0	...	...	...	733 bundles.	46 0 0
	Lopping of bábul, kandi and khabar branches ...	...	...	23,432 No.	323 0 0	...	...	...	23,432 No.	323 0 0
Grazing ...	...	...	...	13,000 0 0	...	1,641 0 0	...	226	.....	14,867 0 0
Total ...	...	686	.....	41,842 0 0	...	1,641 0 0	...	226	.....	44,395 0 0
Jerruck.	Bábul seed ...	15 Mds.	30	.....	.....	...	...	...	15 Mds.	30 0 0
	Bábul pods ...	...	...	Contract.	2,730 0 0	...	...	...	Contract.	2,730 0 0
	Bih and Paban ...	...	...	Do.	16 0 0	...	...	...	Do.	16 0 0
	Sur and Kanh grass ...	...	...	Do.	125 0 0	...	...	...	Do.	125 0 0
	Lopping of bábul and kandi branches ...	...	...	27 No.	10 0 0	...	...	...	27 No.	10 0 0
	Mango fruit ...	...	...	Contract	3 0 0	...	...	...	Contract.	3 0 0
Grazing ...	...	...	...	6,484 0 0	...	2,732 0 0	...	1,571	.....	10,787 0 0
Total ...	...	30	.....	9,358 0 0	...	2,732 0 0	...	1,571	.....	13,701 0 0
TOTAL, SIND CIRCLE ...	...	917	.....	73,855 0 0	...	11,590 0 0	...	10,226	.....	96,588 0 0
GRAND TOTAL ...	...	2,95,602	.....	7,76,394 0 0	...	15,132 0 0	...	3,88,915	.....	14,76,043 0 0

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 1912-1913.

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
NORTHERN CIRCLE.						SOUTHERN CIRCLE.					
<i>Timber.</i>						<i>Timber.</i>					
North Thána	255	884	1,139	1,139	...	Kánara, Northern Division—					
Central Thána	...	13,431	13,431	13,431	...	Teak	423,364	1,146,117	1,569,381	460,436	1,108,955
South Thána	...	9,139	9,139	9,139	...	Blackwood	21,586	55,435	77,021	32,181	44,840
Surat	17,773	1,195	18,968	18,968	...	Junglewood	70,702	50,274	120,976	77,754	43,229
Panch Maháls	...	258,365	258,365	243,147	15,218	Total					
Kolába	...	599	599	599	...	...	515,552	1,251,826	1,767,376	570,361	1,197,017
Total	19,038	283,613	301,641	286,423	15,218	Kánara, Southern Division—					
<i>Fuel.</i>						Teak	111	233	344	38	305
North Thána	550	5,851	6,401	3,651	3,750	Junglewood	2,974	7,413	10,387	4,086	6,301
Central Thána	...	9,440	9,440	9,440	...	Total					
South Thána	...	1,128	1,128	1,128	...	...	3,035	7,646	10,731	4,124	6,607
Surat	9,680	8,618	18,298	18,298	...	Kánara, Eastern Division—					
Panch Maháls	...	63,460	63,460	41,800	21,660	Teak	71,678	193,493	265,171	185,576	79,595
Kolába	20,682	36,080	56,762	43,478	13,284	Blackwood	2,820	6,023	8,843	7,318	1,498
Total	30,912	124,575	155,487	116,553	38,934	Junglewood	66,716	70,069	142,785	98,843	43,948
<i>Minor Forest Produce.</i>						Total					
North Thána	...	308	308	308	...	...	141,214	275,588	416,803	291,767	125,035
Surat	...	416	416	...	416	Kánara, Western Division—					
Panch Maháls	...	5	5	5	...	Teak	18,207	31,571	49,798	39,011	10,787
Kolába	...	51	51	51	...	Blackwood	528	2,302	2,730	2,333	397
Total	...	780	780	364	416	Junglewood	53,440	71,508	125,038	87,669	37,140
Total, Northern Circle						Total					
C. ft.	48,940	408,188	457,128	403,076	53,053	...	73,175	105,891	177,566	129,233	48,333
Rs.	780	780	364	416	...	Belgaum Division—					
CENTRAL CIRCLE.						Teak	4,061	7,194	11,245	7,528	3,719
<i>Timber.</i>						Blackwood	583	1,532	2,115	1,920	255
East Khándesh	96	418	514	418	96	Junglewood	624	3,552	4,176	2,824	1,352
North Khándesh	623	308	931	566	374	Total					
South Násik	...	8,028	9,029	1,751	6,278	...	5,258	12,338	17,596	12,270	5,326
Poona	...	9,419	9,419	7,707	1,711	Dhárwár Division—					
Sátara	...	8,406	8,406	8,406	...	Teak	7,168	8,930	16,098	14,150	1,948
Total	718	20,577	27,295	18,636	8,459	Junglewood	42	5	47	42	5
<i>Fuel.</i>						Total					
East Khándesh	...	12,240	12,240	12,240	...	...	7,210	8,935	16,145	14,192	1,953
South Násik	...	14,061	14,061	6,049	8,012	Total, Southern Circle—					
North Násik	...	153	153	153	...	Teak	524,479	1,367,559	1,923,037	706,727	1,205,310
Poona	7,640	272,553	2,80,193	278,773	3,420	Blackwood	25,517	65,256	90,773	43,82	46,950
Sátara	16,620	42,905	61,525	37,524	24,001	Junglewood	194,498	208,911	403,409	271,438	131,971
Total	26,200	341,912	3,68,172	332,699	35,473	Total					
<i>Minor Forest Produce.</i>						...	744,494	1,661,724	2,406,218	1,021,947	1,384,271
West Khándesh	...	77	77	77	...	Fuel.					
North Khándesh	...	713	713	713	...	Kánara, Northern Division	75,315	621,495	696,810	612,340	84,440
South Násik	...	13,756	13,756	13,756	...	Kánara Southern do.	88,601	222,417	311,13	78,867	237,131
North Násik	...	4,975	4,975	4,975	...	Kánara, Western do.	...	15,712	15,712	15,08	109
Sátara	...	42	42	42	...	Belgaum Division	431,675	2,68,076	3,111,651	2,440,190	671,455
<i>F. F. Operations.</i>						Dhárwár do.	3,140	1,750	4,710	4,510	290
West Khándesh	...	1,78,860	1,78,860	1,78,860	...	Bijápura do.	...	43,269	43,269	43,269	...
South Násik	...	67,429	67,429	67,429	...	Total					
Total	...	2,65,852	2,65,852	2,65,852	...	...	568,531	3,695,670	4,184,101	3,190,786	993,315
Total, Central Circle						Total					
C. ft.	26,978	33,439	395,467	351,535	43,632						
Rs.	2,65,852	2,65,852	2,65,852	2,65,852	...						

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 1912-1913—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
SOUTHERN CIRCLE <i>—continued.</i>						SIND CIRCLE.					
<i>Sandalwood.</i>						<i>Timber.</i>					
Kánara, Northern Division	Rs. 516	Rs. 516	Rs. 516	Rs. 516	Rs. ...	Sukkur	C. ft. 391	C. ft. 3,147	C. ft. 3,538	C. ft. 2,356	C. ft. 1,182
Kánara, Southern Division	Rs. 7,574	Rs. 7,574	Rs. 7,574	Rs. 7,564	Rs. 10	Naushábro	C. ft. 121	C. ft. 611	C. ft. 732	C. ft. 705	C. ft. 27
Kánara, Eastern Division	Rs. 3,853	Rs. 3,853	Rs. 3,853	Rs. 3,853	Rs. ...	Hyderabad	C. ft. 22	C. ft. 223	C. ft. 245	C. ft. 164	C. ft. 91
Belgaum Division	Rs. 75	Rs. 3,839	Rs. 3,914	Rs. 3,964	Rs. ...	Jerruck	C. ft. ...	C. ft. 23	C. ft. 23	C. ft. 23	C. ft. ...
Dhárwár do.	Rs. ...	Rs. 33,905	Rs. 33,905	Rs. 33,905	Rs. ...	Total	C. ft. 534	C. ft. 4,004	C. ft. 4,538	C. ft. 3,228	C. ft. 1,300
Total ... Value.	Rs. 75	Rs. 49,737	Rs. 49,812	Rs. 49,802	Rs. 10	<i>Fuel.</i>					
<i>Minor Forest Produce.</i>						<i>Minor Forest Produce.</i>					
Kánara, Northern Division, Grass	Rs. 93	Rs. 93	Rs. 93	Rs. 93	Rs. ...	Sukkur	C. ft. 1,250	C. ft. 89,608	C. ft. 90,858	C. ft. 76,166	C. ft. 14,672
Belgaum Division, Grass	Rs. 28,355	Rs. 28,355	Rs. 28,355	Rs. 28,355	Rs. ...	Naushábro	C. ft. 61,604	C. ft. 101,155	C. ft. 162,769	C. ft. 139,457	C. ft. 23,302
Total ...	Rs. 28,448	Rs. 28,448	Rs. 28,448	Rs. 28,448	Rs. ...	Hyderabad	C. ft. 8,891	C. ft. 94,149	C. ft. 103,040	C. ft. 71,091	C. ft. 31,940
<i>Drift and waste wood and confiscated Forest Produce.</i>						<i>Minor Forest Produce.</i>					
Kánara, Northern Division	Rs. 42	Rs. 42	Rs. 42	Rs. 42	Rs. ...	Sukkur	Rs. 463	Rs. 734	Rs. 1,197	Rs. 681	Rs. 366
Kánara, Southern Division	Rs. 178	Rs. 178	Rs. 178	Rs. 178	Rs. ...	Naushábro	Rs. 38	Rs. 550	Rs. 588	Rs. 547	Rs. 41
Kánara, Eastern Division	Rs. 9	Rs. 9	Rs. 9	Rs. 9	Rs. 9	Hyderabad	Rs. 62	Rs. 581	Rs. 643	Rs. 577	Rs. 86
Kánara, Western Division	Rs. 155	Rs. 155	Rs. 155	Rs. 155	Rs. ...	Jerruck	Rs. 64	Rs. 247	Rs. 311	Rs. 269	Rs. 32
Belgaum Division	Rs. 50	Rs. 225	Rs. 275	Rs. 260	Rs. 15	Total ... Value.	Rs. 637	Rs. 2,112	Rs. 2,749	Rs. 2,224	Rs. 525
Dhárwár do.	Rs. 18	Rs. 18	Rs. 18	Rs. 18	Rs. ...	<i>Total, Sind Circle</i>					
Bijápur do.	Rs. 54	Rs. 54	Rs. 54	Rs. 4	Rs. 50	C. ft. 90,180	C. ft. 326,196	C. ft. 416,376	C. ft. 343,451	C. ft. 72,925	C. ft. 72,925
Batnágiri do.	Rs. 18	Rs. 18	Rs. 18	Rs. 18	Rs. ...	+ Rs. 637	+ Rs. 2,112	+ Rs. 2,749	+ Rs. 2,224	+ Rs. 525	+ Rs. 525
Total ...	Rs. 50	Rs. 609	Rs. 749	Rs. 675	Rs. 71	GRAND TOTAL					
Total, Southern Circle ...	C. ft. 1,333,025 Rs. 125	C. ft. 5,357,294 Rs. 78,884	C. ft. 6,690,319 Rs. 79,000	C. ft. 4,212,733 Rs. 78,925	C. ft. 2,377,586 Rs. 84	C. ft. 1,499,123 Rs. 762	C. ft. 6,360,167 Rs. 3,47,628	C. ft. 7,859,290 Rs. 3,48,390	C. ft. 5,310,795 Rs. 3,47,365	C. ft. 2,548,495 Rs. 1,025	C. ft. 2,548,495 Rs. 1,025

FORM No. 22.—Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1912-1913.

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
NORTHERN CIRCLE.									
<i>Timber.</i>									
North Thána ... ..	...	255	60	...	...	...	...	60	
Surat ... ..	...	17,773	13,748	...	...	...	...	13,748	
Panch Maháls ... ..	...	...	...	...	15,218	5,000	5,000	...	
Total ... ..	...	18,028	13,808	...	15,218	5,000	5,000	13,803	
<i>Fuel.</i>									
North Thána ... ..	...	550	2	...	3,750	75	73	...	
Surat ... ..	...	9,680	100	...	...	...	...	100	
Panch Maháls ... ..	...	...	...	...	21,800	1,775	1,775	...	
Kolába ... ..	...	20,682	206	...	13,284	563	357	...	
Total ... ..	...	30,912	308	...	38,834	2,413	2,205	100	Net difference against the year—Rs. 6,287.
<i>Minor Forest Produce.</i>									
Surat ... ..	...	...	...	...	...	416	416	...	
Total, Northern Circle ... ..	...	...	14,116	...	54,052	7,829	7,621	13,903	
CENTRAL CIRCLE.									
<i>Timber.</i>									
Pieces	366	622	125	1,207	536	109	...	16	
Posts	175	96	57	900	812	150	93	...	
Rafters ... ..	...	...	...	2,245	3,753	415	415	...	
Beams ... ..	...	...	...	239	3,358	200	200	...	
Total, Timber	541	713	182	4,641	8,459	874	708	16	
Firewood ... ..	...	26,260	499	...	35,473	1,594	1,095	...	Net difference in favour of the year—Rs. 27,711.
Mhowra seed	K. m. lbs. 29 5 11	...	554	K. m. lbs. 459 6 12	...	22,647	22,093	...	
Hirda ... ..	...	...	...	K. m. lbs. 331 14 8	...	3,831	3,831	...	
Seeds	K. m. lbs. 42 17 8	...	...	K. m. lbs. 14 19 20	...	...	...	...
Total, Central Circle	K. m. lbs. ...	...	1,225	...	43,932	23,946	27,727	16	
SOUTHERN CIRCLE.									
<i>Timber.</i>									
Teak	112,253	524,479	5,94,452	120,970	1,205,310	3,05,112	...	2,88,340	
Blackwood	1,235	25,517	24,784	2,199	46,990	18,932	...	5,822	
Junglewood	7,274	1,94,498	1,40,491	6,153	131,971	90,079	...	50,412	
Total, Timber	120,762	744,494	7,59,727	129,322	1,384,271	4,14,623	...	3,45,104	
Fuel ... ..	...	588,531	37,371	...	993,315	69,871	32,500	...	
Sandalwood Value.	...	...	75	...	...	10	...	65	Net difference against the year—Rs. 3,12,645.
<i>Minor Forest Produce.</i>									
Minor Forest Produce ... Value.	...	...	...	...	...	...	...	...
<i>Confiscated Forest Produce.</i>									
Confiscated Forest Produce ... ..	...	...	50	...	...	74	24	...	
Total, Southern Circle ... ..	...	...	7,97,223	...	...	4,84,578	32,524	3,45,169	

FORM No. 22.—Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1912-1913—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
SIND CIRCLE.			Rs.			Rs.	Rs.	Rs.	
<i>Timber.</i>									
Bahan logs	10	43	11	37	147	24	...	...
Bahan dasas ... ..	...	...	...	60	60	12	...	...
Bahan posts	47	29	9	181	183	45	...	...
Bahan rafters	355	177	31	459	229	49	...	...
Babul logs	9	88	90	52	217	35	...	...
Tali logs	3	6	3	1	15	10	...	...
Kandi logs ... ..	...	...	...	3	1	1	...	...
Asri lye logs	15	29	4	23	145	23	...	...
Lye props	10	9	1	55	21	10	...	...
Jhow rafters	243	121	12	254	127	5	...	...
Bahan Varnas	4	20	1	...	...	...	...	...
Kandi props	6	5	1	2	3	1	...	...
Babul posts	4	7	1	...	...	...	...	...
Ber logs ... ..	...	...	...	38	150	30	...	...	Net difference in favour of the year—Rs. 278.
Kandi rafters ... ..	...	...	...	4	2	1	...	...
Total, Timber ...	706	534	170	1,169	1,300	240	70	...	
<i>Firewood and Charcoal.</i>									
Loco-fuel ... ..	...	87,971	1,465	...	70,303	1,795	...	...
Firewood	Mds. 127	775	10	Mds. 222	1,322	16	...	...
Firewood in pieces	225	900	16	...	...	...	...	...
Total, Fuel ...	352	89,646	1,491	222	71,625	1,811	320	...	
<i>Minor Forest Produce.</i>									
Babul, Kandi and other seeds ...	1,142	...	637	848	...	465	...	...
Babul bark ... ..	...	...	...	80	...	60	...	...
Total ...	1,142	...	637	928	...	525	...	112	
Total, Sind Circle ...	...	...	2,298	...	...	2,576	390	112	
GRAND TOTAL ...	...	...	8,14,872	...	...	5,23,329	68,262	3,50,205	Net difference against the year—Rs. 2,80,948.

Form No. 23.—Abstract showing the Value of the Live and Dead Stock for the year 1912-13.

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	4	309	4	309	...	...
<i>Dead Stock.</i>							
Buildings	245	2,35,640	266	2,56,401	20,761	...	
Tents	9	3,249	8	3,249	...	...
Rahutis	24	1,778	24	1,778	...	...
Tools, Plant and Office furniture ...	...	24,266	...	25,083	817	...	
Remington Typewriters	3	(a)	3	(a)	...	...	(a) Price not known.
Empire Typewriter	5	1,000	5	1,000	...	...
Copying Machines	7	(a)	7	(a)	...	...
Cyclostyles	3	(a)	5	(a)	...	...
Carts	7	133	7	133	...	...
Forest boat "Violet" with fittings.	1	1,371	1	1,371	...	...
Total, Dead Stock ...	304	2,67,437	326	2,89,015	21,578	...	
Total, Northern Circle ...	308	2,67,746	330	2,89,324	21,578	...	Net difference in favour of the year—Rs. 21,578.
CENTRAL CIRCLE.							
<i>Live Stock.</i>							
<i>Nil.</i>							
<i>Dead Stock.</i>							
Buildings	58	88,438	83	115,960	27,522	...	
Tents	8	2,232	8	1,990	...	242	
Rahuti (Cabul Pal fan)	29	2,079	27	1,968	...	111	
Tools, Plant and Office furniture ...	...	38,934	...	37,848	...	1,086	
Remington Typewriters	10	(a)	10	(a)	...	...	(a) Price not known.
Copying Machines	7	(a)	6	(a)	...	...
Cyclostyles ... ..	...	...	3	(a)	...	...
Total, Dead Stock ...	112	1,31,683	137	1,57,766	27,522	1,439	
Total, Central Circle ...	112	1,31,683	137	1,57,766	27,522	1,439	Net difference in favour of the year—Rs. 26,083.

FORM No. 23.—Abstract showing the Value of the Live and Dead Stock for the year 1912-13—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>							
Elephants	3	8,500	3	8,500	...	...
Buffaloes	44	2,461	43	2,520	...	...
Total, Live Stock ...	47	10,961	46	11,020	59	...	
<i>Dead Stock.</i>							
Buildings	346	2,27,827	358	2,42,376	...	...
Tents	14	3,511	11	2,922	...	...
Rahutis	16	996	19	1,255	...	...
Tools, Plant and Office furniture ...	...	69,173	...	87,408	...	...
Typewriters	5	Not known.	7	Not known.	...	...
Monorail materials ... ..	...	25,382	...	25,382	...	...
Duplicators	2	Not known.	5	Not known.	...	...
Carts	11	275	19	1,263	...	...
Gun ... ..	...	...	1	52	...	...
Total, Dead Stock ...	394	3,27,164	420	3,60,658	33,494	...	
Total, Southern Circle ...	441	3,38,125	446	3,71,678	33,553	...	Net difference in favour of the year—Rs. 33,553.
SIND CIRCLE.							
<i>Live Stock.</i>							
Bullocks	9	143	11	228	...	...
Camels	34	1,218	29	1,098	...	...
Total, Live Stock ...	43	1,361	40	1,326	...	35	
<i>Dead Stock.</i>							
Buildings	101	39,759	101	39,911	...	...
Tents	12	2,535	13	2,888	...	...
Stores, Mathematical	525	4,731	631	5,367	...	...
Tools, Plant and Office furniture ...	1,865	11,758	2,416	12,553	...	...
Remington Typewriter No. 11C. ...	1	...	3	...	...	...
Empire Typewriters	5	...	3	...	...	...
Copying Machine	1	...	1	...	...	...
Miscellaneous	642	848	604	858	...	...
Total, Dead Stock ...	3,152	59,631	3,772	61,577	1,946	...	
Total, Sind Circle ...	3,195	60,992	3,812	62,903	1,946	35	
GRAND TOTAL ...	4,056	7,98,546	4,725	8,81,671	84,599	1,474	Net difference in favour of the year—Rs. 1,911. Net difference in favour of the year—Rs. 83,125

FORM No. 24.—Summary of Revenue and Expenditure of the different Divisions for the Forest year 1912-1913—contd.

Budget Heads.	Direction.	Working Plans Division.	Panch Mahals Division.	Surat Division.	North Thana Division.	Central Thana Division.	South Thana Division.	Kolaba Division.	Famire Fodder Division.	Total for the Forest year 1912-1913.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
EXPENDITURE—continued.										
A.—CONSERVANCY AND WORKS—continued.										
V.—Rent of leased Forests and Payments to Shareholders in Forests managed by Government	.....	.....	.....	17,954 6 8	.....	.....	279 11 8	6,967 0 1	.....	25,201 2 5
Total, A-V	.....	.....	.....	17,954 6 8	.....	.....	279 11 8	6,967 0 1	.....	25,201 2 5
VI.—Live Stock, Stores, Tools and Plant.										
a. Purchase of cattle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Feed and keep of cattle	.....	.....	459 0 3	155 6 6	.....	.....	.....	.....	.....	614 6 9
c. Purchase of stores, tools and plant	115 6 0	19 8 0	215 14 11	272 12 3	215 4 0	313 12 5	265 8 0	67 13 3	238 10 0	1,752 6 10
Total, A-VI	115 6 0	19 8 0	704 15 2	428 2 9	215 4 0	313 12 5	265 8 0	67 13 3	238 10 0	2,366 15 7
VII.—Communications and Buildings.										
a. Roads and bridges	.....	.....	.....	8,037 4 2	607 8 0	3,068 1 9	44 0 0	1,458 6 3	.....	13,215 4 1
b. Buildings	.....	.....	2,510 12 3	13,434 8 10	4,791 5 0	5,091 13 0	564 8 6	1,611 2 10	586 1 0	29,090 8 5
c. Other works	.....	.....	1,350 8 5	2,454 11 9	.....	76 11 0	42 0 3	.....	.....	3,943 15 5
Total, A-VII	.....	.....	3,651 4 6	23,556 8 9	5,398 13 0	8,236 9 9	650 9 9	3,269 9 1	586 1 0	45,249 6 11
VIII.—Organization, Improvement and Extension of Forest.										
a. Demarcation	.....	.....	37 11	726 10 4	572 3 0	733 12 0	219 7 4	2,607 14 3	.....	4,947 9 11
b. Cost of Forest Settlements and Compensation for land and rights	.....	.....	49 11 10	372 10 7	449 3 3	.....	.....	1,518 0 0	.....	2,399 9 8
c. Surveys	1,750 0 0	.....	.....	672 12 3	3,525 14 2	1,791 9 9	2,114 1 9	1,751 15 11	412 4 0	12,740 15 9
d. Working-plans	216 6 5	1,925 15 8	.....	1,220 3 8	1,818 8 0	240 6 3	606 0 2	853 13 4	952 8 0	5,446 7 5
e. Sowing and planting	.....	.....	4,405 2 0	6,348 8 0	3,344 3 0	4,529 11 4	3,392 5 4	2,541 8 0	.....	24,558 5 8
f. Protection from fire	.....	.....	22 6 0	235 10 9	570 0 0	32 0 0	.....	229 14 0	.....	1,089 14 9
g. Other works	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, A-VIII	1,968 6 5	1,925 15 8	6,407 14 9	13,327 13 10	6,967 9 3	8,152 9 3	6,223 9 11	7,962 0 3	.....	52,962 15 2
IX.—Miscellaneous.										
a. Law charges	.....	.....	1,123 10 6	1,115 11 6	1,857 6 0	1,652 10 0	1,005 4 8	2,251 1 9	49 3 0	8,849 8 11
b. Other charges	-6 6 6	.....	103 8 9	178 2 1	100 9 10	91 7 4	92 2 4	161 4 5	2 4 0	701 7 7
c. Grain Compensation	.....	32 0 10	.....	.....	.....	.....	.....	.....	.....	.....
Total, A-IX	-6 6 6	32 0 10	1,227 3 3	1,293 13 7	1,757 15 10	1,744 1 4	1,097 7 0	2,412 6 2	51 7 0	9,610 0 6
TOTAL, A.—CONSERVANCY AND WORKS	2,103 5 11	1,977 8 4	16,267 13 3	1,08,315 9 7	20,732 11 8	23,630 11 6	13,985 13 1	26,904 9 10	1,14,069 7 2	3,32,077 10 4
B.—ESTABLISHMENTS.										
I.—Salaries—										
a. Conservators	7,110 0 3	.....	.....	.....	.....	.....	.....	.....	.....	17,110 0 3
b. Superior Officers	4,114 2 2	.....	13,423 13 11	16,049 5 4	12,090 0 0	9,319 1 4	16,474 2 7	13,531 4 7	3,850 0 0	88,901 13 11
c. Subordinate Forest and Depot Establishments	850 0 0	.....	20,597 9 7	17,434 0 3	22,511 5 9	22,432 2 1	27,028 6 4	39,155 9 6	942 2 0	1,51,051 3 6
d. Office Establishments	9,153 13 5	798 0 0	6,059 5 10	6,744 2 8	5,615 12 3	5,997 0 1	5,110 3 3	7,374 7 7	225 8 6	47,048 5 7
e. Deputation and Special Allowances	756 1 8	235 8 5	150 6 7	4,362 11 1	1,253 1 0	810 4 11	938 6 3	212 0 1	22 15 2	8,741 7 2
f. Exchange Compensation Allowance—										
1. Conservators	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2. Deputy Conservator	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3. Assistant Conservators	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4. Extra Assistant Conservators	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
g. Royal Bonus	.....	.....	8 8 0	.....	4 0 0	5 8 0	15 0 0	.....	.....	33 0 0
Total, B-I	31,984 1 9	1,033 8 5	40,239 11 11	44,692 3 4	41,474 3 0	39,534 0 6	49,564 2 5	60,323 5 9	5,040 9 8	3,12,885 14 5
II.—Travelling Allowances—										
a. Conservators	2,388 15 4	.....	.....	.....	.....	.....	.....	.....	.....	2,388 15 4
b. Superior Officers	279 14 2	.....	2,729 15 0	3,126 15 0	2,455 2 9	2,835 11 6	1,979 12 8	1,979 10 2	703 12 0	16,070 13 3
c. Subordinate Forest and Depot Establishments	76 11 6	.....	2,198 15 0	2,141 2 0	1,513 7 6	1,664 9 4	1,175 13 6	2,126 5 1	F39 11 0	11,368 10 11
d. Office Establishments	1,131 4 6	16 1 11	603 14 5	850 0 10	640 9 1	660 4 3	694 10 1	658 11 2	180 12 9	5,538 5 0
e. Forest School (Dehradun)	364 7 8	.....	.....	58 5 4	.....	88 5 4	312 4 2	.....	.....	863 6 6
f. Plague allowance	.....	.....	.....	.....	.....	13 13 11	.....	211 0 0	.....	224 13 11
g. Grain Compensation	103 5 4	57 2 5	1,167 1 0	1,168 6 8	1,664 5 1	1,707 8 6	2,108 12 11	3,222 7 4	11 0 10	11,269 2 1
Total, B-II	4,339 10 6	53 4 4	6,751 13 5	7,374 18 10	6,253 8 5	7,060 4 10	6,231 5 4	8,228 1 9	1,415 4 7	47,735 3 0
III.—Contingencies—										
a. Stationery	30 12 0	31 11 6	416 10 1	244 7 3	323 11 2	377 9 10	344 0 10	430 10 6	37 2 8	2,276 11 10
b. Carriage of Tents and Records	369 9 0	.....	433 14 4	403 2 10	226 13 11	353 10 1	198 8 0	233 9 6	93 13 0	2,360 15 8
c. Rents, rates and taxes	1,749 9 10	128 0 0	378 9 0	14 0 0	384 0 0	338 8 0	.....	45 0 0	.....	3,063 9 19
d. Pay of Police Guards	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Official postage	406 6 6	10 0 0	1,075 15 0	613 3 0	1,083 3 0	971 1 0	1,202 7 0	1,149 2 6	100 3 0	6,689 8 0
f. Sundries	772 5 9	103 2 0	709 11 6	674 8 4	449 11 9	432 12 10	251 14 6	316 11 0	57 14 9	3,769 12 5
g. Payments to Officers of other Provinces	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, B-III	3,418 11 1	272 13 6	2,932 10 11	1,349 5 5	2,466 6 10	2,521 9 9	1,984 14 4	2,276 1 6	288 0 5	18,179 9 9
TOTAL, B.—ESTABLISHMENTS	39,741 7 1	1,359 10 3	40,984 4 3	54,016 6 7	50,194 2 3	48,115 15 0	67,790 6 1	70,324 9 0	6,773 14 8	3,76,800 11 2
GRAND TOTAL OF EXPENDITURE	41,844 13 0	8,337 2 7	68,253 1 6	1,63,322 0 2	70,976 13 11	71,946 10 6	70,626 3 2	99,729 2 10	1,20,843 5 10	7,10,678 5 6

FORM No. 24.—(*contd.*)

FORM No. 24.—Summary of Revenue and Expenditure of the

Budget Head.	Direction.	Famine Fodder Poona Division.	Working Plans Division.	Famine Fodder West Khândesh Division.	Famine Fodder South Nâsik Division.	West Khândesh Division.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
EXPENDITURE— <i>continued.</i>						
A.—CONSERVANCY AND WORKS—continued.						
<i>V.—Rent of leased Forests and Payments to Shareholders in Forests managed by Government ...</i>	.....	.....	.....	.....	.....	.....
Total, A-V ...	...	.....	.....	.....	.....	.....
VI.—Live-stock, Stores, Tools and Plant—						
<i>a. Purchase of cattle ...</i>	.....	.....	.....	.....	.....	.....
<i>b. Feed and keep of cattle ...</i>	.....	.....	.....	.....	.....	.....
<i>c. Purchase of stores, tools and plant...</i>	39 1 0	.....	45 12 3	.....	.....	442 10 6
Total, A-VI ...	39 1 0	.....	45 12 3	.....	.....	442 10 6
VII.—Communications and Buildings—						
<i>a. Roads and Bridges ...</i>	.....	.....	.....	.....	.....	1,567 14 9
<i>b. Buildings...</i>	.....	.....	.....	.....	.....	4,676 10 3
<i>c. Other works ...</i>	.....	.....	.....	.....	.....	.....
Total, A-VII ...	.....	.....	.....	.....	.....	6,244 9 0
VIII.—Organization, Improvement and Extension of Forest—						
<i>a. Demarcation ...</i>	.....	.....	.....	.....	.....	233 8 9
<i>b. Cost of Forest Settlements and Compensation for land and rights ...</i>	.....	.....	.....	.....	.....	630 0 0
<i>c. Surveys ...</i>	.....	.....	.....	.....	.....	.....
<i>d. Working Plans ...</i>	.....	.....	3,669 15 6	.....	.....	1,107 14 2
<i>e. Sowing and Plant- ing ...</i>	.....	.....	.....	.....	.....	908 13 6
<i>f. Protection from Fire ...</i>	.....	.....	.....	.....	.....	4,015 8 9
<i>g. Other works ...</i>	.....	.....	.....	.....	.....	117 9 4
Total, A-VIII ...	.....	.....	3,669 15 6	.....	.....	7,013 6 6
IX.—Miscellaneous—						
<i>a. Law charges ...</i>	.....	.....	.....	.....	.....	.....
<i>b. Other charges ...</i>	35 11 0	.....	.....	.....	-3 11 2	1,261 0 6
<i>c. Grain Compensa- tion ...</i>	.....	.....	44 12 9	.....	.....	91 15 10
Total, A-IX ...	35 11 0	.....	44 12 9	.....	-3 11 2	1,358 0 4
TOTAL A.—CONSER- VANCY AND WORKS...	74 12 0	.....	3,760 8 6	35,169 3 0	79,708 0 1	20,691 2 5
B.—ESTABLISHMENTS.						
I.—Salaries—						
<i>a. Conservators ...</i>	23,273 5 4	.....	.....	.....	.....	.....
<i>b. Superior Officers ...</i>	.....	.....	4,600 0 0	.....	.....	11,445 11 5
<i>c. S u b o r d i n a t e Forest and Depôt Establishments ...</i>	.....	.....	1,108 5 10	.....	.....	20,019 0 1
<i>d. Office Establish- ments ...</i>	10,309 1 1	.....	367 0 0	.....	.....	6,198 1 6
<i>e. Deputation and Special Allow- ances ...</i>	5,937 3 10	.....	.....	.....	.....	1,503 14 0
<i>f. Exchange Com- pensation Allow- ance—</i>	.....	.....	.....	.....	.....	.....
<i>1. Conservators ...</i>	.....	.....	.....	.....	.....	.....
<i>2. Deputy Conser- vators...</i>	.....	.....	.....	.....	.....	.....
<i>3. Assistant Con- servators ...</i>	.....	.....	.....	.....	.....	.....
<i>4. Extra Assistant Conservators ...</i>	.....	.....	.....	.....	.....	.....
<i>g. Royal Bonus ...</i>	.....	.....	.....	.....	.....	.....
Total, B-I ...	39,519 10 3	.....	6,075 5 10	.....	.....	39,166 11 0
II.—Travelling Allow- ances—						
<i>a. Conservators ...</i>	3,164 14 0	.....	.....	.....	.....	.....
<i>b. Superior Officers ...</i>	.....	.....	1,366 14 1	.....	.....	2,680 11 3
<i>c. S u b o r d i n a t e Forest and Depôt Establishments ...</i>	.....	.....	.....	.....	.....	.....
<i>d. Office Establish- ments ...</i>	727 3 8	.....	465 3 0	.....	.....	2,018 2 1
<i>e. Forest School, Dehra Dun ...</i>	161 0 0	.....	.....	.....	.....	628 10 4
<i>f. Plague allowance...</i>	15 0 0	.....	.....	.....	.....	.....
<i>g. Grain Compensa- tion Allowance ...</i>	82 8 9	.....	67 1 0	.....	.....	.....
Total, B-II ...	4,151 3 5	.....	1,899 2 1	.....	.....	1,010 8 11
III.—Contingencies—						
<i>a. Stationery ...</i>	15 7 6	.....	17 12 6	.....	.....	216 14 1
<i>b. Carriage of Tents and Records ...</i>	172 13 1	.....	259 14 3	.....	.....	149 0 6
<i>c. Rents, rates and taxes ...</i>	1,980 0 0	.....	.....	.....	.....	120 0 0
<i>d. Pay of Police guards ...</i>	.....	.....	.....	.....	.....	.....
<i>e. Official postage...</i>	458 9 0	.....	.....	.....	.....	.....
<i>f. Sundries ...</i>	445 14 6	.....	110 0 0	.....	.....	681 9 0
<i>g. Payments to Officers of other Provinces.</i>	.....	.....	82 14 5	.....	.....	564 10 5
Total, B-III ...	3,072 12 1	.....	470 9 2	.....	.....	1,712 2 0
TOTAL B.—ESTABLISH- MENTS...	46,743 9 9	.....	8,445 1 1	.....	.....	47,226 13 7
GRAND TOTAL OF EXPENDITURE ...	46,818 5 9	.....	12,205 9 7	35,169 3 0	79,708 0 1	67,818 0 0

different Divisions for the Forest year 1912-1913—contd.

Poona Division.	Sátara Division.	North Khandesh Division.	East Khandesh Division.	South Násik Division.	North Násik Division.	Total for the Forest year 1912-1913.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
198 10 3	8,489 14 5	.....	.....	.....	4,508 8 0	8,175 0 8
198 10 3	8,489 14 5	.....	.....	.....	4,508 8 0	8,175 0 8
.....
177 5 7	108 4 0	614 15 0	111 0 0	155 3 9	42 9 0	1,736 13 1
177 5 7	108 4 0	614 15 0	111 0 0	155 3 9	42 9 0	1,736 13 1
2,598 10 8 1,684 15 3	6,323 2 6 4,690 8 8 428 18 11	2,939 0 8 9,215 15 2	955 12 0 4,512 9 11 100 12 0	840 12 0 1,503 9 6 .....	..... 1,975 12 3	15,220 4 3 28,260 0 7 527 9 11
4,278 9 9	11,440 8 8	12,154 15 8	5,589 1 11	2,344 5 6	1,975 12 3	44,007 14 9
637 4 5	498 2 3	189 0 0	73 9 0	580 0 6	659 7 3	8,051 0 2
535 0 0	50 0 0	5 0 0	.....	10 0 0	.....	1,230 0 0
1,081 11 9	437 14 9	1,350 5 7	2,051 14 9	1,598 10 1	489 3 3	11,787 9 10
845 1 9	2,754 8 4	.....	233 4 0	154 0 6	287 2 0	5,182 14 1
159 8 0 425 10 6	251 4 0 830 11 0	8,917 3 4 178 2 0	3,399 9 9 165 2 0	1,118 9 0 618 14 0	683 15 8 1,347 1 6	18,545 10 4 3,163 2 4
8,884 4 5	4,322 8 4	10,639 10 11	5,923 7 6	4,060 2 1	3,446 13 6	42,960 4 9
.....	5 8 6 2,157 3 8	..... 8,566 1 0	..... 1,960 4 10	..... 1,853 8 4	..... 2,744 13 3	5 8 6 15,892 14 5
33 0 0	87 0 0	222 14 0	140 10 11	37 0 0	13 0 0	620 5 6
2,350 15 0	2,199 12 2	3,788 15 0	2,100 15 9	1,890 8 4	2,757 13 3	16,518 12 5
12,887 4 9	22,436 5 10	35,146 2 9	15,876 2 1	16,204 2 3	16,927 9 3	2,60,781 3 11
.....
15,938 1 10	5,878 5 3	16,832 9 3	13,678 4 10	20,249 5 8	7,700 0 0	23,273 5 4 96,372 6 3
29,383 15 4	22,638 8 0	19,310 3 4	29,204 12 10	28,378 10 6	21,670 14 10	1,70,104 0 11
6,480 10 10	6,231 15 2	5,697 4 9	6,699 14 1	7,430 11 7	5,820 1 6	55,936 2 4
3 4 7	310 15 8	2,071 0 4	2 2 8	664 12 5	12 1 9	10,873 0 3
.....
.....
.....
.....	4 0 0	9 5 0	4 8 0	.....	.....	18 0 0
50,868 0 7	35,061 12 1	44,420 9 6	49,589 10 5	56,723 8 2	35,203 11 1	8,56,626 15 1
.....
2,149 0 9	1,091 9 3	3,088 13 0	2,348 2 0	3,663 1 9	1,203 5 4	3,164 14 0 17,606 9 5
2,283 6 3	2,216 9 0	2,374 9 0	2,416 3 6	2,609 11	1,784 11 9	15,653 4 8
744 0 9	447 8 8	734 6 4	630 10 10	783 10 5	444 6 1	5,805 12 1
.....	.....	89 9 4	.....	.....	.....	251 2 4
.....	.....	40 0 0	.....	.....	5 0 0	60 0 0
2,269 15 6	1,795 11 10	1,130 0 9	1,803 0 6	1,957 8 9	1,287 11 9	11,254 3 9
7,446 7 3	5,551 6 9	7,457 6 5	7,398 0 10	9,919 0 6	4,625 2 5	53,795 14 3
.....
395 5 6	301 1 10	332 15 3	413 5 4	356 12 9	253 15 8	2,303 10 5
211 1 4	274 7 8	227 8 0	232 5 0	237 4 0	79 1 0	1,843 6 5
545 5 4	3 12 0	225 0 0	.....	28 8 0	55 0 0	2,957 9 4
.....
1,040 8 0 327 4 6	1,009 11 2 297 5 6	681 8 6 815 2 11	956 2 6 414 5 2	1,085 1 0 457 12 2	721 6 6 165 0 6	6,724 7 8 3,570 6 8
.....
2,519 8 8	1,836 5 9	2,282 2 8	2,016 2 0	2,165 6 6	1,274 7 8	17,399 8 6
60,832 0 6	42,499 8 7	54,160 2 9	59,003 13 3	67,807 15 2	41,103 5 2	4,27,822 5 10
73,710 5 3	64,935 14 5	89,306 5 6	74,879 15 4	84,012 1 5	60,030 13 5	6,88,503 9 9

FORM No. 24.—Summary of Revenue and Expenditure of the different Divisions for the Forest year 1912-1913—contd.

Budget Head.	Direction.	Belgaum Division.	Kánara, Northern Division.	Kánara, Eastern Division.	Kánara, Southern Division.	Kánara, Western Division.	Dhárwar Division.	Bijapur Division.	Ratnágiri Division.	Working Plans Division.	Total for the Forest year 1912-1913.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
EXPENDITURE—contd.											
A.—CONSERVANCY AND WORKS—contd.											
<i>V.—Rent of leased Forests and Payments to Shareholders 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 ...											
c. Purchase of stores, tools and plant ...											
Total, A-VI ...											
VII.—Communications and Buildings—											
a. Roads and bridges ...											
b. Buildings ...											
c. Other works ...											
Total, A-VII ...											
VIII.—Organization, Improvement and Extension of Forest—											
a. Demarcation ...											
b. Cost of Forest Settlements and Compensation for land and rights ...											
c. Surveys ...											
d. Working-plans ...											
e. Sowing and planting ...											
f. Protection from fire ...											
g. Other works ...											
Total, A-VIII ...											
IX.—Miscellaneous—											
a. Law charges ...											
b. Other charges ...											
c. Grain Compensation Allowance ...											
Total, A-IX ...											
TOTAL, A.—CONSERVANCY AND WORKS ...											
B.—ESTABLISHMENTS.											
I.—Salaries—											
a. Conservators ...											
b. Superior Officers ...											
c. Subordinate Forest and Depôt Establishments ...											
d. Office Establishments ...											
e. Deputation and Special Allowances ...											
f. Exchange Compensation Allowance—											
1. Conservators ...											
2. Deputy Conservators ...											
3. Assistant Conservators ...											
4. Extra Assistant Conservators ...											
g. Royal Bonus ...											
Total, B-I ...											
II.—Travelling Allowances—											
a. Conservators ...											
b. Superior Officers ...											
c. Subordinate Forest and Depôt Establishments ...											
d. Office Establishments ...											
e. Forest School (Dehra Dun) ...											
f. Plague allowances ...											
g. Grain Compensation Allowance ...											
Total, B-II ...											
III.—Contingencies—											
a. Stationery ...											
b. Carriage of Tents and Records ...											
c. Rents, Rates and Taxes ...											
d. Pay of Police-guards ...											
e. Official Postage ...											
f. Sundries ...											
Payments to Officers of other Provinces ...											
Total, B-III ...											
TOTAL, B.—ESTABLISHMENTS ...											
GRAND TOTAL OF EXPENDITURE ...											

FORM No. 24.—Summary of Revenue and Expenditure of the different Divisions for the Forest year 1912-1913—concl'd.

Budget Head,	Direction.	Working Plans Division.	Sukkur Division.	Jerruck Division.	Naushahro Division.	Hyderabad Division.	Thar and Parkar Division.	Total for the Forest year 1912-13.
	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—concl'd.								
A.—CONSERVANCY AND WORKS—concluded.								
V.—Rent of leased Forest and Payments to Shareholders in Forests managed by Government ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, A-V	.....	.....	.....	.....	.....	.....	.....	.....
VI.—Live-Stock, Stores, Tools and Plant—								
a. Purchase of cattle ...	.....	.....	155 0 0	.....	.....	80 0 0	.....	295 0 0
b. Feed and keep of cattle ...	.....	.....	190 12 9	10 0 0	.....	7 2 6	.....	207 15 3
c. Purchase of stores, tools and plant ...	327 8 0	441 0 0	48 10 0	303 0 0	53 0 0	131 0 0	.....	1,080 2 0
Total, A-VI	327 8 0	441 0 0	780 6 9	313 0 0	53 0 0	218 2 6	.....	2,182 1 3
VII.—Communications and Buildings—								
a. Roads and bridges ...	.....	.....	.....	.....	.....	.....	.....	.....
b. Buildings ...	.....	.....	2,251 10 11	288 12 2	325 9 10	701 5 3	.....	3,057 6 3
c. Other works ...	.....	.....	1,522 13 3	3,962 10 7	1,375 2 7	1,141 0 2	.....	8,301 10 7
Total, A-VII	.....	.....	4,074 8 2	4,251 6 9	1,700 12 5	1,832 5 5	.....	11,959 0 9
VIII.—Organization, Improvement and Extension of Forest—								
a. Demarcation ...	.....	.....	.....	.....	.....	.....	.....	.....
b. Cost of Forest Settlements and Compensation for land and rights ...	.....	.....	.....	.....	.....	.....	.....	.....
c. Surveys ...	.....	.....	.....	.....	.....	.....	.....	.....
d. Working Plans ...	.....	1,550 10 9	451 4 7	805 8 6	428 12 0	895 3 0	.....	3,431 6 10
e. Sowing and planting ...	.....	.....	3,052 10 10	562 0 8	404 15 2	1,089 6 3	.....	5,109 0 11
f. Protection from fire ...	.....	.....	.....	1,504 3 11	.....	.....	.....	1,504 3 11
g. Other works ...	.....	.....	.....	7 0 0	1,168 14 0	1,031 13 0	.....	2,897 11 0
Total, A-VIII	.....	1,550 10 9	3,503 15 5	2,678 13 1	2,002 9 2	3,116 6 3	.....	13,952 6 8
IX.—Miscellaneous—								
a. Law charges ...	.....	.....	.....	.....	.....	.....	.....	.....
b. Other charges ...	1,353 3 3	29 4 0	1,221 11 0	1,383 9 0	547 12 6	839 6 10	.....	5,421 14 7
c. Grain Compensation ...	.....	.....	252 18 11	11 13 9	98 0 0	109 8 3	.....	472 1 11
Total, A-IX	1,353 3 3	29 4 0	1,474 8 11	1,395 6 9	645 12 6	993 13 1	.....	5,897 0 6
TOTAL, A—CONSERVANCY AND WORKS	1,680 11 3	2,020 14 9	12,868 2 5	9,921 13 2	5,835 11 9	10,013 1 9	.....	42,140 7 1
B.—ESTABLISHMENTS.								
I.—Salaries.								
a. Conservators ...	15,000 0 0	700 0 0	9,754 6 6	9,900 0 0	5,400 0 0	6,960 0 0	.....	47,714 6 6
b. Superior Officers ...	.....	.....	.....	.....	.....	.....	.....	.....
c. Subordinate Forest and Depot Establishments ...	.....	.....	22,128 15 7	13,997 5 11	9,710 0 5	12,082 12 6	1,595 9 4	59,514 11 9
d. Office Establishments ...	6,170 7 8	1,034 5 10	5,635 7 5	4,694 1 3	4,394 5 2	4,672 1 0	.....	26,500 12 4
e. Deputation and Special Allowances ...	1,950 12 9	339 6 10	1,069 5 8	479 3 0	12 0 0	16 13 3	.....	2,867 9 6
f. Exchange Compensation Allowance—	.....	.....	.....	.....	.....	.....	.....	.....
1. Conservators ...	.....	.....	.....	.....	.....	.....	.....	.....
2. Deputy Conservators ...	.....	.....	.....	.....	.....	.....	.....	.....
3. Assistant Conservators ...	.....	.....	.....	.....	.....	.....	.....	.....
4. Extra Assistant Conservators ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, B-I	23,121 4 5	2,072 12 8	38,558 3 2	29,070 10 2	19,516 5 7	23,631 10 9	1,595 9 4	1,37,597 8 1
II.—Travelling Allowances—								
a. Conservators ...	.....	.....	.....	.....	.....	.....	.....	.....
b. Superior Officers ...	2,874 1 4	200 0 0	3,035 11 11	1,812 11 0	1,224 15 4	1,869 14 0	.....	11,117 5 7
c. Subordinate Forest and Depot Establishments ...	.....	.....	1,699 6 4	900 15 11	603 2 5	872 12 3	.....	4,329 4 11
d. Office Establishments ...	959 11 5	170 8 8	1,471 10 7	1,262 10 3	952 7 0	1,116 5 11	.....	5,933 5 10
e. Forest Schools (D.D.) ...	.....	.....	83 1 0	.....	.....	.....	.....	83 1 0
f. Plaque allowance ...	.....	.....	.....	.....	.....	.....	.....	.....
g. Grain Compensation ...	75 15 6	30 8 10	1,602 0 4	1,197 1 9	695 6 8	1,013 5 9	201 9 10	4,776 0 8
Total, B-II	4,009 12 3	401 1 6	7,791 14 2	5,263 6 11	3,678 15 5	4,872 5 11	201 9 10	26,319 2 0
III.—Contingencies—								
a. Stationery ...	24 8 0	11 12 0	174 10 9	152 3 7	99 5 9	123 15 0	.....	536 3 1
b. Carriage of Tents and Records ...	374 7 4	.....	300 11 11	245 3 8	174 4 8	197 1 7	.....	1,291 13 2
c. Rents, Rates and Taxes ...	.....	100 0 0	61 8 11	1,538 0 0	338 0 6	258 0 0	.....	2,293 9 5
d. Pay of Police guards ...	.....	.....	.....	.....	.....	.....	.....	.....
e. Official Postage ...	261 3 0	25 0 0	888 11 6	496 9 6	592 18 0	440 10 6	.....	2,644 14 6
f. Sundries ...	271 7 3	212 12 11	567 14 6	276 10 6	243 14 9	327 11 6	.....	1,900 7 5
Payments to Officers of other Provinces ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, B-III	931 3 7	349 8 11	1,973 9 7	2,705 11 3	1,448 6 8	1,347 6 7	.....	8,766 14 7
TOTAL, B—ESTABLISHMENTS	29,062 4 3	2,824 7 1	48,353 10 11	37,047 12 4	24,643 11 8	29,551 7 3	1,797 3 2	1,72,573 8 8
GRAND TOTAL OF EXPENDITURE	29,742 15 6	4,245 5 10	61,021 13 4	46,962 9 6	30,479 7 5	39,864 9 0	1,797 3 2	2,14,718 15 9

FORM No. 25.—Annual Account Current for the Forest year 1912-1913.

NORTHERN CIRCLE.		Rs. a. p.	Rs. a. p.			Rs. a. p.	Rs. a. p.
To Opening Balance ... ..	.....		418 0 6	By 1. Refunds and Drawbacks—			
„ VIII.—Assessed Taxes—In-				Refunds—			
come Tax—				Divided Heads, Forests...	.....	4,313 3 9	
Deductions by Gov-				„ 11. Forest (as per Annual			
ernment from Sala-	.....	2,944 3 10		Summary, Form No. 24).	.....	7,10,878 5 6	
ries and Pensions ...				Savings Bank Deposits—			
Tax on other sources of				General Provident			
Income, recoveries	.....	.....		Fund ... ..	.....	6,069 2 0	
by Revenue Author-				„ 32. Miscellaneous—Miscella-			
ities				neous Refunds—			
„ IX.—Forest (as per Annual			15,32,472 0 8	Lapsed Deposits ...	25 0 0		
Summary, Form	.....			Miscellaneous and un-			
No. 24)				foreseen charges (Pro-			
„ XII.—Interest—				vincial) other unfore-			
Interest on Advances	.....	62 13 1		seen charges ...	240 7 11		265 7 11
to cultivators ...				„ Civil Deposits—			
„ XXV.—Miscellaneous—				Forest Deposits ..	.....	90,216 5 2	
Sale-proceeds of Stores	.....	.....		„ Advances Recoverable—			
and Materials (Pro-				Forest Advances ...	4,13,220 0 3	.....
vincial)				Advances to Non-Gazetted			
Unclaimed Deposits—	.....	.....		Officers for the purchase of			
Other Deposits ...				conveyances, tents, etc....	300 0 0		
„ Bombay Uncovenanted Service	.....	.....		Tentage Advances to Gazet-			
Family Pension Fund—				ted Officers	16 9 4		
Widows' Branch ...	.....	73 6 6		Objection Book Advances...	2,759 0 0		4,16,295 9 7
Life Assurance Branch ...	.....	.....		„ Cash Recoveries ... ..	.....	753 4 10	
„ Civil Deposits—				„ Cheques and Bills—Depart-			
Forest Deposits ...	.....	1,03,193 7 3		mental Cheques—			
„ Advances Recoverable—				Forests ... ..	.....	43,923 11 10	
Forest Advances ...	4,33,734 7 9			„ Forest Remittances—			
Advances to Non-Gazetted				Remittances to Treasuries .	14,88,186 10 7		
Officers for the purchase				Inter-departmental Trans-			
of conveyances, tents, etc.	252 9 4	4,36,904 4 6		fers	289 13 9		14,88,810 7 6
Tentage Advances to Gazet-				Inter-divisional Transfers...	333 15 2		
ted Officers	116 11 6			„ 33—Famine Relief—			
Objection Book Advances .	2,800 7 11			VI. Miscellaneous grass			
„ Cash Recoveries ... ..	.....	753 4 10		operations ... ..	.....	1,37,132 5 6	
„ Cheques and Bills (Depart-				Accounts Current—			
mental Cheques), Forests .	.....	7,92,658 6 0		By Account between Bombay			
„ Forest Remittances—				and Military, Bombay—			
Remittances to Treasuries.	2,045 6 9			(Western Circle)			
Inter-divisional Transfers...	483 15 2	16,284 11 11		IV. Items adjustable			
Inter-departmental Trans-				by Military ... ..	.....	4,434 10 6	
fers	13,755 6 0			„ P. W. D. Remittances—			
Accounts Current—				„ III.—Other Remittances—			
To Account between Bombay and				Miscellaneous ...	.....	340 6 5	
Post Office—				„ Provincial Advance and Loan			
Postal Fund Deductions ...	.....	311 3 4		Account—			
„ Provincial Advance and Loan				Advances to cultivators			
Account—				under Land Improvement			
Advances to Cultivators				and Agriculturists Acts .	.....	603 8 0	
under Land Improve-				Closing Balance ...	.....	446 8 9	
ment and Agriculturists				Total, Northern Circle ...	.....	29,04,518 1 3	
Loans Acts ... ..	.....	336 12 0					
„ P. W. D. Remittances—							
„ III.—Other Remittances—							
Rents of P. W. D.							
Buildings	1,405 10 10	1,467 2 10					
Miscellaneous	61 8 0						
„ Forest Officers' Provident							
Fund ... ..	.....	574 14 6					
General Provident Fund ...	.....	16,063 5 6					
Total, Northern Circle ...	.....	29,04,518 1 3					

FORM No. 25.—Annual Account Current for the Forest year 1912-1913—continued.

CENTRAL CIRCLE.		Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To Opening Balance	.....		1,468 1 3	By 1. Refunds and Drawbacks—Re-		
„ VIII. Assessed Taxes—Income Tax—				funds—		
Deductions by Government from	.....		3,463 15 8	Divided Heads, Forest	.....	9,019 2 8
Salaries and Pensions	.....			„ 11. Forest (as per Annual Sum-	.....	6,88,603 9 9
Tax on other sources of Income,	.....			mary, Form No. 24)		
Recoveries by Revenue Author-	.....			„ 14. Interest on other Obliga-		
ities	.....			tions—		
„ IX. Forest (as per Annual Summary,	.....		10,71,328 2 11	Savings Bank Deposits—		
Form No. 24)	.....			Interest on Forest Officers'		
„ XII. Interest—				Provident Fund	.....
Interest on Advances to land	.....		982 6 0	„ 32. Miscellaneous—Miscellaneous		
holders	.....			unforeseen charges (Provincial)	.....	64 6 2
„ XXV. Miscellaneous—				other unforeseen charges		
Sale-proceeds of Stores and	.....		67 3 7	„ 32. Miscellaneous—Miscellaneous		
Materials (Provincial) Judi...	.....			Refunds—(Provincial)	.....
Unclaimed Deposits—Other	.....			Lapsed Deposits	.....	15 0 0
Deposits	.....			„ 33. Famine Relief—		
Provincial Advance and Loan	.....		2,500 0 0	VI. Miscellaneous, Grass Opera-		
Account	.....			tions	.....	3,09,336 11 0
„ Bombay Uncovenanted Service Family				„ Civil Deposits—Forest Deposits	.....	43,326 6 5
Pension Fund—				„ Advances Recoverable—		
Widows' Branch	.....		570 8 1	Forest Advances	5,82,872 5 10	
Life Assurance Branch	.....			Tentage Advances to Gazetted	626 5 4	
„ Civil Deposits—				Officers		
Forest Deposits	.....		55,818 7 8	Objection Book Advances	2,379 0 0	5,86,560 11 2
„ Advances Recoverable—				Advances to Non-Gazetted		
Forest Advances	5,18,077 0 0			Officers for the purchase of		
Tentage Advances to Gazetted	490 14 6		5,23,575 5 10	tents, etc.	698 0 0	
Officers				„ Cash Recoveries	.....	1,352 9 5
Objection Book Advances	5,007 7 4			„ Cheques and Bills—Departmental		
Advances to Non-Gazetted	.....		582 1 4	Cheques—		
Officers for the purchase of	.....			Forests	.....	9,576 14 9
tents, etc.	.....		1,352 9 5	„ Forest Remittances—		
„ Cash Recoveries	.....			Remittances to Treasuries	.....	9,14,253 2 10
„ Cheques and Bills (Departmental			7,25,541 7 1	Inter-departmental Transfers	.....	14,818 11 9
Cheques), Forests	.....			Inter-divisional Transfers	.....	680 0 0
„ Forest Remittances—				Accounts Current—		
Remittances to Treasuries	.....		14,719 6 10	By Account between Bombay and Mili-		
Inter-departmental Transfers	.....		27,350 12 10	tary, Bombay—(Western Circle.)		
Inter-divisional Transfers	.....		845 0 0	IV. Items adjustable by		
Accounts Current—				Military, Miscellaneous	.....	16,647 0 0
To Account between Bombay and Post				„ Account between Bombay and		
Office—				Military Supply Circle—		
Postal Fund Deductions	.....		835 11 0	IV. Items adjustable by Mili-		
„ Account between India and Bombay—				tary Miscellaneous	.....	962 8 0
III. Items adjustable by India—				(Ordinary Branches)—		
„ Account between Bombay and P. W.				„ Accounts between Bombay and		
D., Bombay—				Public Works Department,		
IV. Items adjustable by P. W. D.—				Bombay—		
Payments into Treasuries by				„ P. W. D.—Remittances—		
Civil Officers on account of P.				Inter-departmental Transfers	.....	.....
W. D.	2,663 7 11			III—Other Remittances, Miscel-		
„ P. W. D. Remittances—				laneous	.....	188 11 3
III. Other Remittances—				„ Account between Bombay and		
Rents of Public Buildings—				Public Works Department—		
Miscellaneous	44 11 1		2,708 8 0	(Railway Branch)—Railway—		
„ Forest Officers' Provident Fund	.....		371 7 1	IV.—Items adjustable by Public		
General Provident Fund	.....		12,462 4 4	Works Department	.....	.....
Closing Balance	.....			General Provident Fund	.....	315 12 2
Total, Central Circle	.....		24,46,543 1 11	Closing Balance	.....	1,291 12 7
				Total, Central Circle	.....	24,46,543 1 11

FORM No. 25.—Annual Account Current for the Forest year 1912-1913—continued.

	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
SOUTHERN CIRCLE.					
To Opening Balance ... ..	.....	573 7 2	By 1. Refunds and Drawbacks—		
„ VIII. Assessed Taxes—Income Tax—			Refunds—		
Deductions by Government	.....	2,997 9 2	Divided Heads, Forest ... ..	.....	1,837 5 5
Tax on other sources of	.....		„ 11. Forest (as per Annual Sum-	.....	10,10,546 1 0
Income, Recoveries by	.....		mary, Form No. 24)... ..		
Revenue Authorities ... ..	.....		„ 14. Interest on other Oblig-		
„ IX. Forest (as per Annual Summary,	.....	19,08,194 12 7	ations—		
Form No. 24)... ..			Savings Bank Deposits—		
„ XII. Interest—			Interest on General		
Interest on Arrears of Revenue.	.....	1,495 15 4	Provident Fund ... ..	.....	-74 8 3
„ XXV. Miscellaneous—			„ 32. Miscellaneous—Miscellaneous		
Sale-proceeds of Stores and	.....		Refunds—		
Materials (Provincial) ... ..	.....		Lapsed Deposits ... ..	.....	2,046 4 3
Unclaimed Deposits—Other	.....		Miscellaneous Irrecoverable		
Deposits ... ..	.....		Temporary Loans written		
„ Bombay Uncovenanted Service			off ... ..	.....	64 0 7
Family Pension Fund—			„ Civil Deposits—Forest Deposits .	.....	70,022 13 2
Widows' Branch	96 11 6	} 160 12 9	„ Advances Recoverable—		
Life Assurance Branch... ..	64 1 3		Forest Advances	6,03,444 0 11	
„ Civil Deposits—Forest Deposits ...	.....	79,145 9 5	Advances to Gazetted Officers		
Advances Recoverable—			for motor	250 0 0	
Forest Advances	6,05,197 9 3	} 6,10,580 15 9	Tentage Advances	202 4 0	} 6,07,639 15 7
„ Advances to Gazetted Officers for	1,500 0 0		Objection Book Advances ...	2,506 5 4	
motor ... ..	.....		Advances to Non-Gazetted		
Tentage Advances... ..	282 11 2		Officers for purchase of		
Objection Book Advances ..	2,258 3 4		conveyances, etc.	1,237 5 4	
Advances to Non-Gazetted Officers	1,342 8 0		„ Cash Recoveries ... ..	.....	1,175 10 5
for purchase of conveyances ...	.....		„ Cheques and Bills—Departmental		
„ Cash Recoveries ... ..	.....	1,175 10 5	Cheques—		
„ Cheques and Bills (Departmental			Forests ... ..	.....	2,844 2 8
Cheques), Forests ... ..	.....	10,12,181 3 4	„ Forest Remittances—		
„ Forest Remittances—			Remittances to Treasuries ...	14,94,959 9 9	
Remittances to Treasuries ...	1,284 13 0		Inter-departmental Transfers...	132 6 11	} 14,95,688 0 8
Inter-departmental Transfers ...	2,923 4 0		Inter-divisional Transfers ...	596 0 0	
Inter-divisional Transfers ...	426 0 0		„ Savings Bank Deposits—		
Accounts Current—			General Provident Fund ...	.....	2,963 2 5
To Account between Bombay and			Accounts Current—		
Post Office—			By Account between Bombay and		
Postal Fund Deductions ... ..	.....	452 9 3	Military, Supply Circle—		
„ Account between India and Bombay—			IV. Items adjustable by		
III—Items adjustable by India—			Military, Miscellaneous...	.....	4,409 7 4
Miscellaneous ... ..	.....	50 0 0	„ Account between Bombay and		
„ P. W. D Remittances—			Military (W. C. Bombay)—		
III. Other Remittances—			IV. Items adjustable by		
IV. Rents of Buildings	1,926 5 4		Military ... ..	.....	346 8 0
Do. Miscellaneous	1,830 1 3	} 3,756 6 7	„ P. W. D. Remittances—		
General Provident Fund ... ..	.....	15,644 10 2	„ III. Other Remittances—Rent		
„ Account between Bombay and Public			of Public Buildings	1 3 1	} 9,589 9 2
Works Department, Railway Branch,			Miscellaneous	9,588 6 1	
M. & S. M. Railway—			„ Account between India and		
IV. Items adjustable by Public			Bombay—		
Works Department ... ..	.....	157 8 0	III. Items adjustable by India		
„ Account between Bombay and Public			Miscellaneous ... ..	.....	50 0 0
Works Department, Railway Branch			„ Account between Bombay and		
Oudh & Rohilkhand Railway—			Public Works Department—		
IV. Items adjustable by Public			(Railway Branch, M. & S.		
Works Department ... ..	.....	157 8 0	M. Railway)—		
Total, Southern Circle ... ..	.....	36,41,358 10 11	IV. Items adjustable by Pub-		
			lic Works Department ... ..	.....	4,03,310 1 4
			„ Account between Bombay and		
			Telegraphs ... ..	.....	22 6 0
			„ Account between Bombay Public		
			Works Department, Railway		
			Branch, Oudh kohikhund Ry.		
			IV. Items adjustable by Public		
			Works Department ... ..	.....	157 8 0
			„ 33. Famine Relief—		
			VI. Miscellaneous—Grass Op-		
			erations ... ..	.....	28,355 3 5
			Closing Balance ... ..	.....	364 15 9
			Total, Southern Circle ... ..	.....	36,41,358 10 11

FORM No. 25.—Annual Account Current for the Forest year 1912-1913—concluded.

SIND CIRCLE.		Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To Opening Balance	214 5 7			
„ VIII. Assessed Taxes—Income Tax— Deductions by Government from Salaries and Pensions.	1,322 10 1	By 1. Refunds and Drawbacks— Refunds—		
„ Tax on other sources of Income, recoveries by Revenue Authorities...	Divided Heads, Forest	.....	913 15 7
„ IX. Forest (as per Annual Summary, Form No. 24)	4,55,699 4 6	„ 11. Forest (as per Annual Sum- mary, Form No. 24)	.....	2,14,713 15 9
„ XII. Interest— Interest on arrears of Revenue	„ 14. Interest on other Oblig- ations—		
„ III. Other Remittances— Miscellaneous	Savings Bank Deposits— Interest on Forest Officers' Provident Fund	.....	.....
„ XXV. Miscellaneous— Sale-proceeds of Stores and Materials (Provincial)	„ 32. Miscellaneous—Miscellaneous Refunds—		
Unclaimed Deposits—Other Deposits	Lapsed Deposits	.....	.....
„ Bombay Uncovenanted Service Family Pension Fund—				„ Civil Deposits—Forest Deposits	.....	20,337 7 6
Widows' Branch	„ Advances Recoverable—		
Life Assurance Branch	Forest Advances	.....	1,17,100 1 5
„ Civil Deposits (Forest Deposits)	28,565 3 6	Tentage Advances	.....	.....
„ Advances Recoverable— Forest Advances	1,13,277 13 1	Objection Book Advances	.....	265 0 0
Tentage Advances to Gazetted Officers	27 11 7	„ Cash Recoveries	.....	119 8 0
Objection Book Advances	781 10 8	„ Cheques and Bills (Departmental Cheques)—		
„ Cash Recoveries	119 8 0	Forests	.....	0 4 0
„ Cheques and Bills (Departmental Cheques), Forest	2,30,658 11 5	„ Forest Remittances—		
„ Forest Remittances— Remittances to Treasuries	140 8 6	Remittances to Treasuries	.....	4,71,724 18 9
Inter-departmental Transfers...	182 8 3	Inter-departmental Transfers.	.....	80 8 7
Inter-divisional Transfers			
Accounts Current—				Accounts Current—		
To Account between Bombay and Post Office— Postal Fund Deductions	30 14 0	By Account between Bombay and Military, Bombay—		
„ Account between India and Bombay—				IV. Items adjustable by Mili- tary	.....	.....
III. Items adjustable by India— P. W. D Remittances—				„ Account between Bombay and Public Works Department, Bombay (Railway Branch)— N. W. Railway	.....	20 0 0
III. Other Remittances— Rents for public buildings	360 11 10	„ IV. Items adjustable by P. W. Department—		
„ Account between Bombay and Public Works Department, Bombay—				„ Public Works Department Remit- tances—		
IV. Items adjustable by Public Works Department—				III. Other Remittances— Miscellaneous	.....	12,261 10 7
Payments into Treasuries by Civil Officers on account of Public Works Department...	General Provident Fund	.....	87 8 0
Miscellaneous	6 4 0	Closing Balance	.....	154 0 8
„ Forest Officers' Provident Fund			
General Provident Fund...	6,441 0 10	Total, Sind Circle	.....	8,37,778 8 10
Total, Sind Circle	8,37,778 8 10			
GRAND TOTAL	98,30,198 6 11	GRAND TOTAL	.....	98,30,198 6 11

FORM No. 26.—Revenue received and Outstandings on account of Revenue during 1912-1913.

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
NORTHERN CIRCLE.							
Direction ...	Various sources ...	Rs. a. p.	Rs. a. p. 377 13 0	Rs. a. p. 377 13 0	Rs. a. p. 377 13 0	Rs. a. p.	
Panch Mahals ...	Timber and other Forest Produce.	.....	94,038 12 8	94,038 12 8	71,050 12 8	22,988 0 0	
Surat ...	Do. ...	7,875 0 0	1,01,504 4 4	1,09,379 4 4	1,07,849 11 11	1,529 8 5	
North Thána ...	Do. ...	18,999 8 0	5,29,525 0 7	5,48,524 8 7	5,48,524 8 7	.....
Central Thána ...	Do. ...	.....	2,86,231 4 5	2,86,231 4 5	2,86,231 4 5	.....
South Thána ...	Do. ...	.....	2,49,383 10 1	2,49,383 10 1	2,49,383 10 1	.....
Koiába ...	Do. ...	.....	1,23,762 14 2	1,23,762 14 2	1,22,928 12 2	834 2 0	
Direction (Famine Fodder).	Do. ...	.....	1,46,104 13 2	1,46,104 13 2	1,46,104 13 2	.....
Working Plans	Various sources ...	.....	20 10 8	20 10 8	20 10 8	.....
Total, Northern Circle ...		26,874 8 0	15,30,949 3 1	15,57,823 11 1	15,32,472 0 8	25,351 10 5	
CENTRAL CIRCLE.							
East Khándesh.	Timber and other Forest Produce.	3,119 0 0	2,00,775 1 1	2,03,894 1 1	2,03,894 1 1	.....
West Khándesh.	Do. ...	10,897 0 0	1,58,606 5 4	1,69,503 5 4	1,56,000 5 4	13,503 0 0	
North Khándesh.	Do. ...	.....	98,032 12 11	98,032 12 11	98,032 12 11	.....
North Násik ...	Do. ...	.....	85,635 2 4	85,635 2 4	84,100 2 4	1,535 0 0	
South Násik ...	Do. ...	.....	1,10,495 10 8	1,10,495 10 8	1,10,195 10 8	300 0 0	
Poona ...	Do. ...	.....	1,10,923 3 9	1,10,923 3 9	1,10,923 3 9	.....
Sátára ...	Do. ...	253 0 0	63,322 9 11	63,575 9 11	60,918 1 11	2,657 8 0	
Working Plans, Central Circle	Do. ...	.....	24 13 7	24 13 7	24 13 7	.....
Famine Fodder—	Do. ...	.....	1,78,906 5 4	1,78,906 5 4	1,78,906 5 4	.....
West Khándesh.	Do. ...	.....	67,428 8 8	67,428 8 8	67,428 8 8	.....
South Násik.	Do. ...	.....	904 1 4	904 1 4	904 1 4	.....
Direction ...	Do. ...	.....	.....	.....	.....	.....
Total, Central Circle ...		14,269 0 0	10,75,054 10 11	10,89,323 10 11	10,71,328 2 11	17,995 8 0	
SOUTHERN CIRCLE.							
Kánara, Northern.	Timber and other Forest Produce.	1,20,401 7 10	9,37,425 6 4	10,57,826 14 2	8,41,480 2 0	2,16,346 12 2	
Kánara, Southern.	Do. ...	120 10 7	63,630 5 8	63,751 0 3	63,732 0 7	18 15 8	
Kánara, Eastern.	Do. ...	33,099 9 8	3,75,947 11 9	4,09,047 5 5	3,17,603 11 3	91,443 10 2	
Kánara, Western.	Do. ...	14,288 0 11	2,09,682 2 2	2,23,970 3 1	1,88,851 12 1	35,118 7 0	
Belgaum ...	Do. ...	21,483 12 3	4,05,549 5 1	4,27,033 1 4	3,34,946 7 10	92,086 9 6	
Dhárwár ...	Do. ...	27,006 0 0	1,17,513 10 2	1,44,519 10 2	1,09,134 10 2	35,385 0 0	
Bijápúr ...	Do. ...	3,212 4 0	49,098 3 6	52,310 7 6	50,293 15 6	2,016 8 0	
Ratnágiri ...	Do. ...	.....	2,913 12 1	2,913 12 1	1,071 0 1	1,842 12 0	
Direction ...	Various sources ...	.....	2,166 13 0	2,166 13 0	2,166 13 0	.....
Working Plans	Do. ...	.....	18 12 0	18 12 0	18 12 0	.....
Total, Southern Circle ...		2,19,611 13 3	21,63,946 1 9	23,83,557 15 0	*19,09,299 4 6	4,74,258 10 6	* Includes Rs. 1,104-7-11 written off.
SIND CIRCLE.							
Sukkur ...	I. Timber and other produce removed from the Forests by Government Agency—						
	(a) Timber ...	.....	144 15 8	144 15 8	144 15 8	.....
	(b) Firewood and charcoal.	1,219 9 2	2,348 3 2	3,567 12 4	2,880 2 11	687 9 5	
	(c) Grass and other minor produce.	.....	192 6 0	192 6 0	192 6 0	.....
	II. Grass and other minor produce removed from the Forests by consumers or purchasers—						
	(a) Timber ...	8,599 10 1	17,252 3 2	25,851 13 3	18,203 1 1	7,648 12 2	
	(b) Firewood and charcoal.	34,312 7 3	81,244 0 5	1,15,558 7 8	83,504 1 4	32,052 6 4	
	(d) Grazing and fodder grass.	.....	11,638 8 2	11,638 8 2	11,638 8 2	.....
	(e) Other minor produce.	.....	2,010 1 8	2,010 1 8	2,010 1 8	.....
	III. Drift and waifwood and confiscated Forest produce.	.....	88 14 0	88 14 0	88 14 0	.....
Total ...		44,131 10 6	1,14,919 4 3	1,59,050 14 9	1,18,662 2 10	40,388 11 11	The outstandings against V.-c. at the close of the year amount to Rs. 136-12-11.

FORM No. 26.—Revenue received and Outstandings on account of Revenue during 1912-1913—continued.

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
1	2	3	4	5	6	7	8
	SIND CIRCLE—contd.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Naushahro ...	I. Timber and other produce removed from the Forests by Government Agency—						
	(a) Timber ...	.....	41 8 0	41 8 0	41 8 0	.....
	(b) Firewood and charcoal.	.....	1,911 15 2	1,911 15 2	1,911 15 2	.....
	(c) Grass and other minor produce.	.....	8 15 10	8 15 10	8 15 10	.....
	II. Timber and other produce removed from the Forests by consumers or purchasers—						
	(a) Timber ...	2,102 3 2	4,602 11 3	6,704 14 5	4,890 3 1	1,824 11 4	
	(b) Firewood and charcoal.	8,408 12 11	18,448 0 1	26,856 13 0	19,558 0 4	7,298 12 8	
	(d) Grazing and fodder grass.	.....	6,723 14 9	6,723 14 9	6,723 14 9	.....
	(e) Other minor produce.	.....	2,272 6 0	2,272 6 0	2,272 6 0	.....
	III. Drift and waifwood and confiscated Forest produce.	.....	26 9 0	26 9 0	26 9 0	.....	The outstanding under V.-o. at the close of the year amounts to Rs. 99-0-0.
	Total ...	10,511 0 1	34,036 0 1	44,547 0 2	35,423 8 2	9,123 8 0	
Hydrabad ...	I. Timber and other produce removed from the Forests by Government Agency—						
	(a) Timber ...	.....	13 0 0	13 0 0	13 0 0	.....
	(b) Firewood and charcoal.	.....	1,977 4 3	1,977 4 3	1,977 4 3	.....
	(c) Grass and other minor produce.	100 0 0	585 15 2	685 15 2	685 15 2	.....
	II. Timber and other produce removed from the Forests by consumers or purchasers—						
	(a) Timber ...	12,811 11 0	47,179 9 5	59,991 4 5	43,361 2 5	16,630 2 0	
	(b) Firewood and charcoal.	19,217 9 0	75,217 6 8	94,434 15 8	69,489 9 8	24,945 6 0	
	(d) Grazing ...	.....	13,000 4 6	13,000 4 6	13,000 4 6	.....
	(e) Other minor produce.	4,741 0 0	24,767 13 0	29,508 13 0	28,842 2 4	666 10 8	
	III. Drift and waifwood and confiscated Forest produce.	.....	29 15 9	29 15 9	29 15 9	.....	The outstanding under V.-o. at the close of the year amounts to Rs. 13-10-0.
	Total ...	36,870 4 0	1,62,771 4 9	1,99,641 8 9	1,57,399 6 1	42,242 2 8	
Jerruck ...	I. Timber and other produce removed from the Forests by Government Agency—						
	(b) Firewood and charcoal.	.....	1,592 2 6	1,592 2 6	1,592 2 6	.....
	(c) Grass and other minor produce.	.....	30 0 0	30 0 0	30 0 0	.....
	II. Timber and other produce removed from the Forests by consumers or purchasers—						
	(a) Timber ...	8,893 3 10	21,238 14 8	30,132 2 6	21,268 12 2	8,863 6 4	
	(b) Firewood and charcoal.	35,212 15 11	77,276 3 8	1,12,489 3 7	78,995 9 11	38,493 9 8	
	(d) Grazing ...	.....	6,484 7 8	6,484 7 8	6,484 7 8	.....
	(e) Other minor produce.	6,500 0 0	5,009 0 0	11,509 0 0	2,884 3 0	8,624 13 0	
	III. Drift and waifwood and confiscated Forest produce.	.....	2 1 0	2 1 0	2 1 0	.....	The outstanding under V.-o. at the close of the year amounts to Rs. Nil.
	Total ...	50,806 3 9	1,11,632 13 6	1,62,239 1 3	1,06,257 4 8	65,981 13 0	

FORM No. 26.—Revenue received and Outstandings on account of Revenue during 1912-1913—concluded.

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
1	2	3	4	5	6	7	8
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Thar and Párkar.	SIND CIRCLE—<i>continued.</i>						
	I. Timber and other produce removed from the Forests by consumers or purchasers—						
	(a) Timber ...	.....	197 9 0	197 9 0	197 9 0	.....
	(b) Firewood and charcoal.	.....	188 6 0	188 6 0	188 6 0	.....
	(d) Grazing and fodder grass.	.....	2,317 8 0	2,317 8 0	2,317 8 0	.....
	(e) Other minor produce.	.....	26 2 0	26 2 0	26 2 0	.....
	Total ...	.....	2,729 9 0	2,729 9 0	2,729 9 0	.....	The outstanding under V.-c. at close of the year amounts to Rs. Nil.
Total of Sind Circle.	I. Timber and other produce removed from the Forests by Government Agency—						
	(a) Timber ...	.....	199 7 8	199 7 8	199 7 8	.....
	(b) Firewood and charcoal.	1,219 9 2	7,829 9 1	9,049 2 3	8,361 8 10	687 9 5	
	(e) Grass and other minor produce.	100 0 0	817 5 0	917 5 0	917 5 0	.....
	II. Timber and other produce removed from the Forests by consumers or purchasers—						
	(a) Timber ...	32,406 12 1	90,470 15 6	1,22,877 11 7	87,910 11 9	34,968 15 10	
	(b) Firewood and charcoal.	97,151 13 1	2,52,374 0 10	3,49,525 13 11	2,46,735 11 3	1,02,790 2 8	
	(d) Grazing and fodder grass.	.....	40,164 11 1	40,164 11 1	40,164 11 1	.....
	(e) Other minor produce.	11,241 0 0	34,085 6 8	45,326 6 8	36,034 15 0	9,291 7 8	
	III. Drift and waifwood and confiscated Forest produce.	.....	147 7 9	147 7 9	147 7 9	.....	The outstanding under V.-c. at the close of the year amounts to Rs. 250-1-4.
	Total, Sind Circle ...	1,42,119 2 4	4,26,088 15 7	5,68,208 1 11	4,20,471 14 4	1,47,736 3 7	
	GRAND TOTAL ...	4,02,874 7 7	51,96,038 15 4	55,98,913 6 11	49,33,571 6 5	6,65,842 0 6	

FORM No. 27.—Outstandings and Liabilities on account of Contractors and Disbursers for the Forest year 1912-1913.

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
NORTHERN CIRCLE.									
<i>Contractors.</i>									
North Thána	2,400 0 0	2,400 0 0	.....	2,400 0 0	2,400 0 0	.....	...
Central Thána	15 8 0	15 8 0	15 8 0	...	
Famine Fodder	7,421 8 11	7,421 8 11	5,983 11 6	1,487 13 5	7,421 8 11	.....	...
Total, Contractors	9,821 8 11	9,821 8 11	5,983 11 6	3,853 5 5	9,837 0 11	15 8 0	...	
<i>Disbursers.</i>									
Direction	750 0 0	750 0 0	.....	750 0 0	750 0 0	.....	...
Working Plans	189 15 8	189 15 8	177 10 9	12 4 11	189 15 8	.....	...
Panch Maháls	45,824 7 3	45,824 7 3	621 6 7	45,927 4 9	46,548 11 4	724 4 1	...	
Surat	81,838 9 6	81,838 9 6	3,542 8 1	83,225 15 1	86,768 7 2	4,929 13 8	...	
North Thána	49,746 10 0	49,746 10 0	789 7 8	49,774 1 0	50,513 8 8	766 14 8	...	
Central Thána	52,917 12 6	52,917 12 6	1,253 10 8	52,897 1 8	53,650 12 4	732 15 10	...	
South Thána	53,519 9 7	53,519 9 7	639 13 2	53,897 14 11	54,537 12 1	1,018 2 6	...	
Kolába	69,217 1 5	69,217 1 5	1,054 2 9	69,103 14 7	70,158 1 4	940 15 11	...	
Famine Fodder	69,908 12 11	69,908 12 11	15,804 0 4	54,278 1 11	70,082 2 3	173 5 4	...	
Total, Disbursers	4,23,912 14 10	4,23,912 14 10	23,832 12 0	4,09,366 10 10	4,33,199 6 10	9,286 8 0	...	
TOTAL, N. C.	4,33,734 7 9	4,33,734 7 9	29,816 7 6	4,13,220 0 3	4,43,036 7 9	9,302 0 0	...	
CENTRAL CIRCLE.									
<i>Contractors.</i>									
Poona	
South Násik	800 0 0	800 0 0	.....	800 0 0	800 0 0	.....	...
West Khándesh	2,197 0 0	2,197 0 0	.....	2,197 0 0	2,197 0 0	.....	...
Sátára	500 0 0	500 0 0	.....	500 0 0	500 0 0	.....	...
South Násik Famine Fodder.	...	51,283 8 0	51,283 8 0	.....	51,283 8 0	51,283 8 0	.....	...
West Khándesh Famine Fodder.	...	15,784 11 2	15,784 11 2	2,034 11 2	13,750 0 0	15,784 11 2	.....	...
Total, Contractors	70,565 3 2	70,565 3 2	2,034 11 2	63,530 8 0	70,565 3 2	.....	...
<i>Disbursers.</i>									
Poona	55,271 4 8	55,271 4 8	1,313 9 11	54,727 14 0	56,041 7 11	770 3 3	...	
North Khándesh	94,224 11 7	94,224 11 7	1,230 0 1	1,01,304 7 5	1,02,534 7 6	8,309 11 11	...	
South Násik	62,433 13 2	62,433 13 2	2,791 5 3	62,952 14 3	65,744 8 6	3,310 6 4	...	
West Khándesh	62,034 12 5	62,034 12 5	1,790 15 2	69,987 3 4	71,723 2 6	9,698 5 1	...	
North Násik	47,445 9 11	47,445 9 11	2,489 7 7	49,476 13 4	51,968 4 11	4,520 11 0	...	
East Khándesh	62,923 11 3	62,923 11 3	1,059 13 0	62,916 10 6	63,976 7 6	1,047 12 3	...	
Sátára	49,662 0 10	49,662 0 10	767 9 8	50,384 14 0	51,102 7 8	1,440 6 10	...	
Working Plan Central Circle.	...	1,847 12 3	1,847 12 3	192 11 1	1,655 1 2	1,847 12 3	.....	...
South Násik Famine Fodder.	...	10,839 12 3	10,839 12 3	.....	11,034 15 10	11,034 15 10	695 3 7	...	
West Khándesh Famine Fodder.	...	1,323 4 6	1,323 4 6	1,322 4 6	1 0 0	1,323 4 6	.....	...
Total, Disbursers	4,47,511 12 10	4,47,511 12 10	12,957 12 3	4,64,341 13 10	4,77,299 10 1	29,787 13 3	...	
TOTAL, C. C.	5,18,077 0 0	5,18,077 0 0	14,992 7 5	5,32,872 5 10	5,47,864 13 3	29,787 13 3	...	

FORM No. 27.—Outstandings and Liabilities on account of Contractors and Disbursers for the Forest year 1912-1913—concld

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.									
<i>Contractors.</i>									
Working Plans	
Kánara, W. D.	...	36,891 8 9	36,891 8 9	9,890 9 7	47,521 11 4	57,412 4 11	20,520 12 2	...	
Kánara, N. D.	...	43,252 15 3	43,252 15 3	46,230 14 2	51,230 0 0	97,460 14 2	54,207 14 11	...	
Kánara, S. D.	...	1,153 3 7	1,153 3 7	750 0 0	4,500 0 0	5,250 0 0	4,096 12 5	...	
Kánara, E. D.	...	65,488 2 0	65,488 2 0	52,371 14 0	30,133 0 0	82,504 14 0	17,016 12 0	...	
Bijápúr	
Ratnágiri	
Dhárwár	
Belgaum	...	80,714 7 2	80,714 7 2	21,715 1 2	97,650 0 0	1,19,365 1 2	38,650 10 0	...	
Total, Contractors...	...	2,27,500 4 9	2,27,500 4 9	1,30,958 6 11	2,31,034 11 4	3,61,993 2 3	1,34,492 13 6	...	
<i>Disbursers.</i>									
Working Plans	...	1,913 13 6	1,913 13 6	.....	1,985 0 0	1,985 0 0	71 2 6	...	
Kánara, W. D.	...	64,198 5 6	64,198 5 6	11,386 8 9	56,866 5 6	68,252 14 3	4,054 8 9	...	
Kánara, N. D.	...	96,519 1 0	96,519 1 0	12,902 1 4	94,009 12 6	1,06,911 13 10	10,392 12 10	...	
Kánara, S. D.	...	47,748 3 5	47,748 3 5	2,333 6 10	48,067 0 0	50,400 6 10	2,652 3 5	...	
Kánara, E. D.	...	49,659 15 3	49,659 15 3	4,700 12 6	49,002 8 3	53,703 4 9	4,043 5 6	...	
Bijápúr	...	16,526 0 8	16,526 0 8	276 14 11	16,631 8 1	16,908 7 0	332 6 4	...	
Ratnágiri	...	4,319 5 3	4,319 5 3	50 14 0	4,304 11 3	4,355 9 3	36 4 0	...	
Dhárwár	...	29,340 13 11	29,340 13 11	965 12 10	29,126 8 0	30,092 4 10	751 6 11	...	
Belgaum	...	67,471 10 0	67,471 10 0	3,256 9 10	72,416 0 0	75,672 9 10	8,200 15 10	...	
Total, Disbursers	...	3,77,697 4 6	3,77,697 4 6	35,873 1 0	3,72,409 5 7	4,08,282 6 7	30,585 2 1	...	
TOTAL, S. C.	...	6,05,197 9 3	6,05,197 9 3	1,66,831 7 11	6,03,444 0 11	7,70,275 8 10	1,65,077 15 7	...	
SIND CIRCLE.									
<i>Contractors.</i>									
Hyderabad	...	20 0 0	20 0 0	.....	20 0 0	20 0 0	.....	...
Jerruck	...	40 0 0	40 0 0	.....	2,040 0 0	2,040 0 0	2,000 0 0	...	
Sukkur	...	20 0 0	20 0 0	.....	20 0 0	20 0 0	.....	...
Direction	...	100 0 0	100 0 0	.....	100 0 0	100 0 0	.....	...
Total, Contractors...	...	180 0 0	180 0 0	.....	2,180 0 0	2,180 0 0	2,000 0 0	...	
<i>Disbursers.</i>									
Hyderabad	...	23,674 2 4	23,674 2 4	566 5 8	23,465 10 4	24,032 0 0	357 13 8	...	
Jerruck	...	25,106 1 7	25,106 1 7	147 11 2	27,185 0 0	27,332 11 2	2,226 9 7	...	
Naushahro	...	18,354 1 6	18,354 1 6	475 4 5	18,235 9 4	18,710 13 9	356 12 3	...	
Sukkur	...	45,805 15 8	45,805 15 8	378 11 3	45,876 5 9	46,255 1 0	449 1 4	...	
Thar and Parkar	...	157 8 0	157 8 0	.....	157 8 0	157 8 0	.....	...
Total, Disbursers	...	1,13,097 13 1	1,13,097 13 1	1,568 0 6	1,14,920 1 5	1,16,488 1 11	3,390 4 10	...	
TOTAL, SIND CIRCLE.	...	1,13,277 13 1	1,13,277 13 1	1,568 0 6	1,17,100 1 5	1,18,668 1 11	5,390 4 10	...	
GRAND TOTAL	...	16,70,236 14 1	16,70,236 14 1	2,13,208 7 4	16,66,636 8 5	18,79,844 15 9	2,09,558 1 8	...	

Administration Reports.

Administration Report of the Forest Circles
in the Bombay Presidency, including Sind,
for the year 1912-13.

No. 4737.

REVENUE DEPARTMENT.

Bombay Castle, 21st May 1914.

- Letter from the Conservator of Forests, N. C.,
No. 2196, dated 22nd September 1913.
- Letters from the Deputy Conservator of Forests in
charge Sind Circle, Nos. 1065 and 1092, dated
25th and 30th September 1913.
- Letter from the Conservator of Forests, C. C.,
No. 2216, dated 3rd October 1913.
- Letter from the Conservator of Forests, S. C.,
No. D.—82, dated 10th October 1913.
- Memorandum from the Commissioner, N. D., No. 3776, dated 26th September 1913—
Submitting his remarks on the Forest Administration Report of the Northern Circle for
the year 1912-13.
- Memorandum from the Commissioner, S. D., No. 3387, dated 14th October 1913—Submit-
ting his remarks on the Forest Administration Report of the Northern Circle for the
year 1912-13 so far as it concerns the Kolába Division.
- Memorandum from the Commissioner, C. D., No. 4280, dated 8th November 1913—Submit-
ting his remarks on the Forest Administration Report of the Central Circle for the year
1912-13.
- Memorandum from the Commissioner, S. D., No. 3488, dated 20th October 1913—Submit-
ting his remarks on the Forest Administration Report of the Southern Circle for the
year 1912-13.
- Memorandum from the Commissioner in Sind, No. 4043, dated 5th December 1913—
Submitting his remarks on the Forest Administration Report of the Sind Circle for the
year 1912-13.
- Government memorandum * to the Conservator of Forests, N. C., No. 1636, dated 19th
February 1914.
- Government memorandum * to the Deputy Conservator of Forests in charge Sind Circle,
No. 1637, dated 19th February 1914.
- Letter * from the Conservator of Forests, N. C., No. 3437, dated 21st February 1914.
- Letter * from the Deputy Conservator of Forests in charge Sind Circle, No. T.—127, dated
23rd February 1914.

RESOLUTION.—During the year 1912-13 the total forest area increased by 8 square miles and at the close of the year stood at 15,065 square miles, of which 14,022 were reserved and 1,043 square miles protected forest. The increase is due to additions to forest area in the Sátára, Dhárwár and Kánara Southern Divisions rendered possible by the relinquishment of assessed cultivable land in the immediate vicinity of forests and by 35 square miles of alluvial accretions in Sind, counterbalanced to some extent by the disforestation of 11 square miles in East Khándesh and the erosion of 31 square miles of forest in Sind. The total area includes 2,602 square miles which were under the management of Revenue officers; of this area 1,817 square miles were in the Central Division. It appears from the report that the transfers of land from forest proper to pasture in the Poona District sanctioned by Government in 1910 and 1911 have not yet been effected. The Commissioner, C. D., is requested to report, after consulting the Collector and Conservator, the reason why these transfers have been delayed, and to complete them as soon as possible. In the Presidency proper forest settlement is practically complete. In Sind 10 square miles awaited settlement at the beginning of the year, and 50 square miles were notified under section 4 of the Forest Act during the year: of this area only a small portion was settled. From

* Not printed.

an examination of the detailed figures given in Form No. 8 it appears that the settlements of certain areas in the Ghotki Táluka of the Sukkur District, the Labdraya and Sehwan Tálukas of Nausháhró Division and the Kotri Táluka of Hyderabad Division have been pending for over two years. The Commissioner in Sind is requested to see that in these cases the outstanding proceedings are brought to a close as soon as possible and that in future delay in the completion of settlements is avoided. As regards the demarcation of forest boundaries a length of 443 miles was marked out during the year; a length of 1,817 miles still remains to be done, of which more than half is in the South Násik Division. Work in this division and in the Southern Circle is stated to have been hindered owing to a lack of surveyors; it is hoped that the recent orders improving the conditions of surveyors' service will facilitate recruitment and render speedier progress possible.

2. During the year one Working Plan in the Northern Circle, two in the Central Circle, and five in the Southern Circle were under preparation, while three plans, namely, the Igatpuri Teak and Fuel Plan, the Ankola-Kumta Coast Fuel Plan, and the Soppinhosalli High Forest Plan received the approval of Government. Government notice with interest that two plans in the Kánara Northern Division were recommended for revision owing to the change in condition due to improved fire protection; it is reported that in consequence of this the yield has increased six times. The Conservator, C. C., again lays stress on the urgent need for revising the working plans in some of his divisions, more particularly parts of North and East Khándesh, and Poona, where the plans now in use are unsuited to the conditions of the present day and urges the necessity of appointing a trained officer to the Working Plans Division. The Senior Conservator when submitting to Government recommendations reporting the posting of Forest Officers should bear this point in mind. The prescriptions of the Working Plans were adhered to with a fair degree of success in the Northern and Southern Circles; but in the Central Circle dearth of labour and scarcity of fodder and water necessitated numerous deviations. The road trains which were purchased during the year for use in the Northern and Southern Circles appear to have been disappointing; the cost of working was heavier than was expected, and the weight of the train proved too great for the ordinary Indian road. The question of providing other mechanical means of conveying timber from the forest to the railway in Kánara is receiving consideration.

3. The total expenditure on new works, roads and buildings amounted to Rs. 94,276, a much larger sum than in the previous year, when it amounted to Rs. 41,121 only. The expenditure on repairs, Rs. 53,176, was also larger than in 1911-12, when it was only Rs. 40,913. The works were mainly of a minor nature, the most noticeable perhaps being the extension of the Vang Valley and Koina Valley Roads in the Sátára Division which, when completed, will open up a large area of valuable forest on the Western Gháts. With regard to the construction of the Charnmal-Borzár section of the Pimpalner-Navápur road, the Collector of West Khándesh should consider in consultation with the Superintending Engineer, C. D., whether the work should be taken up by the Public Works Department as a provincial civil work. The Khándesh Nizám Frontier road is in course of extension to Pimpalner and a further extension to the railway at Navápur might be advisable.

4. The number of offences reported during the year was 19,955, a decrease of exactly 2,000 from the total of 1911-12 (21,955). Taking the Presidency proper by itself, there was an increase, the total for the year being 18,994 compared with 17,789 for 1911-12. The chief cause of the rise was shortage of rains in the Central Circle and the resulting scarcity of fodder, which led to a good deal of trespassing in closed forest in Sátára and North Násik and to illicit cutting of anjan trees in Khándesh. Added to this the steps taken to check the abuse of the dead-wood privilege in the Mahábaleshwar and Jávli ranges of the Sátára Division and the more efficient administration in Poona increased the number of cases of unauthorized fellings. Cases of injury to forest by fire once more show a gratifying decline, the total being 1,243, or not much more than half the number reported in 1910-11. Crime of a serious nature was as a rule absent; but there was a serious case discovered in Sangamner and Akola, in which the villagers had combined to commit systematic thefts of timber

and terrorize informants. It was found necessary in this case to station additional police in the villages concerned at the villagers' cost. In his report for 1911-12 the Conservator, N. C., expressed the opinion that communal punishment had been far too little used in coping with bad fire protection and other forest offences and that a wider recourse to this form of punishment would yield satisfactory results. In his report for the current year he has furnished a list of villages in which the prevalence of forest crime has led to a suspension of privileges for periods of varying lengths, while at the same time in those cases where forest protection has been good, the villagers have been rewarded by the full or partial remission of grazing fees. The policy followed by the Conservator, which, it is noted, was also applied with great success in Belgaum, has the full approval of Government and they consider that it should be adopted generally. In the Sind Circle the total number of offences reported was 961, the corresponding total for 1911-12 being 4,166; the main cause of this very large decrease being the omission by the Deputy Conservator from his register of 2,533 cases in which owners of cattle were found grazing in open or closed forest without a pass, and allowed to go on payment of the grazing and pound fees. In adopting this procedure the Deputy Conservator does not appear to be wholly correct and separate instructions will be issued on the point. Apart from cases of illicit grazing, offences in Sind showed a gratifying decline, particularly those of injuring forest by fire.

5. The results of the year as regards fire protection were extremely favourable. Except in two districts, the Panch Maháls and Sátára, both the number of fires and the area burnt were very much smaller than in 1911-12, the figures for which year again were a great improvement on those of 1910-11. In the Northern Circle the system of rewarding the villagers in cash for good fire protection continued to work well in Bassein; and it is being extended experimentally to other villages in the Thána District. In the Central Circle the figures are very striking indeed, the area burnt in the three Khándesh Divisions amounting to 35,119 acres only, or little more than one-tenth of that burnt in 1908-09. This favourable result was no doubt due in some measure to the peculiar circumstances of the year, to the scanty supply of grass, and to the fact that large quantities were cut and removed; but making every allowance for this there is good reason to believe that the improvement secured during the past four years will prove to be permanent. The success which has attended the efforts of Forest officers in these divisions to ensure protection from fire and secure the co-operation and assistance of the people is, in the opinion of Government, deserving of high praise. In the Southern Circle, the system of communal punishment and reward continued to be extensively applied, 243 villages being rewarded for good protection by concession in the matter of grazing fees, while 200 were punished by the reduction of privileges for indifference in this respect. Taking the circle as a whole the results are extremely good, the area burnt being roughly two-fifths of that burnt in 1911-12. A complaint is made by the Conservator that the sentences imposed in the cases detected were in every case inadequate, and judging from the figures given by the Conservator his complaint seems to be not without justification. Where circumstances justify it, the Conservator should consider the desirability of moving Government to file an application for enhancement of punishment. In the Sind Circle a good inundation coupled with the fact that there was a good supply of grass outside the forest reduced the number of cattle resorting to the forests for grazing, and there were far fewer fires started with the object of keeping down the coarse grass. The good results secured in the clearance of fire tracts and the maintenance of patrols are satisfactory.

6. The number of cattle impounded increased from 1,38,496 to 1,58,988. In the Northern Circle there was a decline due essentially to the adoption of a lenient policy in the Panch Maháls after the famine. Sind owing to causes already mentioned, viz., a good inundation and the existence of abundant grass outside the forest, showed a decrease of 3,645 or 20 per cent.; while in the Southern Circle, though the total is a little larger than in 1912-13, the figures may be considered to be satisfactory. The Circle which was almost entirely responsible for the increase was the Central where the total rose from 76,682 to 1,02,269 or by 33 per cent. After the decrease which has been so marked during the past three years, the results now reported are at first sight disappointing. So much has been done since 1910, in the transfer of large areas from forest proper

to pasture forest, in the reduction of grazing fees and in endeavouring to meet the requirements of the people in the matter of grazing wherever this is possible, that it had been hoped that the reduction in the number of impoundings would be permanent. A closer examination, however, of the figures supplied by the Conservator as well as of the circumstances of the year shows that there is little real reason for despondency. In the first place the number of browsers (goats and sheep) impounded amounted to no less than 55,412 or 58 per cent. of the whole. This total is 7,153 in excess of that for the previous year. As it is now the accepted policy of Government that these animals are not to be allowed in the forest proper but should graze in the very large areas of pasture forest made available for them, it is difficult to avoid the conclusion suggested by the Conservator that this trespass was in great measure deliberate. Secondly, it is impossible to ignore the fact that the circumstances of the year were peculiar. The rains were very late in coming, the supply of grass outside the forest proper was short for the second year in succession, and the people were to some extent demoralized by the concessions of the previous year. If these facts are borne in mind, the increase in bovines impounded—18,107—is not larger than might have been expected. With regard to the grazing of goats and sheep it is noted that the impoundings were particularly large in North Násik and Sátára. The Conservator is requested to consider whether the time has not come to raise the fees for goats and sheep in these divisions and whether it would not be possible to enlist the co-operation of the villagers in keeping down trespass. The amount of grazing available is strictly limited, and it is obviously to the interest of the cultivators to secure it as far as possible for their own cattle and not allow the professional graziers who own most of the goats and sheep to take it from them.

7. The forests provided grazing for 15,22,686 bovines, 2,12,428 sheep and goats, 921 camels, 4,562 other animals on payment of fees amounting to Rs. 3,10,836 and to 4,62,856 bovines, 2,204 goats and sheep, 698 camels and 5,178 other animals free of charge. The value of the grazing supplied is calculated to have been Rs. 18,69,955 at full rate.

8. Natural reproduction is stated to have been good in the Southern Circle and in Sind, but reports from the Northern and Central Circles were less favourable, shortness of rainfall and excessive grazing having damaged the seedlings. On the other hand, reproduction by coppice shoots is stated to have been good. The experience of the year in the Northern Circle shows that teak seedlings need light to stimulate their growth and the Conservator consequently has formed the opinion that the future of the Dángs teak forest largely depends on the opening up of the canopy by the removal of species other than teak; he contends that these species properly treated would make excellent railway sleepers and urges that the Companies should make experiment in this direction. In the Central Division reproduction is stated to have been stimulated by the improved arrangements for fire protection. Artificial reproduction was carried on in all Circles on the usual lines. Government note with satisfaction that negotiations are in progress for the acquisition of land for nine new casuarina plantations in the Thána District with the object of supplying wood at cheap rates to the sea-side towns. In the Central Circle the experiments in agriculture-cum-forestry were continued, but the results were disappointing; in Khándesh, in particular, the Bhil has not taken as kindly to the system as was hoped. In the Southern Circle considerable additions were made to the casuarina plantations which are reported to be doing well. The experimental rubber plantations in Thána received a good deal of attention. Trees of the *Ficus elastica* variety are reported to be healthy and some of the Ceara and Para variety will be shortly tapped. But it is feared that the heaviness of the rainfall coupled with the comparatively short duration of the rainy season is not suited to the growth of the rubber plant. Experiments with lác were continued in both East and West Khándesh. Lác of excellent quality was secured and it was shown that it is possible to infect fresh trees artificially and so increase the supply; but the risk of damage from the ravages of black ants is great and so far the measures taken to counteract them have failed. Experiments in Sind on the same lines were less successful than in the Presidency, owing, it is thought, to an exceptionally hot year. Further trials, however, will be made both in this Province and in Khándesh.

9. The gross revenue received amounted to Rs. 49,67,694, an advance of Rs. 4,74,363 over the total of 1911-12; the totals on the expenditure side for the two years were Rs. 26,24,741 and Rs. 28,91,465. These figures, however, include items on both sides of the account due to famine fodder operations; on the revenue side of the account for 1912-13 Rs. 3,92,439 and on the expenditure side Rs. 2,35,700, as compared with Rs. 3,85,668 and Rs. 5,10,788 for 1911-12. Excluding these figures the receipts amounted to Rs. 45,75,255, as compared with Rs. 41,07,663 for the previous year, while the charges come to Rs. 23,89,041 as against Rs. 23,80,677, the surplus being Rs. 21,86,214 or Rs. 4,59,227 in excess of last year. In the Northern Circle notwithstanding a rise of half a lách on the expenditure side due mainly to the purchase of a road train and saw-mill plant in Surat, the surplus rose from Rs. 6,58,909 to Rs. 7,96,332, better prices being realised for both timber and charcoal. In the Southern Circle the improvement in the surplus was even more marked, the figures for the two years 1911-12 and 1912-13 being Rs. 5,26,409 and Rs. 8,97,642. Here as in the Northern Circle the prices obtained for produce ruled very high. In the Central Circle the results of the year were not so favourable and the net surplus declined by no less than Rs. 85,233; in two divisions, North Khándesh and South Násik, the fall was Rs. 55,361 and Rs. 61,562, respectively. Taking the circle as a whole, the outstanding cause of the decline in receipts was the complete failure of the mhowra seed crop which yielded only Rs. 12,000 compared with Rs. 73,000 in 1911-12. It is satisfactory to notice that of the three divisions which in 1911-12 worked at a loss, two, Kolába and the Panch Maháls, showed a profit during 1912-13; while in the third, Sátára, the deficit was reduced from Rs. 17,131 to Rs. 3,898. In the last mentioned district, the policy of improving communications and thereby opening up forests, considered hitherto unworkable, has yielded good results and it is hoped that, if it is persisted in, the deficit will disappear. The Sind Circle showed a satisfactory increase of Rs. 35,498 in the net surplus owing to high prices. The reports of the year show that the administration of the Department has been maintained at a high level of efficiency. The acknowledgments of Government are due to the Conservators and the Deputy Conservator of Circles and the staff subordinate to them for the zeal and devotion which they have displayed in the discharge of their duties.

C. W. A. TURNER,

Under Secretary to Government.

To

The Conservator of Forests, N. C.,
 The Conservator of Forests, C. C.,
 The Conservator of Forests, S. C.,
 The Deputy Conservator of Forests in charge Sind Circle,
 The Commissioner in Sind,
 The Commissioner, N. D.,
 The Commissioner, C. D.,
 The Commissioner, S. D.,
 All Collectors, including the Collectors in Sind and the Deputy
 Commissioner, Upper Sind Frontier,
 The Accountant General,
 The Director of Agriculture and of Co-operative Societies,
 The Settlement Commissioner and Director of Land Records,
 The Public Works Department of the Secretariat,
 The Oriental Translator to Government,
 The Editors' Tables and Editors of Newspapers,
 The Non-official Members of the Legislative Council,
 The Government of India,
 The Under Secretary of State for India. } By letter.

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