

ERRATA SLIP TO THE PROGRESS REPORT
OF THE FOREST ADMINISTRATION
IN COORG FOR 1928-29.

Page 16, paragraph 37—

Substitute + 1,335 and + 9,062 for + 1,338 and + 9,063 under 'VIII (a) Demarcation' and 'VIII (e) Sowing and planting respectively.'

Page 21, Form 22 appended to the Report—

Substitute 1,276 for 2,276 shown against 'Teak logs' in column 'On hand at commencement of the year, c.ft.' and 413 for 314 shown against Total in column 'On hand at close of the year, Number.'

Page 22, Form 23 appended to the Report—

Substitute 36,697 for 38,697 shown against 'Buildings,' under 'Direction (North) Division.'

Bangalore,
20-12-1929.

G. LOCH, MAJOR,
Secretary to the Chief Commissioner.

Proceedings of the Chief Commissioner of Coorg.

No. 3454-55/110-29, dated Bangalore, the
9th December 1929.

READ—

Letter No. 2493, dated the 20th August 1929, from the Chief Forest Officer, Coorg, (through the Commissioner of Coorg), submitting a copy of the Progress Report of the Forest Administration in Coorg for the year 1928-29.

Order thereon—No. 3454-55/110-29, dated Bangalore,
the 9th December 1929.

The total revenue during the year was Rs. 5,24,883 against an expenditure of Rs. 2,60,025 resulting in a surplus of Rs. 2,64,858 as against Rs. 2,52,526. The increase is due to—

- (a) larger quantity of timber sold and to better prices obtained at the sales;
- (b) better prices obtained for sandalwood at the sales;
- (c) better prices obtained for other minor produce and to higher rates being tendered for the new cardamom leases.

2. The number of forest offences fell from 47 to 45 in the year under report.

3. Close attention was paid to Sylvicultural operations and cultural experiments were carefully conducted. It is gratifying to note the useful results obtained during the year.

4. The experiment with lac was continued during the year, but heavy rain spoilt the chance of satisfactory results.

5. A topographical survey and enumeration of a part of the Ghat Forests were undertaken during the year.

6. During the year 162 acres of lantana infested forests were opened for regeneration by kumri (taungyu) and the taungyu method of raising sandal plantations has also been successful.

7. The working of the Department was satisfactory and the Chief Commissioner is pleased again to record his high appreciation of the work of Mr. Robinson.

8. A quinquennial review of the Forest Administration in Coorg for the period 1924-25 to 1928-29 is appended.

G. LOCH, MAJOR,
Secretary to the Chief Commissioner.

To—The Chief Forest Officer, Coorg. (Through the Commissioner of Coorg.)

The Secretary to the Government of India, Department of Education,
Health and Lands.

QUINQUENNIAL REVIEW OF THE FOREST ADMINISTRATION IN COORG

FOR THE

PERIOD 1924-25 to 1928-29.

ALTERATION IN AREA.

1. The area of Reserved Forests at the end of the period was 331,871 acres or 519 sq. miles against 332,527 acres or 520 sq. miles in the previous quinquennium. The reduction was due to the disafforestation of 499 acres considered of no use to the Department, 143 acres having been granted for coffee and 14 acres for wet cultivation.

SETTLEMENT AND DEMARCATION.

2. Nothing was done under this head during the period except clearing and reclearing district boundary lines between Coorg, South Kanara and Malabar over 88 and 97 miles at a total cost of Rs. 3,066 and Rs. 1,208 respectively. The Madras Government has agreed to contribute half of the cost of clearing of the common boundary.

FOREST SURVEYS.

3. No surveys of importance were done.

WORKING PLANS.

4. Working plans exist covering the whole 519 sq. miles of Reserved Forests. In the Eastern Forests exploitation under the clear felling system combined with artificial regeneration was carried out, following the prescriptions of a new working scheme prepared in 1923. This scheme was not put up to the Local Government for sanction, as many of the prescriptions required further experiment before they could be exactly laid down. For example, experience during the period under review shows that the adoption of a single felling series, with an annual coupe of 300 acres is not feasible owing to labour conditions. To overcome this difficulty 2 other felling series have been started at Nagerhole and Titimatti in addition to a reduced one at Kalhalla.

Another important matter which has involved considerable experimenting has been the evolution of the method of artificial regeneration best suited to this locality. Now that the main problems appear to have been solved, proposals for the preparation of a new working plan have been submitted to the Chief Commissioner.

5. The prescriptions of the working plan for the Ghat Forests were held in abeyance as being no longer applicable except on some general points. From 1926-27 onwards an annual coupe in the Urti Valley has been sold standing. Altogether 190 acres have been felled in this manner, and work is proceeding satisfactorily, and adequate natural regeneration is being obtained.

6. The sandal enumeration referred to in para. 13 of the previous review was completed in July 1926 at a total cost of Rs. 32,975. The total area gone over is 191,148 acres.

7. A topographical survey and enumeration of a part of the Ghat Forests of the Kutumpole Range was started in February 1929 by a party specially trained under the Logging Engineer, Madras.

COMMUNICATIONS AND BUILDINGS.

8. The average annual expenditure on communication, buildings and other works was Rs. 29,972 as against Rs. 1,18,574 in the previous quinquennium. The decrease is due to suspension of operations at Makut. This includes Rs. 34,366 spent on metalling the bad portions of the road between Kutta and Nallurpala over about 3 miles during the period under review.

FOREST OFFENCES.

9. The number of forest offences increased from an average of 22 to 29. There were no cases of great importance.

PROTECTION FROM FIRE.

10. The system of early burning was introduced over a large area of the Eastern Forests, in 1925-26, and is being continued. It has effected a considerable saving in expense. The average cost of fire protection during the period under review was Rs. 35 per sq. mile and the percentage of failure was 3.7. During the previous quinquennium the average cost was Rs. 56 per sq. mile, and the percentage of failure was 8.0.

The most noticeable adverse result of early burning is the manner in which external and internal lines get overgrown, and boundaries get obscured and footpaths become impassable.

Also it is by no means certain that early burning is not leading to the spread of lantana in the forests themselves.

PROTECTION FROM CATTLE.

11. The average area open to cattle was 433 sq. miles the same as during the previous period. The proportion of total forest area open to cattle remained the same (i.e., 83%). The average number of animals admitted to graze was increased from 14,271 to 23,674, the reason being that the ryots who rendered assistance in the burning of grass hills now receive free grazing instead of money rewards.

PROTECTION AGAINST INJURIES FROM NATURAL CAUSES.

12. In order to assist the Forest Entomologist in his investigation into the defoliation of teak, plots were opened at Titimatti, Nagerhole and Kutumpole Ranges. As defoliation usually occurs towards the growing season, its effect on increment is probably not great.

In 1927 sanction was accorded by the Government of India to the proposal to participate in the scheme drawn up by the Government of Madras for the investigation of spike disease in sandal, and to contribute Rs. 3,500 a year to the Indian Institute of Science, Bangalore, for a period of 3 years. In this connection 3 conferences were held at Bangalore, in October 1927, in July 1928 and in February 1929. Experiments have been begun, and a Ranger placed on special duty in this connection.

Scattered lantana and lantana regrowths were uprooted in reserves (including regeneration areas and plantations) and paisaries during the period. The policy now advocated is (1) concentrated regeneration with valuable species on pure lantana patches—department taungyas raising teak and sandal and (2) prohibition of any operation which will cause new gaps in the existing forest canopy, either by selection or improvement fellings.

FORMATION OF PLANTATIONS.

13. During the period under review the average annual area of plantations opened was 352 acres as against 277 acres in the previous quinquennium.

YIELD AND OUTTURN.

14. The average annual outturn for the two periods was :—

Year.	Timber and fuel.		From protected forests.	Sandalwood in tons.	Bamboos.	Minor forest produce, etc., value.
	From Eastern forests.	From Western forests.				
1919-20 to 1923-24 ...	c.ft. 235,652	c.ft. 90,187	c.ft. 97,738	361	No. 321,305	Rs. 21,424
1924-25 to 1928-29 ...	242,379	24,294	129,257	292	346,784	26,299

The average annual outturn of timber and fuel from Eastern Forests increased by 2·85% during the period under review, while there was a decrease of 73% from Western Forests. The average annual outturn of sandalwood decreased by 19·15% as it has been decided to limit the outturn to 200 tons a year from 1927-28 onwards. Bamboos and minor forest produce show an increase of 8% and 23% respectively. The increase in the latter head is due to the rise in the value of cardamom tenders.

62,783 c.ft. of timber of various species in the Kutumpole Range lying in Kariahole and Sollekolli blocks was written off the accounts under the orders of the Chief Commissioner as unsaleable.

FINANCIAL RESULTS.

15. The average annual financial results for the two periods were :—

Year.	Revenue.	Expenditure.	Surplus.
1919-20 to 1923-24 ...	Rs. 7,40,991	Rs. 5,51,799	Rs. 1,89,192
1924-25 to 1928-29 ...	5,37,153	2,86,859	2,50,264

The average gross revenue and expenditure show a general decrease of 28 and 48 per cent. respectively. The decrease in revenue is due to the smaller quantity of timber and sandalwood sold and in expenditure it is partly due to suspension of operations at Makut and partly to economies effected in expenditure on live stock, communication and buildings, etc

RESEARCH AND EXPERIMENTS.

16. The main subjects of experiment were research into the best method of artificial regeneration of teak and sandal. Satisfactory results are believed to have been obtained in both cases.

Small scale experiments have been made into the growing of lac. Results are not encouraging.

17. The total amount realised by the sale of tramway materials during the period under review was Rs. 12,149. Endeavour is being made to dispose of the remaining materials.

CULTIVATION OF SWAMPS.

18. 697 acres of swamps lying in the Reserved Forests were granted for wet cultivation subject to the conditions in Chief Commissioner's notifications No. 43, dated 16th August 1922 and No. 23, dated 16th March 1928. Only 13% of the area granted has been brought under cultivation. The matter has been referred to the Commissioner of Coorg with a view to withdraw the grants from persons who have not cultivated the lands within 5 years from the date of grant as laid down in the notifications referred to above.

19. The North Division was in charge of an Imperial Officer and that of South under a Provincial Officer. In February 1926 Mr. J. L. Harrison, Forest Engineer, was transferred to Dehra Dun as acting Assistant Forest Economist. The Secretary of State for India in Council in his letter No. S. & G. 2806/28, dated the 11th June 1928 to the Government of India, sanctioned the abolition of the post of Forest Engineer in Coorg creating a similar post in Assam, to which Mr. Harrison was, later, appointed.

20. Retrenchment in the subordinate forest staff was effected during the period under review, viz., 3 Range Officers, 11 Foresters and 17 Guards.

21. The following table shows the number of men who retired, were dismissed, resigned or died during the period under review :-

	Retired.	Resigned.	Dismissed.	Died.
1. Rangers	1	...	1	...
2. Foresters	10	1	3	4
3. Guards	24	18	5	14
4. Manager ... ..	...	...	1	...
5. Clerks ... ..	...	2	1	...
Total	35	21	11	18

22. In November 1924 Mr. H. Tireman, Chief Conservator of Forests, Madras, visited Coorg and inspected Anekad, Mawkal regeneration areas, kumries at Sampaje, evergreen forests at Makut and the Yedavanad forests and left Coorg in December 1924. In February 1925 Mr. J. M. Sweet, Forest Research Officer, Madras, laid out sample plots in the evergreen forests of Sollekolli Valley with a view to record the progress of the natural regeneration of the more valuable species after exploitation. During 1925-26 Mr. Conolly, Forest Research Officer, Madras, opened three experimental plots in the Thalepatti Hopea area, Makut, Mr. C. S. Martin, Chief Forest Engineer, and Mr. R. D. Richmond, Chief Conservator of Forests, Madras, visited Makut in December 1927 and discussed the aspect of developing the Ghat Forests for the extraction of sleepers in connection with the possibility of the installation of a sleeper treating plant on the Malabar Coast. The Chief Commissioner has approved of the proposal to carry out a topographical survey over 9,000 to 10,000 acres at a cost not exceeding Rs. 35,000 during the period of two years.

MERCARA,
13th October 1929.

G. C. ROBINSON,
Chief Forest Officer.

PROGRESS REPORT OF THE FOREST ADMINISTRATION IN COORG

FOR THE
YEAR 1928-29.

CHAPTER I.— CONSTITUTION OF STATE FORESTS.

1. ALTERATION IN AREA.

Reserved forests.

1. The area of reserved forests at the beginning of the year was 331,971·32 acres. An area of 100 acres in the Malambi reserve was disafforested for coffee cultivation. The area at the end of the year was, therefore, 331,871·32 acres.

2. FOREST SETTLEMENTS.

2. No expenditure was incurred during the year.

3. DEMARCATION.

3. A sum of Rs. 2,223 was spent during the year as follows :—

(i) Clearing 2 miles of district boundary line between Coorg and Malabar from the Kutumpole Range—Nagerhole junction Southwards...	Rs. 80
(ii) Reclearing 24 miles, 1 furlong and 132 yards of the Coorg-Malabar district boundary line from Makut to Udumbe and from Mepalli to Kariahole continuing the work done last year	242
(iii) Clearing 12 miles of similar line between Coorg and South Canara from Peraje towards Todikana	480
(iv) Reclearing 12 miles of boundary line from Pulikehole to Udumbe between Coorg and Malabar and 6 miles from Paravu to Bagatchal between Coorg and South Canara	270
(v) Clearing the reserve boundary lines over 36 miles and repairing cairns in the Ranges	1,151

The Government of Madras has agreed to contribute half of the cost of the clearing of the common boundary.

4. FOREST SURVEYS.

4. Nil.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

1. REGULATION OF MANAGEMENT.

*Preparation and control of Regular Working Plans.**Eastern forests.*

5. According to the proposals framed in 1926-27, seventy-five acres at Tithimatti, 75 acres at Kalhalla and 50 acres at Nagerhole were clear-felled. These will be regenerated with teak (*Tectona grandis*) during 1929-30, and 1930-31.

Three more coupes in Tithimatti, 2 in Kalhalla and 3 in Nagerhole Ranges were laid out, surveyed and enumerated, thus ensuring continuity of work on the present lines until 1931-32.

Ghat forests.

The prescriptions of the working plan for the Ghat forests were held in abeyance.

Fellings in the coupe of 127 acres (shown as 126 acres in the last year's report) in the Urti reserve leased at the close of last year were not completed in time. The contractor was permitted to continue work on payment of $1\frac{1}{2}$ seigniorage rates, the original conditions demanding single seigniorage rates only.

Another coupe of approximately the same area was leased for fellings during 1929-30, on conditions similar to those of the previous year.

A topographical survey and enumeration of a part of the Ghat forests of the Kutumpole Range was begun during the year on the lines recommended by the Chief Forest Engineer, Madras. This type of survey combines stock enumeration with simultaneous mapping of the features of the country. One Ranger and two Foresters were deputed for training under the Logging Engineer, Madras, for a period of about 3 months with a view to carrying out this work. These subordinates returned to Coorg at the end of January 1929 and work commenced in the Urti reserve on February 10th. The total expenditure for the year was Rs. 621 inclusive of the pay of temporary establishment.

2. COMMUNICATIONS AND BUILDINGS.

(a) Roads and bridges.

6. Metalling with spall foundations of the bad portions of the road between Kutta and Nallurpala was continued during the year. 4 furlongs, 390 r.ft. were metalled and consolidated, while metal

has been spread over 2 furlongs, 350 feet. Consolidation of this latter portion could not be completed for want of rain. A sum of Rs. 6,447 was spent during the year on this work including collection of materials, purchase of explosives and tools. The total expenditure incurred on this road up to the close of this year amounted to Rs. 34,366.

The tramway line from Kariahale to Kunnoth over 12 miles was cleared of weeds at a cost of Rs. 103.

7. The total expenditure on roads and bridges for the two divisions including repairs was Rs. 12,398 as against Rs. 9,462 in the previous year, the capital expenditure incurred being Rs. 6,447.

(b) *Buildings.*

8. The expenditure on new buildings amounted to Rs. 1,642 in North Division and Rs. 3,801 in South Division. The main new buildings were—

North Division.	1. Godown to Ranger's quarters at Fraserpet	Rs.	
	...	...	552
	2. Forester's quarters at Anekad	...	534
	3. Guards' quarters at Dubare	...	475
	4. Guards' quarters at Fraserpet	...	81
		Total	1,642

South Division.	1. Servant's quarters to the Rest House at Kalhalla	Rs.	
	...	...	56
	2. Camp quarters for Rangers at Kalhalla	...	687
	3. Quarters for two Foresters at Kalhalla	...	1,403
	4. Quarters for one guard at Hunsur	...	588
	5. Range Office at Tithimatti	...	1,006
	6. Special repairs to existing buildings.		61
		Total	3,801

The expenditure on upkeep of buildings, etc., for the two divisions including temporary establishment was Rs. 6,349 against Rs. 7,133 in the previous year.

(c) *Miscellaneous works.*

9. The expenditure on other works amounted to Rs. 1,895 against Rs. 2,395 in the previous year.

3. PROTECTION OF FORESTS.

(a) *General protection.*

10. The following statement shows the number and classification of forest offences compared with the previous year :—

Class.	Injury to forests by fire.		Unauthorised felling or appropriation of wood and minor forest produce.		Grazing without permission or in tracts in which grazing is prohibited.		Other offences.		Total.	
	1927-28.	1928-29.	1927-28.	1928-29.	1927-28.	1928-29.	1927-28.	1928-29.	1927-28.	1928-29.
Cases taken to court..	3	...	...	2	...	1	3	3
Cases compounded	12	13	20	12	6	9	38	34
Cases withdrawn	4	2	1	5	...	1	5	8
Total	19	15	21	19	6	11	46	45

The total number of offences reported was 45 as against 47 in the previous year. 34 cases were compounded and 8 cases withdrawn. Prosecution was instituted in 3 cases of which two ended in conviction and one ended in acquittal. The one case that was pending orders of the Chief Forest Officer at the close of last year was compounded and the two cases pending in the Court ended in conviction of the accused.

(b) *Protection from fire.*

11. The system of early burning the forests was continued in the Eastern forests. About 62,539 acres were early burnt out of a protected area of 106,477 acres at a cost of Rs. 771. The conditions in the remaining area were such that the likelihood of subsequent accidental fires was very remote. Early burning began about 15th January and was stopped by 20th February.

In the area over which rigid protection was attempted, there were 17 fires covering an area of 446 acres against 6 fires covering 417.40 acres in the previous year. Incendiary fires in Dubare, Meenkolli and Anekad reserves did some damage to the sandal growth there.

12. The percentage of success and the cost of protection per square mile were 99.63 and Rs. 27-3-0 as compared with 99.6 and Rs. 27-10-0 respectively in the previous year.

(c) *Protection from cattle.*

13. Eighty-four per cent of the reserved forests was open to grazing for half the year. The number of cattle admitted on payment was 3,738 against 3,956 in the previous year. The number of cattle impounded was 910 against 979 in the previous year.

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

14. (i) (a) Sowings in regeneration areas in Tithimatti, Nagerhole and Fraserpet Ranges suffered the usual damage from wild animals, deer and porcupine being the most prominent.

(b) The observations in teak defoliation were continued and during the year the damage under this head in plantations and patches of natural teak (*Tectona grandis*) was very severe particularly in Tithimatti Range where an attack occurred in May. Solitary teak in the midst of other species were not affected.

As defoliation usually occurs towards the end of the growing season its effect on the increment is probably very slight.

(ii) The solitary tusker at Makut returned to his usual haunt and caused a certain amount of damage in the Burma bamboo plantations until he was destroyed in November 1928.

The bamboo plants in the kumris and along the Ghat road sides were damaged by porcupine and pig. In the kumris the damage was not severe; but on the road side 6% of young clumps was destroyed.

(iii) Sandal spike disease.—Spike disease on sandal is still prevalent, but does not strike one as being very severe. In connection with the investigation of this pest two conferences were held at the Indian Institute of Science, Bangalore, one in July 1928 and the other in February 1929.

15. *Lantana*.—*Lantana* was uprooted over $9\frac{1}{2}$ acres of 1927 Attur area and $14\frac{1}{2}$ acres of 1927 "Y" area at Anekad at a cost of Rs. 377. Scattered *lantana* and *lantana* regrowths were uprooted in reserves (including regeneration areas and plantations), the total expenditure for two divisions being Rs. 502.

4. SYLVICULTURE.

Section I. Formation and Regeneration of Forests.(i) *General progress of areas under regeneration.*

16. The progress of the areas under teak (*Tectona grandis*) regeneration has on the whole been satisfactory in the Eastern forests.

(ii) *Establishment of reproduction under working plans or schemes.*(a) *Mainly natural.*

17. The areas already formed in past years were maintained. No fresh fellings were carried out during the year.

(b) *Mainly artificial.*

18. (i) The 47 acres of coupe I, Tithimatti, rubbish felled and burnt last year, were regenerated with teak (*Tectona grandis*) during the year. Out of this area $15\frac{1}{2}$ acres were dibbled with teak 6' × 6' and cultivated with ragi, departmentally and 10 acres were dealt with similarly by Kurubars and the rest of the area was dealt with in the ordinary way part by dibbling and part by planting stumps. Germination of teak (*Tectona grandis*) was good and the percentage of success was 95, but owing to prolonged drought later in the year many of the smaller seedlings died back and by the close of the year the percentage of success appeared to be only about 65. As a result of the April-May showers many seedlings which had died back sprang up again and the percentage proved to be in the vicinity of 85 or 90. The $15\frac{1}{2}$ acres of departmental taungya proved to be a great success, the total cost working out to Rs. 87-2-6 per acre inclusive of all operations from rubbish felling onwards and up to the 3rd weeding of the teak and the harvesting of the crop of ragi. This crop was valued at Rs. 113 per acre, showing a profit of Rs. 26 per acre, after paying all the first year costs of raising a good teak plantation. Ordinary dibbling unaccompanied by taungya, in the adjacent area cost Rs. 30-13-1 per acre. This area has not been kept as thoroughly cleaned of lantana and other abnoxious weeds as the taungya, and will cost more therefore in subsequent tending.

(ii). Coupe IV at Kalhalla (1928-29 area)—Strips 2 and 3 were dibbled with teak 6' × 6'. The germination was good, but unfortunately the failure of rain in September and October and the ravages by porcupine have brought the survivals down to a mere 20%.

Strip 1 of the above coupe was planted with one year old stumped plants from the nursery. The percentage of survivals at the beginning of September was 80 but owing to the causes mentioned above the percentage has been reduced to 30.

(iii) Kalhalla coupe II (1926-27 area) and coupe III (1927-28 area) were redibbled with teak during the year. Germination was poor possibly due to poor quality seed. The existing seedlings are good.

From what has been said above, it is concluded that original formation should be by dibbling, the operation to be completed by the 15th April and casualties replaced with stumps in June of the same year. Stumps put in during the second year have not produced satisfactory results. Ragi should be grown with the teak as not only is a better crop of teak obtained by so doing, but costs can be almost if not entirely covered by the profit on the ragi crop.

(iv) During the year coupe V of 75 acres at Kalhalla, coupe I of 25 acres at Nagerhole and coupe II of 75 acres at Devamachi were rubbish felled and burnt and will be regenerated with teak in 1929-30, honne (*Pterocarpus marsupium*) and matti (*Terminalia tomentosa*) being substituted in swampy and low lying places.

(v) Three nurseries intended to supply a sufficient quantity of stumplings for the 1929-30 regeneration operations were opened at Kalhalla, Nagerhole and Devamachi.

Further areas have also been cleared for opening nurseries for the following year.

(vi) Three acres lantana and scrub waste has been felled and burnt at Kalhalla and as an experiment noga (*Cedrela toono*) seed will be dibbled at stake with ragi kumri.

(vii) In the 63 acre coupe at Urti from which timber had been extracted during 1927 young seedlings were freed by removing shade and opening the canopy.

The "Y" areas at Anekad and Attur in Fraserpet Range (1917-1927) were tended during the year. Biti (*Dalbergia latifolia*) honne (*Pterocarpus marsupium*) and bombax were sown in 1926 and 1927 Attur regeneration areas. The germination was good at the out set; but subsequently many seedlings died.

Lantana was cut and sandal seeds were sown in the bushes over about 8 acres in Hirikere, Somwarpet Range. There were 1,800 sandal seedlings in this area, the highest seedlings being 12". In about 20 acres of Doddamolthe paisari sandal seeds were dibbled under thorny bushes and shrubs and the whole area was fenced. There are seedlings at about 30% of the stakes.

A new departmental sandal and ragi taungya of about 18 acres was opened at Hudgur, sandal seeds were dibbled at stakes 6' x 6'. There were seedlings in about 75% of the stakes, the highest seedlings at the close of the year being 18" high, many of the seedlings were browsed by wild animals. The total cost for opening and maintaining this kumri was Rs. 568. The amount realised by sale of ragi crop, which was not as good as it

might have been, was Rs. 400, so the first year costs on forming a most promising sandal plantation amount to only about Rs. 9-8-0 per acre.

(c) *Afforestation.*

19. None during the year under report.

(iii) *Plantation and other forms of Regenerations not under Working plans or Schemes (with Form 18 B).*

20. The following lantana infested areas were opened during the year for regeneration by kumri (taungya) during 1929-30 :—

(i) Tithimatti Range	Ganagur	...	10 acres.
	Devamachi	...	1 "
	Mallipatna	...	10 "
(ii) Nagerhole "	Nagerhole	...	1 "
	Balecove	...	10 "
	Voddramad	...	5 "
	Santhapura	...	10 "
(iii) Fraserpet "	Maldare	...	5 "
	Dubare	...	10 "
	Chelakere	...	5 "
	Meenkolli	...	10 "
	Anekad	...	10 "
	Attur	...	10 "
(iv) Somwarpet "	Hirikere	...	12 "
	Belur (Kajur)	...	6 "
	Hudgur	...	23 "
	Kargode	...	6 "
	Banawara	...	5 "
	Gangawara	...	7 "
	Kattepura	...	6 "
(v) Bhagamandla "	Karike	...	*80 "
	Mundrote	...	*8 "

* There was no lantana on these areas; it was bamboo and other miscellaneous jungle.

(1) *Tithimatti Range.*—An area of 6 acres at Ganagur full of lantana, cleared last year, was dibbled with sandal 6'×6' during the year. Germination was about 95%. The seedlings were coming up very well indeed but suffered considerably from browsing by sambhur. The percentage of survivals is now about 65 and these are, on the whole, looking very healthy, the highest plant being 3'-10". On 3 acres of this area *Acacia farnesiana* seed was dibbled around every sandal stake at a radius of 1' to 1½' all round. One acre was sown broadcast with *Cassia occidentalis*. In both cases the host plants have established themselves, but it is too early to form any definite conclusion as to their suitability as hosts.

The Bambookadu Sandal Experiments were discontinued, as our efforts in dibbling sandal along lines cleared through scrub jungle proved ineffective.

In the Basuvanacove sandal taungya of 1927 the sandal is growing very well; the highest is about 4". An enumeration made on 21-8-1928 showed that 109 plants in the dhall area and 103 plants in the ragi area are surviving. This gives a percentage of 47 and 44½ respectively, or 145 and 137 established plants per acre. The sandal which was sown along the belts of cleared jungle proved a failure, like the Bambookadu work referred to above.

(2) *Nagarhole Range*.—Twenty-four acres of Balecove and 12 acres at Sujjulu were kumried with sandal and ragi during the year. These are being rekumried during 1929-30 as the seed was very poor and very little germination was obtained. The percentage of success as it stands at present is 13 and 10 respectively.

The 8 acres teak kumri opened at Balecove during 1927 was maintained by the Kumridars. The stock in the area is about 60%.

The two teak kumris of 1926 at Sujjulu and Balecove, 12 acres and 6 acres respectively were taken over from the Kumridars. The Kumridars were paid Rs. 109 for raising the seedlings, the rate being Rs. 12-8-0 per 1,000 seedlings.

An area of 37 acres at Kakethodu was planted with *Bambusa arundinacea* at 20' × 20' spacing in a hill-paddy taungya. The result has been very satisfactory, the present stocking being about 90%. Several of the young clumps are 8 to 10 feet high and look exceedingly healthy.

In this area, both current year's and previous year's seedlings were used for transplanting, the ages of the seedlings at time of transplanting being three months and fifteen months respectively with corresponding heights of about 6 and 18 inches. It was found that the older seedlings produced better results.

In the 1926 and 1927 kumris the stocking is about 85 to 90 per cent. In both very little more requires to be done. Some of the clumps are now 12 to 15 feet high and growth hereafter should be very rapid.

The area sown with rosewood last year was maintained. The percentage of success is 70 and the highest plant measured 4'-7".

(3) *Bhagamandla Range*.—In this Range 88 acres of forest were kumried with biti (*Dalbergia latifolia*), honne (*Pterocarpus marsupium*) and noga (*Cedrella toona*). Due to untimely rain in February and March, the kumris (taungyas) could not be burnt in time and the burning done later was not satisfactory. Of the three species sown, biti was a failure due to bad seed. The percentage of success as counted in December was 60 of honne (*Pterocarpus marsupium*) and noga (*Cedrella toona*) and 15 of biti (*Dalbergia latifolia*). Failed bits will be rekumried during 1929-30.

(iv) *Tending*.

21. Weeding, climber cutting and uprooting lantana was carried out in "Y" areas, old plantations and kumris wherever necessary.

Section II. Tending of growing stock.

22. Except in regular plantations, taungyas and regeneration areas no tending was done.

5. EXPLOITATION.

(a) *System of management.*

23. (i) *Eastern forests*.—As mentioned in previous reports the system of exploiting the Eastern forests by clear-felling followed by artificial regeneration was continued. The areas felled and regenerated during the year were 245 acres and 154 acres respectively. The result of the fellings in the coupes is dealt with specieswar under Major Produce.

(ii) *Ghat forests*.—(a) In the 120 acre coupe (since found to be 127 acres) at Urti, the contractor extracted till the end of the year, 22,554 c.ft. of timber of different species, and 18 poon spars, which quantity at seigniorage rates realised a revenue of Rs. 3,949 over and above his lump sum payment of Rs. 3,050. The extraction has not been completed and about 4,000 to 5,000 c. ft. still remain to be extracted. The contractor is now removing this remaining quantity, his payments being enhanced to $1\frac{1}{2}$ seigniorage rates.

(b) Another coupe of approximately the same area was advertised for tender at the end of the year for working during 1929-30 on conditions similar to those of the previous year. There were two tenders, one of which was received after the due date and was therefore returned. The other was from the contractor of the 1928-29 coupe referred to above. The amount tendered was Rs. 3,600 and was accepted. The contract is to run up to 31-12-1929.

(c) The Portland Rubber Company, Makut, removed about 384 tons of fuel from the 1926 and 1927 bamboo taungyas valued at Rs. 460 under the terms of the contract.

(d) 3,513 c.ft. of timber valued at Rs. 583 was extracted from the 40 acres (exact area since found to be 37 acres) taungya at Kakethodu.

(e) Another similar area of about 28 acres also at Kakethodu was allotted to be kumried during 1929-30. Felling has been completed, but owing to untimely rains, the area could not be burnt. It will be kumried during 1930-31.

Major forest produce.

24. During the year departmental fellings were undertaken in coupe VI Kahlalla of 75 acres, coupe II Tithimatti of 75 acres and coupe II Nagerhole of 50 acres. These coupes were enumerated in 1926-27.

The following quantities of timber were obtained in the 3 coupes:—

	Tithimatti coupe II, 75 acres.		Nagerhole coupe II, 50 acres.		Kahlalla coupe VI, 75 acres.		Total 200 acres.	
	Yield.	Per acre.	Yield.	Per acre.	Yield.	Per acre.	Yield.	Per acre.
Logs.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Teak (<i>Tectona grandis</i>) ...	4,932	65.8	13,735	274.7	16,127	215.0	34,794	173.97
Biti (<i>Dalbergia latifolia</i>) ...	2,103	28.0	549	11.0	1,352	18.0	4,004	20.0
Honne (<i>Pterocarpus marsu- pium</i>).	969	12.9	2,263	45.7	1,558	22.2	10,164	50.8
Matti (<i>Terminalia tomentosa</i>).	3,325	44.3	7,536	150.7	*5,354	182.8	24,572	122.9
Nandi (<i>Lagerstroemia lanceolata</i>).	1,356	18.1	365	7.3	5,250	70.0	69,71	34.9
Uive (<i>Terminalia paniculata</i>).	103	1.4	...	...	...	...	103	1.4
Udi (<i>Bignonia xylocarpa</i>) ..	111	1.5	...	...	...	...	111	1.5
Arsintega (<i>Adina cardifolia</i>).	1,752	23.4	477	9.5	1,076	14.3	3,305	16.5
Nelagoddu (<i>Garuga pinnata</i>).	...	...	153	3.1	570	7.6	723	3.6
Thadasalu (<i>Grewia tiliaefolia</i>).	88	1.2	84	1.7	...	...	172	.9
Bilwara (<i>Albizia odoratissima</i>).	609	8.1	...	...	...	...	609	3.0
Balanji (<i>Acrocarpus fraxinifolius</i>).	...	...	...	...	295	3.9	295	1.5
Branch pieces.								
Teak (<i>Tectona grandis</i>) ...	4,410	58.8	6,843	136.9	7,678	102.4	18,931	94.7
Biti (<i>Dalbergia latifolia</i>) ...	123	1.6	141	2.8	625	8.3	849	4.4
Honne (<i>Pterocarpus marsupium</i>).	36	.5	84	1.7	489	6.5	609	3.0
Matti (<i>Terminalia tomentosa</i>).	115	1.5	1,058	21.2	1,488	19.8	2,661	13.3
Nandi (<i>Lagerstroemia lanceolata</i>).	...	...	8	.2	207	2.8	215	1.1

*felled in advance in 1920-27.

Besides the above fellings, some timber was also obtained by clear fellings on lantana areas taken up for kumri cultivation.

In the Fraserpet and Somwarpet Ranges 3,378 c. ft. of timber of various species was felled at a cost of Rs. 249 of which 176 c. ft. including branch pieces was from the 1926 Attur regeneration area.

In the Ghat forests no departmental fellings of any kind were undertaken during the year.

(b) *Agency of Exploitation.*

(i) *Departmental agency.*

25. The balance of timber on hand at the beginning of the year was 74,952 c. ft. The quantity of timber obtained during the year by fellings, confiscations, etc., was 121,616 c. ft. The outturn is chiefly accounted for by clear fellings. 167,765 c. ft. of various species was sold or otherwise disposed of, including 42,174 c. ft. of unserviceable timber written off the accounts with the sanction of the Chief Commissioner. The balance on hand at the close of the year was 28,803 c. ft.

26. Again as in last year, only 1st and 2nd class teak, biti (*Dalbergia latifolia*) and honne (*Pterocarpus marsupium*) and a small quantity of matti (*Terminalia tomentosa*) and nandi (*Lagerstroemia lanceolata*) were carted to Hunsur depot for sale. 23,151 c. ft. of teak, 4,415 c. ft. biti, 3,792 c. ft. honne, 2,743 c. ft. matti and 5,227 c. ft. nandi were sold at the Hunsur depot by private sales which realised Rs. 86,001. 12,591 c. ft. of various species including jungle woods was also sold by private sales ex-forest depots which realised Rs. 6,779.

As the major portion of the timber had been sold by private sales, only one auction was held at Hunsur in February 1929. 12,467 c. ft. of teak, biti, honne and matti not up to the specification governing the private sales and 1,307 c. ft. nandi and buruga were sold for Rs. 26,019. At the same time 34,109 c. ft. of timber was sold ex-forest depots for Rs. 12,130.

The prices realised in all the above sales were very satisfactory.

A contract was made, current for 3 years for the sale of all teak (*Tectona grandis*) branch pieces and billets in Tithimatti, Kalhalla and Nagerhole. The estimated annual outturn is approximately 15,500 c. ft. valued at Rs. 4,118. During the year, the yield under this contract amounted to 16,574 c. ft. valued at Rs. Rs. 4,689.

27. *Firewood*.—There was a balance of 42,960 c. ft. of firewood on hand at the beginning of the year. 888 cartloads of firewood (53,280 c. ft. stacked) were cut departmentally from the Mercara reserve. 72,000 c. ft. were sold, leaving a balance of 24,240 c. ft. at the close of the year. In addition to this 22,437 c. ft. of firewood from Anekad were sold for Rs. 4,163.

28. 21,725 c. ft. of dead and dying jungle wood trees from Anekad and Attur reserves were converted into charcoal for use of the Public Works Department, Government offices and private consumers and sold for Rs. 1,340.

As an experiment 220 bags or 880 c. ft. of charcoal were prepared for sale in Virajpet at a cost of Rs. 194. Only 170 bags or 680 c. ft. could be sold at Re. 1 per bag, leaving a balance in hand of 50 bags. As the demand is not sufficient to justify more expenditure in this direction, further manufacture has been discontinued.

29. *Sandalwood*.—There was a book balance of 94 tons of cleanwood and 51 tons of roughwood at the commencement of the year. During the year 231 tons of roughwood were collected and altogether 232 tons were converted. Tons 69-0-2-7 chip classes were sold by tender in July, realising Rs. 66,734. Tons 137-0-0-0 were sold by public auction in December for Rs. 2,25,502. The average per ton for the 206 tons thus sold was Rs. 1,418. The balance carried forward at the end of the year was 36 tons of roughwood and 128 tons of cleanwood. A sum of Rs. 240 was recovered as koti rent on removals effected after the prescribed limit of 90 days from date of sale. The cost of collection and conversion was Rs. 12,436.

30. The total value of the disposals of major produce by departmental collection (less refunds) amounted to Rs. 4,23,126 for the year for both divisions.

(ii) *Purchasers.*

31. *Timber*.—47,158 c. ft. of timber inclusive of branch pieces and poles were sold from the reserved forests for Rs. 12,286. In addition to this a sum of Rs. 3,100 was realised on account of royalty for the lease of Urti coupes. Rs. 18,221 were realised for timber removed from paisaris and darkhast lands.

Other produce.—107,573 c. ft. of fuel, 211,757 bamboos and 136,550 reeds were removed from the reserved forests while 62,375 c. ft. of fuel and 39,100 bamboos were sold from paisaris.

The grazing revenue was Rs. 1,076 including sale of grass against Rs. 1,099 in the previous year.

The auctioning of minor forest produce realised Rs. 6,355. The right of collecting canes in the Ghat forests realised Rs. 705. A sum of Rs. 552 was obtained by the sale of reeds, maramanjai (a yellow creeper used for dyeing), pepper, palm leaves, etc., from the Ghat forests. The revenue from cardamom leases was Rs. 26,681 against Rs. 19,503.

The contract entered into with the Malabar Estates, Ltd., Tellicherry, for the right to collect *Vateria indica* fruits in the Ghat forests is continued.

The total value of removals by purchasers (less refunds) for the two divisions was Rs. 72,642 against Rs. 59,955.

(iii) *Rights and privileges.*

32. The value of free grazing allowed under the existing rights amounted to Rs. 105.

(iv) *Free grants.*

33. The ryots of certain villages in the vicinity of the Ghat forests were allowed free grazing on the grass hills of the Ghat forests in lieu of money rewards for assistance rendered in the protective burning of the grass hills to the east of the watershed.

17,582 head of cattle are reported to have grazed under this concession and the value of the grant at full rates is Rs. 4,568. Three hundred and five head of cattle belonging to lessees of hadlus granted for wet cultivation also grazed free under the Chief Commissioner's Notification No. 43, dated 10-8-1922, the value of which amounted to Rs. 84.

Besides the above there was one free grant of 50 bamboos and 2 head loads of canes for construction of a raft on a ferry.

(c) *Outturn and sources of forest produce.*

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

Sources of yield.	Major produce.			Minor produce.		
	Timber	Sandalwood.	Fuel.	Bamboos.	Grass and grazing.	Other produce.
Reserved forests ...	Rs. 1,41,450	Rs. ...	Rs. 8,835	Rs. 2,015	Rs. 1,076	Rs. 34,193
Unreserved forests ...	18,221	2,89,160	624	195	...	...
Total ...	1,59,671	2,89,160	9,459	2,210	1,076	34,193

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

A. Conservancy and works	...	...	...	Rs.	1,33,157
B. Establishment	...	...	...	...	1,26,868
Total				...	<u>2,60,025</u>

CHAPTER III.—FINANCIAL RESULTS.

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

Year.					Revenue.	Expenditure.	Surplus.
					Rs.	Rs.	Rs.
1927-28	...	...	...	...	4,96,509	2,43,988	2,52,520
1928-29	...	...	...	...	5,24,883	2,60,025	2,64,858
Average for 5 years ending 1926-27					...	...	...
					6,61,559	4,16,205	2,45,354

36. There was a net increase of Rs. 28,374 in the Forest revenue, when compared with that of the previous year, occurring chiefly under I (a) Timber, I (d) Sandalwood, II (a) Timber, II (e) Other Minor Produce and Cardamom. An increase of Rs. 17,620 under I (a) Timber is due to larger quantity of timber especially teak and biti (*Tectona grandis* and *Dalbergia latifolia*) sold and better prices obtained during the year. The increase under I (d) Sandalwood amounting to Rs. 7,113 is due to better prices obtained at the auction sale; Rs. 1,731 under II (a) Timber is due to revenue from timber on paisaris and darkhast lands; Rs. 2,275 under R II (e) Other Minor Produce is due to better prices obtained and Rs. 7,178 under Cardamoms is due to higher rates being tendered for the new leases. The decrease of Rs. 7,285 under V (b) Other Sources was due to smaller quantity of tramway materials sold.

37. The important increases and decreases in expenditure under A. Conservancy and Works as compared with the previous year are explained below:—

	Rs.	
I (a) Timber	+6,034	Due to larger quantity of timber being taken to the Hunsur depot for sale, thereby incurring carting charges.
(b) Firewood and charcoal	-1,216	Due to smaller quantity of firewood collected for sale to the public.

	Rs.	
VI (b) Feed and keep of cattle	-6,898	Due to a smaller number of elephants both on the permanent and the new capture establishment.
(c) Purchase of stores, etc.	+1,387	Due to larger quantity of stores purchased.
VII (a) Roads and bridges (Capital)	+2,791	Due to greater length of road being metalled.
(b) Buildings (Capital)	+1,220	Due to increase of expenditure on new buildings.
VIII (a) Demarcation	+1,338	Due to the clearing of the Eastern boundary line of Ghat forests and also a portion of boundary line between Coorg and Malabar and South Canara.
(e) Sowing and planting	+9,063	Due to the increase in the area regenerated.
IX (c) Other charges	+1,495	Due to supply of warm clothing and pugrees to Forest guards and peons.

Under B.—Pay of Establishments.

The difference between the expenditure under this head and that of the previous year is small and calls for no remarks.

The percentage of expenditure under A.—Conservancy and Works and B.—Establishment to total expenditure were 51 and 49.

38. The profit and loss statement is as follows :—

Profit and Loss statement.

1	Direction		Total. 4
	(North) Division. 2	South Division. 3	
	Rs.	Rs.	Rs.
<i>Capital Expenditure.</i>			
In 1928-29	2,000	11,000	13,000
In previous years (see last year's statement) ...	12,19,000	94,000	13,13,000
Total...	12,21,000	1,05,000	13,26,000
<i>Profit and Loss Account for 1928-29.</i>			
Receipts	3,73,000	1,52,000	5,25,000
Outstandings... ..	23,000	37,000	60,000
Value of timber and sandalwood on hand on 31st March 1929 in depots and forests ...	2,18,000	30,000	2,48,000
Value of elephants to be sold	10,000	6,000	16,000
Total	6,24,000	2,25,000	8,49,000
Expenditure of the year (excluding capital expenditure)	1,26,000	1,21,000	2,47,000
Interest on capital at 6% per annum	73,000	6,000	79,000
Total	1,99,000	1,27,000	3,26,000
Profit for the year	4,25,000	98,000	5,23,000

39. The following statement compares the revenue and expenditure under principal working heads for the year 1928-29 :—

Comparative Statement of Revenue and Expenditure under principal working heads for 1928-29.

Main working heads.	Revenue.	Percentage of revenue under head to total Revenue for the year.	Expenditure.	+ or - Balance.		Remarks.
				for 1928-29.	for 1927-28.	
A. Timber.	Rs. 1,59,670	30.4	Rs. 62,891	Rs. + 96,779	Rs. + 68,871	Shows an increase of Rs. 27,908 on last year's figures. This increase is due to two reasons: (a) Fellings were carried out over 200 acres against 137 acres in the previous year. (b) Larger quantity of bitl and teak having been sold and better prices obtained.
B. Bamboos and Minor Forests Produce.	37,399	7.1	13,878	+ 23,521	+ 18,881	
C. Sandalwood	2,89,342	55.1	37,924	+ 2,51,418	+ 2,51,638	The major portion of this surplus is attributable to cardamom leases.
D. Development	12,313	2.4	96,866	- 84,578	- 76,097	
E. Elephants	15,624	3.0	25,853	- 10,229	- 1,029	Represents money invested on capital works from which no revenue is expected at present. The year closed with 7 new captures in hand, as compared with 3 in 1927-28.
F. Fuel	9,459	1.8	16,784	- 7,325	- 8,231	This loss is counter balanced by Rs. 4,757 worth of free grazing.
G. Grazing	1,076	0.2	5,809	- 4,733	- 3,266	
Total	5,24,883		2,60,025	2,64,858	2,51,767	

The expenditure under establishment, maintenance of roads, buildings, etc., has been allotted on the formula which was arrived at by detailed calculations a year ago.

CHAPTER IV.

40. Results of research work carried out or started during the year :—

I. *Sandal regeneration experiments at Meenkolli.*—Sandal has been introduced into lantana infested blanks in the Meenkolli forests, by dibbling in the bushes after cutting. In some plots the lantana has been eradicated and in others it was left and periodically cut again.

General conclusions.

(i) Uprooting of lantana is better than non-uprooting, as a greater number of plants survive, and the individual plants grow better.

(ii) The best method seems to be, to cut the lantana in March, burn in April or May after showers of rain have removed the danger of fires spreading, dibble the sandal between 15th and 20th May, and eradicate the lantana at any time convenient prior to the end of August.

(iii) Eradication of lantana may let in grass, and to prevent this and to provide hosts for the sandal it is advisable to plant cuttings of fast growing species, such as *Ficus*, *Lithosperma*, *Jatropha*, etc.

Experience with sandal in taungya goes to show that equal quantities of dhall seeds should be dibbled with the sandal.

II. *Sandal taungya*.—The taungya method of raising sandal plantations was tried in 1927 in two areas, a departmental taungya at Hudgur in North Coorg, and a jungle tribe taungya at Balecove in South Coorg.

The conclusion arrived at are:—

(i) This method is the most successful one that has been tried in recent years.

(ii) Ragi makes a very good field crop for the purpose.

(iii) Very thorough cleaning of the ground is essential in the interest of the ragi, and in the interests of the sandal must include eradication of climbers as well as lantana.

(iv) Sandal is a voracious parasite from the very first and is fully capable of killing off a series of hosts.

(v) Dhall sown with the sandal in equal proportions makes an excellent first host and should always be sown. 100 per cent germination may be expected of the dhall, and 25 per cent or so only of sandal, thus giving a good proportion.

(vi) Within the first 24 months the sandal will require additional hosts, and *Erythrina lithosperma* promises well for the purpose as it is leguminous, can be raised easily from cuttings, and will stand unlimited lopping.

(vii) The quality of sandal seed being so variable, efficient means of testing the seed must be introduced.

Further experiment is required to study—

(i) The most suitable host.

(ii) The best spacing to adopt.

III. *Teak propagation in South Coorg.*—Conclusions drawn from observations of the past years are briefly the following:—

- (a) The burn of the rubbish must be thorough and must be evenly distributed over the whole area.
- (b) Dibbling is preferable to stump planting.
- (c) Sowing of seed must be finished by the middle of April.
- (d) Early germination of the teak is essential, and to obtain this 48 hours soaking is not enough. Further treatment to accelerate germination is necessary.
- (e) Regeneration work should be accompanied by the cultivation of a crop of ragi.
- (f) Climber roots must be eradicated.

IV. *Transplanting natural rosewood seedlings and root-suckers.*—In July 1925 owing to a failure of supply of rosewood seed, an experiment was tried in transporting natural seedlings and root-suckers from a forest 60 miles away, and at an elevation 2,000 feet higher, and planting them at Sampaji and Karike. 60 per cent success was obtained.

V. *Lac experiment.*—The experiment was continued during the year. Swarming was observed on the 16th July. Twigs containing brood lac were removed and transferred to new hosts, but unfortunately heavy rain fell immediately afterwards, and most of the insects were washed off before colonisation was effected. Those that survived during the rains are doing well. The cleaned lac collected from this brood was about 7 lbs. The experiment is still under close observation.

VI. *Extermination of reeds (Ochlandra) in Ghat forests.*—The following conclusions were drawn:—

Repeated cutting and burning of cut culms is useless in pure reed areas; it merely stimulates growth. The same process in reed infested areas under timber is quite effective, but if the timber canopy is light and reed crop consequently dense, the burn may cause considerable damage to trees and seedlings. Complete uprooting costs so much that it is out of the question.

VII. In connection with the possibility of exploiting railway sleepers from the Makut forests, 400 sample sleepers of *Dipterocarpus indicus* were sent to Dehra Dun for impregnating and testing, in August 1927.

The most recent report was received in July 1928 and was to the effect that the sleepers were still awaiting treatment.

CHAPTER V.—ADMINISTRATION.

41. Mr. G. C. Robinson, I.F.S., Deputy Conservator of Forests, was in charge of the Direction Division throughout the year except for a period of 4 months and 26 days, when Mr. A. R. Brand, Divisional Forest Officer, South Coorg, held charge in addition to his own duty. The post of Forest Engineer in Coorg was abolished. Mr. A. R. Brand, Extra Assistant Conservator of Forests, was in charge of the South Division throughout the year. Mr. C. M. Kushalappa, Extra Assistant Conservator of Forests, continued as Divisional Forest Officer, North Coorg.

Conduct of the establishment.

42. The work and the conduct of the Rangers was generally satisfactory. The conduct of the Foresters and forest guards was satisfactory on the whole. Three Foresters and 9 forest guards retired from service. Two guards died and two were dismissed. Four guards resigned.

43. The health of the subordinates especially of Foresters and guards was fair.

44. The result of the Commissioner's annual inspection of the Direction office was favourable. The accounts of the two Divisional offices were test audited during the year by the Accountant General, Madras, and the results are reported to be satisfactory.

CHAPTER VI.—GENERAL.

45. There were 14 elephants at the beginning of the year, 11 permanent working elephants and 3 new captures of the previous year. Of the 11 permanent working elephants, one Nawab, captured in 1926, died of general debility. In addition to 3 of the

previous year's captures mentioned above, 7 more were captured in North Coorg and 5 in South; the total number of captures during the year being 12. Of this total of 15, 6 were sold at Manantoddy for Rs. 15,150 and one died. The year therefore closed with 10 permanent elephants and 8 captures. Particulars concerning these animals are as follows:—

No.	Name.	Year of capture.	Height.
1.	Amir	1903	7' 7"
2.	Veeraraja	1905	8' 5"
3.	Lalarukh	1905	7' 11"
4.	Nakula	1910	7' 10"
5.	Menaki	1920	7' 2"
6.	Gopala	1920	7' 7"
7.	Krishna	1922	7' 3½"
8.	Droupathi	1922	7' 4"
9.	Nurmahal	1926	7' 6"
10.	Balamaui	1927	7' 6"
11.	Bharatha	1929	5' 5"
12.	Nandana	1929	5' 8"
13.	Baber	1929	5' 7"
14.	Indra	1929	3' 8"
15.	Bheeshma	1929	6' 9¼"
16.	Laxmi	1929	7' 4"
17.	Manmatha	1929	4' 6"
18.	Sakuntala	1929	2' 10½"

(Born.)

Of the 10 working elephants, 5 elephants were employed in South Coorg throughout the year, 7 months being spent on timber work, while the remaining 5 months were devoted to a short capturing season in the Mathigode-Ganagur forests. The remaining elephants were employed in the North Division on kumaki work for the whole year. The cost of their feed and keep amounted to Rs. 3,721 on timber work and Rs. 4,471 on capturing operations. The cost of feed and keep of captures was Rs. 2,397 and the cost of capturing operations Rs. 3,749.

Excluding the cost of establishment the expenditure incurred on capturing work amounted to Rs. 10,617. The elephants employed on timber dragging turned out work to the value of Rs. 14,649 which the Government would have paid if hired elephants had been engaged for the work.

46. There were 5 buffaloes throughout the year. They were chiefly employed on metalling of Kutta-Nallurpala road.

The feed and keep of the whole stud of livestock amounted to Rs. 14,408 as against Rs. 21,306 in the previous year.

47. In April 1928, an elephant was found shot dead in Siddalingapura paisari near mile stone 9/6 on the Banawara-Sirangala road. Both the tusks were missing, and the case was therefore referred to the Police for investigation. 5 persons belonging to Kadanur in Mysore State were prosecuted, one tusk having been found concealed close to the house of one of the accused. Four of the accused were found guilty of the crime of stealing the one tusk, and were sentenced to pay a fine of Rs. 25 each. No clue could be obtained as to the person who shot the elephant or who stole the other tusk.

48. Very largely because the removal of capturing operations to another scene was thought to have led to increased damage by wild elephants in North Coorg during the 1927-28 season, operations were reopened during 1928-29 season at Hudgur. Though this has been a comparative failure from our point of view as we caught nothing up to 8th January, it is satisfactory to observe that the existence of elephant pits checked the elephants from doing damage to standing crops, which fact has been admitted by the revenue authorities.

49. A solitary elephant which had fallen into one of the pits at Karneshwarakandi in Fraserpet Range had escaped before the pit watcher went on his round of inspection on 11-11-1928. The elephant is presumed to be a big one, as otherwise it could not have succeeded in escaping from a pit 12' x 12' x 12'.

50. During April 1929, it was reported that there was foot and mouth disease among the wild animals and that 3 bison which fell into our elephant pits had this disease. Necessary precautions were taken to prevent our livestock from catching this disease.

51. An elephant believed to be Meenakshi, the elephant that was reported in last year's report, to have been lost, fell into a Mysore Government pit in December 1928.

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

Protective burning of grass hills.

52. The following is the review by the Commissioner of Coorg of the work done:—

“The protective burning was conducted in 62 villages affecting 8 nads. The burning was commenced on the 7th January 1929

and ended on 22nd March 1929. The area burnt is 97,986.00 acres against 92,272.23 acres last year. The burning was satisfactory and the patels and the villagers concerned took part in the operations. No accidental fires occurred after the operations were closed.

As usual the villagers of Maragodu and Hosakeri villages in Mercaranad want a money reward; the rest are content to have the right of free grazing."

53. On the Brahmagiri hills fire lines were cleared round the principal sholas and the grass outside them was burnt as usual, the sholas being thus protected.

54. Regarding flowering of *Strobilanthes* undergrowth, the Range Officers concerned will do the necessary supervision personally while burning in their respective ranges along with the Special Parpattigar to be deputed for the work.

55. The stream margins in lands granted for rubber and fibre cultivation were inspected by the Range Officers and found to be in a satisfactory condition.

56. Swamps to an extent of 228 acres in Tithimatti, Nagerhole, Kutumpole, Fraserpet and Bhagamandla Ranges were granted for wet cultivation under the Chief Commissioner's Notification No. 43, dated 16-8-1922, but as usual the area actually cultivated increased by very little.

57. Some of the tramway material at Makut was sold during the year and realised a sum of Rs. 664.

58. Rains during April and May were about normal. The monsoon broke on 1st June and there was a dry spell from about 15th June to 7th July. Exceptionally heavy rains fell in October, after which a severe drought set in, resulting in the drying up of wells and considerable damage to regeneration work.

MERCARA,

Dated 21st August 1929.

G. C. ROBINSON,

Chief Forest Officer.

List of Annual Returns to the Progress Report of Forest Administration in Coorg for 1928-29.

Form No.	Name of Form.
7	Area of forests.
8	Forest settlements.
9	Demarcation 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	Area closed and open to grazing.
17	Grazing in State forests.
18-A.	Progress in reproduction and afforestation under working-plans or schemes during the year.
18-B.	Plantations not under working-plans during the year.
19	Outturn of timber and fuel.
20	Outturn of minor produce.
21	Account of timber, etc., 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.
„	Supplemental.
26	Outstandings on account of revenue during the year.
27	Outstandings and liabilities of contractors and disbursers during the year.

FORM No. 7.

FOREST DEPARTMENT, COORG.

Area of Reserved Forests, Protected Forests, Unclassed or Public Forest Land, and Leased Forests 1928—29.

Division.	Range.	Civil district or territory.	Name of Forest.	Area on 1st April 1928.		Added during the year	Excluded or transferred to other heads.	Area on 31st March 1929.		No. and date of notification of addition or transfer, &c.	Remarks.
				Acres.	Equivalent in square miles.			Acres.	Acres.			Acres.	Equivalent in square miles.
Direction	Coorg.	...	166,424.47	260	...	100.00	166,324.47	260	Vide Chief Commissioner's Notification No. 51, dated 28-6-1928	
(North.) Div.	165,546.85	259	...	...	165,546.85	259		
South Coorg...	...		Total...	331,971.32	519	...	100.00	331,871.32	519		...

FORM No. 8.

FOREST DEPARTMENT, COORG.

Progress made in Forest Settlements during the year 1928—29.

Forest Division.	Civil District or Territory.	Name of Forest.	Area in square miles.			Cost during year.		Entire cost per square mile of areas finally settled.	Government Notification of settlement.	
			Finally settled during year.	In hand at commencement of year.	Taken in hand during year.	In Forest Accounts.	In other Accounts.		No.	Date.
1	2	3	4	5	6	7	8	9	10	11
Direction (North) Division.	Coorg	...	...	Nil	...	...	...	...	...	...
South Coorg		Total.....	...	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 close of the year.
	Miles.	Miles.	Miles.	Miles.
Direction (North) Divn...	...	40	242	282
South Coorg Division ...	...	52	135	187
Total.....	...	92	377	469

FORM
FOREST DEPART-
Statement of forest areas surveyed and under survey by

DIVISION.	TOPOGRAPHICAL SURVEYS.							Ordinary Surveys Forest	
	Special Surveys paid for by Forest Department.							Forest	
	Previous.		Of the year.		Cost.		Previous.		
	4" = 1 M.	2" = 1 M.	4" = 1 M.	2" = 1 M.	Incurred during year.	Total to the end of year.	2" = 1 M.	Smaller scales.	
1	2	3	4	5	6	7	8	9	
	Sq. M.	Sq. M.	Sq. M.	Sq. M.	Rs.	Rs.	Sq. M.	Sq. M.	
Direction (North) Division	260	} 20,479
South Coorg Division	259
Total	519	...	...	20,479	...	...

NOTE.—Columns 2, 3, 4, 5, 8, 9, 10 and 11 should show the work up to date.

No. 9.

MENT, COORG.

maintenance of boundaries, 1928—29.

Length of boundaries still to be demarcated at 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.	
...	56	338	...	910	
...	11	198	...	1,313	
...	67	536	...	2,223	

No. 10.

MENT, COORG.

the Survey of India Department during the year 1928—29.

not paid for by Department.		BOUNDARY SURVEYS.		Total area surveyed.	Area remaining to be surveyed.	Total area as per form 7.	REMARKS.
Of the year.		Previous.	Of the year.				
8"=1 M.	Smaller scales.			12	13	14	15	16	17
10	11	12	13	14	15	16	17
Sq. M.	Sq. M.	L. M.	L. M.	Sq. M.	Sq. M.	Sq. M.	
...	...	260	...	260	...	260	
...	...	259	...	259	...	259	
...	...	519	...	519	...	519	

The total added to column 15 should equal the total forest area in column 16.

FORM
FOREST DEPART.
Progress made in Working

Division.	Area under sanctioned working plans.					Area not under working plans		
	At commencement of year.	Added during year.	Deducted during year.	At close of year.		Plans under preparation.	Plans not under preparation.	
				Actual area.	Percentage of total forest area (as shown in column 10).		Required at present.	Not required at present.
1	2	3	4	5	6	7	8	9
	Sq. M.	Sq. M.	Sq. M.	Sq. M.	Per cent.	Sq. M.	Sq. M.	Sq. M.
Direction (North)	260	...	...	260	100	...	...	...
South Coorg ...	259	...	...	259	100	...	...	...
Total...	519	...	...	519	100	...	...	...

FORM
FOREST DEPART
Communications and

Division.	New works undertaken during the year.												Total expenditure on new works		
	Buildings.					Roads and paths.						Other works			
	Expenditure on				Total expenditure incurred	Cart roads		Bridle paths		Others				Total length of paths or roads	Total expenditure incurred
	Head-quarter houses	Rest houses	Houses for subordinate establishment	Others		Length	Cost	Length	Cost	Length	Cost				
1	2 (a)	2 (b)	2 (c)	2 (d)	3	4 (a)	4 (b)	4 (c)	4 (d)	4 (e)	4 (f)	5	6	7	8
	Rs.	Rs.	Rs.	Rs.	Rs.	F.	Rs.					F.	Rs.	Rs.	Rs.
Direction (North) Division	1,642	...	1,642	...	...	...	...	...	...	...	...	...	1,642
South Coorg Division..	...	56	2,739	1,006	3,801	4 fig. 390 ft.	6,447	...	...	...	...	4 fig. 390 ft.	6,447	51	10299
Total.....	...	56	4,381	1,006	5,413	4 fig. 390 ft.	6,447	...	...	...	...	4 fig. 390 ft.	6,447	51	11,941

No. 11.

MENT, COORG.

Plans, 1928—29.

10 Total forest area in Form No. 76 (Total of columns 5, 7, 8 and 9). Sq. M.	Revisions.			14 Expenditure on working plans during the year. Rs.	15 Remarks.
	11 Due or required. Sq. M.	12 In progress at end of year. Sq. M.	13 Revised plans sanctioned during year. Sq. M.		
260	260	..	..	..
259	259	140	..	..
519	519	140	..	..

No. 12.

MENT, COORG.

Buildings during 1928—29.

Repairs executed during the year.

Buildings.					Roads and paths.						Other works		15 Total expenditure incurred	16 Remarks.
Expenditure on				10 Total expenditure incurred	Cart roads		Bridle paths		Others		12 Total length of paths or roads	13 Total expenditure incurred		
9 (a) Head-quarter houses	9 (b) Rest houses	9 (c) Houses for subordinate establishment	9 (d) Others		11 (a) Length	11 (b) Cost	11 (c) Length	11 (d) Cost	11 (e) Length	11 (f) Cost				
Rs.	Rs.	Rs.	Rs.	Rs.	M.	Rs.	M.	Rs.	M.	Rs.	M.	Rs.	Rs.	Rs.
938	391	619	648	2,596	26½	542	80½	1,242	15	145	122	1,929	974	5,499
...	1,029	2,528	196	3,753	71	3,454	62½	439	12½	129	146½	4,022	870	8,645
938	1,420	3,147	844	6,349	97½	3,996	143	1,681	27½	274	268½	5,951	1,844	14,144

FORM No. 13.

FOREST DEPARTMENT, COORG.

Statement showing register of breaches of Forest Rules during 1928—29.

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.					Unauthorized grazing.					Other offences.					Total.			Total cases.	Convictions.		Acquittals.		Total.									
	A	B	All	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	All	A	B				A	B	A	B	All	A	B	All						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
1																																								41	
Direction (North)	2		2				12		2	15		1	4		3	31		5	31		86	4	23	8	27	1	8*	2	14	5	31	36	10	41	51				*Withdrawn.		
South Coorg Division	1		1				3		2			6		11		12		12		12		12		16						12	12		16	16							
Total	2	1	3				15		2	17		1	10		3	42		5	43		48	4	35	8	43	1	8	2	14	5	43	48	10	57	67						

N. B.— ‘A’ means cases taken into court.

‘B’ means cases disposed of under section 67 of the Indian Forest Act, 1878.

‘C’ means undetected cases.

FORM No. 14.

FOREST DEPARTMENT, COORG.

Area of forest tracts protected from fire during the year 1928—29.

Division.	Forest Range.	Year in which protection commenced.	Area attempted to be protected in* 1927—28.	Area actually protected in* 1927—28.	Area attempted to be protected in† 1928—29.	Failures. 1928—29.	Area actually protected in† 1928—29.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9	10
Direction (North) Division ...	Mercara ...	1883	Aores. 316	Aores. 316	Aores. 316	Aores. ...	Aores. 316	Rs. 191	
	Fraserpet ...	1876	23,869	23,460	23,869	129'50	23,739'50	940	
	Somwarpet ...	1877	2,750	2,749'60	2,738	306'50	2,431'50	595	
	Bagamandla ...	1914	500	500	500	...	500	591	
	Total ...		27,435	27,034'60	27,428	436	26,987	2,317	
South Coorg Division ...	Tithimatti ...	1876-78	35,792	35,771	35,782	...	35,782	1,385†	† Includes Rs. 381 being the value of ragi distributed to fire patrols as rewards for fire protection work from the Departmental stock. § Includes 2,330 acres of sholas on Brahmagiris. The area of which was not shown in previous returns.
	Nagerhole ...	1878	53,551	53,545	55,838§	10	55,828	1,354	
	Kutnmpole ...	1881	...	...	...	...	...	...
	Total ...		89,338	89,316	91,620	10	91,610	2,739	
Grand Total ...		...	116,768	116,350'60	119,048	446	118,597	5,056	

*Year previous to that of current report.
†Year dealt with in current report.

FORM No. 15.

FOREST DEPARTMENT, COORG.

Causes of Forest Fires, 1928—29.

Direction (North) Division ...	No. of fires.		(A)		Division or Circle.
	...	...	Fire caused by accident or through carelessness in burning fire lines.		
South Coorg Division ...	5	3064	...	...
Total ...	5	3064	...	...
			(B)		
			Fires entering the forest by crossing exterior fire traces.		
			(C)		
			Owing to carelessness or accident.		
			By workmen employed in the forests by purchasers of forest produce and by <i>Yacutters</i> .		
			By villagers, travellers, etc., passing through the forests.		
			By Railway Engines.		
			By lightning or by fire-balloons.		
			In order to obtain new grass.		
			In order to turn out game or to reduce cover.		
			Maliciously fired.		
			Total.		
			Causes unknown.		
			Total (A), (B) and (C).		
	15	436	10	1294	
	2	10	...	...
	17	446	10	1294	
	15	436	2	10	
	17	446	...	...

FORM No. 16.

FOREST DEPARTMENT, COORG.

Area closed and open to grazing during 1928—29.

Area in square miles.

Division.	Closed to all animals.		Open to grazing.				Remarks.
			Of all animals.		Of all animals except browsers (camels, sheep and goats).		
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.	Part of year.	
1	2	3	4	5	6	7	8
					RESERVED FORESTS.		
Direction (North) Division...	67	198	...	...	...	198	
South Coorg Division	13½	245½	...	...	...	245½	
Total	80½	438½	...	...	...	438½	
					RESERVED LANDS (UNDER SEC. 4).		
	
Total .....	...	...	...	...	...	...
					PROTECTED FORESTS.		
	
Total .....	...	...	...	...	...	...
Grand Total	80½	438½	...	...	...	438½	

FORM No. 17.

FOREST DEPARTMENT, COORG.

Return of grazing in the State Forests of Coorg during 1928—29.

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.	Actual 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.	Rs.	
	RESERVED FORESTS.																													
Direction (North) Division ...	156	2,416	...	...	726	...	...	...	...	...	...	6	247	...	...	64	...	...	...	...	...	41	...	12,725	...	...	3,181	3,222	
South Coorg Division ...	216	950	...	...	350	...	...	...	...	...	...	6	247	...	...	64	1,374	3,483	...	...	...	64	1,374	3,483	...	...	1,387	1,451	
Total ...	372	3,366	...	...	1,076	...	...	...	...	...	...	6	412	...	...	105	1,374	16,208	...	...	...	105	1,374	16,208	...	...	4,568	4,673	
	PROTECTED FORESTS.																													
Total	
Grand Total ...	372	3,366	...	...	1,076	...	...	...	...	...	...	6	412	...	...	105	1,374	16,208	...	...	...	105	1,374	16,208	...	...	4,568	4,673	

FORM No. 18 A.

Forest Department, Coorg.

Progress in afforestation and regeneration under Working Plans or Schemes
during the Forest year 1928-29.

FOREST DEPART-

Progress in afforestation and regeneration under

Division.	Working Circle and Block.	Period	Area to be regenerated during period.	Method of treatment.	Area in which re-generation was in progress at Commencement of year 1st April.
1	2	3	4	5	6
Direction (North) Division.	Northern working circle ...	26 years.	acres. 4,792	"Y" fellings.	158
	Southern working circle ...	"	...	do.	77
	Northern working circle ...	"	1,000	Sandal sowing.	167
	Mercara Reserve ...	17 years.	520	Planting of eucalyptus.	46
	Total ...		6,312	...	448
South Coorg Division.	Southern working circle, Mawkal felling series, blocks 1, 2, 5, 8 and 9. ...	20 years.	11,446	Clear felling.	47
	Southern working circle Hatgat felling series, blocks 1, 3, 4, 7, 11 and 12. ...	"	11,535	Clear felling.	65
	Urti and Sollekosli blocks ...	"	8,500	Regeneration fellings.	...
	Total ...		31,481	...	112
	Grand Total ...		37,798	...	560

No. 18-A.

MENT, COORG.

Working Plans or Schemes during the Forest year 1928—29.

Area on which re-generation commenced during the year April 1st to March 31st.	Area on which re-generation is complete.			Area on which re-generation is still in progress at close of year 31st March 1929.	Expenditure during the year.		Expenditure to date from commencement of period.		Revenue during year.	Total revenue from date of creation.	Remarks
	Previous.	During year 1st April 1928 to 31st March 1929.	Total to 31st March 1929.		Creation.	Up-keep.	Creation.	Up-keep.			
7	8	9	10	11	12	13	14	15	16	17	18
...	282	...	282	153	...	1,517	3,381	7,849	..	...
..	...	...	...	77	...	...	1,299	3,439	...	...
4	56	...	56	171	168	335	853	8,954	...	...
.	59	16	75	46	690	1,227	8,815	16,585	...	...
20	397	16	413	452	858	3,079	14,343	36,627	...	...
75	510	47	557	75	1,404	1,437	12,649	25,713	1,750	1,750	
100	447	65	512	100	1,898	2,110	9,592	18,072	...	...
63	1,575	63	1,638	...	...	911	...	13,346	...	...
236	2,532	175	2,707	175	3,302	4,458	22,241	57,131	1,750	1,750	
258	2,929	191	3,120	627	4,160	7,537	36,559	93,758	1,750	1,750	

FOREST DEPART-

Plantations not under Working Plans

Division and Forest.	Method of formation and year of commencement.	Area in acres.				Expendi-
		At commence- ment of year 1st April 1928.	Added during the year 1st April 1928 to 31st March 1929.	Excluded during the year 1st April 1928 to 31st March 1929.	On 31st March 1929.	Creation.
1	2	3	4	5	6	7
Direction (North) Division ...	Regular Plantations 1870—1884 Teak.	Acre. 35	...	...	35	...
Northern Working Circle...	Do.	87	...	...	87	...
Do.	Regular Plantations 1870—1884 Sandal.	608	...	...	608	...
North Division ...	Taungya Plantations Kumris.	2,361	203	...	2,564	1,131
Mundrote ...	Regeneration and Improvement fellings of Hopea 1919—20.	100	...	...	100	...
	Artificial cultivation of Sandal by dibbling at stakes and under bushes.	110	28	...	138	476
	Total Direction Division ...	3,296	231	...	3,527	1,607
South Coorg Division	Regular Plantations Teak 1869	235	...	...	235	...
Tithimatti and Nager- hole Ranges.	Do. Sandal 1880...	457	...	6	451	...
	Total ...	692	...	6	686	...
Do. Do.	Taungya Plantation 1891 ...	1,914	79	20	1,973	662
Kutumpele Range.	Artificial cultivation of Aini, Bombax and Bamboo by dibbling and planting.	201	37	...	238	...
	Planting Teak 1869—70 ...	760	...	...	760	...
	Clear felling and sowing with Aini and Irulu.	5	...	...	5	...
	Planting Rosewood ...	5	...	...	5	...
	Total ...	971	37	...	1,008	...
	Total South Coorg Division ...	3,577	116	26	3,667	662
	Grand Total of North & South Divisions.	6,873	347	26	7,194	2,269

No. 18-B.

MENT, COORG.

during the Forest year ending 31st March 1929.

Up-keep. 8	Total expenditure from commencement including expenditure on all failed crops.			Total area written off from start. 12	Expenditure in failed areas during the year 13	Expenditure from commencement excluding failed areas. 14	Revenue during year. 15	Total revenue from date of creation. 16	Remarks. 17
	Creation. 9	Up-keep. 10	Total. 11						
1	1,151	5,788	6,939	11	...	5,673	...	299	
...	4,951	10,990	15,941	18	...	12,240	...	2,074	
...	9,860	29,815	39,675	...	...	39,675	...	2,845	
3,031	2,114	39,381	41,495	...	...	41,495	400	1,213	
...	150	326	476	...	...	476	...	...
...	733	...	733	...	...	733	...	...
3,032	18,959	86,300	1,05,259	29	...	1,00,292	400	5,931	
26	15,150	17,815	32,965	...	...	32,965	...	45,045	
62	4,724	24,028	28,752	9	31	28,707	...	3,934	
88	19,874	41,843	61,717	9	31	61,672	...	48,979	
1,154	8,774	23,008	31,782	...	...	31,782	487	48,049	
687	78	1,821	1,899	...	...	1,899	...	...
...	Not known	64,613	64,613	...	...	64,613	...	2,887	
9	...	235	235	...	...	205	...	...
25	88	25	118	...	...	118	...	...
721	166	66,694	66,860	...	...	66,830	...	2,887	
1,963	28,814	1,31,545	1,60,359	9	31	1,60,234	487	99,915	
4,995	47,773	2,17,845	2,65,618	38	31	2,60,576	887	1,05,846	

FOREST DEPART-

Outturn (in cubic feet, solid) of Timber

Division.	Timber in the rough ; logs.					Timber in the rough ; poles.					Sawn or square timber.				
	Government.	Purchasers.	Free Grantees.	Right holders.	Total.	Government.	Purchasers.	Free Grantees.	Right holders.	Total.	Government.	Purchasers.	Free Grantees.	Right holders.	Total.
	c ft	c ft	c ft	c ft	c ft	c ft	c ft	c ft	c ft	c ft	c ft	c ft	c ft	c ft	c ft
<i>I.—Reserved Forests.</i>															
Direction (North) Divn. South Coorg Division...	4,706	8,247	...	...	12,953	...	...	...	...	...	...	...	...	...	...
	112155	37,998 + 18 poon spar logs.	..	..	150153 + 18 poon spar logs.	3,213	918	...	...	4,126	1,542	...	...	...	1,542
Total...	116861	46,245 + 18 poon spars.	...	...	163106 + 18 poon spars.	3,213	918	...	...	4,126	1,542	...	...	...	1,542
<i>II.—Protected Forests.</i>															
Direction (North) Divn.. South Coorg Division...	...	46,584	...	...	46,584	...	...	...	...	...	...	...	...	...	...
	...	26,299	...	...	26,299	...	...	...	...	...	...	...	...	...	...
Total...	...	72,883	...	...	72,883	...	...	...	...	...	...	...	...	...	...
<i>III.—Unclassed Forests.</i>															
...	...	...	...	...	...	...	...	...	...	...	...	Nil.	...	...	...
Total.....	...	...	...	...	...	...	...	...	...	...	...	Nil.	...	...	...
Grand Total...	116861	119128 + 18 poon spars.	...	...	235989 + 18 poon spars.	3,213	918	...	...	4,126	1,542	...	...	...	1,542

No. 19.

MENT, COORG.

and Fuel during the year 1928—29 and Agency of Exploitation.

Sandalwood.					Total timber.					Fuel.					Total output.
Government.	Purchasers.	Free Grantees.	Right holders.	Total.	Government.	Purchasers.	Free Grantees.	Right holders.	Total.	Government.	Purchasers.	Free Grantees.	Right holders.	Total.	
cft	cft	cft	cft	cft	cft	cft	cft	cft	cft	cft	cft	cft	cft	cft	cft
...	4,708	8,247	...	...	12,953	97,442	24,825	...	...	122,267	195,220
...	116,910	38,911 + 18 poon spars.	...	...	155,821 + 18 poon spars.	3,667	82,748	...	...	86,415	242,236 + 18 poon spars.
...	121,616	47,158 + 18 poon spars.	...	...	168,774 + 18 poon spars.	101,109	107,573	...	...	208,682	377,45 + 18 poon spars.
13,700	13,700	13,700	46,584	..	...	60,284	...	38,950	...	...	38,950	99,234
...	26,299	...	...	26,299	...	23,425	...	...	23,425	49,724
13,700	13,700	13,700	72,883	..	...	86,583	...	62,375	...	...	62,375	148,958
...
...
13,700	13,700	135,316	120,041 + 18 poon spars.	...	...	255,357 + 18 poon spars.	101,109	169,948	...	...	271,057	526,414 + 18 poon spars.

FORM No. 20.

FOREST DEPARTMENT, COORG.

Outturn of minor forest produce during the year 1928—29.

Description of produce.	Produce removed or utilized.										Remarks.
	By Government Agency.		By purchasers.		By free grants.		By right holders.		Total.		
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
I.—Reserved Forests.											
DIRECTION (NORTH) DIVISION.											
Bamboos	180	45	141,576	1,362	...	...	...	...	1,41,456	1,407	
Beeds	800	1	...	...	...	...	800	1	
Minor forest produce including cardamom	32,573	...	...	...	...	...	32,573	
Grazing and other minor produce.	726	...	...	...	...	...	726	
Total.....	180	45	142,376	34,662	...	...	...	...	142,556	34,707	
SOUTH DIVISION.											
Bamboos	70,181	606	50	...	...	...	70,231	606	
Beeds	135,750	340	...	...	...	...	135,750	340	
Minor forest produce including cardamom	1,378	*60	1	...	...	60	1,379	
Grazing	350	...	1,387	...	64	...	1,801	
...	205,931	2,674	110	1,388	...	64	206,041	4,126	
Total:.....	180	45	348,307	37,336	110	1,388	...	64	348,597	38,833	
II.—Protected Forests.											
DIRECTION (NORTH) DIVISION.											
Bamboos	36,000	180	...	...	...	...	36,000	180	
Total	36,000	180	...	...	...	...	36,000	180	
SOUTH DIVISION.											
Bamboos	3,100	14	...	...	...	...	3,100	14	
Minor forest produce	2	...	...	...	...	...	2	
Grazing and fodder grass	
...	3,100	16	...	...	...	...	3,100	16	
Total	39,100	196	...	...	...	...	39,100	196	

* 2 head loads of canes.

FORM No. 21.
FOREST DEPARTMENT, COORG.

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 1928—29.

Name of Division.	Balance at commencement of the year in forests and sale depots.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in forests and sale depots.
COORG.					
Direction (North) Division.	6,691	4,706	11,397	7,391	4,006
South Division	68,261	116,910	185,171	160,374	24,797
Total timber.....	74,952	121,616	196,568	167,765	28,803
<i>Clean Sandalwood (tons).</i>					
Direction (North) Division.	94	274	368	(a) 240	128
South Division	...	...	...	...	...
Total clean sandalwood ...	94	274	368	240	128
<i>Rough Sandalwood (tons).</i>					
Direction (North) Division.	51	231	282	(b) 246	36
South Division	...	...	...	...	...
Total rough sandalwood ...	51	231	282	246	36
<i>Fuel (cubic feet).</i>					
Direction (North) Division.	42,950	75,717	118,677	94,487	24,240
South Division	...	3,667	3,667	2,833	834
Total fuel ...	42,960	79,384	122,344	97,270	25,074

(a) Includes 23 tons sold during 1927—28, but removed during the year.

" 12 " dryage.

(b) Includes 14 " " "

FORM No. 22.
FOREST DEPARTMENT, COORG.

Abstract showing the value of timber and other produce at sale depots
for the year 1928—29.

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.	C. ft.	Value.	No.	C. ft.	Value.	In favour of the year.	Against the year.	
DIRECTION (NORTH) DIVN.									
<i>Sandalwood.</i>									
Good wood	...	94	1,31,600	...	128	1,79,200	47,600	...	...
Chips	...	...	...	...	36	36,000	...	15,000	...
Rough wood	...	51	51,000	...	...	...	...	...	...
Total.....	...	145	1,82,600	...	164	2,15,200	47,600	15,000	...
SOUTH COORG DIVISION									
<i>Timber.</i>									
Teak logs	51	2,276	3,000	285	4,855	16,000	7,000	...	...
Honne logs	14	233	400	83	1,451	1,800	1,400	...	...
Biti "	31	1,119	3,500	70	1,633	5,000	1,500	...	...
Nandi "	189	1,940	1,523	...	...	...	...	1,523	...
Teak butt end pieces	1	19	15	...	...	...	...	15	...
Teak posts	150	336	118	...	...	...	...	118	...
Teak poles	...	...	...	25	93	75	75	...	...
Total...	436	4,932	8,556	314	8,032	16,875	9,975	1,656	...

FORM No. 23.

FOREST DEPARTMENT, COORG.

Abstract showing the value of Live and Dead-stock for the year 1928—29.

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
		Rs.		Rs.	Rs.	Rs.	
			<i>Live-stock.</i>				
Elephants	14	68,500	18	65,200	...	3,300	
Buffaloes	5	800	5	750	...	50	
Bullocks ... ..	...	..	...	...	...	...
Total live-stock ...	19	69,300	23	65,950	...	3,350	
			<i>Dead-stock.</i>				
DIRECTION (NORTH) DIVISION.							
Buildings	47	38,697	46	36,415	...	282	
Survey instruments ...	115	1,728	133	1,523	...	205	
Tools	1,688	3,457	1,581	3,523	66	...	
Furniture	656	1,952	568	2,310	358	...	
Crockery	181	124	187	142	18	...	
Tents	8	1,606	8	1,526	...	80	
Miscellaneous	1,300	11,408	1,175	11,201	...	202	
Total	3,995	56,967	3,698	56,640	442	76 9	
SOUTH COORG DIVISION.							
Buildings	74	65,116	75	62,452	...	2,664	
Survey instruments ...	93	1,100	102	1,065	...	35	
Tools	51,497	94,630	55,501	90,312	...	4,318	
Furniture	709	4,162	718	4,100	...	62	
Crockery	551	722	553	720	...	2	
Tents	1	118	...	...	...	118	
Miscellaneous	1,271	17,760	1,392	17,296	...	464	
Total	54,196	1,83,608	58,341	1,75,945	...	7,663	
Total dead-stock ...	58,191	2,40,575	62,039	2,32,585	442	8,432	

FORM No. 24.

COORG FOREST, DIRECTION AND SOUTH DIVISIONS.

Summary of revenue and expenditure for 1928—29.

Budget heads.	Direction North Division.	South Coorg Division.	Total Revenue.
REVENUE.			
I.—Timber and other produce removed from the forests by Government agency—	Rs. A. P.	Rs. A. P.	Rs. A. P.
a. Timber	2,934 0 0	1,23,915 0 0	1,26,849 0 0
b. Firewood and charcoal	6,949 0 0	170 0 0	7,119 0 0
c. Bamboos	45 0 0	...	45 0 0
d. Sandalwood	2,92,570 0 0	...	2,92,570 0 0
e. Grass and other minor produce ... ..	...	...	...
II.—Timber and other produce removed from the forests by consumers or purchasers—			
a. Timber	13,041 0 0	20,028 0 0	33,064 0 0
b. Firewood and charcoal	754 0 0	1,603 0 0	2,357 0 0
c. Bamboos	1,544 0 0	621 0 0	2,165 0 0
d. Grazing and fodder grass	726 0 0	350 0 0	1,076 0 0
e. Other minor produce	6,435 0 0	1,177 0 0	7,612 0 0
f. Cardamom	26,138 0 0	543 0 0	26,681 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	24,932 0 0	4,390 0 0	29,262 0 0
b. Other sources ... ..	...	...	...
Total Revenue ...	3,76,068 0 0	1,52,792 0 0	5,28,800 0 0
Deduct Refunds ...	—3,410 0 0*	—507 0 0†	—3,917 0 0
Net revenue ...	3,72,658 0 0	1,52,225 0 0	5,24,883 0 0

*North division.

R I a. Timber	Rs. 30 0 0
b. Firewood	17 0 0
c. Sandalwood	3,228 0 0
II e. Minor Forest produce.	100 0 0
V b. Other sources	35 0 0
Total ...	3,410 0 0

†South division.

R II a. Timber	Rs. 213 0 0
V b. Other sources	294 0 0
Total ...	507 0

FORM No. 24.—(Cont.)

COORG FOREST, DIRECTION AND SOUTH DIVISIONS.

Summary of revenue and expenditure for 1928—29.

Budget heads.	Direction North Division.	South Coorg Division.	Total Expenditure.
EXPENDITURE.	Rs. A. P.	Rs. A. P.	Rs. A. P.
A.—CONSERVANCY AND WORKS.			
I.—Timber and other produce removed from the forests by Government agency—			
a. Timber	1,191 0 0	30,542 0 0	31,733 0 0
b. Firewood and charcoal	7,046 0 0	195 0 0	7,241 0 0
c. Bamboos	65 0 0	...	65 0 0
d. Sandalwood	12,355 0 0	81 0 0	12,436 0 0
e. Grass and other minor produce ... ..	...	...	...
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.—Livestock, stores, tools and plant—			
a. Purchase of cattle	2,465 0 0	1,284 0 0	3,749 0 0
b. Feed and keep of cattle	5,506 0 0	8,902 0 0	14,408 0 0
c. Purchase of stores, tools and plant	681 0 0	794 0 0	1,475 0 0
VII.—Communications and buildings—			
a. Roads and bridges	1,929 0 0	4,022 0 0	5,951 0 0
b. Buildings	2,596 0 0	3,753 0 0	6,349 0 0
c. Other works	974 0 0	870 0 0	1,844 0 0
VIII.—Organization, improvement and extension of forests—			
a. Demarcation	910 0 0	1,318 0 0	2,228 0 0
b. Cost of forest settlements; compensation for land and rights.	...	...	...
c. Surveys	38 0 0	257 0 0	295 0 0
d. Working-plans ... ..	...	219 0 0	219 0 0
e. Sowing and planting	11,458 0 0	11,878 0 0	23,336 0 0
f. Protection from fire	2,317 0 0	2,358 0 0	4,675 0 0
g. Other works ... ..	...	125 0 0	125 0 0
IX.—Miscellaneous—			
a. Law charges ... ..	...	...	...
c. Other charges	3,173 0 0	504 0 0	3,677 0 0
X.—Suspense works advance			
	172 0 0	207 0 0	379 0 0
Total A.—Conservancy and Works.....	52,876 0 0	67,304 0 0	1,20,180 0 0

FORM No. 24.—(Cont.)

COORG FOREST, DIRECTION AND SOUTH DIVISIONS.

Summary of revenue and expenditure for 1928—29.

Budget heads.	Direction North Division.	South Coorg Division.	Total Expenditure.
A.—CAPITAL WORKS	Rs. A. P.	Rs. A. P.	Rs. A. P.
I.—Timber and other produce removed from the forests by Government agency—			
a. Timber	...		...
b. Firewood and charcoal	...		...
c. Bamboos	...		...
d. Sandalwood	...		...
e. Grass and other minor produce	...		...
II.—Timber and other produce removed from the forests by consumers or purchasers—			
III.—Drift and waif wood and confiscated forests produce—			
V.—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—			
a. Purchase of cattle	...	...	...
b. Feed and keep of cattle	...	...	...
c. Purchase of stores, tools and plant	568 0 0	142 0 0	710 0 0
VII.—Communications and buildings—			
a. Roads and bridges	...	6,447 0 0	6,447 0 0
b. Buildings	1,642 0 0	3,801 0 0	5,443 0 0
c. Other works	...	51 0 0	51 0 0
VIII.—Organization, improvement and extension of forests—			
a. Demarcation	...	...	...
b. Cost of forest settlements; compensation for land and rights.	...	326 0 0	326 0 0
c. Surveys	...	...	...
d. Working-plans	...	...	...
e. Sowing and planting	...	...	...
f. Protection from fire	...	...	...
g. Other works	...	...	...
IX.—Miscellaneous—			
a. Law charges	...	...	...
b. Other charges	...	...	...
Total A.—Capital Works.....	2,210 0 0	10,767 0 0	12,977 0 0

FORM No. 24—Cont.

COORG FOREST, DIRECTION AND SOUTH DIVISIONS.

Summary of revenue and expenditure for 1923—29.

Budget heads.	Direction North Division.	South Coorg Division.	Total Revenue.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
B.—ESTABLISHMENTS.			
I.—Salaries—			
a. Conservators ... ..	...	...	...
b. Superior officers	18,954 0 0	7,450 0 0	21,434 0 0
c. Subordinate forest and depot establish- ments.	33,999 0 0	28,556 0 0	62,555 0 0
d. Office establishments	11,368 0 0	7,540 0 0	18,908 0 0
e. Deputation and other allowances ...	2,774 0 0	2,254 0 0	5,028 0 0
f. Exchange compensation allowance ...	...	
II.—Travelling Allowances—			
a. Conservators	8,946 0 0	6,289 0 0	15,235 0
b. Superior Officers			
c. Subordinate forest and depot establish- ments.			
d. Office establishments			
III.—Contingencies—			
a. Stationery	2 0 0	29 0 0	31 0 0
b. Carriage of tents and records	89 0 0	7 0 0	96 0 0
c. Rents, rates and taxes	263 0 0	93 0 0	356 0 0
e. Official postage	1,059 0 0	903 0 0	1,962 0 0
f. Sundries	1,120 0 0	143 0 0	1,263 0 0
Total B.—Establishments ...	73,574 0 0	53,294 0 0	1,26,868 0 0
Grand Total of all Expenditure ...	1,28,660 0 0	1,31,365 0 0	2,60,025 0 0

FORM No. 24.—(SUPPLEMENTAL.)

FOREST DEPARTMENT, COORG DIRECTION DIVISION.

Summary of revenue and expenditure for 1928—29, showing separately the figures relating to lands managed by the Forest Department and to lands 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.
REVENUE.			
I.—Timber and other produce removed from the forest by Government agency—			
a. Timber	2,984 0 0	...	2,984 0 0
b. Firewood and charcoal	6,949 0 0	...	6,949 0 0
c. Bamboos	45 0 0	...	45 0 0
d. Sandalwood	2,92,570 0 0	...	2,92,570 0 0
e. Grass and other minor produce ... ..	...	...	...
II.—Timber and other produce removed from the forests by consumers or purchasers—			
a. Timber	1,395 0 0	11,646 0 0	13,041 0 0
b. Firewood and charcoal	364 0 0	390 0 0	754 0 0
c. Bamboos	1,364 0 0	186 0 0	1,554 0 0
d. Grazing and Fodder grass	726 0 0	...	726 0 0
e. Other minor produce	6,434 0 0	1 0 0	6,435 0 0
f. Cardamom	26,138 0 0	...	26,138 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. Other sources	24,677 0 0	255 0 0	24,932 0 0
Total revenue	3,63,596 0 0	12,472 0 0	3,76,068 0 0
Deduct Refunds	*—3,410 0 0	...	—3,410 0 0
NET REVENUE	3,60,186 0 0	12,472 0 0	3,72,658 0 0

* R I a.	...	Rs.	30 0 0
R I b.	...	"	17 0 0
R I d.	...	"	3,228 0 0
R II e.	...	"	100 0 0
R V b.	...	"	35 0 0
Total	...	...	3,410 0 0

FORM No. 24.—(SUPPLEMENTAL.)—*cont.*

FOREST DEPARTMENT, COORG DIRECTION DIVISION.

Summary of revenue and expenditure for 1928—29, showing separately the figures relating to lands managed by the Forest Department and to lands 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.
EXPENDITURE.			
<i>A.—Conservancy and Works.</i>			
I.—Timber and other produce removed from the forests by Government agency—			
<i>a.</i> Timber	1,191 0 0	...	1,191 0 0
<i>b.</i> Firewood and charcoal	7,046 0 0	...	7,046 0 0
<i>c.</i> Bamboos	65 0 0	...	65 0 0
<i>d.</i> Sandalwood	12,855 0 0	...	12,855 0 0
<i>e.</i> Grass and other minor produce ... ..	...	...	...
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—			
<i>a.</i> Duty on foreign timber and other forest produce ... ..	...	...	...
<i>b.</i> 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—			
<i>a.</i> Purchase of cattle	2,465 0 0	...	2,465 0 0
<i>b.</i> Feed and keep of cattle	5,506 0 0	...	5,506 0 0
<i>c.</i> Purchase of stores, tools and plant	1,249 0 0	...	1,249 0 0
VII.—Communications and buildings—			
<i>a.</i> Roads and bridges	1,929 0 0	...	1,929 0 0
<i>b.</i> Buildings	4,238 0 0	...	4,238 0 0
<i>c.</i> Other works	974 0 0	...	974 0 0
VIII.—Organization, improvement and extension of forests—			
<i>a.</i> Demarcation	910 0 0	...	910 0 0
<i>b.</i> Cost of forest settlements; compensation for land and rights. ... ..	...	...	...
<i>c.</i> Surveys	38	...	38
<i>d.</i> Working-plans ... ..	...	...	...
<i>e.</i> Sowing and planting	11,458 0 0	...	11,458 0 0
<i>f.</i> Protection from fire	2,317 0 0	...	2,317 0 0
<i>g.</i> Other works ... ..	...	...	...
IX.—Miscellaneous—			
<i>a.</i> Law charges ... ..	...	...	...
<i>c.</i> Other charges	3,173 0 0	...	3,173 0 0
X.—Suspense works advance	172 0 0	...	172 0 0
Total A—Conservancy and Works	55,086 0 0	...	55,086 0 0

FORM No. 24.—(SUPPLEMENTAL.)—cont.

FOREST DEPARTMENT, SOUTH COORG DIVISION.

Summary of revenue and expenditure for 1928—29, showing separately the figures relating to lands managed by the Forest Department and to lands 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.
REVENUE.			
I.—Timber and other produce removed from the forests by Government agency—			
a. Timber	1,23,915 0 0	...	1,23,915 0 0
b. Firewood and charcoal	170 0 0	...	170 0 0
c. Bamboos ... ..	...	...	...
d. Sandalwood ... ..	...	...	...
e. Grass and other minor produce ... ..	...	...	...
II.—Timber and other produce removed from the forests by consumers or purchasers—			
a. Timber	13,448 0 0	6,575 0 0	20,023 0 0
b. Firewood and charcoal	1,365 0 0	298 0 0	1,663 0 0
c. Bamboos	607 0 0	14 0 0	621 0 0
d. Grazing and Fodder grass	350 0 0	...	350 0 0
e. Other minor produce... ..	1,175 0 0	2 0 0	1,177 0 0
f. Cardamom... ..	548 0 0	...	548 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. Other sources	4,141 0 0	189 0 0	4,330 0 0
Total revenue	1,45,714 0 0	7,018 0 0	1,52,732 0 0
Deduct Refunds	•— 355 0 0	+ —152 0 0	— 507 0 0
NET REVENUE	1,45,359 0 0	6,866 0 0	1,52,225 0 0

* B II a. ... Rs. 61 0 0
E V b. ... „ 294 0 0

Total Rs. 355 0 0

† B II (a) Rs. 152 0 0

Total Rs. 152 0 0

FORM No. 24.—(SUPPLEMENTAL.)—*cont.*

FOREST DEPARTMENT, SOUTH COORG DIVISION.

Summary of revenue and expenditure for 1928—29, showing separately the figures relating to lands managed by the Forest Department and to lands 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.
EXPENDITURE.			
<i>A—Conservancy and Works.</i>			
I.—Timber and other produce removed from the forests by Government agency—			
a. Timber	30,542 0 0	...	30,542 0 0
b. Firewood and charcoal	195 0 0	...	195 0 0
c. Bamboos ... ..	...	...	...
d. Sandalwood	81 0 0	...	81 0 0
e. Grass and other minor produce ... ..	...	...	...
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 share-holders in forests managed by Government			
VI.—Live stock, stores, tools and plant—			
a. Purchase of cattle	1,284 0 0	...	1,284 0 0
b. Feed and keep of cattle	8,902 0 0	...	8,902 0 0
c. Purchase of stores, tools and plant	936 0 0	...	936 0 0
VII. Communications and buildings—			
a. Roads and bridges	10,469 0 0	...	10,469 0 0
b. Buildings	7,554 0 0	...	7,554 0 0
c. Other works	921 0 0	...	921 0 0
VIII.—Organization, improvement and extension of forests—			
a. Demarcation	1,313 0 0	...	1,313 0 0
b. Cost of forest settlements; compensation for land and rights ... ..	...	...	...
c. Surveys	583 0 0	...	583 0 0
d. Working-plans	219 0 0	...	219 0 0
e. Sowing and planting	11,878 0 0	...	11,878 0 0
f. Protection from fire	2,358 0 0	...	2,358 0 0
g. Other works	125 0 0	...	125 0 0
IX.—Miscellaneous—			
a. Law charges ... ..	...	...	...
c. Other charges	504 0 0	...	504 0 0
X.—Suspense work advance			
	207 0 0	...	207 0 0
Total A—Conservancy and Works.....	78,071 0 0	...	78,071 0 0

FORM No. 26.

FOREST DEPARTMENT, COORG.

Revenue received and outstandings on account of revenue for 1928—29.

Division.	Particulars.	Outstandings at	Value of sales	Total.	Amount realized	Balance due to	Remarks.
		commencement	and other reve-		during the	the department	
		of the year.	and other reve- -nue during the year.		year.	at the end of the year.	
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Direction (North) Division.	R I. a. Timber ...	862 0 0	4,208 0 0	5,070 0 0	2,934 0 0	2,136 0 0	
	b. Firewood and charcoal ...	867 0 0	7,184 0 0	8,051 0 0	6,950 0 0	1,101 0 0	
	c. Bamboos ...	...	49 0 0	49 0 0	45 0 0	4 0 0	
	d. Sandalwood ...	...	2,92,580 0 0	2,92,580 0 0	2,92,570 0 0	10 0 0	
	e. Grass and other minor produce ...	...	...	...	...	...
	R II. a. Timber ...	1 0 0	14,299 0 0	14,800 0 0	13,041 0 0	1,259 0 0	
	b. Firewood and charcoal ...	5 0 0	765 0 0	770 0 0	754 0 0	16 0 0	
	c. Bamboos ...	25 0 0	1,584 0 0	1,609 0 0	1,544 0 0	65 0 0	
	d. Grazing and fodder grass ...	5 0 0	721 0 0	726 0 0	726 0 0	...	
	e. Other minor produce ...	...	6,434 0 0	6,434 0 0	6,434 0 0	...	
	f. Cardamom ...	13,412 0 0	31,069 0 0	44,481 0 0	26,138 0 0	18,343 0 0	
	R V. a. Fines & forfeitures
b. Other sources ...	359 0 0	24,579 0 0	24,938 0 0	24,932 0 0	6 0 0		
Total.....	15,586 0 0	3,88,472 0 0	3,99,008 0 0	3,78,068 0 0	22,940 0 0		
South Coorg Division.	R I. a. Timber ...	20,376 0 0	1,38,376 0 0	1,58,752 0 0	1,28,512 0 0	34,802 0 0	
	b. Firewood and charcoal ...	...	170 0 0	170	(a) 438 0 0 170 0 0	...	
	c. Bamboos ...	...	...	...	...	...
	d. Sandalwood ...	...	...	...	...	...
	e. Grass and other minor produce ...	...	...	...	...	...
	R II. a. Timber ...	691 0 0	23,727 0 0	24,418 0 0	20,591 0 0	3,544 0 0	
	b. Firewood and charcoal ...	6 0 0	1,291 0 0	1,297 0 0	(a) 283 0 0 1,290 0 0	2 0 0	
	c. Bamboos ...	9 0 0	675 0 0	684 0 0	(a) 5 0 0 620 0 0	46 0 0	
	d. Grazing and fodder grass ...	...	368 0 0	363 0 0	(a) 18 0 0 350 0 0	1 0 0	
	e. Other minor produce ...	...	1,177 0 0	1,177 0 0	(a) 12 0 0 1,178 0 0	1 0 0	
	f. Cardamom ...	...	543 0 0	543 0 0	543 0 0	...	
	R V. a. Fines & forfeitures ...	...	...	...	...	...
b. Other sources ...	127 0 0	4,491 0 0	4,618 0 0	4,480 0 0 (a) 12 0 0	126 0 0		
Total	21,209 0 0	1,70,813 0 0	1,92,032 0 0	1,52,782 0 0 (a) 768 0 0	38,522 0 0		
Grand Total...	36,745 0 0	5,54,285 0 0	5,91,030 0 0	5,29,568 0 0	61,462 0 0		

(a) Amounts written off by cancellation of sales or by adjustments.

FORM No. 27.

FOREST DEPARTMENT, COORG.

Outstandings and liabilities on account of contractors and disbursers for the year 1928—29.

Division.	Department debtor.			Department creditor.			Balance due.		Remarks.
	Opening balance.	Recoveries in cash and value of supplies and work done during the year.	Total.	Opening balance.	Payments made during year.	Total.	To department, (outstandings.)	By department, (liabilities.)	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
North Coorg	98,782 12 11	98,782 12 11	759 2 5	98,892 9 0	99,651 11 5	868 14 6	...	
South Coorg	1,02,130 3 6	1,02,130 3 6	798 15 1	1,01,816 1 0	1,02,615 0 1	484 12 7	...	
Total	2,00,913 0 5	2,00,913 0 5	1,558 1 6	2,00,708 10 0	2,02,266 11 6	1,353 11 1	...	