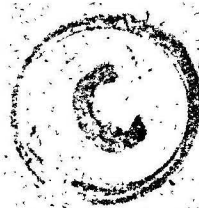


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PROGRESS REPORT
OF
FOREST ADMINISTRATION
IS
COORG
FOR
1912-1913



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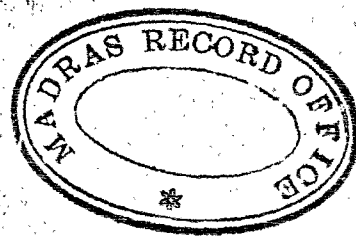
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PROGRESS REPORT
OF
FOREST ADMINISTRATION

IN
COORG

FOR
1912-1913.



By H. TIREMAN, Esq.,
Deputy Conservator of Forests,

WITH A REVIEW BY THE CHIEF COMMISSIONER

AND

ORDERS BY THE GOVERNMENT OF INDIA.

BANGALORE:

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GOVERNMENT OF INDIA.
DEPARTMENT OF REVENUE AND AGRICULTURE.

FORESTS.

FROM

THE HON'BLE SIR E. D. MACLAGAN, K.C.I.E., C.S.I., I.C.S.,
SECRETARY TO THE GOVERNMENT OF INDIA,

TO

THE CHIEF COMMISSIONER OF COORG.

Simla, the 27th February 1914.

SIR,

I am directed to acknowledge the receipt of Mr. Warburton's letter No. 3109, dated the 19th December 1913, with which was forwarded the report on Forest Administration in Coorg during 1912-13, together with your orders thereon.

2. The Government of India note with pleasure that the results of fire conservancy continue to improve, but observe that while the percentage of success has risen from 96.4 in 1910-11 to 97.2 in 1912-13, there has been an increase of no less than 34 per cent in the cost per square mile under protection. They trust that this largely increased cost will receive very careful consideration, and that every possible economy, consistent with the successful operations, will be effected. It would also be convenient if in future reports the results from year to year were compared, the percentages of success and the cost per square mile being stated.

3. The progress made in the campaign against lantana appears to be very satisfactory, and the average cost, which is less than Rs. 6 per acre, seems reasonable. The Government of India are gratified to learn that the labour difficulties in connection with the eradication of this pest are being overcome, and trust that no efforts will be spared to secure the complete success of the operation.

4. It is noticed that since 1903-04 no reduction has been made in the length of boundaries still to be demarcated, and I am to request that this may be expedited and that early steps may be taken to complete such demarcation really necessary. I am further to ask that in the compilation of form taungya, like regular plantations, may, if possible, be classified in accordance with the species raised in them. The value of the report would also be enhanced if trees were referred to by their specific and not merely their generic names.

5. In conclusion, the Government of India desire to express their appreciation of the good work done by Mr. Tireman and his assistant, Mr. Crothers.

I have the honour to be,

SIR,

Your most obedient servant,

E. D. MACLAGAN,

Secretary to the Government of India.

*Proceedings of the Chief Commissioner of Coorg,
(Forests),—No. 2968, dated Bangalore, the 1st December 1913.*

READ:—

Letter from the Commissioner of Coorg, Dis. C. No. 549-B., dated the 21st November 1913, submitting the progress report on the Forest Administration of Coorg for the year which ended on the 30th June 1913.

ORDER THEREON.—No. 2968, DATED BANGALORE, THE 1ST DECEMBER 1913.

The working plan for the Eastern Forests of Coorg, referred to in paragraph 5 of the report, has since been sanctioned by the Chief Commissioner, in his proceedings No. 2615, dated the 21st October 1913.

2. The results of protection from fire were fair. The area burnt during the year was 3,004 acres as compared with 3,476 in the previous year. An unusually large number of fires occurred in the Sandal Range in North Coorg, burning 2,065 acres in all.

3. While it is gratifying to note that the "spike" disease of sandal has not spread, it is to be regretted that there has been no diminution in its severity in places already affected. The experiments suggested by the Inspector General of Forests with a view to studying the spread of the disease and its association with lantana, were continued during the year. Experiments made so far in uprooting lantana in badly affected areas and observing the incidence of the disease in these and adjoining areas in which no lantana has been uprooted, tend to support the theory that, if lantana is not the cause of spike it seems a factor which renders the disease considerably more severe than it would otherwise be.

4. The suggestions made by the Inspector General of Forests in 1912 for the sowings of sandal and the tending of its growth in private and paisari lands were followed to some extent during the year and the work is in progress.

5. The campaign against lantana was continued during the year and it is satisfactory to note that the labour difficulties referred to in the last year's report have to a great extent disappeared and that considerable progress has been made in the work.

6. The protective burning of grass hills continued to receive attention by the Revenue Department. Operations were conducted in 69 villages and about 35,000 acres of grass land were burnt between January and March 1913. A sum of Rs. 883-6-0 was distributed in rewards to patels and ryots for willingly complying with the instructions given and for co-operating in the work.

7. The following statement compares the receipts and charges of the past five years:—

		Receipts Rs.	Charges Rs.	Surplus Rs.
1908—09	...	2,21,019	1,01,289	1,19,730
1909—10	...	2,38,596	1,06,541	1,32,055
1910—11	...	2,72,833	1,10,418	1,62,415
1911—12	...	3,08,060	1,23,516	1,84,544
1912—13	...	2,77,602	1,65,710	1,11,892

There was a decrease in revenue and an increase in expenditure during the year under review, resulting in a falling off in the surplus as compared with the previous year. The variations in revenue and expenditure are explained in paragraphs 29 and 30 of the report.

*Proceedings of the Chief Commissioner of Coorg,
(Forests),—No. 2968, dated Bangalore, the 1st December 1913.*

8. The Chief Commissioner is glad to note that Mr. Crothers has done well during the year and that there has been some improvement in the conduct of the subordinate establishment. He is glad also of another opportunity of placing on record his acknowledgments to Mr. Tireman for the good work done by the department of which he is in charge.

P. B. Warburton,
Secretary to the Chief Commissioner.

To—The Government of India, Home Department, with covering letter.

„ Commissioner of Coorg.

„ Deputy Conservator of Forests, Coorg.

R. P. B.—5-12-1913.—245.

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ANNUAL PROGRESS REPORT
OF THE
FOREST ADMINISTRATION IN COORG
FOR THE YEAR 1912—1913

CHAPTER I.

CONSTITUTION OF STATE FORESTS.

1. ALTERATION IN AREA.

(i) *Reserved Forests.*

The area of the reserved forests was reduced during the year by the disforestation of 29 acres of the Brahmagiri reserve for wet cultivation and of 50 acres of the Nidta reserve (Kebbé hola paisari). The area at the close of the year was 333,007 acres.

2. FOREST SETTLEMENTS.

2. A sum of Rs. 41 was paid for the acquisition of a piece of land to permit of a deviation being made in the Aramanébané-Ganagur road.

3. DEMARCATION.

3. A sum of Rs. 65 was spent on repairs to cairns and reclearing boundaries.

4. FOREST SURVEYS.

4. Five hundred and ten acres of teak and sandal plantations (Kutompolé Teak and Meenkolly Sandal) were surveyed by the departmental draftsman. A sum of Rs. 688 was spent on this man's pay and travelling allowance.

The total expenditure under the head "Constitution of State Forests" was Rs. 794.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

1. REGULATION OF MANAGEMENT.

(a) *Preparation and Control of Regular Working-Plans.*

5. A working-plan for the eastern forests, 207 square miles in extent, was drawn up during the year and has since been submitted to the Local Government for sanction. The preparation of a working-plan for the ghât forests will, it is hoped, be commenced in the cold weather of 1914.

2. COMMUNICATIONS AND BUILDINGS.

(a) Roads and Bridges.

6. The following new works were carried out during the year:—

The construction of the road along the right bank of the Barapolé river was begun, and about a mile and a half was partly completed. Labour was scarce throughout the year and cholera completely stopped the work in March or more would have been done. No expenditure can be shown against this work as it has been entrusted to a contractor and no adjustment was made during the year.

The trace for this road has been continued up to a point six miles from Urti. The expenditure on tracing was Rs. 135.

The trace made for a bridle-path to Matre was recleared and the alignment altered at certain points at a cost of Rs. 46.

The trace for a bridle-path along the eastern slope of the grass hills on the ghâts between Nalknad Palace and Bhagamandala was completed from Bakatkolly to the Bhagamandala-Mundrote bridle-path, a distance of 38 miles, along 20 miles of which a one-foot path was made. The expenditure on this work was Rs. 329.

A drag path one mile and $4\frac{1}{2}$ furlongs in length was constructed at a cost of Rs. 720 as a feeder to the Barapolé valley cart road, and traces were made for the construction of a further length of 5 miles of such feeders. The cost incurred on tracing was Rs. 20.

The total expenditure on roads and bridges including repairs amounted to Rs. 3,445.

(b) Buildings.

7. The "Knoll" bungalow at Mercara with about 50 acres of land was purchased as a residence for the Deputy Conservator for Rs. 16,000.

As the Sandal Koti at Fraserpet is in a very bad state of repair, and is not well suited for efficient working, advantage was taken of the fact that the old Arrack Distillery was no longer required by the Excise authorities. This building was repaired and somewhat altered, and the sandalwood will in future be converted and stored in it. Weighing machinery, a short length of tram line, and a truck have been purchased and when these are laid down an easy and rapid check of the stock will be possible. It is hoped that the work will shortly be completed. Rs. 1,581 were spent during the year on alterations and repairs to the buildings, and Rs. 1,958 for purchase of machinery.

The rest-house at Ramaswami Kanvé which was in a precarious condition was demolished and the materials were utilized for building a new rest-house at Hebbalé 2 miles further down the Cauvery, and a more convenient centre for inspection purposes. The expenditure incurred on this work, which was not quite completed during the year, was Rs. 935.

An inspection bungalow was partly constructed at a cost of Rs. 500 at Matre in the ghât forests.

Quarters were partly constructed for foresters and guards at the following places:—

	RS.
Nagerholé, 2 foresters	} ... cost 1,611
Do. 3 guards	
Dubaré, 1 forester	... " 542
Gaddigé, 4 guards	... " 779

The total expenditure on buildings inclusive of repairs was Rs. 24,802. Considerable further expenditure under this head will be necessary for some years to come for the provision of suitable quarters for the subordinates, and for the construction of inspection bungalows in the ghât forests.

(c) Miscellaneous Works.

8. Rocks were blasted and retaining walls built at a cost of Rs. 305 in the Barapolé river above Kutompolé to facilitate the floating of timber.

A well was sunk at the Ranger's quarters at Tittimatti at a cost of Rs. 227.

Rs. 1,558 were spent on the upkeep of and alterations in the "Beauvoir" compound at Mercara, and Rs. 190 on miscellaneous works.

3. PROTECTION OF FORESTS.

(a) General protection.

9. The subjoined table compares the cases reported during the year

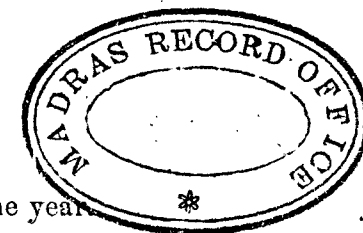
Nature of offence.	Criminal courts.		Compounded.		Withdrawn.		Total.	
	1911-12.	1912-13.	1911-12.	1912-13.	1911-12.	1912-13.	1911-12.	1912-13.
Injury by fire ...	...	1	...	...	...	...	...	1
Unauthorized felling ...	1	...	5	4	...	...	6	4
Do. grazing ...	5	16	7	2	19	14	31	32
Other offences ...	2	2	1	...	...	1	3	3
Total ...	8	19	13	6	19	15	40	40

Of the 19 cases taken into Court 12 ended in conviction, three in acquittal, and four were pending at the close of the year. The increase in the number of cases taken to Court is due to the fact that in most of the cattle grazing cases the animals were found grazing astray. Such cases can be prosecuted only under the Cattle Trespass Act under which forest officers have no power to compound. The acquittals were due to a mistake on the part of the forest subordinates, the owners of stray cattle having been prosecuted instead of the graziers. Two important cases occurred:—In the first, the lessees of a cardamom malé on the ghâts scandalously infringed the terms of the lease and cleared plots, several acres in extent, instead of limiting them to one-sixth of an acre; and in the second, a D. P. W. contractor and his servant set fire to a plantation at Mercara to save themselves the trouble of clearing jungle growing in a quarry. The former case is still pending, and in the latter the two accused were fined Rs. 30 and Rs. 5 respectively. The two cases reported as pending in paragraph 13 of last year's report ended in conviction.

(b) Protection from fire.

10. In South Coorg the results of protection were fair. Twelve fires occurred and 936 acres were burnt. The two worst fires burning 360 acres and 350 acres respectively were caused, the first by sparks blown across the Mysore frontier fire line, and the second most probably by malicious firing though, as is usually the case, no culprit could be found. The remaining ten fires were unimportant.

In North Coorg there were no fires in the Cauvery Range, but the results in the Sandal Range were very bad. Seven fires occurred burning 2,065 acres. These all occurred between the 23rd and 25th March when a very strong east wind blew almost without cessation and practically the whole country was on fire. With so many fires burning at once the establishment had an impossible task to deal with, and their work was rendered more difficult by the presence to the east of the forest of numbers of dead bamboo clumps. The eastern fire lines will be widened during the current year, and such dead bamboo clumps as remain will be burnt before the fire season.



As reported in paragraph 9, a Public Works contractor was found setting fire to lantana in a quarry in one of the Mercara plantations in order to facilitate blasting and was fined.

(c) *Protection from cattle.*

11. Sixty-nine and a half per cent. of the reserves were open to grazing for half the year. The number of cattle admitted on payment was 4,289 as against 1,900 during the previous year, the increase being due to the suspension by order of the Chief Commissioner of the grazing restrictions in the North Coorg forests (Yedavanad, Gadinad, Jainkal and Nidta). The number of cattle impounded was 250.

(d) *Protection against injuries from natural causes.*

12. *Sandal spike disease.*—15,329 affected trees were uprooted as compared with 16,785 in the previous year. The disease has not spread but there has been no diminution in its severity. It appears indeed to be worse than ever at present in the neighbourhood of Banawara where the rainfall this season has been exceptionally light, though no definite statement to this effect can be made until the work of uprooting diseased trees has been completed for this season.

13. Experiments as suggested by the Inspector-General of Forests have been continued. They are the following:—

(a) Digging a deep trench round healthy trees in the vicinity of diseased trees. So far none of the trees within the limits of the trenches have been attacked.

(b) Uprooting lantana in certain badly affected areas and observing the incidence of the disease in these and adjoining areas in which no lantana has been uprooted. The results of this experiment so far have been as follows.

Plot No.	Area in acres	Lantana uprooted or not.	No. of diseased trees uprooted per acre.		
			1911.	1912.	1913.
I	5	Not uprooted	...	25	40
IV	6	Do.	...	44	117
II	8.7	Uprooted in 1911 and 1912	40	24	10
III	5.8	Do. 1912	...	42	21

(c) Underplanting sandal trees with species observed to be good hosts. No results can of course be expected from this experiment for some time to come.

(d) A record has been kept of the species of trees in the near vicinity of trees attacked by "spike", and so far very few cases of the disease have been observed in the vicinity of *Acacia Suma*, or *Schleichera trijuga*, but it is too early as yet to draw any definite conclusions as to which, if any, species confer on sandal any immunity from the disease.

In the plots detailed above under (b) the lantana was very dense. The results of this experiment tend to confirm the theory that if lantana is not the cause of spike it is at all events a factor which renders the disease considerably severer than it would otherwise be.

14. The expenditure on the uprooting of diseased trees was Rs. 1,681 as against Rs. 1,648 in the previous year. The figure Rs. 1,333 quoted in the second part of paragraph 17 of last year's report was an error for Rs. 1,648.

15. *Lantana.*—The campaign against this pest was commenced in earnest during the rains of 1912, and in spite of the great difficulty experienced in obtaining local labour considerable progress was made. 764 acres of reserves and 372 acres of sandal bearing paisari land were cleared at a cost of Rs. 9,389. This sum included Rs. 2,691 spent for erection of sheds for coolies, purchase of tools, etc. 300 acres were also cleared of re-growth at a cost of Rs. 287 and Rs. 2,000 were spent on cutting and burning 1,500 acres in the Anekad forest in the dry weather preparatory to uprooting in the rains. The labour difficulty has to a great extent disappeared as contractors have come forward this year to undertake the work at fairly reasonable rates. It has been found that if the lantana is cut and burnt in the dry weather a large number of the seedlings are destroyed and there is consequently less re-growth after uprooting, and as far as can be seen at present cutting and burning followed by uprooting is probably the most efficient method of eradication. This method, however, cannot be adopted where there is much sandalwood owing to the damage done to the growing stock by fire.

16. The following is a statement of the work done in each Range:—

Range.				Original work.	Cost.	Re-growth.	Cost.
				Acres.	Rs.	Acres.	Rs.
Hargat	...	...	...	377	938	...	...
Mawkul	...	...	...	122	1,255	...	...
Kutompole	...	...	...	114	502	114	39
Sandal (Reserve)	...	...	...	95	941	94	122
Do. (Paisaris)	...	...	...	17	145	...	...
Canvery (Reserve)	...	...	...	37	144	30	18
Do. (Paisaris)	...	...	...	355	2,384	62	108
Mercara	...	...	...	19	389	...	...
Total				1,136	6,698	300	257

Scattered growth was uprooted over 1,019 acres of teak kumris and sandal plantations at a cost of Rs. 882.

4. SYLVICULTURE.

(a) *Natural reproduction.*

17. The seeding of the principal species in the deciduous forests was normal. In the ghats *Dipterocarpus* seeded well and a good crop of seedlings resulted. *Hopea* seeded well in places and natural reproduction of this species is good. The seeding of the other valuable species was poor.

A more or less gregarious seeding of *Bambusa arundinacea* occurred south of the Canvery, and *Dendrocalamus strictus* seeded gregariously in parts of the Dubaré and Devamachi forests. Very few of the *Bambusa* clumps in South Coorg have put out new culms this year and this may possibly be a sign that an extensive seeding will occur during the coming dry season.

(b) *Artificial reproduction.*

(i) *Regular plantations.*

18. In the old teak and sandalwood plantations climbers were cut and lantana removed at a cost of Rs. 430. In the Gangawara, Kargode, Katteputra and Banawara sandal plantations the overhead shade was removed at a cost (including removal of lantana) of Rs. 390. This operation was ordered by the Inspector-General of Forests at his inspection in 1912; it was very urgently needed as the sandal has suffered greatly from suppression. A marked improvement in the growth has already been effected.

(ii) *Teak Kumris (taungyas).*

19. In the Dubaré forest 13 acres were planted near the Dubaré bungalow with fairly satisfactory results and a nursery was opened for planting up a further area of 15 acres in the same locality. Planting was in progress at the end of the year and has since been completed.

In the Hatgat Range 30 acres were planted at Balecove and 30 acres at Nowloor and about 40 per cent. of the seedlings established themselves. Where seedlings had failed seeds were sown at stake in April 1913 and about 30 per cent. of these germinated. Failures were being replaced at the end of the year.

In the Mawkal Range 18 acres were planted at Mallikote kumri and about 55 per cent. of the seedlings established themselves. Failures were replaced by sowing seed at stake 33 per cent. of which germinated. The vacancies were being supplied by transplants at the end of the year.

In the ghâts the failures in 195 acres planted in 1911 at Kariké were replaced by *Hopea* seedlings and seeds of *Artocarpus hirsuta* and *integrifolia*, *Bombax*, *Xylia*, *Dysoxylon*, and *Eugenia*, both in the rains of 1912 and just before the rains of 1913. The percentage of success at the end of the year was teak 50 per cent., *Hopea* 50 per cent., *Artocarpus hirsuta* 20 per cent., *Artocarpus integrifolia* 10 per cent., *Bombax* and *Xylia* 5 per cent. All the *Dysoxylon* and *Eugenia* failed.

One hundred and twenty-five acres in Kariké and 25 acres in Mundrote were cleared and seedlings of *Hopea* and seeds of *Artocarpus hirsuta*, *Xylia* and *Eugenia* were put out in May. At the end of June the percentage of success was 80, 25, 75 and 25 respectively. The kumris of previous years were weeded and cleared where necessary at a cost of Rs. 1,046.

The sowing of evergreen species under the teak in Malagamané teak kumri was repeated but the seedlings were again all destroyed by deer; but similar sowing done in 1912 in the Hatgat Range was more successful, a number of *Pongamia* and *Randia* seedlings having established themselves. This work was again carried out during the year under report.

The sowing in 1912 of evergreen species along the streams in the coupes of the year in South Coorg was fairly successful as regards *Pongamia* and *Randia*. This work was also continued during the year.

Rs. 879 were paid as rewards for 71,055 established teak plants.

(iii) *Cultural Operations.*

20. *Sandalwood.*—The sandal sowings of 1911 and 1912 at Kurubarapanché in Hatgat reserve and in the Meenkolly forest continue to be most successful. The areas sown are:—

Kurubarapanché 50 acres sown in 1911 and resown in 1912.

Meenkolly 50 acres sown in 1911 and 90 acres sown in 1912. In the former area sambhur most unfortunately got through a gap in the fence made by wild elephants and did considerable damage, and in the latter owing to the apathy of the Ranger who postponed constructing a fence much damage was done by chital. The highest plant at Kurubarapanché is 7 feet 4½ inches and that at Meenkolly two feet high. These areas were tended by removing shade where necessary. During the year under report 50 acres were sown with sandal seed at Murkal, 50 in Meenkolly, 50 near Anechowk and 50 near Kargode.

The cost of these operations including fencing was Rs. 737.

The results of the sowing carried out during the last two years afford some reason for hope that the correct method of raising sandal has at last been hit on. Planting was in my opinion bound to fail owing to the parasitic nature of the roots which could scarcely be expected to flourish after being torn from their original hosts, while I think that previous sowing failed because the presence of the seed in the ground was advertised to rats and other vermin by the previous preparation of the soil which appears always to have been carried out. The method now adopted is to imitate nature as closely as possible. The seed is put into the ground as early in the season as possible so that it may have the advantage of the alternate sunshine and rain of April and May, and the soil is not prepared in any way. Before the following dry weather when owing to their remaining green while most of the surrounding vegetation is parched and dry the young sandal seedlings are greedily devoured by deer and cattle a strong fence capable of keeping out anything except elephants is constructed round the sown area. The fence is absolutely essential and the failure to put up efficient fences in previous years probably contributed in large measure to the failures experienced.

Teak and other timber trees.—The sowings of teak, biti and honné seeds in 1912 in blanks caused by the removal of trees in the fellings were fairly successful, some teak plants being now five feet high. Sowings where dead bamboo clumps were burnt however were almost all failures for no assignable reason. During the year under report 754 blanks caused by the removal of trees, and 140 caused by burning dead bamboo clumps were sown with teak, honné and biti seeds in the Hatgat Range.

As reported in paragraph 17, a more or less gregarious seeding of bamboo occurred in South Coorg. 407 acres where this seeding occurred were burnt and sown with teak seed. The burning was a mistake as all the bamboo seed had not fallen, and a dense crop of young bamboo has now sprung up. I am hopeful, however, that another burning next hot weather will destroy this.

In the ghâts many of the *Aini* and *Jack* seedlings resulting from the sowings in the Kutompolé teak plantation in 1912 were destroyed by deer and only 15 per cent. now survive. In this plantation *Bombax*, *Aini* (*Artocarpus hirsuta*) and *Eugenia* seeds were sown where lantana had been removed.

(c) *Operations for the improvement of the growing stock.*

21. Climber cutting was carried out in South Coorg over 1,924 acres under the provisions of the old working-plan at a cost of Rs. 141, and under the provisions of the new working-plan climber cutting combined with a light improvement felling was carried out over 2,714 acres at a cost of Rs. 709. Improvement fellings were also carried out over 260 acres in Dubaré forest at a cost of Rs. 60.

The work of tending the sandal growth in private and paisari lands ordered by the Inspector-General of Forests during his visit in 1912 was commenced at the end of the year in the Nidta Hobli, and is now in progress. Climbers and over-topping shade are being removed. The expenditure on this work was Rs. 23.

(d) *Experiments.*

22. The experiments in the direction of aiding natural reproduction referred to in last year's report were barren of result.

The half acre planted at Mercara with *Eucalyptus globulus* in 1911 was replanted with the same species. Only about 25 per cent. were successful. In June 1913 a further area of three acres was planted with eleven different species of *Eucalyptus*. So far *Eucalyptus maculata* appears to be the most successful. The experimental sowing of teak in kumris referred to in last year's report was successful and a further experiment in this direction was made during the year under report.

An experimental plot of 10 acres was demarcated on the grass hills below Tadiandamol in order to try to what extent the sholas which have been badly damaged by fires in past years can be restored to their original condition by sowing indigenous trees and shrubs along the water courses. Bunds were built across the streams and the seed was sown above these. The cost of this operation was Rs. 30. At the beginning of the monsoon 30 per cent. of the seed had germinated.

5. EXPLOITATION.

(a) System of Management.

23. The total area for which working-plans have been prepared and sanctioned amounted during the year under report to 130 square miles. The silvicultural system in force over this area is the selection system combined with the method of improvement fellings.

(b) Agency of Exploitation.

(i) Departmental Agency.

24. The balance of timber in hand at the beginning of the year was 42,446 cubic feet and the fellings of the year amounted to 190,069 cubic feet. 126,107 cubic feet were sold for Rs. 1,27,222 though only Rs. 1,09,117 were paid in during the year. The balance on hand at the end of the year was 106,408 cubic feet. This large balance is due to the following causes:—

52,863 cubic feet were felled in the hot weather of 1913 in order to give employment to the Kurubars when they would otherwise be idle. 33,000 cubic feet of honné timber felled in 1912 was not sold until the close of the year owing to low offers. By holding on I was able to secure a considerably higher price.

Charcoal.—17,920 cubic feet of fuel were converted into charcoal for the use of the D. P. W. and Government offices and sold for Rs. 717.

Sandalwood.—A balance of 43 tons of cleanwood and 42 tons of roughwood was brought over from the previous year. During the year 263 tons of roughwood were collected and altogether 226 tons were converted into 208 tons of cleanwood. Out of a total of 251 tons of cleanwood, 185 tons were sold for Rs. 1,14,993 or an average of Rs. 621 per ton as against Rs. 552 per ton during the previous year. After deducting 7 tons for dryage the balance carried forward at the end of the year was 59 tons of cleanwood and 79 tons of roughwood. The cost of collection and conversion was Rs. 6,189, and in addition a sum of Rs. 44 was spent in advertising sales and other contingent charges.

The price realized at auction was the highest on record although it was much lower than the prices obtained in Mysore which at one Koti were upwards of Rs. 1,100 per ton. The reason for this sudden rise in price is said to be the destruction of the rose gardens in Eastern Europe during the Balkan War and the consequent demand for sandal oil as a substitute for attar of roses. The wood was apparently required with as little delay as possible and as the Fraserpet Koti is situated considerably further from the railway than most of the Mysore Kotis, the price obtained was lower than it was in the case of more favourably situated depôts. A further disadvantage was the fact that the Coorg sale was held before those in Mysore and there was no guide to what fair prices should have been.

The total value of the disposals of the year under departmental collection amounted to Rs. 2,24,951.

(ii) Purchasers.

25. In the ghat forests 58,253 cubic feet of marked timber were sold for Rs. 6,400 as against 28,653 cubic feet sold for Rs. 5,208. The prices obtained are lower than in the previous year as a large proportion of the timber sold was of inferior species.

48,510 cubic feet of branch pieces were similarly disposed of from other reserved forests for Rs. 8,042.

Rs. 2,371 were realized for 8,205 cubic feet of timber removed from paisari (waste lands) as well as Rs. 6,650 from timber on *darkhast* lands. The fall in the latter item is due to the fact that no grants for rubber cultivation were made during the year.

Other produce.—37,960 cubic feet of fuel, 126,750 bamboos and 75,500 reeds were removed from reserved forests while 74,000 cubic feet of fuel and 86,000 bamboos were sold from paisari.

The grazing revenue was Rs. 1,373 including leases of swamps and sale of grass against Rs. 601 during the previous year, the increase being due to the suspension of grazing restrictions referred to in paragraph 11. The auctions of minor forest produce realized Rs. 3,459 and cardamom leases brought in Rs. 18,467.

The total value of the removals by purchasers was Rs. 49,917 against Rs. 34,870 during the previous year.

(iii) Rights and Privileges.

26. The only right was that of free grazing the value of which at full rates amounted to Rs. 104 during the year.

(iv) Free grants.

Nil.

(c) Outturn and sources of Forest Produce.

27. The total outturn of the year is summarised in the following table:—

Source of yield.	Major produce.			Minor produce.		
	Timber.	Sandalwood.	Fuel.	Bamboos.	Grass and grazing.	Other produce.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Reserved forests	1,23,559	...	380	1,340	1,373	21,926
Unreserved lands	9,021	1,14,993	1,972	304	...	
Total	1,32,580	1,14,993	2,352	1,644	1,373	21,926

The total expenditure under the head "Management of State Forests" was as follows:—

	Rs.
A. Conservancy and Works	98,535
B. Establishments	67,175
Total	1,65,710

CHAPTER III.

FINANCIAL RESULTS.

28. The following table compares the revenue and expenditure of the year with those of previous years:—

Year.	Revenue.	Expenditure.	Surplus.
	Rs.	Rs.	Rs.
1911—1912	3,08,060	1,23,516	1,84,544
1912—1913	2,77,602	1,65,710	1,11,892
Average of 5 years ending 1910—1911	2,48,624	1,03,927	1,44,696

29. The revenue shows a net decrease of Rs. 30,458. Departmental operations accounted for a decrease of Rs. 16,000 due to a drop in the prices realized for biti and teak, and to the holding back from sale of the bonné timber felled in 1912. There was a decrease of Rs. 5,000 under the head "Purchasers" as no lands were granted for rubber cultivation, and of Rs. 9,000 under "Other sources" as no elephants were sold.

30. There was an increase in expenditure of Rs. 42,194 chiefly made up of the following items:—

Timber Rs. 1,500. Due to the commencement of timber felling earlier than usual as explained in paragraph 24.

Sandalwood Rs. 3,000. Due to the purchase of weighing machinery and larger collections of sandalwood.

Communications and buildings Rs. 25,500. Due to the purchase of the "Knoll" bungalow for the accommodation of the Deputy Conservator of Forests, the construction of bungalows and quarters for subordinates, the conversion of the Fraserpet Distillery into a Sandalwood Koti, and to extended work on roads.

Organisation Rs. 12,000. Due to the eradication of lantana.

31. The percentages of expenditure under "A. Conservancy and Works" and "B. Establishments" respectively to total expenditure were 59 and 41. The increase in expenditure and decrease in revenue were foreshadowed in paragraph 36 of last year's report.

32. With reference to the orders contained in paragraph 6 of Government of India Circular No. 26-F/314-3 (Department of Revenue and Agriculture), dated 10th December 1912, a supplementary statement in Form No. 24 has been added to the annual forms showing as far as possible the revenue and expenditure relating to lands not managed by the Forest Department. The revenue from and expenditure on sandalwood has been shown under the head "Lands managed by the Forest Department". Almost all the sandalwood is obtained from Paisari (Government waste) and private lands, but as it is removed by the Forest Department these lands are considered to be under forest management as far as sandalwood is concerned.

CHAPTER IV.

ADMINISTRATION.

33. The Division was in my charge throughout the year and the Sub-Division in that of Mr. Crothers.

Conduct of the establishment.

34. Mr. Crothers is an energetic and capable forest officer and has worked well. The conduct of the subordinate establishment was somewhat better than in the previous year. One guard was dismissed and four guards, one forester and one Deputy Ranger reduced. With one prominent exception the Rangers all worked fairly well, and the work of Rangers Ponnappa and Colaco was very good. An additional Ranger was appointed to fill the post recently sanctioned by the Government of India.

35. The Commissioner's annual inspection of the office was favourable.

CHAPTER V.

GENERAL.

36. There were eleven elephants in stock at the beginning of the year and four animals were captured. The cost of the capturing operations was Rs. 736 and that of the feed and keep of the whole stud was Rs. 7,219.

*Measures for the prevention of denudation of forest growth
in catchment areas of streams.*

Protective burning of grass hills.

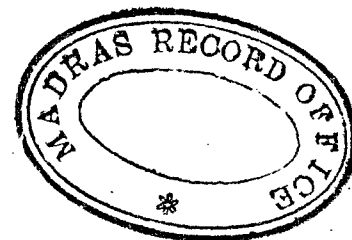
37. Operations were conducted in 69 villages, about 35,000 acres of grass land having been burnt between January and March. I inspected the work done near Nalknad Palace, and found it fairly satisfactory though some of the burning had been done too late to be of any use.

38. As regards the felling of timber in abandoned coffee estates all cases in which passes for the removal of timber or firewood from private lands were granted were as usual notified to the Commissioner.

39. The stream margins in lands granted for rubber and fibre cultivation were inspected and were generally found to be in a satisfactory condition.

MERCARA,
Dated 7th October 1913.

H. TIREMAN,
Deputy Conservator of Forests, Coorg.



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List of Annual Returns to the Progress Report of Forest Administration in Coorg for 1912—1913.

Form No.	Name of Form.
7	Areas of forests.
8	Forest settlements.
9	Démarcation of boundaries.
10	Forest surveys
11	Progress made in working-plans.
12	Communications and buildings.
13	Breaches of forest rules.
14	Forest tracts protected from fire.
15	Causes of forest fires.
16	Areas closed and open to grazing.
17	Grazing in State forests.
18	Artificial reproduction.
19	Outturn of timber and fuel.
20	Outturn of minor produce.
21	Account of timber, &c., in depots and sold locally.
22	Abstract of value of timber and stock.
23	Abstract of value of live and dead stock.
24	Summary of revenue and expenditure for the year.
25	Supplemental.
26	Account current for the year.
27	Outstandings on account of revenue during the year.
28	Outstandings and liabilities of contractors and disbursers during the year.

17

FORM No. 7.
FOREST DEPARTMENT, COORG.
Area of Reserved Forests, 1912—1913.

FOREST AREA											
Area of Reserved Forests, 1912-1913.											
Division.	Range.	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, &c.	Remarks.
				Acres.	Equivalent in square miles.			Acres.	Acres.		
RESERVED FORESTS.											
Coorg.		Coorg.	Brakunagiri ...	32,100	50	...	...	29	32,071	50	Vide Chief Commissioner's Notification No. 59 of 8th July 1912. Do : do No. 53 of 5th June 1913.
			Nidta ...	3,714	6	...	...	50	3,664	6	
			Other reserves ...	2,97,272	464	...	...	...	2,97,272	464	
Total.....				3,33,086	520	...	...	79	3,33,007	520	

FORM No. 8.
Statement showing the progress made in, and the expenditure incurred on, forest settlements during 1912—1913

Statement showing the progress made in, and the expenditure incurred on, forests.																			
Division.	Name of civil district or territory.	Area already settled at commencement of the year.	Areas finally settled during the year.				Areas undergoing settlement.			Remarks.									
			No. and date of Government or local sanction to the settlement.	Name of forest settled.	Area in square miles.	Expenditure incurred during the year on areas finally settled.	At commencement of the year.	Taken in hand during the year.	Expenditure incurred during the year on areas undergoing settlement.										
											In forest accounts.	In other accounts.	Bridge cost per square mile of area finally settled during the year.	Name of tract.	Area in square miles.	Name of tract.	Area in square miles.	In forest accounts.	In other accounts.
Coorg.	Coorg.	520 square miles.	...	...	...	Nil.	...	...	...	...	...	...	...	...	...	...	...	...	...

Form
FOREST DEPART-
Record of demarcation and

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.
	Miles.	Miles.	Miles.	Miles.
Coorg ...	...	...	307	307
Total.....	...	...	307	307

Form
FOREST DEPART-
Statement of forest areas surveyed and

Division.	Area surveyed and under survey during the year.								
	Special surveys, maps on 2 inch scale or over by survey of India Department.						Ordinary included in programme of the Survey District		
	With interior details.			Boundary surveys.			With interior details.		
	Previous.	Of the year.	Total cost.	Previous.	Of the year.	Total cost.	Previous.	Of the year.	Total cost.
1	2	3	4	5	6	7	8	9	10
	Sq. M.	Sq. M.	Rs.	Sq. M.	Sq. M.	Rs.	Sq. M.	Sq. M.	Rs.
Coorg ...	...	...	...	...	...	...	520	...	...
Total.....	...	...	...	...	...	...	520	...	...

NOTE.—It is impossible to state accurately to what previous survey work the figure in column 24 relates as past the Survey of India and this is now shown in column 8.

Form
FOREST DEPART-
Progress made in Working-

Division.	Areas for which working-plans have been sanctioned by Local Govt.		Areas for which working-plans are being compiled.		Areas for which working-plans have not yet been taken in hand.
	At commencement of year.	During year.	At commencement of year.	Taken in hand during year.	
1	2	3	4	5	6
	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.
Coorg ...	130	...	...	207	313
Total.....	130	...	...	207	313
					RESERVED LANDS
Total.....	...	...	...	...	...
					PROTECTED FORESTS.
Total.....	...	...	...	...	...
Grand Total.....	130	...	...	207	313

No. 9.
MENT, COORG.
maintenance of boundaries, 1912—1913.

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.	
Miles.	Miles.	Miles.	Rs.	Rs.	
173	56	536	...	65	
173	56	536	...	65	

No. 10.
MENT, COORG.
under survey during the year 1912—1913.

Surveyed and under survey during the year.											Areas remaining to be taken under survey.	Total forest area at end of the year as per Form No. 7.	Cost.			Remarks.
Topographical profile of India or in surveys.			Chain and compass or other surveys by local officers.										Previous.	Of the year.	Entire cost of all surveys to end of the year.	
Boundary surveys.			With interior details.				Boundary surveys.									
Previous.	Of the year.	Total cost.	4 inch or over.		Under 4 inch.		Total cost.	Previous.	Of the year.	Total cost.						
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sq. M.	Sq. M.	Rs.	Sq. M.	Sq. M.	Sq. M.	Sq. M.	Rs.	Sq. M.	Acres.	Rs.	Sq. M.	Sq. M.	Rs.	Rs.	Rs.	
...	...	...	...	...	...	...	...	...	1 (510 ac.)	27	...	520	19,652	27	19,679	
...	...	...	...	...	...	...	...	...	1	27	...	520	19,652	27	19,679	

returns are found—on checking—to be incorrect. The whole forest area, however, has recently been surveyed by

No. 11.
MENT, COORG.
Plans, 1912—1913.

Areas for which Working Plans are not at present required	Total forest area as in Form No. 7.	Entire cost per square mile of working-plans completed.	Remarks.
7	8	9	10
Sq. Miles.	Sq. Miles.	Rs.	
...	520	...	
...	520	...	
(UNDER SEC. 4.)			
...	...	...	
...	...	...	
...	...	...	
...	520	...	

FORM No. 12.

FOREST DEPARTMENT, COORG.

Communications and Buildings during 1912—1913.

Division.	New work undertaken during the year.							Repairs executed during the year.						Total expended on repairs.
	Buildings.		Roads and Paths.			Other works	Total expended on new works	Buildings.		Roads and Paths.			Other works	
	Description of Buildings.	Expenditure incurred.	Description of road or path.	Length of road or path.	Expenditure incurred.			Expenditure incurred.	Description of Buildings.	Expenditure incurred.	Description of road or path.	Length repaired.		
Coorg.		Rs.		Miles.	Rs.	Rs.	Rs.		Rs.		Miles.	Rs.	Rs.	Rs.
	*Head-Quarter houses	16,000	Cart tracks.	8½	181	...	17,893	Head-Quarter houses.	427	Cart tracks.	112	1,533	...	2519
	Rest houses	1,712	...	...	...	...	...	Rest houses	559	...	...	...	...	...
	Houses for subordinates.	2,932	Bridle paths	4½	1,069	...	4,001	Houses for subordinates.	845	Bridle paths	70	413	...	1285
	Others	1,581	Others	...	150	532	2,263	Others	749	Others	...	69	1,748	2565
	Total	22,225		53	1,400	582	24,157		2,577		182	2,045	1,748	6370

*This house was purchased.

*This house was purchased.

FORM No. 13.

Register of breaches of Forest Rules during 1912—1913.

Forest Division.		Cases pending from previous year.	New cases of the year.						Disposed of during the year.						Cases pending at close of year.	Remarks.
			Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	Total cases.	Convictions.		Acquittals.		Total.			
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.		
Coorg	A.	2	1	4	13	2	21	14	18	3	4	17	15	4		
	B.	...	...	...	...	...	...	...	...	...	...	...	...	...		
	C.	...	...	...	...	...	...	...	...	...	...	...	...	...		
Grand Total		A.	2	1	...	13	12	19	21	14	18	3	4	17	22	4
		B.	...	...	...	...	...	...	...	...	...	...	...	...	...	
		C.	...	...	...	...	...	...	...	...	...	...	...	...	...	

FORM No. 14.

Area of forest tracts protected from fire during the forest year 1912—1913.

Division.	Forest Tracts.	Year in which protection commenced.	Area protected during 1911—12.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
Coorg.	Hatgat	1878	53,151	53,551	551	53,000	2,677	
	Mawkal	1878	35,532	35,933	395	35,551	2,286	
	Cauvery	1876	13,098	13,163	...	13,163	847	
	Sandal	1877	3,940	5,524	2,065	3,455	547	
	Kutnampolle	1881	978	978	...	978	77	
	Mercara	1883	324	324	...	321	133	
Total		...	1,07,313	1,09,476	2,004	1,06,472	6,517	

FORM No. 15.

FOREST DEPARTMENT, COORG.

Causes of Forest Fires.

Division or circle.	(A) Fire caused by accident or through carelessness in burning fire lines.		(B) Fires entering the forest by crossing exterior fire traces.		(C) Fires beginning inside the reserve or fire traced area.						Total (A), (B) and (C).	
	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	Owing to carelessness or accident.						Total.	
	Fire caused by accident or through carelessness in burning fire lines.		Fires entering the forest by crossing exterior fire traces.		Owing to carelessness or accident.						Total.	
Coorg					By lightning or by fire-lawns.							
					By Railway Engines.							
					By villagers, travellers etc. passing through the forests.							
					By workmen employed in the forests by purchasers of forest produce and by Kah cutters.							
					In order to obtain new grass.							
					In order to turn out game or to reduce cover.							
					Maliciously fired.							
					Causes unknown.							

FORM No. 16.
FOREST DEPARTMENT, COORG.
 Area closed and open to grazing during 1912—1913.

Division.	Area in square miles.						Remarks.
	Closed to all animals.		Closed only to browsers camels, goats, or sheep.		Open to all animals.	Total area.	
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.		
Coorg	158	362	...	...	...	520	
Total	158	362	...	...	...	520	
	...	...	...	...	...	...	
Total	...	...	...	...	...	...	
	...	...	...	...	...	...	
Total	...	...	...	...	...	...	
Grand Total	158	362	...	...	...	520	

FORM No. 17.
 Return of grazing in the State Forests of Coorg during 1912—1913.

Division.	Grazing on payment. Number of animals.								Grazing free. Number of animals.								Grand total of value at full rates.
	At full rates.				At privileged rates.				By right under settlement.				During pleasure of Government or otherwise than under settlement.				
	Buffaloes.	Cows & bullocks Goats & sheep. Camels. Other animals.	Fees received.	Buffaloes.	Cows & bullocks Goats & sheep. Camels. Other animals.	Fees received.	Buffaloes.	Cows & bullocks Goats & sheep. Camels. Other animals.	Value of fees at full rates.	Buffaloes.	Cows & bullocks Goats & sheep. Camels. Other animals.	Value of fees at full rates.	Total value of fees at full rates.				
			Rs.				Rs.						Rs.		Rs.	Rs.	
	RESERVED FORESTS.																
Coorg	425 3864		1125					416		104						1,229	
Total	425 3864		1125					416		104						1,229	
	PROTECTED FORESTS.																
Total																	
Grand Total	425 3864		1125					416		104						1,229	

*Exclusive of Rs. 243 value of grass and lease of swamps.

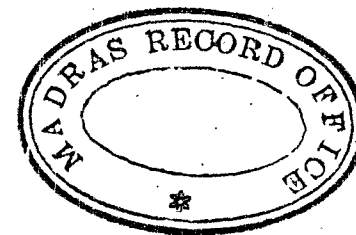
FORM No. 18.
FOREST DEPARTMENT, COORG.
 Artificial Reproduction.

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.	Up-keep.	Creation.	Up-keep.			
1	2	3	4	5	6	7	8	9	10	11	12	13	
	REGULAR.						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
	Sandal plantations	722	...	...	722	...	424	14,440	27,261	2,120	...	...	
	Teak do	1,138	...	...	1,138	...	268	56,900	44,441	1,933	...	...	
	Firewood do	202	...	...	202	...	594	6,000	10,745	...	...	...	
	Total regular plantations	2,062	...	...	2,062	...	1,286	77,400	82,447	4,053	...	...	
	TAUNGYA PLANTATIONS.												
	Kumries	1,978	150	...	2,123	879	1,678	9,975	19,423	...	...	...	
	Total taungya plantations	1,978	150	...	2,123	879	1,678	9,975	19,423	...	...	...	
	CULTURAL OPERATIONS.												
	Cultural operations	207	662	...	869	3,074	...	4,021	...	...	...	...	
	Total cultural operations	207	662	...	869	3,074	...	4,021	...	...	...	...	
	Grand Total	4,242	512	...	5,054	3,953	2,964	91,399	1,01,870	...	...	4,868	

FORM No. 19.
FOREST DEPARTMENT, COORG.
Outturn (in cubic feet, solid) of Timber and Fuel during the year 1912-1913, and Agency of Exploitation.

Output (in cubic feet, solid) of timber and fuel during the year 1912-13.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Division.	Timber in the rough; logs.								Timber in the rough; poles.								Sawn or squared timber.								Sandalwood.								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.				Out turn.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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(a) Actuals, others are estimates.
1 Pole=4 c. ft.; 1 Tree=50 c. ft.; 1 Cartload=25 c. ft.
1 Ton=50 c. ft.; 6 c. ft. of charcoal=1 cartload of firewood.
16 Head loads=1 cartload.



FORM No. 20.
FOREST DEPARTMENT, COORG.
Outturn of minor forest produce during the forest year 1912-1913.

Description of produce.	Produce removed or utilized.								Remarks.		
	By Govern- ment agency.		By purchas- ers.		By free grants.		By right holders.			Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.		Quantity.	Value.
<i>Reserved Forests.</i>		Rs.		Rs.		Rs.		Rs.		Rs.	
Bamboos	500	124	1,26,750	1,216	...	...	...	1,27,250	75,500	1,340	
Reeds	...	...	75,500		...	...	...				...
Minor produce including cardamoms	...	...	21,925	...	...	...	...	...	...	21,925	
Grazing	...	...	1,373	...	...	...	104	...	...	1,477	
Total	500	124	2,02,250	24,515	...	...	...	104	2,02,750	24,743	
<i>Protected Forests.</i>											
Bamboos	...	...	86,000	304	...	...	...	...	86,000	304	
Total	...	...	86,000	304	...	...	...	...	86,000	304	
<i>Unclassed State Forests.</i>											
Bamboos	...	...	...	...	...	...	...	...	...	...	
Reeds	...	...	...	...	...	...	...	...	...	...	
Total	...	...	...	...	...	...	...	...	...	...	
Grand Total	500	124	2,88,250	24,819	...	...	...	104	2,88,750	25,047	

FORM No. 21.
Account of timber and other produce cut or collected by Government agency and brought to
depots, sold locally or otherwise disposed of during the year 1912-1913.

Name of Division.	Balance at com- mencement of the year in forests and sale depots.	Received during the year.	Total.	Disposed of dur- ing the year.	Balance in hand at close of the year in forests and sale depots.
Coorg.	42,446	1,90,069	2,32,515	1,36,107	1,06,408
Total timber	42,446	1,90,069	2,32,515	1,36,107	1,06,408
	43	Clean Sandalwood (tons) 208	251	192	59
Total sandalwood	43	208	251	192	59
	42	Rough Sandalwood (tons) 263	305	226	79
Total rough	42	263	305	226	79
	...	Fuel (cubic feet) 17,920	17,920	17,920	...
Total fuel	...	17,920	17,920	17,920	...

FORM No. 22.
Abstract showing the value of timber and other produce at sale-depots for the year 1912-1913.

Description of timber and other produce.	On hand at commence- ment of the year.			On hand at close of the year.			Difference in value.		Remarks.
	No.	Tons.	Value. Rs.	No.	Tons.	Value. Rs.	In favor of the year.	Against the year.	
<i>Sandalwood.</i>									
Good wood ...	...	43	21,242	...	59	29,500	8,258	...	
Chips ...	...	42	7,140	...	79	13,430	6,290	...	
Rough wood...	...			...				...	
Total.....	...	85	28,382	...	138	42,930	14,548	...	

Net difference in favour of the year Rs. 14,548.

FORM No. 23.
FOREST DEPARTMENT, COORG.
Abstract showing the Value of Live and Dead Stock for the year 1912—1913.

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. Rs.	No.	Value. Rs.	In favor of the year.	Against the year.	
1	2	3	4	5	6	7	8
Elephants	11	24,500	15	30,000	5,500	...	
Total live stock	11	24,500	15	30,000	5,500	...	
Buildings	112	23,655	45	50,000	26,345	...	
Survey instruments	148	800	33	1,460	660	...	
Tools	1,609	1,871	2,143	3,220	1,349	...	
Furniture	514	1,088	473	3,010	1,922	...	
Tents	10	810	7	1,630	820	...	
Miscellaneous	320	896	158	4,200	3,304	...	
Total dead stock	2,713	29,120	2,859	63,520	34,400	...	
Grand Total							

Net differences in favour of the year Rs. 39,908.

NOTE.—In previous returns the value of the stock of elephants has been much underestimated. It has now been revised. Hence the difference between column 3 of this form and column 5 of the form for 1911—12.

FORM No. 24.
Summary of revenue and expenditure for 1912—1913.

Budget heads.	Total.		
REVENUE.			
I.—Timber and other produce removed from the forests by Government agency—	1,09,117	0	0
a. Timber	717	0	0
b. Firewood and charcoal	124	0	0
c. Bamboos	1,14,933	0	0
d. Sandal-wood	...	...	...
e. Grass and other minor produce	...	...	...
Total I	2,24,951	0	0
II.—Timber and other produce removed from the forests by consumers or purchasers—	23,493	0	0
a. Timber	1,635	0	0
b. Firewood and charcoal	1,520	0	0
c. Bamboos	1,973	0	0
d. Grazing and fodder grass	3,459	0	0
e. Other minor produce	18,197	0	0
f. Cardamoms	...	...	...
Total II	49,917	0	0
III.—Drift and waif wood, and confiscated forest produce—	...	...	...
Total III	...	...	...
IV.—Revenue from forests not managed by Government—	...	...	...
a. Duty on foreign timber and other forest produce	...	...	...
b. Revenue from shared and private forests	...	...	...
Total IV	...	...	...
V.—Miscellaneous—	...	...	...
a. Fines and forfeitures	6	0	0
b. Refunds	2,728	0	0
c. Other sources	...	...	...
Total V	2,734	0	0
Total Revenue	2,77,602	0	0

FORM No. 24.—(Continued.)
FOREST DEPARTMENT, COORG.
Summary of revenue and expenditure for 1912—1913.—(Continued.)

Budget heads.	Total.		
EXPENDITURE.			
A.—CONSERVANCY AND WORKS.			
I.—Timber and other produce removed from the forests by Government agency—	18,800	0	0
a. Timber	810	0	0
b. Firewood and charcoal	475	0	0
c. Bamboos	8,214	0	0
d. Sandal-wood	12	0	0
e. Grass and other minor produce	...	...	...
Total A I	28,461	0	0
II.—Timber and other produce removed from the forests by consumers or purchasers	...	...	...
III.—Drift and waif wood and confiscated forest produce	...	...	...
IV.—Revenue from forests not managed by government—	...	...	...
a. Duty on foreign timber and other forest produce	...	...	...
b. Revenue from shared and private forests	...	...	...
V.—Rent of leased forests and payments to shareholders in forests managed by Government	...	...	...
VI.—Live-stock, stores, tools and plant—	736	0	0
a. Purchase of cattle	7,210	0	0
b. Feed and keep of cattle	1,178	0	0
c. Purchase of stores, tools and plant	...	...	...
Total A VI	9,133	0	0
VII.—Communications and Buildings—	3,445	0	0
a. Roads and bridges	2,490	0	0
b. Buildings	2,280	0	0
c. Other works	...	...	...
Total A VII	30,527	0	0
VIII.—Organization, improvement and extension of forests—	65	0	0
a. Demarcation	41	0	0
b. Cost of forest settlements and compensation for land and rights	688	0	0
c. Surveys	...	...	...
d. Working-plans	8,593	0	0
e. Sowing and planting	6,517	0	0
f. Protection from fire	12,691	0	0
g. Other works	...	...	...
Total A VIII	28,603	0	0
IX.—Miscellaneous—	1,871	0	0
a. Law charges	...	...	...
b. Other charges	...	...	...
Total A IX	1,871	0	0
Total A.—Conservancy and Works	98,535	0	0
B.—ESTABLISHMENTS.			
I.—Salaries—	18,914	0	0
a. Conservators	23,039	0	0
b. Superior officers	4,826	0	0
c. Subordinate forest and depot establishments	11,400	0	0
d. Office establishments	...	...	...
e. Deputation and special allowances	...	...	...
f. Exchange compensation allowance	...	...	...
Total B I	57,279	0	0
II.—Travelling allowances—	3,617	0	0
a. Conservators	3,325	0	0
b. Superior officers	521	0	0
c. Subordinate forest and depot establishments	...	...	...
d. Office establishments	...	...	...
Total B II	7,463	0	0
III.—Contingencies—	32	0	0
a. Stationery	543	0	0
b. Carriage of tents and records	32	0	0
c. Rents, rates and taxes	...	...	...
d. Pay of police guards	803	0	0
e. Official postage	490	0	0
f. Sundries	533	0	0
Compensation for dearthness of provisions	...	...	...
Total B III	2,433	0	0
Total B.—Establishments	67,175	0	0
Grand Total of all Expenditure	1,65,710	0	0
Surplus (+)	+1,11,832	0	0

N. C. BANERJEE,
For Deputy Comptroller, India Treasuries.

FORM No. 25.

Account current for the forest year 1912-1913.

Dr.				Cr.
To cash balance				By I. Refunds & drawbacks
VIII Assessed taxes—				Expenditure during the
Income tax—Deductions from				Forest year
salaries	622 15 2			Forest deposits
Revenue during the Forest year	2,77,601 14 10			Forest advances
Forest deposits				Suspense account
Forest advances	1,26,298 6 7			Savings Bank Deposits
Suspense account				Forest Officers' Provident Fund
Service Funds—				General Provident Fund
Uncovenanted Service Family Pension Fund, Bengal				Cash remittances—
Savings Bank Deposits—				Forest Remittances—
Forest Officers' Provident Fund	1,502 10 0			Remittances to Treasuries
General Provident Fund	1,502 10 0			Unpaid cheques written back
Cash remittances—Local—Forest				Inter-divisional Transfers
Remittances—				Exchange account with other Governments—
Forest cheques drawn	1,70,492 9 10			Account between India & Madras
Inter-divisional Transfers				III Items adjustable by India
Exchange account with other Governments—				IV Items adjustable by Madras
Account between India and Madras				Account between India and Bombay
III Items adjustable by India	4 10 0			III Items adjustable by India
IV Items adjustable by Madras	4 10 0			Inter-departmental transfers—
Account between India & Madras				P. W. Department, Examiner, P. W. Accounts—
IV Items adjustable by Madras				Madras and Coorg
III Items adjustable by India (written back)				Military Department
Inter-departmental transfers				Secunderabad Dyn.
P. W. Department, Ordinary Branches				Civil Departments
Military Supply Department	305 8 6			
Military Dept., Secunderabad Division				
Post Office Department	435 12 4			
Civil Departments	796 15 6			
		1,538 4 4		
Total Rs.		5,78,151 6 9		Total Rs.

N. C. BANERJEE,

For Deputy Comptroller, India Treasuries.

FORM No. 26.

FOREST DEPARTMENT, COORG.

Revenue received and outstandings on account of revenue for 1912-1913.

Division.	Particulars.	Outstandings at commencement of the year.	Value of sales and other revenue during the year.	Total.	Amount realized during the year.	Balance due to the department at the end of the year.	Remarks.
B. I. a. Timber			1,09,117 0 0	1,09,117 0 0	1,09,117 0 0		
	b. Firewood		717 0 0	717 0 0	717 0 0		
	c. Bamboos		124 0 0	124 0 0	124 0 0		
	d. Sandalwood		1,14,993 0 0	1,14,993 0 0	1,14,993 0 0		
	e. Grass and other minor produce						
B. II. a. Timber			23,463 0 0	23,463 0 0	23,463 0 0		
	b. Firewood and charcoal		1,635 0 0	1,635 0 0	1,635 0 0		
	c. Bamboos		1,520 0 0	1,520 0 0	1,520 0 0		
	d. Grass and fodder grass		1,373 0 0	1,373 0 0	1,373 0 0		
	e. Other minor produce		3,459 0 0	3,459 0 0	3,459 0 0		
B. V. a. Fines & forfeitures			18,467 0 0	18,467 0 0	18,467 0 0		
	b. Refunds						
	c. Other sources		2,728 0 0	2,728 0 0	2,728 0 0		
Total Rs.			2,77,602 0 0	2,77,602 0 0	2,77,602 0 0		

H. FIREMAN,

Deputy Conservator of Forests, Coorg.

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.
	Opening balance.	Recoveries in cash and value of supplies and work done during the year.	Opening balance.	Payments made during year.
	Total.	Total.	Total.	Total.
Coorg forest	126298 6 7	123298 6 7	8,164 13 7	7,132,638 5 3
Total Rs.	126298 6 7	123298 6 7	8,164 13 7	7,132,638 5 3

N. C. BANERJEE,

For Deputy Comptroller, India Treasuries.

FORM No. 24.—(SUPPLEMENTAL.)

FOREST DEPARTMENT, COORG.

Summary of revenue and expenditure of the forest year 1912-1913, showing separately the figures relating to lands managed by the forest department and to land not managed by the forest department.

Budget Heads.	Lands managed by the Forest Department.	Lands not managed by the Forest Department.	Total as per Form 24.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
REVENUE.			
I.—Timber and other produce removed from the forests by Government agency—			
a. Timber	1,09,117 0 0		1,09,117 0 0
b. Firewood and charcoal	717 0 0		717 0 0
c. Bamboos	124 0 0		124 0 0
d. Sandalwood	1,14,993 0 0		1,14,993 0 0
e. Grass and other minor produce			
II.—Timber and other produce removed from the forests by consumers or purchasers—			
a. Timber	14,442 0 0	9,021 0 0	23,463 0 0
b. Firewood and charcoal	380 0 0	1,255 0 0	1,635 0 0
c. Bamboos	1,216 0 0	304 0 0	1,520 0 0
d. Grazing and fodder grass	1,373 0 0		1,373 0 0
e. Other minor produce	1,373 0 0	1,480 0 0	3,459 0 0
f. Cardamoms	18,467 0 0		18,467 0 0
g. Other items			
h. Commutation fees			
III.—Drift and waif wood and confiscated forest produce			
IV.—Revenue from forests not managed by Government—			
a. Duty on foreign timber and other forest produce			
b. Revenue from shared and private forests			
V.—Miscellaneous—			
a. Fines and forfeitures			
b. Refunds			
c. Other sources	2,728 0 0		2,728 0 0
Total revenue	2,61,829 0 0	12,777 0 0	2,77,602 0 0
EXPENDITURE.			
A.—Conservancy and Works.			
I.—Timber and other produce removed from the forests by Government agency—			
a. Timber	18,899 0 0		18,899 0 0
b. Firewood and charcoal	810 0 0		810 0 0
c. Bamboos	475 0 0		475 0 0
d. Sandalwood	8,214 0 0		8,214 0 0
e. Grass and other minor produce	12 0 0		12 0 0
II.—Timber and other produce removed from the forests by consumers and purchasers			
III.—Drift and waif wood and confiscated forest produce			
IV.—Revenue from forests not managed by Government			
a. Duty on foreign timber and other forest produce			
b. Revenue from shared and private forests			
V.—Rent of leased forests and payments to share-holders in forests managed by Government			
VI.—Live stock, stores, tools and plant—			
a. Purchase of cattle	738 0 0		738 0 0
b. Feed and keep of cattle	7,219 0 0		7,219 0 0
c. Purchase of stores, tools and plant	1,178 0 0		1,178 0 0
VII.—Communications and buildings—			
a. Roads and bridges	3,445 0 0		3,445 0 0
b. Buildings	24,802 0 0		24,802 0 0
c. Other works	2,350 0 0		2,350 0 0
VIII.—Organization improvement and extension of forests—			
a. Demarcation	65 0 0		65 0 0
b. Cost of forest settlements; compensation for land and rights	41 0 0		41 0 0
c. Surveys	688 0 0		688 0 0
d. Working plans	8,598 0 0		8,598 0 0
e. Sowing and planting	6,517 0 0		6,517 0 0
f. Protection from fire	10,057 0 0	2,637 0 0	12,694 0 0
g. Other works			
IX.—Miscellaneous—			
a. Law charges	1,871 0 0		1,871 0 0
b. Other charges			
Total A.—Conservancy and Works	95,898 0 0	2,637 0 0	98,535 0 0

H. FIREMAN,

Deputy Conservator of Forests, Coorg.

Residency Press, Bangalore.—5-12-1913.—213.

தமிழ்நாடு ஆவணக்காப்பக நூலகம்,
எழும்பூர், சென்னை-600 008.

தவணைத்தாள்.

சே. எண் :

ப. எண் :

[illegible]

S.F. 259A-6-1,00,000-30-1-84.