

REVIEW

OF

FOREST ADMINISTRATION

IN

BRITISH INDIA

FOR THE YEAR

1905-1906

RY

S. EARDLEY-WILMOT,

NSFECTOR GENERAL OF FORESTS TO THE GOVERNMENT OF INDIA.



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FOREST ADMINISTRATION IN BRITISH INDIA

FOR THE YEAR

1905-06.

CHAPTER I.

CONSTITUTION OF STATE FORESTS.

1.—ALTERATION IN AREA.

[Vide Appendices I and II.]

The area reported to be under the control of the Forest Department, including Reserved and all other classes of Forests increased during the twelve months under review by 713 square miles, thereby bringing up the total area of forest lands at the close of the year to 233,651 square miles, which is equal to 24.1 per cent. of the total area of British India.

2. The most important additions to and exclusions from the forest area during the year were as follows:—

(i) Reserved and Leased Forests.

In Reserved Forests, the additions were 1986 square miles and exclusions 1669, involving a net increase of 317 square miles. The area of Leased Forests stood at 910 square miles throughout the year. The approximate changes in the different provinces were as follows:—

In the *United Provinces*, 36 square miles were added mainly in Pilibhit (29 square miles) and in Garhwal (5 square miles).

In the *Punjab* additions and exclusions were each of 9 square miles. The additions were nominal, due to rectification of areas by survey in Jhelum and Kulu, while: exclusions were mainly in the interests of the Canal and Colonization Departments.

In Burma, including Taungyas and Karen areas, 626 square miles were added and 492 excluded. New reservations were mainly in the Northern Circle and exclusions in the Northern and Pegu Circles.

In Eastern Bengal and Assam, 40 square miles were added of which 11 were due to corrections by survey. For the latter reason also 10 square miles were excluded and 3 on account of rectification of a boundary in Jalpaiguri.

In the Central Provinces, 863 square miles were added chiefly owing to corrections of areas and re-classification in Berar and 1,081 square miles excluded, mainly also in Berar, under the general scheme of re-classification. Finality in this respect has now practically been attained.

In Coorg the inclusion of the Padinalknad Ghat Forests caused an increase of 95 square miles.

In Baluchistan 30 square miles were added in the Loralai District.

In *Madras*, 216 square miles were added mainly on transfer from reserved lands and 35 square miles excluded, while in *Bombay*, additions amounted to 71 square miles and exclusions to 39 square miles.

In Bengal, the North-West Frontier Province, Ajmer and the Andamans the area of Reserved Forests remained unchanged.

(ii) Protected Forests.

There was an increase during the year of 583 square miles which raised the total area to 10,018 square miles. The principal additions were 263 square miles in the Punjab and 362 in Bombay.

The increase in the Punjab was chiefly due to re-afforestation in Multa and to rectification of area in Kulu consequent upon survey. Reductions were unimportant, the principal being 39 square miles in Coorg and 5 in Bengal.

(iii) Unclassed State Forests and Public Forest Lands.

The area at the close of the year was 131,137 square miles compared with 131,324 at its commencement, a decrease of 187 square miles.

3. The following statement exhibits the total area of each class of forest under the control of the Forest Department at the end of the years 1904-05, and 1905-06:—

	1904-05.	1905-06.	Difference.
Reserved Forests Leased Forests Protected Forests Unclassed State Forests and Public Forests	91,249 910 9,435 131,324	91,586 910 10,018 181,187	+ \$17 + 583 —187
Тотав	. 232,938	238,651	713

2.—Forest Settlements.

[Vide Appendix III.]

4. Progress was generally less satisfactory than in the previous year. The area finally settled fell from 1,192 square miles in the preceding year to 707 square miles, only 454 square miles being taken in hand compared with 1,052 in 1904-05.

The cost of settlement as nearly as can be ascertained was R52,635 compared with R68,500 in the previous year.

Out of a total area of Reserved Forests of 91,586 square miles and of Protected Forests of 10,018, there remained at the close of the year 3,860 and 4,114 square miles respectively of each class awaiting settlement. These balances appear to be mainly in Berar as regards Reserved Forests, and in Bombay and the Punjab as regards Protected Forests. The remarks made in last year's Review, urging the definition of privileges in the interests of efficient administration and adequate sylvicultural treatment, cannot again be too strongly brought to notice.

3.—DEMARCATION. [Vide Appendix IV.]

5. The total length of boundaries at the close of the year was 169,693 miles compared with 168,220 at the end of 1904-05. Of the former, 16,456 miles consist of natural boundaries not requiring demarcation, leaving 153,237 miles in need of demarcation of which 135,341 had been completed; 17,896 miles therefore remained to be taken in hand compared with 21,842 at the close of the previous year. In the majority of provinces little remains to be done but in the Punjab and Bombay there remain balances of 3,575 and 12,183 miles respectively to be completed.

New work extended to 3,319 miles compared with 4,867 miles in the previous year, the corresponding cost being R44,482 against R57,065. The work does not therefore compare favourably with that of the previous year. The expenditure on repairs was R79,967 on 55,317 miles compared with R71,037 on 51,647 miles in 1904-05. The length of previously existing boundary not repaired at the close of the year stood at 76,705 miles, the latter

figure, together with the decrease in work under original demarcation and the comparatively small expenditure on maintenance, appears to show that in this important work there still remains much to be accomplished.

FOREST SURVEYS.*

[Vide Appendices V and VI.]

6. No change in the organization of the Forest Survey Branch was made during the year, and it still remained under the administrative control of the Superintendent, Forest Surveys, though in view of the reorganization of the Survey of India arrangements were in progress at the close of the year for the transfer of Nos. 17 and 19 Parties to the Deputy Surveyor General and of No. 20 Party to the newly formed Burma Circle. No. 9 Party it is intended to abolish.

The Forest Survey Office will, in future, be maintained for the storing and issue of forest maps and records and the preparation of working-plans and other special maps required by the Inspector General of Forests.

7. Four Survey Parties were employed on Forest Surveys during the year one in Madras, one in Bombay and two in the Bengal Presidency, and the following areas were surveyed:—

									18	quare miles	
Bengal Pr	esidenc y	•	•	•	•	•	4	•	•	2,019	
Madras))	•	•	•	•	•	•	•	•	832	
Bombay	"	•	•		•	•	•	•	•	757	
								•			
										3,608	

- 8. The total cost of Forest Surveys was R5,21,645 as compared with R5,02,091 last year. The decrease of R19,554 is principally due to the fact that no forest surveys were carried on in Bengal proper, this work having been completed!during the previous year.
- 9. During the year 386 maps were published, including 18 working-plan maps and 8 other special small scale maps. Eleven thousand six hundred and twenty-nine maps were distributed, of which 8,304 were coloured.
- 10. Details of the surveys carried out in the various provinces are given in the following paragraphs:—

Bengal.—No field surveys were carried out during the year and none are proposed for 1906-07. The survey of the reserved forests in the Sunderbans will be undertaken by the Superintendent, Provincial Surveys, Bengal.

Twenty-five maps were published during the year. The expenditure on mapping and publication during the year was R4,720, of which, R3,384 are debitable to the Forest Department.

Eastern Bengal and Assam.—An area of 571 square miles was surveyed by a detachment of No. 9 Party on the 2-inch scale in Darrang, in the course of which the Charduar, Balipara and Nowduar reserves were surveyed, at a cost of \$\frac{1}{2}30.5\$ per square mile. The expenditure in connection with this survey has been borne by the Survey of India. The Angratoli reserve in the Garo Hills and some scattered portions of the Nowgong reserves aggregating 19 square miles, were surveyed on the 4-inch scale at a cost of \$\frac{1}{2}9.8\$ per square mile. Twenty-five maps were published during the year.

The total expenditure amounted to R28,237, of which R4,520 are debitable to the Forest

During the ensuing year a small Forest Survey party will undertake the 4-inch survey of the Sitapahar range in the Chittagong District.

United Provinces.—A small detachment was deputed for the traversing and 4-inch detail survey of the Surai Banbasa reserve in the Pilibhit District, but the work had to be stopped owing to a severe outbreak of cholera in the District, in the course of which a surveyor and two khalassis died. Work will be resumed in November 1906 and it is hoped the survey will be completed before the end of the year.

^{*}Information communicated by the Superintendent of Forest Surveys.

The 4-inch detail survey of the leased Chir Forests of Tehri Garhwal, which is being undertaken at the expense of the State, was completed.

The areas and cost rates are as follows:—

Square mile.

R

Pilibhit

Tehri Garhwal

Square mile.

17

17-6

35-1

The total expenditure amounted to \$\frac{46}{043}\$, of which \$\frac{41}{0.035}\$ were expended on account of a second edition of Kumaun and Garhwal maps. Rupees 5,778 are debitable to the Forest Department.

Seventeen maps were published during the year.

Punjab.—Fifty-three square miles of detail survey on the 4-inch scale in Rawalpindi and Lahore, costing R37.8 per square mile, and 839 linear miles of boundary survey in Shahpur and Bashahr costing R4.3 per linear mile, were surveyed during the year.

The total expenditure amounted to R6,218, of which R5,510 are debitable to the Forest Department.

Eight maps on the 4-inch and three maps on the 1-inch scale were published during the year. This completes the survey of the Punjab forests.

North-West Frontier Province.—An area of 25 square miles was surveyed in the Dungagali range in the Hazara District at a cost rate of £84.8 per square mile. The expenditure was £85,516, of which £2,490 are debitable to the Forest Department.

Sixteen maps were published during the year.

Central Provinces.—The only survey operation carried out by the Forest Survey Branch was the 4-inch detail survey of 320 acres in the Betul Division. Boundary surveys of all A and B class forests which occurred in the area topographically surveyed in Berar were carried out by No. 2 Party, Survey of India.

The total expenditure, chiefly on account of the publication of maps, was #3,424, of which #2,429 are debitable to the Forest Department.

During the year 59 maps on the 4-inch scale and 3 special maps of the Buldana Division were published.

Burma.—An area of 1,252 square miles was surveyed on the 4-inch scale, chiefly in the following Forest Divisions:—

. Division,												Circle.				
Yaw		•		•	•		•	•			•	•	•	•		Southern Circle.
Lower C	hind	win	. •	•	•	•	•	•			•	٠			•	1
Katha	•	,	•	•	•		٠	•	•	•	•	•	•		•	Northern Circle
Mu	•	•	• .	•	•	•	•	•		•	•		•	•))
Theyetm	190	•	•	•	•	•	, •	•	•	•	•	•	•	•		Pegu Circle.
Thungyi	in	•	•	•	•	•	•	•	•	•	•	•	•	. •	•	Tennasserim Circle.

The average cost rate was R126·1 per square mile.

Seventy-nine sheets were published during the year.

The total expenditure was Rz,20,379, of which R1,19,947 are debitable to the Forest Department.

In Coorg, Ajmer-Merwara and Baluchistan.—No surveys were made by the Forest Survey Branch.

Andamans.—Four surveyors were placed at the disposal of the Forest Officer who was preparing a working-plan for the North Andamans.

Madras.—An area of 832 square miles was surveyed on the 4-inch scale in Ganjam, Godavari, South Canara, North Malabar and Chingleput Districts. The cost rates averaged R104 per square mile.

The total expenditure amounted to R1,02,734, of which R68,209 are debitable to the Forest Department.

Sixty-six maps were published during the year.

The programme for 1906-07 provides for the completion of the 4-inch detail survey in Ganjam and boundary survey on the 4-inch scale in Malabar.

Bombay.—An area of 757 square miles was topographically surveyed, including 631 square miles in Satara and 126 square miles on the 8-inch scale in Thana.

The total expenditure amounted to R84,944, of which R60,156 are debitable to the Forest Department.

Seventy-two maps were published during the year.

The programme for next season provides for the survey of forest lands in the Nasik and Khandesh Districts.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

1.—REGULATION OF MANAGEMENT.

Working-Plans.

[Vide Appendices VII, VIII and IX.]

11. The following information has been communicated by the Imperial Superintendent of Working-Plans:—

In the Bengal Presidency, working-plans for areas amounting to 1,290 square miles were sanctioned during the year. The most important additions to forests under regulated working were made in Burma and in Eastern Bengal and Assam where 686 and 391 square miles respectively were brought under working-plans. Working-plans for 5,460 square miles were in course of compilation at the close of the year.

In the Madras Presidency working-plans for 110 square miles were sanctioned, and plans for 3,622 square miles were under preparation at the close of the year.

In the Bombay Presidency plans for 971 square miles were sanctioned, whilst plans for 1,343 square miles still remained to be completed.

The following figures show the total areas under working-plans at the close of the year:—

					commencement of year. quare miles.	Added during year. Square miles.	Total. • Square miles.
Bengal	•	•	•	•	26,876	1,290	28,166
Madras	•	•	•	•	6,130	110	6,240
Bombay		•	•	•	4,545	971	5,516
		То	TAL	•	37,551	2,371	39,922

In the Provinces outside the Madras and Bombay Presidencies, 165,530 square miles remained to be brought under regular working-plans at the close of the year. This large area, however, includes extensive tracts of State and Unclassed forests, (23,125 square miles of Unclassed forests in Eastern Bengal and Assam alone), for which no working-plans will be required in the immediate future owing to their inaccessibility and to want of demand; and also 4,145 square miles of State forests in the Central Provinces for which previously sanctioned working-plans have been abandoned. In the Madras and Bombay Presidencies 9,723 and 6,447 square miles respectively remained to be taken in hand at the close of the year.

12. The progress made during the year in the preparation of workingplans in the various Provinces was as follows:—

Bengal.—Two draft working-plans, viz., for the Jalpaiguri Division (177 square miles) and the Buxa Division (327 square miles), were compiled during the year. These drafts were however subsequently transferred to the Eastern Bengal and Assam Forest Circle. The working-plans for the Darjeeling Division (39 square miles), the Puri Division (113 square miles) and the Sunderbans Division (3,833 square miles) were revised, and those for the Tista Valley forests of the Darjeeling Division (12 square miles) and the Mal forests of the Tista Division (221 square miles) were under revision during the year. Progress was made in the collection of data for the Angul Forests Working-Plan (251 square miles).

United Provinces.—The working-plan for the Naini Tal Municipal forests (2.2 square miles) was submitted during the year for sanction; and the compilation of working-plans for the Mussoorie Municipal and Landour Cantonment forests (4 square miles), the Chakrata Cantonment forests (3 square miles) and the Bahraich forests (334 square miles) was taken in hand. In addition the working-plans for the leased Deodar forests in Tehri-Garhwal

(78 square miles) and for the Saharanpur forests of the Siwalik Division (295 square miles) were under revision. The Preliminary Report for a new working-plan for the Pilibhit closed forests and the Preliminary Report for the revision of the existing working-plan for the Bhira forests of the Kheri Division were submitted during the year. The Preliminary Reports for the revision of the working-plans for the Trans-Sarda forests in the Kheri Division and the Nawabganj forests of the Gonda Division were under preparation.

Punjab.—A working-plan for the Bashahr leased forests (68 square miles) was sanctioned during the year, as well as the revision of the plan for the remaining forests (164 square miles) of the Sutlej Valley. The Pabar Valley Working-Plan (146 square miles) was under preparation.

Burma.—Regular working-plans for the Satpok, Sitkwin and Thindawyo Working Circles in the Tharrawaddy Division (20 square miles), the Rangoon Hill forests (188 square miles) and the South Zamayi Reserves (229 square miles) in the Pegu Division and a rough working-plan for the Padauk forests in the Ruby Mines Division (249 square miles) were sanctioned during the year. A working-plan for the East Yoma, Satsuwa and Tindaw reserves (134 square miles) and a preliminary working-plan report for the Mindon, Yoma, Ngawet and Made reserves (301 square miles) in the Thayetmyo Division were submitted for sanction towards the close of the year. The preparation of preliminary reports and working-plans for the forests in the Upper Chindwin and Myittha Divisions was continued and the plans for the Nyaunglebin Working Circle in the Shwegyin Division, the Taungdwingyi reserve in the Minbu Division and the Tonkan reserve in the Shwegyin Division were sent to press. In the course of the year the preparation of plans for an area of 2,567 square miles was taken in hand.

Eastern Bengal and Assam.—During the year working-plans for the Nambor reserves in the Sibsagar Division (64 square miles), for the Buxa Division (327 square miles), and for the Sal forests of the Darrang Division (3 square miles) were sanctioned; a revised working-plan for the reserved forests in Jalpaiguri Division (177 square miles) was also sanctioned during the year.

Central Provinces.—Sanction was conveyed to the new working-plan for the Banjar Valley Sal forests in the Mandla Division (98 square miles) and to the revised working-plan for the East Pench Range of the Nagpur Division (161 square miles). Working-plans for an area of 1,727 square miles in the Northern and Southern Circles were in course of preparation. A preliminary working-plan report for a portion of the Lormi Range Sal forests in the Southern Circle was being compiled during the year.

Coorg.—No progress was made during the year in the preparation of working-plans, but the compilation of a working-plan for the Jainkal forests and of a preliminary working-plan report for the Ghat Valleys was under consideration.

North-West Frontier.—Sanction was accorded to a working-plan for the Siran range (47.1 square miles). The working-plan for the Dungagalli-Thandiani Range (61.2 square miles) was prepared but not submitted during the year.

Ajmer-Merwara.

Baluchistan.

Andamans.

No working-plans or preliminary reports were compiled during the year.

Madras.—During the year working-plans for 110 square miles were sanctioned by the Board of Revenue: plans for 2,558 square miles were under preparation at the commencement of the year and those for 1,064 square miles were taken in hand. An area of 9,723 square miles therefore remained to be brought, under regular working-plans.

A preliminary working-plan report for the Kodaikanal and Tandigudi ranges in the Madura District was prepared during the year and that for the Palavaram range in the Godavari District was under preparation.

Bombay.—Sanction was accorded to three provincial working-plans in the Nasik Division comprising an area of 735 square miles, to the working-plans for the Yellapur Teak Slopes, the Yellapur Ghat Teak area and the Warkad-Hammadgi extension of the Khanapur Fuel Plan Working-plans for the Kolaba Division, the Mandvi forests and the forests of the Sukkur Division were prepared during the year, but these together with the revised working-plan for the Halol range in the Panch Mahals Division were however not ready for submission to the Local Government during the year. Other working-plans, viz., for the Babul reserves of the Jamner, Bhusaval and Edalabad ranges; the Anjan and scrub jungles of Edalabad; the Lonavla-Khandala-Firewood Supply and the Mahabaleshwar Plateau forests were drawn up but were still under consideration at the close of the year. The area for which working-plans remained to be taken in hand was estimated at 6,447 square miles.

2.—COMMUNICATIONS AND BUILDINGS.

[Vide Appendix X.]

(a) Roads and Bridges.

13. The expenditure on new work fell to R1,51,345 as compared with R1,67,245 of the previous year. Repairs on the other hand rose to R1,41,071 from R1,19,129 in 1904-05. The total amount spent on communications was thus R2,92,416 compared with R2,86,374 in the previous year.

Road work in Bengal was pushed on in Singbhum, other divisions also receiving attention.

In the *United Provinces* 61 miles of new roads were constructed and 4,191 miles repaired at a total cost of R53,565.

In the *Punjab* expenditure on new work rose to £14,726 compared with £6,537 in 1904-05 and maintenance to £5,108 against £4,604. New work consisted of 138 miles of bridle and other paths, while 964 miles of roads and paths were repaired.

In Burma new work cost R21,324 against R24,308 and repairs R9,700 against R11,123 in 1904-05. Considering the immense areas of forests to be exploited, this expenditure is clearly inadequate, but it is satisfactory to note that programmes prescribing construction for a term of years are in course of preparation, thereby ensuring more continuous progress.

In Eastern Bengal and Assam there was a falling off in expenditure on new work of about \$3,500 while repairs cost \$11,002 or about the same as last year. No tramway extension was undertaken. Most of the forests in this circle are devoid of communications, exploitation being confined to the edges of water courses, so that it is essential that the subject of communications should have the most careful attention.

In the Central Provinces 117 miles of cart road and 30 miles of minor roads cost R17,867. This is nearly double the amount spent in the previous year, but without roads remunerative exploitation is impossible in these forests and much larger sums will have to be disbursed before their full outturn can be utilised. Maintenance showed little difference, 4,691 miles of road costing only R13,497 or less than R3 per mile — a sum which would hardly pay for grass cutting on a width of 8 or 10 feet. The average annual profit on the Allapilli Monorail tramway for a period of three years is said to be 21.26 per cent. on the capital cost, after deducting 10 per cent. per annum for depreciation.

In Madras R18,599 were spent on new roads, while repairs cost R29,258 or nearly R6,500 more than in 1904-05. The monorail tramway in Godavari showed a profit as also did the tramway in Nellore, while that in Coimbatore appears to have been worked at a loss. The rate in Godavari per ton-mile fell from R2-0-5 to R0-10-4, the rate for carriage by other means being R1-5. In Coimbatore the rate was R1-4 per ton-mile while the estimated cost of carting was R1-0-8. These figures are of interest as again affording proof that well considered systems of mechanical transport are often not only highly remunerative but sometimes render accessible valuable forest tracts which must otherwise remain closed to exploitation.

In Bombay the amount spent on new roads was R24,804 or R5,622 less than in the previous year, repairs costing R9,433 or R1,310 less. 19½ miles of road were completed in the Dangs and some progress was made in Kanara but the forests of Bombay are clearly in need of a more extensive system of communications which must entail a much higher expenditure in the future.

(b) Buildings.

14. The importance of providing adequate shelter for the Forest Staff now appears to be recognised in every Province, though in some a commencement is only now being made to attain this desirable end. The total amount expended on buildings was R5,09,515 or about R94,000 more than in the previous year. The expenditure on new work increased by R66,776 and on repairs by R27,422. The most noteworthy increase of expenditure on new work, amounting to nearly R33,000, took place in the *United Provinces*. A five years scheme for buildings came during the year into operation. In the *Punjab* about R6,000, in *Eastern Bengal and Assam* about R3,000, in *Coorg* R3,000, in *Madras* about R13,000, and in *Bombay* over R15,000 more was spent than in 1904.05. At the same time the expenditure on repairs of existing

buildings rose in most Provinces. The suggestions with regard to buildings in sanctioned working-plans were not always acted up to in full. It is however necessary to remember that it is often difficult and sometimes impossible to carry out the sylvicultural prescriptions of a working-plan if the suggestions as to roads and buildings are not fully complied with. The one may be to a great extent dependent on the other, and omissions to incur a necessary expenditure on communications and housing of subordinates, may result in inability to reap all the benefits of the proper exploitation of the forest with the estimated financial results. Hence in order to ensure continuity of purpose it is essential that the suggestions of the working-plan officer, if approved by the Local Government, should be embodied in sanctioned programmes for which adequate funds should be provided.

(c) Miscellaneous Works.

15. Rupees 64,835 was expended under this head, practically the same as in the previous year. The miscellaneous items, including the construction and maintenance of wells, irrigation works, tanks, clearing streams, camping grounds and compounds are of considerable local importance, the principal amounts being in the *United Provinces* R10,098, in the *Central Provinces* and Berar R14,781, in Madras R8,407, and in Bombay R14,688. In the Central Provinces the provision of tanks in grazing grounds continued to receive attention, while in the Sind Circle new irrigation works cost R7,174 and repairs R3,544.

3.—PROTECTION OF FORESTS.

(a) GENERAL PROTECTION. [Vide Appendices XI and XII.]

16. There was during the year under review a noticeable increase in the number of forest offences taken into court and compounded, the total reaching 57,723 or an excess of about 3,700 on last year's record, and of 6,500 on the average of the past three years. The increase was general in all provinces except in Bengal, the United Provinces and the Punjab, but is most noticeable in Madras and Bombay where, compared with the previous year's returns, 1,397 and 1,961 more cases are shown. In Bombay the increase is ascribed partly to the prevailing scarcity, but both there and in Madras the greater efficiency of the protective staff is suggested as a reason for this undesirable phenomenon. The number of undetected cases has however also somewhat increased in both provinces. The total number of undetected offences was 7,288 against 7,107 in 1904-05. Of the former, 3,462 were cases of injury to forests by fire and 2,977 were cases of unauthorised felling or appropriation of wood and other forest produce.

17. The forest offences of the year under review compare with the average of the preceding three years as follows:—

Unauthorised felling and removal of forest produce. 30,805 33,91								
Unauthorised felling and removal of forest produce. 30,805 33,91								
,, grazing 20,826 24,64	Injury by fire	•	•	•	•	•	. 4,367	4,320
	Unauthorised	ing and re	emova	l of i	orest	produce	e. 30 ,805	33,911
Other offences	"	ring .	•	•	•	•	. 20,826	24,644
	Other offences	•	•	•	•	٠	. 3,991	4,771
Total . 59,989 67,646					Tor	AL	59,989	67,646

It is impossible to give reasons for these statistical variations. The case of each Province or even District presents different conditions which Local Governments treat, after due investigation, with punitive or alleviating measures suited to the circumstances.

(b) PROTECTION FROM FIRE. [Vide Appendix XIII.]

18. The area brought under systematic fire protection was 40,073 square miles or about 500 square miles more than in 1904-05. The percentage of area successfully protected was 93.5 against 95.4 in that year. The area under special protection amounted to 43.3 per cent. of the total area of reserved forests; but it may not be inferred that the whole forest area now unprotected is in need of special protection, for it appears that owing to various conditions climatic and other, there is not much room left for further extension of systematic Fire Conservancy while it is probable that in many evergreen areas, some relaxation of the efforts of the Department in this direction may be justified in the future.

19. The following statement compares the results of the year with the percentages of the previous five years:—

Province.	AREA IN	square les.	Proportion of forests under fire protection	PERCENTAGE OF FAILURE TO AREA ATTEMPTED TO BE PROTECTED.		
·	Attempted	Protected.	to total area of reserves.	Average of past five years to 1905.	1905-06.	
Bengal	1,889	1,822	44.3	2.9	3.5	
United Provinces	3,198	3,054	78	1.5	4.5	
Punjab	(a)868	835	37	1.2	3 ·8	
Burma	8,214	7,382	40.€	11.4	10.1	
Eastern Bengal and Assam .	1,392	1,387	23	3.0	0.4	
Central Provinces including Berar.	(6)7,723	7,450	35	3.0	3.2	
Coorg	208	207	41	1.1	0.5	
North-West Frontier	83	83	35	6.2	•••	
Ajmer	142	140	100	0:8	1.4	
Total Bengal	23,717	22,360	48.1	3:45	3·46	
Madras • • •	7,202	6,772	89.9	5'4	5•9	
Bombay • • •	9,154	8,326	67.7	12.9	9.0	
GRAND TOTAL, 1905-06 .	40,073	37,458	43.3	7:3	6.5	
,, ,, 1904-05 .	39,464	37,657	43	7.7	4.6	

⁽a) Excludes 10 square miles not under systematic protection.
(b) ,, 2,710 square miles of partially protected areas.

Except in Eastern Bengal and Assam, Coorg, the North-West Frontier Province and Ajmer, the results of the year's work were less satisfactory than in the previous year, although the percentage of failures in the forests of the Bengal Presidency differed from the quinquennial average by only '01 per cent. The unusually severe and prolonged hot weather rendered success extremely difficult and considering the conditions, results may generally be regarded as satisfactory. In Bombay, although the total percentage burnt differs little from that of the previous year, it is noted that in Sind favourable inundations greatly assisted protective measures. In the Central Circle the area burnt exceeded that of the previous year by 72 per cent.

20. The classification of fires according to their origin is given for each forest circle in Appendix XIII. The total number of forest fires was 4,892 compared with 4,248 in the previous year, but there was a satisfactory falling off in the number of fires due to the carelessness of the forest staff and of outsiders. A noticeable feature of the year's working is the number of fires ascribed to intention or malice, which rose from 488 in the previous year to 1,887. The increase was almost general but in *Bombay* the corresponding figures stand at 57 and 1,283. If these figures are reliable, the matter merits special investigation as to whether the people are actuated by necessity or merely by disapprobation of the forest laws.

(c) PROTECTION FROM CATTLE. [Vide Appendices XIV and XV.]

21. Out of a total forest area of 233,651 square miles, 38,748 square miles or 16 per cent. remained closed to all animals and 16,239 or 7 per cent. to browsers only. Thus 77 per cent. of the total area was open to all animals. Buffaloes, cows, goats and sheep, camels and other animals to the number of over 13\frac{1}{2}\$ millions obtained pasture in State forests and of these, 7\frac{1}{2}\$ millions paid full rates, 2\frac{1}{2}\$ millions paid privileged rates, more than two millions were admitted by right under settlement and over one million during the pleasure of the Government.

There was an increase in the number of cattle impounded, the total being 541,626 compared with 525,328 in the previous year, but the average of the past three years was not exceeded. In *Bengal* the numbers fell to 52,291 compared with 56,523 in 1904-05 but rose in *Madras* to 230,796 and in *Bombay* to 258,539 or by about 2,500 and 8,000 head respectively.

(d) PROTECTION AGAINST INJURY FROM NATURAL CAUSES.

22. The most serious causes of injury reported are frost, snow, drought, climbers, insects and wild animals. The result of the serious frosts of February 1905 is still apparent in the affected areas and will remain for many years to come; the following abstracts from Provincial reports deal briefly with the subject.

In Bengal climber cutting extended over a smaller area than in the previous year, the figures showing 16,410 acres as compared with 24,617 acres in 1904-05. Severe storms caused considerable damage in Singbhum, and Puri. The previous year's frosts were ascertained to have affected about 20 per cent. of the sdl area in Palamau, while in the Mal plantation the depredations of wild elephants render the continuation of the work of doubtful expediency. Barking deer are again stated to have done damage in Darjeeling.

In the United Provinces severe frosts again occurred. In the Eastern Circle it was noted that the regrowth of the trees injured in the previous year was again cut back by frost thus intensifying and prolonging the injury. In the Cis-Sarda forests coppie growth was very largely killed back in spite of the maintenance of a full number of standards, and

even high forest under treatment by improvement fellings suffered considerable injury. Attention is being everywhere given to the cutting of climbers.

In the *Punjab* recovery from the previous year's frosts is progressing slowly. In Chamba and Kulu snow caused injury to young deodar poles but the thinning of thickets has minimised this danger. Fungoid diseases are causing injury to the *deodar* in Kulu and to *Pinus* excelsa in Simla.

In Burma climber cutting was carried out over large areas, mainly in conjunction with girdlings or improvement fellings under working-plans. The teak plantations in Tharrawaddy, Zigon and Raugoon were as usual attacked by the defoliator, Hyblaa puera, while in Pyinmana this insect was noticed in large numbers both in reserved and unclassed forests. Padouk seedlings in the Tenasserim Circle were damaged by deer and in the Toungoo Division by a weevil which rings the young shoots.

In the Central Provinces the injury caused by the great drought of 1900 followed by seasons of insufficient rainfall and the phenomenal frosts of 1905 is everywhere noticeable. In the Northern Circle an increase in the number of standards, hitherto considered to be sufficient, over coppice is suggested as a means of reducing injury from frost. In the Southern Circle as in many other localities frost prevents the ingress of sál into the large blanks; it is probable that to afforest these areas with the more valuable species steps will first have to be taken to encourage the growth of quick growing trees of inferior value which are not so much influenced by low temperatures.

In Eastern Bengal and Assam a defoliating caterpillar, Gunda Sikkima, caused injury in the Ficus elastica plantation at Charduar. Climbers were cut over 17,838 acres at a cost of R4,011 but this important operation is apparently still much neglected.

In Coorg the spread of the spike disease of sandal is said to be most efficaciously arrested by immediately uprooting the attacked trees. The extirpation of lantana presents extreme difficulty in so moist a climate. Cutting, burning and uprooting of stumps is followed by a dense seedling growth almost as impenetrable as the original crop, and labour is again required to pull up the seedlings, after the first monsoon and before the plant again seeds.

In Madras plantations suffered from fungoid and insect attack while sandal also was attacked by spike disease. The danger to which pure crops, especially of exotic and even indigenous species, are exposed is exemplified in some of the Provincial Reports and the question of suitable mixture of species is one which would repay investigation.

In Bombay climber cutting was carried out over extensive areas, the guards participating in this work. Lantana is said to usurp the ground in the fellings in Belgaum and. Dharwar, while in Sind a similar danger threatens in Sar grass which arrests the reproduction of babul.

4.—SYLVICULTURE.

(a) NATURAL REPRODUCTION.

23. This all-important subject on which the timber supply of the future must depend has apparently received detailed attention in all circles. The effect of frost has been referred to in the foregoing section, and it has been noted that the effect of fire protection in moist forests has produced results which could not be fully foreseen but which now demand the most careful study, in order to maintain and increase the proportion of the more valuable kinds of timber.

24. In Bengal the reproduction of sal is said to be excellent in the fire protected tracts of Chota Nagpur and Orissa where it is rapidly spreading over the blanks. In the Santhal Parganas sal seedlings are scarce in spite of profuse flowering. In the moist forests of the sub-Himalayan tract, the inroads of quick growing evergreen scrub, hitherto checked by the annual fires, has produced conditions unfavourable to the development of sal seedlings.

In Eastern Bengal and Assam the sâl is of the type last referred to and suffers even more from the dense undergrowth. Experiments are being made to test the result of fire on the undergrowth, but it is as yet too early to make any deductions.

In the *United Provinces* the conifers and broad leaved trees of the hill forests seeded badly; in the plains the sál seeded fairly in the Western and

abundantly in the Eastern Circle. Germination was not however satisfactory probably owing to the severe frosts affecting the vitality of the trees. In the drier and open forests of Pilibit and Bhira, where coarse grass and poor soil prevail, natural regeneration is always poor. In parts of Gonda grazing is impeding reproduction which is excellent in the closed areas. Reproduction by coppice is generally good, although frosts are said to cause injury unless a large number of standards is maintained.

In the Central Provinces the combination of frost and drought resulted in conditions unfavourable for regeneration, but except in localities exposed to drawbacks, reproduction by coppies was satisfactory.

In Burma while protection from fire has resulted in marked benefit in the drier forests, it is remarked that the dense undergrowth and unbroken canopy of bamboos in the moist forests resulting from successful fire protection do not admit of adequate reproduction. The subject is being carefully investigated. The flowering of tinwa bamboo (Cephalostachyum pergracile) in the Northern Circle afforded an opportunity for systematic preparations to assist reproduction.

In Madras natural regeneration in the moist forests was as usual most prolific and satisfactory. In the dry forests the year was generally unfavourable owing to the short rainfall and prolonged hot weather. In such forests, the shrubby growth following fire protection helps the seedlings to establish themselves, provided cattle are excluded.

In Bombay conditions were generally unfavourable for natural reproduction, except in Sind where abnormal floods assisted the babul and tamarisk. Protection from fire and cattle has increased the number of teak seedlings in the Central Circle and in Surat, Panch Mahals and Kanara, but it would appear that more effective protection against all causes of injury is necessary for the welfare of these forests.

(b) ARTIFICIAL REPRODUCTION.

[Vide Appendix XVI.]

25. The total area of regular and taungya plantations fell from 143,754 acres in the previous year to 136,528. The decrease was mainly due to the abandonment of 3,516 acres in the Central Circle of *Bombay* and to the exclusion of "topes" in *Madras* which were included in the returns of 1904-05.

26. The following is a brief abstract of the progress made in the different Provinces:—

In Bengal an apparent reduction is due to the transfer of the Eastern Bengal Districts to the new province. New work consisted of the extension of rubber plantations in the Darjeeling District and of the teak plantations in Puri, in all 255 acres were added. Two-thirds of the teak planted in Puri died back but it is hoped that they will throw out new shoots. Besides the above, 32 acres of cantonment land at Darjeeling were planted up at the expense of the Department.

In the United Provinces 172 acres were planted with deodar, chir, etc., in Maini Tal and 80 acres excluded in the Siwalik Division, the plantation now forming part of the surrounding forest. The total area of plantations was brought up to 3,519 acres.

In the *Punjab* the established plantations at Sabathu and Jatogh aggregating 470 acres, were transferred to forests, the area under plantations being thereby reduced to 507 acres.

In Burma the total area of plantations rose to 76,884 acres of which 70,555 are taungyas 2,255 acres of this class being added during the year. Five hundred and fifty acres of regular plantations were abandoned and 213 added, the balance of this class of plantation at the end of the year standing at 5,829 acres. Schemes to regulate thinnings in the older plantations were

under preparation, but this work would seem to have been much neglected in the past owing to inadequacy of the staff.

No extensions were made to the Charduar and Kulsi rubber plantations of Assam, where work was limited to maintenance and the clearance of large trees between the lines of rubber trees. The Kulsi teak plantations of 171 acres should have been thinned but only 27 acres were worked over.

The year's work in the Central Provinces was mainly experimental but conditions were generally unfavourable and results partly or wholly failed.

In Coorg the restoration of unsuccessful plantations was commenced, and 110 acres added to taungyas. The total area, including regular plantations, at the end of the year was 3,129 acres.

In the Andamans 200 acres of taungyas were added, mainly of padauk.

In *Madras* regular plantations were extended by 969 acres while 609 acres were excluded. Twenty-five acres were added to taungyas, the total area at the close of the year being 26,087 acres.

The Bombay Reports still fail to show the difference between regular and other plantations, and so far as can be gathered cultural operations are sometimes entered in Form 61 as regular plantations. The additions are stated to be 9,325 acres and exclusions 3,752 leaving a balance of 20,679 acres at the close of the year.

- 27. If the sum of R82,645 spent on the Mergui plantation be excluded as incurred on an experimental concern, which is now being leased to private individuals, the total expenditure on plantation work amounted to R1,57,961 as compared with R1,32,008 in the previous year.
- 28. In addition to the ordinary plantation work, operations for the introduction of valuable species, the filling up of blanks, and sowings or plantings in areas where bamboo has flowered, known as "cultural operations," were undertaken in most provinces.

In Bengal, 766 acres were dealt with mainly in the Darjeeling and Tista Divisions under the prescribed plans. Blanks were filled up by sowing or planting, and cleanings were carried out over 463 miles of lines formerly planted. In Tista the attempt to introduce valuable kinds was a failure owing to damage by wild animals. In Puri the introduction of Cassia siamea in coppice coupes was a partial failure owing to an unfavourable season.

In the *United Provinces* extensive operations were undertaken chiefly in the direction of filling up blanks or introducing the most valuable species. In Naini Tal and Jaunsar a large number of *deodar* seedlings were planted out.

In the Punjab the operations were mainly on the same lines.

In Burma teak and cutch seeds were sown in blanks and in areas where bamboo had flowered. An area of 345 acres so treated in the Rangoon Division was abandoned but results as a rule were successful. The experimental sowings and dibblings in Upper Burma over areas previously burnt over do not as yet afford conclusive deductions.

In the Central Provinces work was centered in the agri-sylvicultural operations in Berar. In Chirori results were successful but in the Melghat tardiness and incompleteness in execution resulted in failure.

In Madras sowings and plantings of a great variety of species were undertaken with varying success. Drought usually accounted for failure. An attempt is being made to plant up the swamps of Geddassal with Eucalyptus globulus, and a nursery, so far very promising was established.

The raising of teak in nurseries for planting in the forests was continued in *Bombay*, more than 200,000 teak plants were thus planted in the Northern Circle. In the Central and Southern Circles 64 per cent. of the transplants survived in spite of unfavourable weather.

29. The expenditure on cultural operations in the different Provinces was as follows:—

	6,368 2,549
	2,549
OTHICK TIMATHOES!	, -
	6,397
Burma	4,041
Eastern Bengal and Assam	674
Central Provinces	3,373
Coorg	285
North-West Frontier Province	517
Ajmer	•••
Baluchistan.	12
Andamans	53 0
Total . 3	4,746
Madras	0,643
	1,660
Bombay	
Grand Total . 5	7,049

(c) OPERATIONS FOR THE IMPROVEMENT OF THE GROWING STOCK.

30. These comprise operations the outturn of which is usually unsaleable, such as weedings, cleanings, thinnings, improvement fellings and girdlings, and are therefore distinct from works of formation and exploitation. The following is a brief abstract of the year's work.

In Bengal 8,810 acres were cleaned for the benefit of the existing stock in addition to much work of this nature carried out by the staff. The attention paid to these operations is considered by the Conservator to be still insufficient.

In the *United Provinces* work was on a larger scale and more systematic than in other provinces. Weedings, cleanings and thinnings were undertaken in nearly all divisions together with improvement fellings or girdlings in accordance with the prescriptions of working-plans.

In the *Punjab* cleanings and early thinnings were conducted mainly in favour of deodar, the largest area dealt with in any division amounted to 2,630 acres in Bashahr.

Nearly 68,000 acres were worked over in Burma under Improvement Fellings. Ficus bound trees were also felled over extensive areas but measures are generally of a tentative nature owing to want of adequate supervision.

It is regrettable that no operations for the improvement of the growing stock could be undertaken in *Eastern Bengal and Assam*. The rapid growth of inferior kinds in so moist a climate clearly necessitates extensive measures to benefit the valuable species.

In the Central Provinces improvement fellings, girdlings and cutting back of injured trees were undertaken, the largest area dealt with being in the Melghat where 49 square miles are said to have been so treated.

In Madras improvement fellings, thinnings and cleanings were extensively carried out and measures were taken to eradicate fungoid and other diseases.

In Bombay weedings and thinnings proceeded in Babul coupes and valuable trees were relieved of pressure by the felling or girdling of inferior species over extensive areas.

31. It may be said that the value of these operations is now generally realised, although the extent of the operations and sometimes also the manner of dealing with the work is not so satisfactory as might be desired. In the great majority of cases this is referable to the weakness of the trained staff in all branches of the Department, for it is not yet apparently fully recognised that to tend and exploit the crop which for the past 50 years we have been fostering, and to collect the revenue which is now at our disposal, a larger number of officers is necessary than at a time when protection and organization alone occupied the attention of the Forest Department. In order to

continue the progress already made not only cultural works on a large scale are now necessary, but repeated cleanings and weedings are essential in the altered conditions of growth which have often been the result of the attempt to increase the quality and quantity of the outturn of the more valuable timber.

(d) EXPERIMENTS.

32. In the Sambalpur Division of Bengal 1,900 acres of grass were burnt in the winter with a view to compare the growth on this and unburnt areas. There was however no remarkable production of early grass until the rains set in. The experiment will be repeated.

In the United Provinces, the experiments to introduce exotics in Naini Tal were continued. The Hardy Catalpa and Knobcone pine succeeded best. Exotic spruce and pine were noticed to be peculiarly prone to insect attack. Experiments in lac propagation were made in the Siwaliks, and also experiments to test the effect of resin tapping on the growth and weight of chir timber were conducted in Naini Tal. It was proved that tapping for 5 consecutive years with a 10 years' rest did not affect the weight of the timber.

In the Punjab, the introduction of Robinia in 1897 to clothe the lower slopes has been pronounced a failure, the tree thriving only at elevations above 5,000 feet. The Catalpa seems to promise best of the exotics. The introduction of Eucalyptus globulus and Eucalyptus rostrata was proceeded with, the latter germinated sparingly, plants were pricked out in nurseries, in which several thousands of Eucalyptus globulus were thriving.

Work was continued in the Mergui rubber plantation in Burma, the expenditure of the year was R82,645 bringing the total to date to R2,29,781, for which sum 1,957 acres have been planted up. Tapping operations showed that trees between 4 and 5 feet in girth yield an average of 18:08 ozz. of rubber per tree while the yield for trees over 5 feet was 30:98 ozz. The average price of rubber sold in London was 5s. 5d. per lb.

Sylvicultural experiments were commenced in the Central Provinces, the most important being directed to test (a) the effect of the season of felling on coppice reproduction, (b) the effect of fire on the existing crop and its reproduction, (c) the value of ploughing and sowing as a cheap method of afforesting blanks, to discover (d) the reason for the absence of sal reproduction in Mandla. The sandal introduced into Chanda was progressing well, but in Wun was regarded as a failure.

In Madras experiments were continued with exotics but on the whole proved disappointing. Some success was achieved with mahogany, camphor and American pines. In Bombay measurements were continued to test the relative depth of water in wells situated outside and inside the forest. Experiments were also undertaken to test the feasibility of growing Ceara Rubber, the germination of which was on the whole successful and growth rapid, but few plants survived after planting in the open. Ficus elastica seed obtained from Assam failed to germinate.

5.—EXPLOITATION.

(Vide Appendix XVIII.)

(a) System of Management.

33. The clear fellings carried out during the year were mainly restricted to the exploitation of plantations worked under a short rotation and to areas under Babul (Acacia indica) in Bombay. The abnormal condition of the

forest crop points to the general adoption of methods which will gradually improve the factors of the locality and which are suitable to the conditions of a demand, which often results in only one or two of a number of species being utilized. For these reasons the selection method has been adopted over far the larger area of forest under systematic management. Improvement fellings are also provisionally prescribed in order to prepare the growing stock for the introduction of a permanent method, and large areas are now under this treatment. In places where market or other conditions indicate the necessity for this treatment, the coppice system has been introduced. Working plans prescribe the various systems of management which are considered to suit local circumstances and as a rule they have been worked up to in all Provinces, although, in some cases, inaccessibility or absence of demand have precluded utilization of the entire outturn.

(b) AGENCY OF EXPLOITATION.

(Vide Appendix XVIII.)

(i) Departmental Agency and (ii) Purchasers.

34. Out of a total outturn of timber of 67½ million cubic feet, 10½ million were removed by Departmental Agency, 51 million by purchasers, 1½ million by free grantees and 4½ million by right holders. Although it is the policy to relieve, as far as possible, the Department of timber operations and to substitute private enterprise, there was no increase in the outturn by purchasers compared with the previous year. Timber merchants do not readily extend their operations to inaccessible parts and until such forests have been opened out by suitable communications, private enterprise will not altogether supplant departmental agency. The matter is of importance because the staff is designed to meet the demands of the Forests in protection and improvement and is insufficient to undertake felling, conversion and removal of the produce.

The outturn of fuel was $171\frac{1}{2}$ million cubic feet or nearly 14 million cubic feet less than in 1904-05. Twenty million cubic feet were removed by Government Agency, 88 million cubic feet by purchasers, $6\frac{1}{2}$ million by free grantees and 57 million by rightholders.

The total yield of bamboos was 210 millions of which 33 millions were removed departmentally, 31 millions by free grantees and 173 millions by right holders, the rest being removed by purchasers.

The returns for minor produce including grass and grazing show also that more than two-thirds of the produce was removed by purchasers. Out of a total value of 60 lakhs, only 5 lakhs were removed by Government Agency, about 4½ by free grantees and 9 lakhs by right holders.

(iii) Rights and Privileges.

35. The quantity of material removed from the forests by right and privilege holders was as follows:—

Timber $6\frac{1}{2}$ million cubic feet. Fuel $63\frac{1}{4}$ do. do.

Bamboos 203 millions.

To this should be added minor produce including grass and grazing to the value of nearly 13½ lakhs of rupees.

(iv) Free Grants.

36. Free grants were given in all provinces to relieve distress caused by famine, fire, flood, earthquakes and for works of public utility erected by

public-spirited persons. Relief was afforded to sufferers from the earthquake of 1905 in the Punjab, and in Burma no less than 127,919 cubic feet of teak and 241,409 cubic feet of reserved woods were granted for the construction of monasteries, bridges, village rest houses and other public works.

(e) OUTTURN AND SOURCES OF FOREST PRODUCE.

(Vide Appendix XVII.)

37. The outturn from all classes of forests under the control of the Forest Department of timber and fuel, bamboos and minor produce is compared with that of the previous year in the following statement:—

	Presidency.				Timber and fuel.	Eamboos.	Minor produce.
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Cubic feet.	No.	æ
Bengal	$ \begin{array}{c} 1905-06 \\ 1904-05 \end{array} $	•	•	•	179,761,727 182,248,460	164,298,466 170,213,114	36,15,587 38,48,540
Madras	$\cdot \left\{ \begin{smallmatrix} 1905-06 \\ 1904-05 \end{smallmatrix} \right.$	•		•	22,514,748 23,913,211	32,054,025 35,7*8,482	14,01,348 18,11,827
Bombay	${}^{1905-06}_{1904-05}$	•	•	•	44,058,865 45,406,605	13,821,289 9,259,583	4,95,884 11,56,559
GRAND TO	TAL { 1905-06 1904-05	•		•	246,334,840 251,568,276	210,173,780 215,261,179	55,12,819 58,16,926

38. There was a falling off in output of over 5 million cubic feet of timber and fuel, of more than 5 million bamboos and of over 3 lakhs of rupees in the value of minor produce.

In the Bengal Circle an increase under timber and a decrease under fuel resulted in a deficit of over half a million cubic feet. In the Sunderbans there was considerably less demand for fuel of inferior species, coke now being largely in use in Calcutta.

The *United Provinces* showed an increased outurn of timber and fuel from Reserves of about ½ million cubic feet.

In the *Punjab* there was an increase of 4 million cubic feet from Reserves and over \frac{1}{4} a million from unclassed Forests.

In Burma while there was no appreciable difference in the outturn from Reserves, there was a falling off of 10 million cubic feet from unclassed Forests and it is this large deficit, said to be due to cattle disease and plague, which mainly affects the year's decrease.

In Madras a decrease of nearly one and a half million cubic feet of timber and fuel is ascribed mainly to alterations in methods of disposal and conditions of sale.

In Bombay an almost similar decrease is said to be chiefly caused by the completion of the fellings of dead and dying teak and to total suspension of coupe sales in the North Thana Division.

The fall in the output of bamboos in the Bengal Presidency was principally due to decreased extraction in the Bengal Circle and in the Central Provinces. There was an increase of over $4\frac{1}{2}$ millions in Bombay which is unexplained as also a fall in the value of minor produce of $6\frac{1}{2}$ lakks of Rupees.

CHAPTER III.

FINANCIAL RESULTS.

[Vide Appendices XIX to XXIII.]

39. The Gross Revenue, Expenditure, Surplus and the proportion of Expenditure to Gross Revenue of the last 33 financial years are shown in the table below:

Quinquennial periods.		Gross Revenue.	Expenditure.	Surplus.	Proportion of Expenditure to Gross Revenue.
-	<u> </u>	1	R	R	Per cent.
1873-74 to 1877-78.		67,23,191	44,76,303	22,46,888	66
1878-79 to 1882-83.		79,15,956	52,09,538	27,06,418	66
1883-84 to 1887-88.		1,10,59,434	71,42,382	39,17,052	64
1888-89 to 1892-93.		1,51,86,115	82,61,176	69,24,939	. 55
1898-94 to 1897-98.		1,74,50,655	96,57,496	77,93,159	55
1898-99 to 1902-03.		1,90,22,776	1,08,42,872	81,79,904	57
1903-04	•	2,22,16,747	1,21,66,993	1,00,49,754	55
1904-05	•	2,40,29,950	1,29,67,856	1,10,62,094	54
1905-06		2,66,74,593	1,42,58,521	1,24,16,072	53

The gross revenue and the surplus are the highest recorded; the increases over last year being about 26½ and 13½ lakhs respectively and although there has been an increase of expenditure of nearly 13 lakhs, the proportion of expenditure to gross revenue is the lowest on record.

The gross revenue of the Department has approximately quadrupled during the past 33 years while the surplus has during that period increased six-fold. In order to deal with a steadily increasing area and to execute works essential to a realization of the yield, the expenditure too has, during that time, increased about $3\frac{1}{4}$ times.

The above figures exclude the value of forest produce granted free or at reduced rates. The estimated value of such concessions amounted during the year to about 35 lakhs of rupees. This direct relief is therefore outside the contribution of 124 lakhs to the State revenues.

40. It was stated in the last chapter that there had been a reduced output of material, the increased receipts therefore lead to the inference that the value of forest produce has generally risen and this should be expected to be continuously the case now that the Department is entering on the exploitation of areas which have been under protection for many years. With the exception of Ajmer and Baluchistan all provinces yielded a surplus. In Bengal although three of the most important divisions were transferred to the new province, the fall in gross receipts, compared with the average of the preceding 5 years, was only about one lakh and the surplus fell by only R21,000. The most remarkable increase of revenue was of more than 27 lakhs in Burma, but there were also large increases in the following provinces, Central

Provinces (9 lakhs), Bombay (8 lakhs), Eastern Bengal and Assam (5 lakhs), United Provinces (4½ lakhs), Madras (3½ lakhs) Punjab and Andamans (each 2 lakhs). The net revenue per square mile of land under the control of the Forest Department was R296 in Coorg, R247 in the United Provinces, R142 in the North-West Frontier Province, R126 in the Andamans, R69 in Bengal and R52 in Burma, Assam yielding only R18 per square mile. There seems no reason why, given an adequate Forest Staff, a demand which must increase with the prosperity and population of the country, and the utilization of hitherto neglected products, the revenue per square mile should not steadily and largely increase in the future. It appears probable that the Indian State Forests are now entering upon a new phase of their existence when, provided that the means of regulating the crop and harvesting the outturn are forthcoming, the profit to the State will increase more rapidly than it has hitherto done.

41. The following statement shows the financial results of the working of the forests after deducting capital expenditure not yielding an immediate return:—

arm.								70
						•.		R
Gross	Revenue .	•	•	•	•		•	2,66,74,593
Value	of produce gra	nted fre	e or at	t redu	ced ra	ites .	•	34,96,073
			•	Total	value	of yield	•	3,01,70,666
						R		
Gross	Expenditure .		•	•	•	1,42,58,	521 🗼	
Deduct exp	penditure not yi	elding	n im	nediat	e, retu	ırn :—	• •	
(a)	Roads and Bui	ldings		•	•	8,63,0	04	
• •	Cultural operat	_	:	•	•	5,18,2	95	
(c)	Working-Plans	з.	• .	•	٠	86,7	41	
(d)	Settlements	•		•	•	· 79,8	66	
(e)	Surveys .		•	•	•	3,26,0	91	
(f)	Demarcation -	•	•	•	•	1,33,5	36	
			To	[AL	٠.	20,07,0	38	
Balanc	e of direct reve	nue pro	ducing	expe	nditu	re .	i	1,22,51,488
Surplu	s of revenue ove	er exper	iditure	dire	ctl y	chargeab	le to	
' re	venue .	•	•	• .	•	•	٠	1,79,19,178

CHAPTER IV.

GENERAL.

1.—ADMINISTRATION.

42. The post of Inspector General of Forests was held by Mr. S. Eardley-Wilmot throughout the year. Ten Conservators were on leave during a portion or the whole of the year:

The cadre of the Forest Department was strengthened by the addition of two posts to the Imperial and two posts to the Provincial Service, in order to complete the staff of the Imperial Forest College and Research Institute.

The cadre of the Imperial Forest Service in Madras was increased by two posts which were sanctioned for a period of five years. Two temporary appointments were created in the Bombay Provincial Service to be retained so long as vacancies in the sanctioned cadre of the Imperial Service remained unfilled.

As part of a general scheme for effecting an improvement in the conditions of service in the Imperial Forest Service, the pay of the Inspector General. of Chief Conservators and of Conservators was raised, while exchange compensation in all cases was discontinued. Five officers of the Imperial and four of the Provincial Service, retired and two of the Imperial and one of the Provincial Service died during the year. One officer of the Imperial Service was permanently transferred to Colonial Service in South Nigeria. The services of one officer of the Provincial Service were dispensed with.

OFFICERS ON FOREIGN SERVICE.

The following statement shows the number of officers on Foreign Service in India, in British Colonies and serving under other Governments:-

In India.

Imperial Service.

1. Mr. A. W. Blunt (Central Provinces), Kashmir.

2. " R. M. Williamson (Central Provinces), Central India.

Provincial Service.

- 1. Saiyid Mehdi Hasan (United Provinces),
- 2. Lala Daulat Ram (Punjab), Kashmir.
- 3. " Sundar Das (Punjab), Kotah State. 4. " Jai Kishen (Punjab), Jubal State.
- 5. Mr. Keshva Nand (United Provinces),
- Kashmir. 6. Pandit Sada Nand Gairola (United
- Provinces), Tehri State.
- 7. Mr. Fazl-ud-din (Punjab), Patiala State.
- 8. Rai Bahadur M. Muttanuah (Madras),
- Mysore. 9. Mr. R. C. Eber-Hardie (Madras),
- Jeypore. V. Alwar Chetti (Madras) Cochin.
- 11. Bhagwandas Harkisandas Dalal (Bom-
- bay), Rajpipli.
- 12. Mr. G. O. Coombs (United Provinces),
- Alwar State. 13. Pandit Thakur Das (Punjab), Indore
- State.
- 14. J. M. Blanchfield (United Provinces), Bundelkand State.
- 15. Lala Mulraj (Punjab), Partabgarh, Dungarpur and Bunswara States.

In the Colonies.

Imperial Service.

1. Mr.* H. N. Thompson (Burma), South Nigeria,

2. ,, T. J. Campbell (United Provinces), Ceylon.

Provincial Service.

1. Mr. N. C. McLeod (Central Provinces),
South Nigeria,

Under other Governments.

1. Mr. W. F. Lloyd (Bengal), Siam.

1. Mr. R. C. Thompson (Central Provinces),
Siam.

2. ,, S. A. Wood (Burma), Soudan.

2.—EXPORTS OF FOREST PRODUCE.

[Vide Appendix XXIV.]

43. The total value of exports of forest products at ports of shipment amounted to 469 lakhs of rupees as compared with 442 lakhs in 1904-05, 445 lakhs in 1903-04 and 320 lakhs in 1902-03.

Two hundred and seventy-nine tons of caoutchouc were exported as against 211 tons in 1904-05, 90 tons in 1903-04 and 52 tons in 1902-03. These figures tend to show an increase in the sources of supply of this article, which will doubtless be still further marked when the artificial plantations come into full bearing.

The quantity of lac exported during the year was 13,723 tons against an average of 10,988 tons for the five preceding years. The total value of this article rose during the year from 308 lakhs to 318 lakhs of rupees. Hitherto the cultivation and collection of this valuable commodity has been chiefly in the hands of the aboriginal races and carried on in the most primitive method. But the growing demand has drawn attention to the importance of careful cultivation on improved and scientific lines, and a beginning in systematic cultivation has already been made in the reserved forests of the Central Provinces. The results of the investigations made by the Forest Department will shortly be published in the Indian Forest Records and it is to be hoped that they will give an impetus to the rapid development of this much neglected industry.

Exports of teak during the year amounted to 52,768 tons valued at $R70\frac{1}{2}$ lakes as against 46,912 tons valued at R60 lakes in 1904-05. But the year's exports still show a decline of 10,000 tons from the average of the past five years. The recent arrangements made in Burma for the encouragement of private enterprise in the exploitation of the Government teak forests will doubtless show beneficial results in the future.

3.—RECRUITMENT AND TECHNICAL EDUCATION.

44. Eight students who had completed the forestry course at Cooper's Hill College were appointed to be Assistant Conservators of Forests and arrived in India in October and November 1905. Three of these were posted to the Punjab, two each to Burma and the Central Provinces and one to Bengal.

Eleven probationers were admitted in 1905 and fourteen candidates for the Indian Forest Service were selected in England by the Secretary of State in 1906 and are now under training at Oxford.

The status of the Imperial Forest School, Dehra Dun, was raised to that of Imperial Forest College and a Forest Research Institute was created in connection therewith. The staff consists of six officers of the Imperial Service

^{*} Services permanently transferred to South Nigeria during the year.

holding the posts of Sylviculturist, Superintendent of Forest Working-Plans, Forest Zoologist, Forest Botanist, Forest Chemist and Forest Economist, and of four Provincial Forest Service officers who are Instructors in the College and attend to the practical training of the students in the forests. One of the Imperial officers, in addition to his other duties, holds the post of Principal of the College.

The Directorship of the School was held by Mr. A. G. Hobart-Hampden from 1st July 1905 until the 8th April 1906, when, the status of the School having been raised to that of a College, he was appointed Principal and Imperial Sylviculturist, but he shortly after proceeded on furlough and was succeeded by Mr. J. H. Lace. The other appointments on the Imperial staff of the College were held by the following officers:—

Mr. E. P. Stebbing, Forest Zoologist.

- " H. H. Haines, " Botanist.
- " R. S. Troup, " Economist.
- " A. M. F. Caccia, Superintendent of Working-Plans.

The post of Forest Chemist remained vacant during the year under report, arrangements having been since made to train a Forest officer in England.

At the Entrance Examination to the Upper Class of the Forest School held in October 1905, 83 candidates presented themselves, of whom 42 qualified for admission, but only 32 joined the College in April 1906 together with nine who had passed in previous years and four, including three from the Federated Malay States, who were specially exempted from passing the Entrance Examination.

Mr. S. Carr continued to fill the post of Director of the Burma Forest School. Fifteen students were admitted to that School in December 1905.

4.—FOREST ADMINISTRATION IN NATIVE STATES.

45. Jammu and Kashmir.—The State forests continued under the administration of Mr. A. W. Blunt of the Indian Forest Service.

The total area of State forests increased from 2,764 to 2,963 square miles, of which 2,315 square miles were demarcated, 254 square miles partially demarcated and 394 square miles remained undemarcated at the close of the year. The increase is due partly to afforestment of new areas and partly to correction of areas after survey. No settlements were completed during the year although a special Settlement Commissioner was engaged on the revision of forest boundaries—a task in which some progress was made.

An area of 162 square miles with 508 miles of boundaries was surveyed at a cost of R1,854 or about R11 per square mile.

The collection of data for the Working-Pian of the Upper Chenab Valley Forests was completed. 560 square miles were examined, of which 209 square miles containing deodar were described in detail and the stock enumerated. The Working-Plan report is under compilation.

The expenditure on roads was R4,827 compared with R3,452 in the previous year. The amount spent on buildings rose from R3,602 to R6,583. It is said that there is room for expansion in both these important works.

The number of Forest offences was 469 against 414 in 1904-05. Including 69 cases pending from the previous year the total was 538, 455 of which were disposed of. The percentage of convictions to cases taken into Court was 33,

250 cases involving 366 persons were compounded, the average per case being R4-12-9 and R3-4-5 per person.

There were 125 fires against 97 in 1904-05, the area burnt being $5\frac{1}{2}$ square miles, the same as in the previous year. Only 43 acres were burnt in the comparatively moist forests of the Kashmir valley, the rest of the fires occurred in the dry forests of Jammu. Natural reproduction is said to be seriously hampered by excessive grazing, the Durbar has not yet accorded its sanction to the proposals for the regulation and control of this important question.

Until Working-Plans are introduced it is considered advisable to continue departmental working. In India the rapid compilation of regular Working-Plans and the cessation of departmental works have, however, given much improved results in Forest management.

The total outturn of major produce was 38 million cubic feet, 31 million cubic feet consisting of fuel. Out of a total outturn of timber of 7½ million cubic feet, 3½ million or 45 per cent. was taken out by State Agency. Over 9½ lakhs of cubic feet of timber are being supplied departmentally for the Electric Power plant at Rampore on the Jhelum.

The financial results showed a marked improvement. The gross Revenue being $B13\frac{1}{3}$ lakhs compared with $B9\frac{4}{5}$ in the previous year, the surplus being $R9\frac{1}{3}$ lakhs against $R6\frac{1}{5}$ lakhs. The total expenditure was R3,98,244 or about R30,000 more than in 1904-05. The percentages of expenditure and surplus to gross Revenue were 30 and 70, respectively. A good floating season resulted in a larger outturn of material which included a part of the previous year's yield, better prices also ruled on the Jhelum. The estimated value of free grants was $R6\frac{1}{5}$ lakhs so that the gross value of forest produce removed from the State forests was $R19\frac{3}{3}$ lakhs. The Inspector General of Forests made a tour in Kashmir and Jammu between the 24th September and 5th November 1905 and issued an Inspection Note advising on the future management of the State Forests.

46. Mysore.—The total area of the State forests in Mysore was increased by 157 square miles, thereby bringing up the total to 2,292 square miles. The percentage of area of State forests to that of the whole State is 7.78 and the Administration considers that further extension of the forest area is necessary. 1571 square miles were finally settled and satisfactory progress was also made in surveys, 621 square miles of State forests being mapped. Owing to paucity of officers there remain large areas to be brought under regular Working-Plans, but provisional plans are in force for the forests not as yet under systematic management. Considerable progress was made in road work. 82 miles of roads were opened, the total expenditure being R13,051 compared with R8,758 in the previous year. The importance of extending communications is fully realized; the Mysore Government, however, quite correctly desire that this work should be organized according to a systematic programme. Exclusive of R18,360 debited to the Public Works Department Budget, a sum of R18,450 was spent on buildings against R8,152 in the previous year, a marked advance was therefore made in the important work of housing the Forest staff.

The number of Forest offences fell from 895 in 1904-05 to 865. Only 52 cases or 6 per cent. were taken into Court resulting in 30 convictions. 756 cases were compounded for R4,528.

The season was most unfavourable to fire protection owing to the prolounged drought. The area attempted to be protected was 1,915 square miles, failures amounting to 116 square miles. The cost was R14,308, equivalent to R7-15-0 per square mile.

Extensive measures were undertaken to stamp out the spike disease of sandal trees, no less than 2,86,962 trees, of which 95 per cent. consisted of saplings, being uprooted. By this means the disease in the Hassan District was confined to an area of about 2 square miles.

Climatic conditions were unfavourable to both natural and artificial reproduction, teak however suffered least. Energetic measures are being taken to sow or dibble sandal seed in suitable localities through the agency of the Revenue and Forest authorities, with the object of creating a supply independent of existing natural sources.

The financial results were satisfactory. The gross Revenue rose to R20,07,514 from R19,28,250 in the previous year and the surplus to R13,32,410 against R12,89,655. Charges were also higher than in 1904-05, the figures being R6,75,104 and R6,38,595, respectively. The ratio of expenditure to gross receipts was 33.6 per cent. The contribution to receipts from the sale of 2,466 tons of sandal was R12,52,394 or an average of R507 per ton, the highest price yet realized.

47. Indore.—The total area of forests is estimated at 2,860 square miles. 429 miles of boundary were cleared and surveyed. Until demarcation and surveys are completed it is stated that little progress can be made in Working-Plans as little demand appears to be yet made on the forests. Some advance was made in the erection of buildings for the staff. Systematic fire protection is being organized and some success has been attained, resulting in benefit to natural regeneration, particularly of Hardwickia binata. The importance of regulating cattle grazing is also realized.

Experiments were undertaken in propagating lac, the climatic conditions being generally favourable a large revenue should ultimately be realized from this product. The forests are mainly worked under the system of coppice with standards; there is a large demand for fuel in Mhow and Indore, which as yet the State forests have done little to supply. The output of timber and fuel was about a lakh of cubic feet, there being a fall under timber and an increase under fuel compared with the previous year.

The financial results show a total revenue of R190,916 or an increase of R19,631 over the previous year, expenditure amounted to R1,21,391 the surplus therefore was R69,517. Good progress appears to have been made in organizing the Department and the importance of forest conservancy is beginning to be realized.

48. In the Nizam's Dominions* the estimated area of Reserved forests was 5,247 and of Protected forests 4,451 square miles. Some progress was made in demarcation, 228 miles of line were newly cleared and 430 of previously existing boundaries repaired.

The number of Forest offences was 8,812 or about 600 more than in the year previous. Only 13 were decided by the Courts, 5,197 were compounded, 134 acquitted, leaving 3,468 pending at the close. The area placed under fire protection was 507 or less than one-sixth of the Reserved area, 52 square miles were burnt, the expenditure was R3,403=R6-11-4 per square mile.

The incidence of grazing in the State forests is heavy. Grazing fees amounting to over a lakh were realized. Only 124 square miles were closed to all animals throughout and 119 for a portion of the year, 1,522 square miles were

closed to goats only. The effect of the heavy grazing combined with drought and fires is noticed to retard natural reproduction and a proper regulation of grazing is proposed. The total Forest revenue was nearly R6½ lakhs, being nearly half a lakh better than the previous year. The expenditure amounted to a little over R2 lakhs leaving a surplus of nearly R4½ lakhs which is about R½ lakh better than the previous year. The value of timber and fuel sold was over R2½ lakhs. More than a lakh was collected by the Revenue authorities exclusive of the value of grazing fees which as already stated exceeded a lakh.

The financial results are steadily improving but the Administration points out the necessity for improved communications and for the extension of *Babul* cultivation in certain districts. A local training class for lower subordinates, and the education at Dehra of the upper subordinates places His Highness the Nizam's Forest Department in a fair way to the constitution of an efficient service.

49. In the Bhopawar Agency a net increase of 195 square miles to the area in charge of the Forest Department brought up the total area to 1,949 square miles at the close of the year. Reserved forests have so far been constituted only in Dhar, Ali-Rajpur and Barwani. Forest Conservancy has only recently been introduced and progress in surveys and demarcation is as yet comparatively small. Working-Plans have not yet been introduced although compilation of statistics has been undertaken in Barwani. The susceptibilities of the Bhils are stated to require careful study in order to secure their sympathy. In the early years of Forest Conservency, it is probable that, as in British India some time must elapse before the important task of organization and protection is completed, meanwhile as suggested by the Political, Agent, demarcation can be pushed on together with the classification of forests in order to anticipate the time when increased demand will call for systematic working. number of Forest offences was 1.44, or a little less than the results of the previous two years, the number of cases of injury by fire was 42, or one-fourth of the total—a high percentage.

The season was abnormally dry, little or no rain falling between September 1905 and June 1906. Fire protection was, therefore, less successful than in the previous year. Full protective measures were attempted over 1,233 square miles and partial measures over 716 square miles. In forests under the latter treatment, only the external boundaries are fire-traced. 62:3 per cent. of the first and 30 per cent. of the second class escaped fire. In Dhar there were 22 fires, of which 10 originated internally and 12 crossed external fire traces. The corresponding figures in Ali-Rajpur were 13 and 4. As pointed out by the Political Agent, repeated burning of external lines is essential to the reduction of fires crossing fire-lines, but supervision of the large numbers of people engaged in collecting minor produce and in herding cattle are equally necessary to minimize intentional firing.

The estimated outturn of timber and fuel from the eleven States was 1,841,834 cubic feet or nearly half a million cubic feet better than in 1904-05. By far the larger portion consists of fuel, the outturn of which reached 1,450,380 cubic feet, Dhar contributing 453,829 cubic feet, Barwani 304,165 cubic feet and Ali-Rajpur 249,484 cubic feet. 311,823 head of cattle were grazed, of which 190,000 were charged full rates and the rest privileged rates or free, the total value of grazing being R35,131.

The financial results show, on the whole, steady progress; in two States only was there a fall in comparison with the previous year's figures. The gross Revenue realized was R1,40,860 being R28,000 better than the preceding year and more than double the average of the previous three years. Charges were R63,957 or about the same as in 1904-05, the surplus therefore was R76,903, being higher than the previous year by about R28,000 and some four times the previous triennial average.

The forests of the Bhopawar Agency appear to be now established on a sound financial footing; by an extension of organization and conservancy the steady increase of surplus should continue and the forests ultimately fulfil their functions as sources of benefit to the people of each State.

50. Travancore.—The total area under the control of the Forest and Cardamom Departments at the close of the year was 2,266 square miles of Reserved forests and 166 square miles of Reserved lands, the former figure being raised during the year under review by an addition of 21 square miles. Preliminary notifications issued for 9 square miles. Provision of grazing grounds was engaging the attention of the Administration.

Good progress was made in demarcation, but survey work was almost exclusively directed to valuation surveys of growing stock.

There was only a slight difference in the number of Forest offences, the figures falling from 697 to 659.

Fire protection, in spite of an unfavourable season, was fairly successful. Out of a total area of 1,930 square miles under protective treatment, only 59 square miles were burnt against 85 in the previous year.

The expenditure on communications and buildings was less than in 1904-05, falling from R21,000 to R13,339.

The area of plantations at the close of the year was 2,746 acres, 74 acres being added and 80 acres of teak dibblings excluded. The outturn of timber fell somewhat owing to some contractors failing to extract the quantities stipulated, the revenue suffered somewhat in consequence falling from R6,38,523 to R6,27,411. There was a corresponding fall in expenditure to R4,60,411. The surplus nevertheless rose by about $\frac{1}{3}$ rd lakh but this was mainly due to reduced expenditure.

English units of measurement were introduced in place of the old system and the salaries of the upper grades of officers were improved. Steady progress has been made in the organization and working of the forests of Travancore.

51. The Forest Administration Report of the Jaipur State deals with the period of 17 months from 1st April 1905 to 31st August 1906. It therefore renders comparison of results somewhat difficult while the report itself does not convey much information. The area under the management of the Department was 255 square miles at the close of the year. Existing communications are said to be sufficient, a road recently constructed as a famine relief work aiding much in the export of forest produce. Seventeen cases were taken into Court and 601 involving 1,149 persons were compounded, the average amount of compensation per case being Rs. 1-15-0. Special leniency was shown on account of the famine. About one-third of the forest area was closed to browsers, scarcity of fodder necessitated the opening of the forests to cattle grazing on a large scale and 136,655 head of cattle were admitted. Drought and famine are usually conducive to forest fires and it is therefore a most satisfactory feature of the year's administration that the entire area

(173 square miles) under special protection is reported to have escaped fire. This result is stated to have been achieved without additional staff or expenditure. Drought and extensive grazing following on the severe frosts of 1905 operated against successful reproduction. The third class forests were thrown open to the sufferers from the famine for the removal of brushwood but it was found impossible to control the immense numbers who availed themselves of the concession.

The financial statement shows an increase during the period under review of R484 under revenue and of R355 under expenditure, the receipts amounted to R26,899 and the charges to R11,146.

52. Cochin.—The area under the control of the Forest Department was 605 square miles, the same as in the previous year. Preliminary notifications were issued for an extension of 467 square miles which area was meanwhile classed as Reserved lands. There was a large increase in the number of forest cases, the total being 137 against 28 in the previous year, but these were apparently due to misunderstandings on the part of the staff of the provisions of the new Forest Regulation which led to the reporting of cases where no violation of the law had actually occurred. The most important cases were of encroachment by cultivators and of breaches of transport rules.

Of the three working circles two only were worked, an excess of stock in hand led to closure of the third temporarily. The selection system appears to be followed, although improvement fellings were carried out over an extensive area. The people continued to enjoy forest privileges on a large scale, being allowed free grazing and the removal practically of everything required for domestic use, in addition, large indents were met from railways for sleepers and fuel.

Excellent progress was made in the extension of communications. The most important work was the extension of the forest tramway, $16\frac{1}{2}$ miles of earthwork were completed, 69 bridges constructed and 32 strengthened. The length of open line at the close of the year was $26\frac{1}{2}$ miles. Including construction, purchase of rolling stock and other charges a sum of $\mathbb{R}3,41,184$ was spent on the tramway during the year—27,560 cubic feet of timber in the log, 33,214 cubic feet of sleepers and 1,131 tons of fuel being transported by tram.

The year appears to have been favourable to natural reproduction and all species except ebony are reported to be thriving. Teak seeded profusely and germinated satisfactorily. No extension of plantations appears to have been made but thinnings were carried out in a part of the Palapilli Teak Plantation. Receipts and expenditure amounted to R7,79,348 and R8,24,478, respectively as against R8,86,032 and R8,15,757 in the previous year. The revenue therefore fell by R1,15,405; if however the expenditure on the tramway be not charged against the year the surplus would be R2,96,054.

The State of Cochin may be congratulated on the attention paid to forest administration generally and on the wisdom of providing up-to-date methods of exploiting its valuable forests.

53. In Gwalior the area of the forests cannot be ascertained until they have been surveyed and demarcated.

A tentative classification into Reserved, Protected and Unclassed has been introduced. The present condition of the forests is described as so mutilated that immediate measures are required to produce a healthy crop. Famine and drought caused a severe drain on the resources of the forests and most of the works of improvement were in consequence postponed.

The financial results show a revenue of R56,287 and an expenditure of R36,095 against R79,845 and R23,860 in the previous year. The less favourable results were due to the opening of the greater part of the State forests to the famine-stricken population and cattle, thereby depriving the Department of its share of grazing and grass dues.

54. Baroda.—The area of Reserved forests at the close of the year was 660 square miles or about the same as in the previous year. External demarcation is said to be practically accomplished and work was confined to internal demarcation of working units. Some progress was made in the compilation of Working-Plans while the prescriptions of existing plans were followed.

Moreover, about 100 square miles in the Tapti and Vakal Ranges were examined and surveyed with a view to bringing them also under systematic management. Protection of the forests against illicit felling, cattle and fire appears to have been moderately successful, although the area under fire protection is not stated and comparison with previous results is as a rule omitted.

Natural reproduction is reported to be far from satisfactory, except in localities immune from fire. Artificial reproduction to stock blanks in coupes received attention, reboisement works were also undertaken but the area so treated is not stated. Exploitation seems to be almost entirely by purchasers. In Unreserved forests the sale proceeds of six valuable species is credited to the Forest Department.

The financial results show a total realization of R1,57,361 and an expenditure of R68,890. The surplus was better than last year by about R34,000 and is the highest on record. The progress of forestry in Baroda appears to be very satisfactory, although the report does not convey much information.

55. Alwar shows an unchanged forest area of 367 square miles. Some progress was made in demarcation and in the erection of quarters for the staff.

Forest produce appears to be chiefly consumed by the various State departments. The principal operations consisted in collecting 1½ lakhs of maunds of fuel and five lakhs of maunds of grass. The year being one of scarcity an abnormal demand was thrown on the forests for fodder. All the State forests are protected from fire, and it is a matter for congratulation that in a season so unfavourable only four fires were reported, burning only 800 acres. The financial results of the Department as a whole are not stated.

56. The General Administration Report of the Rewah State does not contain much information, although Forest Conservancy has been in existence for some time.

The revenue from the State forests was R6,16,288, of which R5,01,688 were derived from lac. It is stated that the outturn was below the average but the receipts include the value of a part of the previous year's output.

The staff includes three trained Dehra Dun Rangers. Mr. R. M. Williamson, Deputy Conservator of Forests, Central Provinces, was deputed to examine the forests of the State and advise on their management and the Durbar hopes to derive much benefit from his—port and advice.

APPENDIX I.

[Vide paragraphs 1 to 3.]

Area of reserved and leased forests.

,	A	BBA, IN 6Q	<i>;</i>		
Province.	At com- mencement of year.	Added in.	Excluded in.	At close of	Remarks.
Bengal	4,260	***	***	4,260	
United Provinces .	(a)4,05 6	36 		(a)4,092	(a) Includes 157 square miles of leased forests.
Punjab	(8)2,857	9	9	(b)2,357	(b) Includes 536 square miles of leased forests.
Burma	20,411	626	492	20,545	
Eastern Bengal and Assam	(c)5,982	40	13	6,009	(c) Includes 2,179 square miles of area transferred from Bengal.
Central Provinces including Berar.	(d)22,344	863	1,081	22,126	(d) Excludes 395 square miles in Sambalpur Division transferred to Bengal.
Coorg	410	95	•••	505	
North-West Frontier .	234	•••	•••	234	
Ajmer	142	•••		142	
Baluchistan	234	30	***	264	
Andamans	156		 	156	
Total Bengal	60,586	1,699	1,595	60,690	
" Madras	18,107	216	35	18,288	
, Bombay	(e)13,486	71	` 89	(e)13,518	(e) Includes 217 square miles of leased forests.
GRAND TOTAL, 1905-06 .	(f) 92,179	1,986	L,669	(1)92,496	(f) Includes 910 square miles of leased forests.
,, ,, 1904-05 .	91,567	1,893	1,278	92,182	

APPENDIX II.

[Vide paragraphs 1 to 3.]

Area of all forest lands.

FOREST AREA, IN SQUARE MILES. Proportion of forests					
rea in quare quare niles. Reserved. Protected. Unclassed State. Total.	Remarks.				
5,791 4,260 3,423 7,683 6.6					
excludes to of distric	es 157 square leased forests but 9,071 square miles t protected forests ini Tal District.				
7,218 (b)2,357 5,168 1,851 (b)9,376 9.6 (b) Include miles of 1	es 536 square leased forests.				
2,508 20,545 (c) 103,014 (c) 123,559 76.0 (c) Include of leased	es 21 square miles forests.				
3,141 (d)6,009 5 23,125 29,139 31·3 (d) Include	es .				
31	2 acres under con- trol of Eastern Bengal and Duars Railway, 5 acres under Bengal, Cooch Behar State Railway, 6 acres in charge of Collector of Noakhali.				
Total 3,826	acres or 6				
0,401 22,126 6 22,132 21.0					
1,582 505 505 32.0					
3,057 234 234 1-8					
2,646 142 6 148 5-6					
	Baluchistan only.				
3,143 156 1,795 1,951 62·1 (f) South 1	Island only.				
6,017 60,690 8,626 129,840 199,156 28.2					
1,678 18,288 (g)1,297 19,585 13·9 (g) Reserve	ed lands.				
2,922 (\$\lambda\$)13,518 1,892 (\$\lambda\$)14,910 11.8 (\$\lambda\$) Include miles of 1	les 217 square eased forests.				
0,617 (i)92,496 10,018 (j)131,137 (k)233,651 24·1 (i) Include miles of 1	s 910 square eased forests.				
	s 21 square miles				
(k) Includ miles of I	es 931 square eased forests.				

APPENDIX III.

[Vide paragraph 4.] Progress in Forest Settlements.

Province.	ÅBEAS ALBEADY SETTLED AT THE COMMENCEMENT OF THE YEAR.			AREAS FINALLY SETTLED DUBING THE YEAR.					BING	AREA UNDERGOING SETTLEMENT.								
	resta.	rosta.		AREA.			Expenditues incurred.			AT COM	HENCI HR TR					Expenditure incured dyring the year.		
	Reserved forests	Protected forosta	Total.	Reserved.	Protected.	Total.	Roserved.	Protected.	Total.	Bosorred.	Protected.	Total.	Roserved.	Protected.	Total.	Reserved.	Protected.	Total,
	Sq. m	8q. m.	Sq. m.	Sq. w.	Sq. m.	Sq. m.	£.	R	R	Sq. m.	Sq. m.	8g. m.	Sq.m	Sq.m.	8q. m.	R.	Ð	R
Bengal	4,260		4,260				***	417.	***				***	***		***		***
United Provinces	3,900	30	3,930	35		35			•••	5		5	1		1	821		***
Panjab	1,936	4,908	6,844		***				***	16	205	221	***					
Burma	20,349		20,349	195		195	835 (835	1,641		1,641	378	٠	378	23,415	•••	23,41
Kastern Bengal and Assam	(a) 5,981		-5,981	20	-614	20	•••		***	721		721	28		28		***	•••
Central Provinces including Berar,	18,410	148	18,410	1		1		•••	***	19		19	8	444	8	***		***
Coorg	410		410	95		95	1,456		1,456	***				423			**	***
North-West Frontier .	234		234		444		412 \	40 7	***	Em.			,. .			545	401	,,,
Ajmer							***	***	•••							\	***	***
Baluchistan	234		234	30		30										3	-	
Andamans	156		156	•••		***	•••			-						- 1	·	
Total Bengal	55,870	4,938	60,808	376		376	2,291		2,291	2,402	205	2,607	415		415	23,415	***	23,4
, Madras	18,107	•	18,107	181		181	(c) 1,947		(e) 1,9 1 7	812	,,,	812	23		23	(d) 524	 	(4
, Bombay	13,182	826	14,008	10	140	150			(e) 1,570	27		27	16	<u></u>	16	(n		5,1
Grand Total, 1905-06	87,159	5.764	92,923	567	140	707	4,238	4	(g) 5,808	3,241	205	3,446	454		454	29,771		29,
" " 1904-05 "	86,406	1	1 '	1,192		1,192	19,233		19,233	1		3,247	1		1,052	1 '	1	15,

⁽a) Includes 2,184 square miles transferred from the Province of Bengal.

⁽c) Excludes R 12,581 debited to other than Forest Accounts.

⁽a) Excludes 20,130 debice to other than Adress Accounts.

(e) Includes expenditure on areas undergoing settlement.

⁽f) Excludes 48,979 debited to other than Forest Accounts. See also (s) above.

APPENDIX IV.

[Vide paragraph 5.]

Demarcation and Maintenance of Boundaries.

Province.	. Circle.	Length of houndaries artificially demarcated	Length of previously existing	honndaries	marked	BOE	Length of pateral boundaries not	Total length of boundaries	DEMARCAT	ITURE OR ION DURI; YEAR.
		during the year.	boundariës repaired.	not repaired.	marked boundaries at the close of the year.	at the close of the year.	requiring artificial marks.	at the close of the year.	On new work.	On repairs
•				-						
		Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	R	.
Bengal	274400	223	3,320	79	3,622	,	1,005	4,627	1,488	3,16
United Provinces . {	Eastern Circle . Western ,, .	2	524 542	1,984 1,597	2,508 2,141	11 2	610 784	3,129 2,927	48 126	1,62 3,31
	Total .	2	(a) 1,066	3,581	4,649	13	1,394	6,056	174	4,93
Punjeb	100284 . [245	2,525	8,076	10,846	3,575	1,191	15,612	641	4,70
3urma	Pegu Circle Tenssserim Circle Northern Southern	163 259 169	814 1,018 1,023 803	2,237 2,310 2,309 2,699	3,214 3.328 3,591 3,671	114 19 22 394	1,163 607 503 431	4,491 3,954 4,116 4,496	1,389 3,375 2,404	4,50 7,57 1,85 3,158
•	Total .	591	3,658	9,555	13,804	549	2,704	17,057	7,168	17,08
astern Bēngal and Assam.	ganu SVE	. 52	1,628	260	1,940	18	2,560	4,518	3,320	7,40
entral Provinces .	Northern Circle. Southern ". Berar "	18 207	9,773 6,363 6,613	3,407 1,193 5,360	13,198 7,556 12,180	 59 332	1,291 867 636	14,489 8,482 13,148	1,156 2,702	5,81 2,67 3,57
	Total .	225	22,749	9,960	32,934	391	2,794	36,119	3,858	12,05
org orth-West Frontier jmer aluchistan	604.000 680-041 0410-041 0411-040	 63	323 1 212	307 452 243 126 42	307 775 244 401 42	173	56 163 158 77 116	536 938 402 478 187	110 `194	10 4,60
Total Bengal	Анн	1,401	35,482	32,681	69,564	4,748	12,218	86,530	16,953	54,06
" Madras {	Northern Circle (Central ,, Southern ,,	209 232 167	2,904 8,396 1,022	6,735 6,190 8,522	9,848 14,818 9,711	108 216 641	553 239 959	10,509 15,273 11,311	4,850 3,201 2,800	6,50 3,49 11,63
·	Total .	608	12,322	21,447	34,377	965	1,751	37,093	10,851	21,63
, Bombay	Northern Circle Central ,, Southern ,, Sindh ,,	132 227 911 40	1,210 8,736 833 1,734	3,122 13,997 5,239 219	4,464 17,960 6,983 1,993	73 4,681 7,429	397 861 653 576	4,934 23,502 15,065 2,570	1,170 1,892 13,616	1,23 1,71 1,32
	Total .	1,310	7,513	22,577	31,400	12,183	2,487	46,070	16,678	4,270
GRAND TOTAL, 1905-06.	984898 298899	3,319 4,867	55,317 51,647	76,706 73,722	135,841 130,236	17,896 21,842	16,456 16,142	169,693 168,220	44,482 57,065	79,967 71,037

N.B.—Boundaries include, besides the outer perimeter, the limits of enclosures of private and other lands within the forests, but not the limits of sub-divisions each as blocks, compariments and coupes.

(a) Includes tômiles of Nepal boundary and 51 miles of railway boundary.

APPENDIX V.

[Vide paragraphs 6 to 10.]

Forest areas surveyed and under survey.

•	<i>4</i> ″=1	MILE.	8"=1:	Wile,	Total of di on 4" scale	TAIL SURVEY AND OVER.	Expenditure in surveys in cluding map
Province.	Outturn.	Cost rate.	Cattum,	Cost rate.	1905-08.	Total up to date.	ping and publishing charges.
1	3	3	4	5	6	7	8
,	sq. miles.	æ	sq. miles.	R ·	sq. miles.	sq. miles.	R.
Bengal	•••	. * * *	•••	***	•••	2,223	4,720
United Provinces	98	32 0		***	98	4,075	6,043
Punjab		37:8	٠.,	794	53	3,568	6,218
North-West Frontier Province	25	84.8	***	• • •	25	366	3,516
Surma	1,252	126·1	***	•••	1,252	12,478	2,20,379
Central Provinces including Berar	0.2		•••	***	0-5	18,597.5	3,424
Eastern Bengal and Assam	(a) 590	30 ⁻ 5 for 2" 129 ⁻ 8 for 4"	***	***	590	(a) 1,556	28,237
Ajmer . · · · · · · ·	***	1#	444		***	144	***
Total of Bengal	2,018 ⁻ 5	***	•••	***	2,018-5	43,007-5	2,72,537
Madras	832	104.0	•••		832	13,900	1,02,734
Bombay .	63].	87:4	126	173-2	767	11,726	84,944
Total of Madras and Bombay .	1,463	**	126	173.2	1,589	25,626	1,87,678
GRAND TOTAL 1905-06	3,481.5	4+4	126	>	3,607-5	(b) 68,633·5	(c) 4,60,215
", ", 1904-05 .	3,171	.,,	187	68.0	. 3,358	64,926	(d) 4,78,677

⁽a) Includes 571 sq. miles on 2° scale in Darrang.

(5) Area revised, vide Appendix V of Review on Forest Administration in British In

(c) Excludes Hend-quarters charges R41,876.

(d) Includes H10,479 for cost of instruments.

APPENDIX VI.

[Vide paragraphs 6 to 10.]

Details of Forest Survey Operations.

-			NATU	TRE O	SURV	EX Ob:	ERATIO]	NS.	Expeni	DITURE IN	CLUDING	
Рвот	INCB.	Forest Surveyed.	4" Det Surv		T <u>ria</u> ng Tion		TRAVER	SING.		NG AND P		Remarks.
	•		Ares.	Cost rate.	Area.	Cost rate.	Area.	Cost rate.	Forest	Survey of India.	TOTAL.	
			eq. m.	R.	sq. m.	#	. 1. m.	B	æ	æ	R	ą.
Bregal	{	Koderma	****	-14 -44 -41	*** *** ***	*** *** *** ***	404 #47 444 444 444	200 200 040 2-14	473 289 370 2,221 31	153 913	610 409 523 8,134 44	Mapping and pub- lishing charges.
	•	Total .	***	t	. 100				3,384	1,936	4,720	
United Provinces	Western Circle: { Eastern Circle	Tehri-Garhwal . Ganges . Naini Tal . Garhwal .	81	35·1 17·6	101	9-8	64	9-5	3,939 905 16 114 804	- 940 441	3,939 905 16 114 1,069	For Second Edition of Kumaun and Garbwal maps.
		Total .	98	32·0	101	9.3	64	9.5	5,778	265	6,043	
	í	Rawalpindi . Lahore .	.44	} 87-8	{ ::		***	***	1,410		1,991 346	Includes mapping and publishing charges.
Pubjab		Shahpar Bashahr	(a)474 (a)365	} 4-9 } 8-6		***	***	***	2,420 1,369		2,420 1,369	(a) Special boundary Survey.
	į	Jhelum	14.		***			<u> </u>	66	26	92	Drawing charges.
		Total .	, 53 (a) 839	37·8 4·3			***	***	5,510	708	6,218	
North-We Province		Hazara .	25	84-8	***				2,490	1,026	3,516	Includes mapping and publishing charges.
	Southern Circle.	Mandelay . Ruby Mines Yaw Pakokku . Katha . Mu .	68-22 318-0	100 100 100 100 100 100	1,622		857·21 115·0 95·0	000 400 400 400 400	844 526 9,683 27,293 19,450 183	216 54,996 11,246 8,015	1,199 736 64,679 38,538 27,465	Mapping and publishing charges. Mapping and pub
Burma .	Northern Circle.	Myittha Upper Chindwin Lower	392·65		745 94+	4+4 4++	.e	***	35,374	14,573	49,947	lishing charges. (b) For 2° boundary survey.
	Pegu Circle Tenasserim Circle.	Shwebo Thayetmyo Thaungyin Ataran	(6)400	204 204 201	222 223 223	010 101 000 104	241	200	1,566 } 25,081	1	2,214 35,414	Includes mapping and publishing charges.
		- Total .	1,252·21 (b)40·0	126-1	1,622	9-1	1,091-81	40.1	1,19,947	1,00,432	2,20,379	•
Central Provin-	Northern Circle. Southern Circle.	Mandla . Hoshangabad . South Chanda .	***				***	140	1,999 39 113	16 46	2,811 55 159	Mapping and pub- lishing charges.
Crs.	Berar Circle.	Nimar Betul						***	93 245		55 344	נ
		Total .	0.5		 	-	***		2,429	995	8,424	
Easters B Assam.	engal and	Garo Hills Kamrup Nowgong Darrang Sibsagar Chittagong	15 	} 129-6 30-6	(1.9	230	16.8	1,786 204 992 634 54 851	84 2 408 5 22,118 22	2,520 288 1,440 22,752 76 1,201	Incindes mapping and publishing charges. **GOn 2** scale,
		Total .	571	30-5	ļ 	1						

APPENDIX VI-continued.

Details of Forest Survey Operations-continued.

, 				NAT	URE (F SURV	TEY OI	PERATIO	ns.				
p	POVINCE.		Forest Surveyed.	4" De: Sur		Trian Tio	gula- n	TBAVE	esing,	MAPP	DITURE II ING AND I NG CHARG	PUBLISH-	Benaurs.
				Ares,	Cost	Ares.	Cost	Area.	Cost rate.	Forests,	Survey of India.	Total,	
Madras	Northern Circle. Southern Circle. Central Circle,	المراضية	Gaujam Godavari South Canara . North Malabar . Chingleput	eq. m. 288·57 297·18 46·67 147·60 51·76	₹ , }104·0	8q. m. 70 2,15-)	B 33-0 6-0 	l. m. 149 25	£ 28·0	40,895 25,378 1,936	£ 16,858 16,985 687	H 57,748 42,363 2,623	
			Total .	831.78	1040	{ 70 2,150	33·0 (a)6·0	} 174	28.0	68,209	34,525	1,02,734	(a) For 2° topo.
Bombay	Northern Circle. Central Circle.	ì	Thans Satara Khandesh .	*126·0 630·85	173·2 87·4	680	13-2		11.5 2.01	15,885	6,548 18,242	22,431 62,513	*On 8" scale.
			Total .	*126·0 630·85	173·2 87·4		13-2		***	60,156	24,788	84,944	
			Forest Survey Head-quarters.			***			· -	29,655	12,221	41,876	
			GRAND TOTAL, 1905-1:6.	† 4,4 86·34	•••	4,969	100	1,596·31	***	3,02,078	2,00,013	5,02,09 <u>1</u>	14" .2,910 94 sq. m. 2" .571 ", 8" .126 ", Boundary Survey 879 l. m. on 4".
	· .		GHAND TOTAL, 1904-05.	8,508		5,074	16-	2,471	*** ;	3,37,167	1,41,490	5,21,645	Total 4,48634

APPENDIX VII.

[Vide paragraphs 11 and 12.]

Areas brought under the control of sanctioned Working-Plans up to 30th June 1906 in the provinces outside the Madras and Bombay Presidencies.

		Po.	DEEST ABEA, IN	SQUARE MILES	l.	Area for which Work-	Proportion of
Province.		Reserved,	Protected.	Unclassed State.	Total.	ing-Plans propared and sanctioned up to 30th June.	Forest area under sanctioned Working- Plans,
1		2	3	4	δ ,	6	7
						Sq. miles.	Per. cent.
Bengal	-1	4,260	3,423	•••	7,683	5,122	67
United Provinces	-	4,092	30	43	4,165	3,318	80
Puojab	\cdot	2,358	5,168	1,851	9,377	4,145	44
Burma	-	20,544		103,014	123,558	4,074	3
Eastern Bengal and Assam .		6,009	5	23,125	29,139	1,101	4
Central Provinces including Berar		22,126	•••	6	22,132	9,965	45
Coorg		6 05		•••	505	178	35
North-West Frontier	^ .	234		-,,	234	123	53
Ajmer		142		6	. 148	140	95
Baluchistan		264		100	264		
Andamans		156	***	1,795	1,951		
GBAND TOTAL IN 1905-06		60,690	8,626	129,840	199,156	28,166	14
" " " 1904 -0 5	•	60,589	8,405	129,805	198,798	27,318	14

APPENDIX VIII.

[Vide paragraphs 11 and 12.]

Progress in Working-Plans in the provinces outside the Madras and Bombay Presidencies during the year.

Province.	SUBMIT SPECT	MARY PROPOSALS TED TO THE IN- FOR-(FEREAL OF IS FOR WORKING- PLANS,	MITTE AND R SPECI	TED PLANS SUB- ED FOR OPINION EMIRES OF IN- FOR-GENERAL OF FORESTS,	Plans Fivally Sanc- tioned by Local Gov- erments on recom- mendation of the Inspector-General of Forests,			
	No.	Area for which prepared.	No.	Area for which prepared.	No.	Area for which prepared.		
1	2	. 3	4	5	6	7		
	No.	Sq. miles.	No.	Sq. miles.	No.	Sq. miles.		
Bengal	. 2	2,670	3	2,810	•••	•••		
Eastern Circle	. 5	876	ļ			\$44 ·		
United Provinces . \{\text{Western},	. 1	5	1	2	1	2		
Punjab			1	232	1	232		
` Pegu Circle .	• \ \	***	1	21	3	438		
Tenasserim Circle	.)	***						
Burma Northern Circle	. 1	190		***				
Southern ,,			1	248	1	248		
Eastern Bengal and Assam				•••	2	391		
(Northern Circle		•••			1	98		
Central Provinces . Southern ,,		***			,,			
Berar				•••				
Coorg								
North-West Frontier		 •••	1	47	1	47		
Ajmer								
Baluchistan	•	٠,,				***		
Andamans	•			•••				
Total	. 9	3,741	8	3,360	10	1,456		

N.B.—The figures in this Appendix have been obtained from the Conservators.

APPENDIX IX.

[Vide paragraphs 11 and 12.] Comparative statement of progress made in Working-Plans.

								
		AREAR FO WORKING-P BEEN CO AND SAN	LANS HAVE	WOREING	DE WHICH PLANS ARE COMPILED.	Area for which Working-Plans	Total forest area	
	ovince.	At com- mencement of the year,	During the	At com- mencement of the year,	Taken in hand during the year.	have still to be taken in hand,	as in Form No. 51.	Remarks.
-	1	2	8	4	5	6	7	8
								(a) The decrease by 112
		sq. m.	sq. m.	sq. m.	sq. m.	sq. m.	sq. m.	square miles as compared with the figures of 1904-05 is due to the transfer of the Jalpaiguri Division
Bengal .		(a) 5,125		251		2,310	7,883	(182 square miles) from Bengal to Eastern Bengal and Assam and of the
_	(Eastern Circle	(1,460	}		355	341	2,156	Sambalpur Division (70 square miles) from the
United Provinces	}	((∂) ₹	1	***	"	1	1	Central Provinces to Bengal. (b) The decrease by 506
_	(Western "	(1,858	i	78		73	2,009	square miles as compared with the figures given in
Punjab .		(c)4,077	68	367		4,865	9,377	previous year's review is accounted for thus:-
	Pegu Circle .	1,10	438	133	***	23,933	25,606	(i) Transfer of 354 and 21 square miles of the Bahraich and Gonda
_	Tenasserim Circle	1,187		860		29,620	31,667	Divisions from column
Burma .	Northern ,,	. 30		288	298	27,282	27,904	2 to column 4 as the working-plans for these
	"	ļ	[1		areas are under revi-
.	•	1,069	J	(c)773	215	36,082	38,381	(ii) Transfer of 74 square miles in James Divi-
Eastern Bengal as	nd Assam	(d)710	391	1	3	28,034	29,139	sion from column 2 to column 4 of this Appen-
	(Northern Circle	• (4,97)	98	927		2,845	8,847	dix as the Working- Plan bas expired, and
Central Provinces	Southern "	· (e) ₹ 3,28:	<u></u>	642	158	2,798	6,880	is now under revision. (iii) Transfer of 78 square
	Berar "	. [1,606		 		4,797	6,405	miles in Jaunsar Divi- sion from column 2 of
Coorg .		178		١.	,	327	505	Appendix IX of Review for 1904-05 to column 4
North-West Fron	· · · · · ·			43.	***	321		of this Appendix, as the Working-Plan has not
	ner	- 70	47	1111	•••	***	234	yet been completed. (iv) Increase by a square
Ajmer .	• • • •	: 140		***		8	148	mile of the area of the Kheri Division.
Baluchistan	• • • •	•	•••			264	264	(c) The increase by 241 square miles as compared with the
Andamans .			***			1,951	1,951	figures of 1904-05 is due principally to additions to
		ļ.					[the area of forests in Kulu Division. (d) The increase by 118
			<u> </u>					square miles as compared with the figures of the previous year is due to
	Total Bengal	26,876	1,290	4,431	1,029	165,530	199,156	the following causes:— Transfer from Bengal of the Jalpaiguri Division—178
								square miles. Correction of the area of Garo Hills Division which caused a reduction of 1 square mile.
	Northern Circle	1,810		1,202	54	3,761	6,827	Non-completion of the Working-Plan for 14
Madras	. Central ,	2,18	110	1,356	378	3,225	7,250	square miles of forests in Sibsagar Division.
	(Southern "	2,139	l		632	2,737	5,508	(e) The decrease as com-
•			"			,,,,,	,	the previous year is accounted for as follows:— Decrease by 75° square miles due to the transfer
	Total	6,13	110	2,558	1,064	9,723	19,585	to Bengal of the Sambal- pur Division. Decrease by 76 square miles in Balaghat Division, by 9 square miles in North
	•							miles in Raipur: due to
	Northern Circle	1,369		63		677	9100	abandonment of Work- ing-Plans.
	Control	1	1	1	1 "	}	2,109	Decrease by 2 quare miles in Seoni due to correction
Bombay	. ∤	1,549	}	532	25	2,342	5,176	of area. Increase by 1 square mile
	Southern "	1,02	236	252	50	3,389	4,950	in Chhindwara due to cor-
	tSindh "	611		421		39	1,091	(f) Excludes 20 square miles: this discrepancy is not explained in the Report.
	TOTAL	4,545	971	1,268	75	(1)6,447	13,326	

^{*}In Form 55 of the Bengal Report for 1905-06, this area is shown as 70 square miles.

APPENDIX X.

[Vide paragraphs 13 to 15.]

Expenditure on Communications and Buildings.

Province.	New 7	Voru.	Rep	LIBS.	Other	Total.
TRAATURE	Baildings.	Roads.	Buildings.	Roads.	works.	IOIAM.
	11	R	£	R	R	R.
Bengal	13,559	28,415	9,461	11,654	6,060	69,149
United Provinces	85,312	11,948	22,641	41,617	10,098	1,71,616
Punjab	. 16,873	14,726	11,693	5,108	971	49,371
Burma	61,148	21,324	33,755	9,700	6,606	1,32,533
Eastern Bengal and Assam .	16,754	9,277	13,925	11,002	2,881	53,839
Central Provinces including Berar	33,828	17,867	20,370	13,497	14,781	1,00,343
Coorg	3,278	787	519	1,398	141	6,123
North-West Frontier	807	2,060	1,432	808	49	5,156
Ajmer	. 312	99	42	18	153	624
Baluchistan	. 16	444	•••	33	***	49
Andamans	808	1,439	562	7,545	***	10,354
Total Bengal	. 2,32,695	1,07,942	1,14,400	1,02,380	41,740	5,99,157
Total Madras.	58,296	18,599	30,238	29,258	8,407	1,44,798
Total Bombay	65,545	24,804	8,341	9,433	14,688	1,22,811
GRAND TOTAL, 1905-06	3,56,536	1,51,345	1,52,979	1,41,071	64,835	8,66,766
GBAND TOTAL, 1904-05	2,89,760	1,67,245	1,25,557	1,19,129	64,959	7,66,650

APPENDIX XI.

[Vide paragraphs 16 and 17.] Breaches of Forest Rules.

Provi	Nob.		Number of cases decided by the Courts.	Number of cases compounded.	Total.	Proportion of convictions to total number of cases decided by the Courts.
Bengal		•	259	2,466	2,725	91.2
United Provinces .		•	103	838	941	88.3
Punjab		•	828	4,012	4,840	81.6
Burma	•	•	1,190	2,180	3,37 0	85*5
Eastern Bengal and As	sam	•	197	485	682	83.8
Central Provinces inclu	ding Berar .	•	348	5,227	5,575	84.4
Coorg			8	 8 9	47	50.0
North-West Frontier	• • •	•	44	618	662	88.6:
Ajmer	• •	•	26	537	563	100.0
Baluchistan		•	91	150	241	68·1
Andamans	• •	•	1	1	1	•••
	Total Bengal	•	3,095	16,553	19,647	82-2
	Total Madras	•	6,126	13,288	19,414	89.2
	Total Bombay	• ;	1,939	16,723	18,662	86.7
	\(\)1905-06		11,160	46,564	57,723	88.3
	1904-05	•	10,209	43,842	54,051	89.0
*GEAND TOTAL	1903-04	•	10,928	40,709	51,637	88.4
	1902-03		11,022	36,890	47,912	86.9

^{*}Includes cases which were pending at the close of the previous year.

APPENDIX XII.

[Vide paragraphs 18 and 17.] Breaches of Forest Rules.

	CART	e taken	гито Со	URT.	Co	MEGNIDA	D CASES.		Cabes in Bem	MHICH WHICH	THE OFF	D.	7	OTAL OP	each c	LASS OF	
Province.	injury to fire-protected forests by fixe.	Unauthorised felling or appropriation of wood and minor forest produce,	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Injury to fire-protected forests by	Unauthorised folling or appropria- tion of wood and minor forest produce.	Onzing without permission in tract- in which grazing is prohibited.	Othor offences.	Injury to fire-protected forests by fire.	Unauthorised felling or appropria- tion of wood and miner forest produce.	Grazing without permission in tracis in which grazing is probibited.	Other offences.	Injury to fire-protected forests by fire.	Unauthorised folling or appropria- tion of wood and infaor forest produce.	Grezing without permission in tracts in which grazing is prohibited.	Other office.	GRAND TOTAL OF GASES.
Bengal	38	131	20	92	4	1,791	729	87	89	14			131	1,939	749	179	2,998
United Provinces	13	35	37	17	19	543	227	52	62	48	, 1	•••	, 91	626	265	69	1,051
Panjab	30	498	216	78	14	2,193	1,773	32	126	27	3	4	170	2,718	1,992	114	4,991
Burma	31	986	49	188	35	1,419	54	897	48	14		1	114	2,419	103	1,686	3,722
Eastern Bengal and Assam .	1	136	9	42	1	266	92	132	10	,.,		1	12	402	101	175	690,
Central Provinces including Bergy.	60	171	70	69	115	2, 830	1,976	191	340	118	211	***	515	3,119	2,016	260	5,940
Coorg	1		e=+	3)31	1	14	14				•••	1	1	14	17	33
North-West Frontier		29	9	1	2	331	276	9	18	18	4	***	25	378	289	10	702
Ajmer :		26	•••	***	***	439	97	1	3	.,,		***	3	\$65	97	1	566
Bolachistan		53	17	7	100	4	146	***		1				58	163	7	228
Andamens		1			***			.;;		ļ <u></u>				1		111	1
Total Bengal	179	2,069	427	497	190	9,817	5,384	1,415	696	240	8	6	1,065	12,126	5,819	1,918	20,928
" Madras	73	4,083	1,880	472	21	8,915	5,474	676	562	456	358	51	656	13,454	7,712	1,199	23,021
Bombay	169	712	951	220	226	5,338	9,853	1,314	2,201	2,281	306	120	2,599	8,331	11,113	1,654	23,697
GRAND TOTAL 1905-08 .	421	6,961	3,261	1,189	437	21,070	20,711	3,405	3,462	2,977	672	177	4,320	33,911	21,641	4,771	67,646
,, ,, 1904-05 ,	313	6,431	2,933	1,104	348	23,251	18,950	3,098	3,337	3,186	427	157	3,998	32,868	22,310	4,359	63,535
,, ,, 1903-04 .	426	5,816	3,589	1,116	471	21,675	17,227	2,759	4,080	2,785	414	131	4,977	130,276	21,230	4,006	60,489
,, ,, 1902-03	456	5,772	3,518	1,186	- 343	20,921	14,993	2,282	3,378	2,574	428	140	4,127	29,270	18,539	2,608	55,911

^{*} Includes only the new cases of the year; not those which were left pending at the close of the previous year.
† See Review for 1904-05.

APPENDIX XIII.

[Vide paragraphs 18 to 20.]

Causes of Forest Fires.

	l.—Fr	BE DUE TO	D PREVE	ntible		. ΙΙ Ο τ	neb Pires.			•
Province.	in depa	iginating rimental servancy tions.	fire en	ernal ressing fire cas.	Fires é esrolessi outsid	ness of	from in	ginating tention alice.	T	ota <u>u</u> .
	No.	Sq. m.	No,	8q. m.	No.	Sq. w.	No.	Sq. m.	No.	Sq. m.
Bengal	6	2	15	27	. 24	24	4	14	49	67
(Eastern Circle	7	8	10	7	35	72	3	1	55	88
United Provinces . \{\text{Western ,}	10	.8	5	31	23	13	- 5	4	43	56
Total United Provinces .	17	16	15	38	58	85	8	5	98	144
Punjab	4	1	21	2	114	23	43	17	182	43
Pegu Circle .	35	82	26	26	50	28	24	136	135	272
Tenasserim ,	6	3	29	85	(a) 30	70	23	21	88	179
Burms , Northern ,,	14	2.	13	180	9	26	5	2	41	210
Southern ,	6	10	11	. 3	4.8	125	20	33	85	17
Total Burma	61	97	79	294	137	249	72	192	349	832
Eastern Bengal and Assam	1		5	2	7	3	3	[16	(b) 5
Northern Circle	32	9	35	52	52	36	(c) 45	(c) 93	1.64	196
Central Provinces Southern ,	14	2	25	43	49	129	(d) 48	(d) 83	136	257
Berar ,, .	18	54	20	28	36	31	(e) \$8	(e) 37	112	15C
Total Central Provinces .	64	65	80	123	137	196	131	218	412	597
Coorg	1	-1	2	-5	1	•1	4	-6	8	1:3
North-West Frontier			100	•••	19		5.		24	•
Ajmer			***	٠	3	. 2	[***	, ***	3	
Grand Total, Bengal'	154	181	217	486 <u>1</u>	500	582	270	4413	1141	1,691
(Northern Circle	54	23	44	47	316	275	58	76	472	4 31
Madras Central ,	. 4	2	33	16	155	95	189	73	381	186
Southern ,	15	5	35	9	174	79	87	55	811	148
Total Madras	73	30	113	72	645	449	334	204	1164	755
Northern Circle	40	2	64	11	636	161	•••		7i0	174
Central ,,	25	2	13	50	231	22	(f)406	(<i>f</i>) 536	675	610
Bombay Southern ,,	4	2	44	4	201	56	, 877	205	1126	267
(Sindh "	1	•05	8	16	37	1.6	•••	•••	46	1.81
Total Bombay	70	6	129	65	1105	240	1283	741	2587	1,052
GRAND TOTAL .	297	217	458	6233	2250	1,271	1887	1,3861	4892	3,498
GRAND TOTAL { 1904-05 .	216	1481	424	4543	3120	1,6491	488	2321	4218	2,485

APPENDIX XIV.

[Vide-paragraph 21.] Protection from Cattle.

		Reses	ved Fo	rests.	PROTE	CTED FO	BESTS.	Unclas	sed Fol	RESTS.		CLASSES FORESTS.	
Province.	-	Total areas.*	Area closed to all ani- mals.f	Area closed to brow- sers only.	Total areas.	Area closed to all animals.	Area closed to browsers enly.	Total areas.	Area closed to all animals.	Area closed to brow- sers only.	Total areas.	Area closed to all animals,	Area elosed to brow- eers only.
		Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	§q. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.
Bengal		4,260	3,606	86	8,423	1,752	393	>**		,	7,683	5,358	479
United Provinces		4,092	2,082	527	30		30	43	1	30	4,165	2,083	587
Punjab	•	2,357	571	538	5,168	53	74	1,851	12	141	9,876	636	753
Burma		20,545	16,653	62	***	,	***	103,014	·		128,559	16,658	62
Eastern Bengal and Assam		6,009	4,546	1,093	5		***	23,125	***		<u>49,139</u>	4,516	1,093
Central Provinces including Berar.		22,126	4,817	7,792	***		•••	6		46.	22,132	4,847	7,792
Coorg		505	162			***	***		 ·	***	505	162	
North-West Frontier		234	72	94		694			484		234	72	94
Ajmer	•	142	10	142			***	6	***		148	10	142
Baluchistan		264	168							***	264	168	647
Andsmans	•	156	156	,		100		1,795	40.1	•••	1,951	156	J
Total Bengal		60,690	32,878	10,334	8,626	1,805	497	129,840	13	171	199,156	34,696	11,002
,, Madras		18,288	1,503	315				1,297		***	19,585	1,503	315
,, Bombay		13,518	2,549	4,897	1,392		25				14,910	2,549	4,923
GRAND TOTAL .		92,496	36,930	15,546	10,018	1,805	522	131,137	13	171	233,651	38,743	16,239
GRAND TOTAL . [1904-05		92,182	35,978	18,631	9,435	1,803	554	131,324	22	171	232,941	37,803	19,356

^{*} Total areas as shown in Appendix II.
† For the whole year. Areas closed for a part of the year omitted.

APPENDIX XV.

[Vide paragraph 21.]

Protection from Cattle.

		GRAZED ON PATMENT, NUMBER OF ANIMALS,							IALS,				GR	AZED F	REE,	NUME	er of	an in a	.S.		
			ÅT PU	LL BATES,				ÅT PRIVILI	esed ra	res.		By 2	iget vsd	de Selli	en en			Pleasur Therwis Setti		UMDI	
Province.	Cirole,	Buffaloes.	Cows and Bullocks.	Goats and Sheep. !	Camels.	Other animale.	Baffaloes.	Cows and Ballacks.	Gonts and Shoop.	Camels.	Other animals.	Dr ffaloss.	Cows and Bullooks.	Goals and Sheap.	Camels.	Other autmals.	Buff aloes,	Cows and Bullocks.	Goats and Bheep.	Camels.	Other animals.
Dengal .	400	5,802	3 2 ,(55	5,153		18	10,015	155,086	12,513		515	21,0:0 [63,000	21,000			20	230	137		1
United Pro- vinces.	Eastern Western	32,880 32,187	123,251 68,783	9,595	i	916 6,712	20,700 2,549	129,071 17,357	41,043 31,607		687 1,519	14,311 8,774	59,140 70,400	1,759 42,458		584 33	15,350 299	63,003 5,860	872 580	60	97 15
Total .		65,067	192,034	35,135	3,738	7,658	32,249	146,428	95,650		2,206	23,085	129,540	44,217	***	617	15,629	68,853	1,452	60	112
Punjab .	Pegu Tepasserim	21,373 1,138 72	53,270 974 65	377,282 '	4,797 	1,951	416 	4,671	231,603	178 	286	145,272 17,686	646,200 33,861	49	282	12,878 1		269 	27	4,359	95
Burma .	Northern Southern	7 39	 529	 		 13			tes tre tre		740	22,518 14,083 656	570 276 85,876	 	***	 	 1,527 1,712	 668	441	***	 321 677
Total ,	e+1	1,256	1,568		<u>"</u>	71	 					54,943	120,583	97		15	3,239	668			998
Esstern Bengal and Assam.	•••	36,123	7,357	40		693		56,112			•••		60,	***	 .>		67,936	378,598	72,377	 	543
Central Pro- vinces,		20,528 204,285 208,920	176,018 998,735 963,535	70,149 65,600 608,732	2	3,301	54,685 31,188 17,791	436,008 140,673 165,015	90,625 19,085 7,876	 	630 813 401	 16	 103,355	***	***		234 5,052	1,940 21,27 5 17,313	4 565 685	124	 51
Total .	,	433,733	2,138,288	744,481	196	9,022	103,664	741,696	117,587		1,844	16	103,355				5,286	40,527	1,254		 51
Goorg . North-West Frontier.	444	539 1,730 572	2,627 2,168 3,721	26	***	 25	859 2,231	 10,811	844 420 244		lag Red	 370	1, 5 76 740	<i>"</i>	***		1,245	30 6,611		644	387
Beluchistan		189	4,414	2,079		56			***		*** ***	***	751	16,652	1	22A	3,639	16,439 300	992	141 377	***
Total Bengal.	1905-06	566,384 555,695	2,437,502 2,579,434		1	19,497 32,283	''	1,114,804 906,904	457,354 502,823	178 96	' '		1,065,905 1,015,996			13,734 10,959	97,027 78,874	512,535 42 7,424	,	4 ,419 723	-,
Madras .	Northern Central Southern	80,235 32,826 30,620	484,852 759,497 3 14 ,855	682,914 790,519 161,374		 996	9,362 74	74,392 721 2,299	8,210 1,200 117	***	3 3 3	11)	2,685 1,900		***	***	25 679 	1,863 2,947 	 35 	695 146 925	200 200
Total ,	(1905-06 . 1904-05 .	143,681 143,272	1,589,204 1,597,601	. ' '	'	996 385	9,436 7,495	77,412 53,199	9,557 10,895	: :	***	2,251	4,585 4,585				705 925	4,810 8,115	35 45	•	
Bombay .	(Northern Central Southern Usladh	553 2,873 *6,519 11,367	2,474 24,768 10,384	 136,074 2,105 70,815	***	1 1	*490,645	12,436 349,953 1,155	 132,885 6,465 1,855	 1 77	 4,063 31 74	 2,912	 10,252	 91	 2	112	48,243 2,363 721	291,406 28,663 1,874	 2,692	 1,131	2,306 100 2,653
Total .	{1905-96 . {1904-05 .	21,312 24,368	37,626 35,857	208,994 211,658		'' <u> </u>	502,021 554,975	363,584 321,651	141,205 80,827	78 209	4,198 941	2,942 2,935			2	1	51,330 48,976	•	• •		5,059 12,595
GRLFD TOTAL.	{1905-06 . {1904-05 ,	731,377 723,245	4,064,332 4,212,892	3,010,997 2,792,518	1		660,991 673,365	1,555,800 1,281,754	608,116 594,545	256 405	8,999 4,830	247,628 247,573			l	13,846 11,072		1,			6,859 14,416

[·] Includes cows and bullocks,

APPENDIX XVI.

(Vide paragraphs 25 to 27.)

Area of Plantations and the cost of the year's work.

1						AREA 1	IN ACRI	 ES.	`		,		
Province.		MENCEM BE YDAE		Adde	DURING YEAR,	3 THE		UDED DO			E AT CLO	. 1	Cost of opera- tions during
	Regular Planta- tions.	Taung- yas.	Total	Regular Planta- tions.	Taung- yas.	Total.	Regular Planta- tions.	Taung- yas.	Total.	Regular Planta- tions.	Taung- yas.	Total.	the year.
		,							_				· B
Bengal	960	***	960	255	.,.	255	2]	2	1,213	444	1,218	1,726
United Provinces	3,427		3,427	172		172	80		80	3,519	44"	3,519	25
Punjab	977	***	977	434		165 .	470		470	507	· }	507	26
Burma	6,166	68,438	74,604	213	2,255	2,468	550	138	688	5,829	70,555	76,384	,4 0, 820
Eastern Bengal and Assam .	- 3,849	7	3,856	51		51	25		25	3,875	7	3,882	7,132
Central Provinces including Berar.	352	541	352	597	984	597	446		. 446	503	***	£03	312
Coorg	2,062	957	3,019		110	110	***	,	100	2,062	1,067	3,129	3,396
North-West Frontier	447	464	·•••	,	٠		 ,		**				
Ajmer	94	540	94	2		2	 .		٠,,	96		96	1,018
Baluchistan	33	484	33	3		3		794		36	***	36	201
Andamans	116	177	293	**	200	200	***			116	377	493	3,150
Total Bengal .	18,036	69,579	87,615	1,293	2,565	3,858	1,573	133	1,711	17,756	72,006	89,762	1,59,606
Madras	24,9571	746	25,703	969	25	994	609		609	25,317	1 770	26,087	70,255
Bombay , . ,	15,106	***	15,106	9,325		9,325	3,752	***	3,752	20,6		20,679	10,745
GRAND TOTAL (1905-06 .	58,099	70,325	128,424	11,587	2,590	14,177	5,934	138	6,072	63,752	72,776	136,528	2,40,606
(1904-05 .	69,850	67,692	187,542	5,768	3,050	8,818	2,501	105	2,606	73,117	70,637	143,754	1,85,892

Excludes R960 spent on up-keep.
† The figures for 1905-06 are exclusive of topes which were included in the area of plantations shown in 1904-05.

APPENDIX XVII.

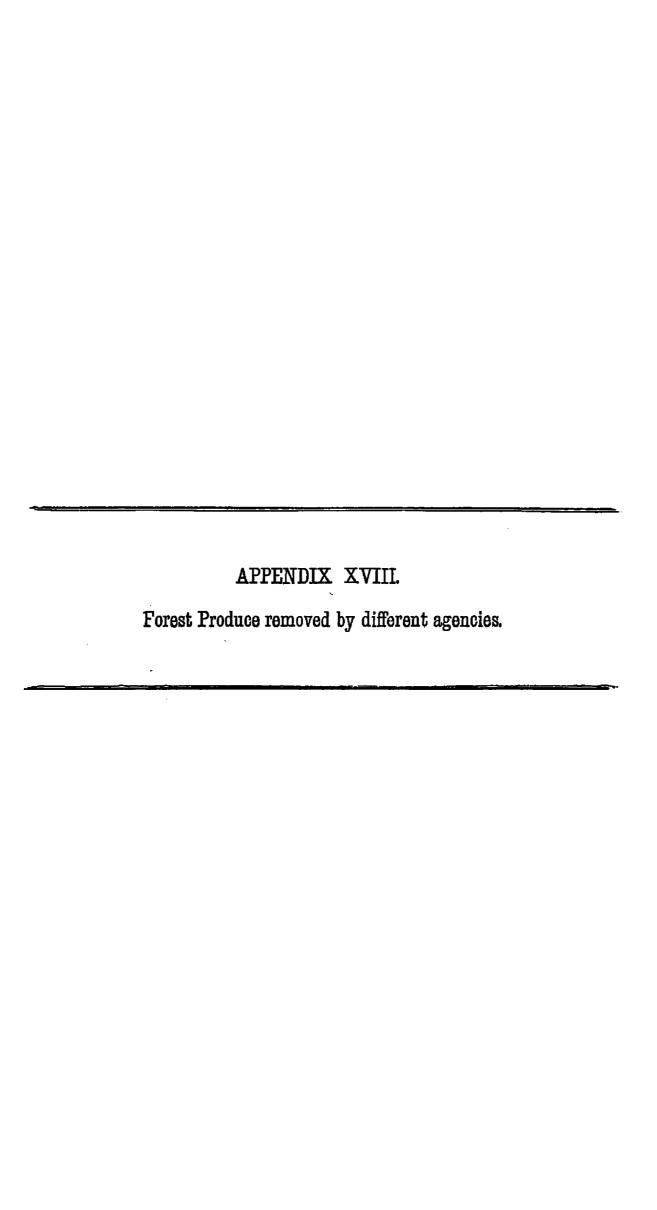
[Vide paragraphs 37 and 38.] Outturn of Forest Produce.

I

	-		NAME OF THE PARTY					•		ΑVI	ERAGI	QO S	TTUR	n pei	. 9Q	VARE	MILE	Ğ.
	Rrs	eved Fore	igis.	Prote	icted Fob	ests.	<u>n</u> ect	esed Fores	76.		Berved Rieto.	•		TECTEI Bebis.	,		LASSE Prets	
Province.	Timber and Fael.	Вашьосн	Minor Produce.	Timber and Fael.	Вашьооя.	Minor Produce.	Timber and Fuel.	Hamboos.	Minox Produce.	Timber and Fael.	Bamboos.	Minor Produce.	Timbor and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboog.	
	C. IL.	No.	B.	C. ft.	No.	æ	C. ft.	No.	£.	C.ft.	Ng,	R	C. ft.	No.	æ	O.ft.	No.	
ga)	17,839,822	6,495,801	1,62,488	16,269,706	4,507,131	1,37,475	11,709	445		4,188	1,525	38	4,753	1,317	40		***	l,
ed Provinces	, ·	13,943,077	3,88,696	381,290	24,529	3,187	175,755	22,450	2,532	3,945	3,407	95	12,710	817	106	3,087	522	3
isb .' .	13,686,972	87,712	2,56,832	21,998,367	117,726	2,41,311	2,245,803	101,768	47,849	5,807	37	109	4,257	23	47	1,213	55	į
	9,049,070	15,197,000	1,59,860	1137	***	***	35,975,717	56,361,000	2,08,560	369	6 21	6		-44	114	319	586	į
eru Bengal aud	4,799,736	11,239,081	1,52,516	•••	•••		10,500,980	33,269,204	5,08,155	799	1,870	25			****	9 55	1,006	
tral Provinces includ- g Berar.	23,081,062	21,931,511	12,68,642			. ***	un ,	***	9	1,043	909	57		***	\$93		411	
rg	219,190	172,820	16,180	450	1,500	•••	161,420	26,600	***	431	312	32		. 3		320	53	1
th-West Frontier .	1,613,538		19,847	***	***	•••	"	L. .		6,895		85	•••	***	449	***	·	-
197	510,196	4,551	18,488	***		211		***	***	3,593	32	130	***	444		***	***	
echistan	48,069	147	12,125			***	359,480		354	182	***	46	•••	***		***		
amans	397,819	177,960	1,052	. 101	***		1,291,143	613,945	9,216	2,250	1,141	7	.	···	**	8,277	3,936	
al Bengal, 1905-06 .	90,389,850	69,249,513	24,58,726	38,649,810	4,650,886	3,82,181	50,722,067	90,397,967	7,76,676	29,505	9,884	630	21,720	2,160	193	14,701	6,158	В
al Bengal, 1904-05	83,996,525	65,950,422	21,79,178	36,820,998	4,404,059	3,81,659	61,756,296	100,277,081	7,84,785	27,739	9,762	634	22 ₁ 017	1,510	197	6,242	4,905	5

II

				,	Total area under control	Timber		Minor		AGE OVITUR QUARE MILI	
	Presi	DRRCX	•	`	of . Forest Department,	and Fuel,	Hamboos.	produce.	Timber and Fuel.	Bamboos,	Minor produce,
	•				' Sq. m.	C. ft.	No.	B	C. ft.	No.	Æ
Bengal		•	•		199,156	179,761,727	164,298,466	36,15,587	65,926	18,202	991
Madras	•	•			19,585	22,514,748	32,054,025	14,01,348	1,149	1,637	72
Pomber	•	•	•		14,910	44,058,365	13,821,289	4,95,884	2,955	927	83
a	1·		05-06		233,651	246,334,840	210,173,780	55,12,819	1,054	916	24
Grand I	OTA:		04-05		232,941	251,568,276	215,261,179	58,16,926	1,080	924	25



APPENDIX

[Vide]

Forest Produce removed

		Tim	BER.			For	il.	
Province.	Removed by Govern- ment.	Bemoved by Pur- chasers.	Removed by Free- Grantees.	Bemoved by Right- holders.	Removed by Govern- ment.	Removed by Pur- chasers.	Removed by Free- Grantees.	Removed by Right- holders.
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Bengal	89,921	5,686,302	18,709	175,000	246,604	14,492,552	27,192	13,384,957
United Provinces	211,076	4,191,585	82,700	588,887	548,512	7,507,372	283,152	3,288,137
Punjab	1,146,085	5,218,836	101,208	3,280,886	3,250,267	1,335,528	85,431	23,512,911
Burma	4,689,303	22,219,639	527,887	572,729	192,899	15,531,316	61,528	1,199,481
Eastern Bengal and Assam	494,563	4,660,562	500,611	5,800	27,043	4,517,290	4,083,097	1,011,750
Central Provinces including Berar.	687,597	9,611,055	78,722	61,657	586,598	14,767,850	1,647,117	1,640,466
Coorg	105,710	186,170	1,110	•••	18,500	69,570	***	
North-West Frontier	211,989	918,049	440	***	165,846	7241,538	8,136	34,930
Ajmer	13	4,907	***	463	240	502,369	2,204	.,
Baluchistan	- 280	3,819	12,904	•1•	24,375	365,153	1,018	* ****
Andamans	606,198	31,370	29,745	***	605,450	, 444	237,920	
(1905-06	8,275,740	46,765,281	1,353,596	4,685,422	5,666,334	55,330,538	6,436,795	44,072,682
Total Bengal . {	8,245,258	45,650,694	1,794,088	2,626,395	7,730,868	64,610,364	6,846,069	44,741,729
Madras	536,208	1,785,532	95,877	97,715	10,429,234	9,309,215	3,406	257,561
Bombay	1,484,362	2,285,501	309,479		4,100,378	23,367,369	13,157	12,498,119
GBAND TOTAL { 1905-06	10,296,310	50,836,317	1,758,952	4,783,137	20,195,946	88,007.122	6,453,358	56,828,362
GRAND TOTAL (1904-05	9,997,565	51,218,529	1,992,663	2,765,747	22,817,791	106,996,526	6,855,632	48,923,823

XVIII.

paragraph 34.]

by different agencies.

	Bame			Minor]	Produce in Gran	CLUDING GR ING.	ASS AND	
Removed by Govern- ment.	Removed by Pur- chasers.	Removed by Free- Grantees.	Removed by Right- holders.	Removed by Govern- ment.	Removed by Pur- chasers.	Removed by Free- Grantees	Removed by Right- holders,	PROVINCE.
No.	No.	No.	No.	R	R	R.	R	
485,940	6,486,066	30,476	4,000,450	2,486	1,83,530	906	1,13,041	Bengal.
167,814	13,605,836	446	216,406	80,308	- 2,45,428	12,005	56,774	United Provinces.
13,537	293,669	***	epd	3,740	1,69,337	1,129	3,71,786	Punjab.
50,000	67,078,000	39,000	4,394,000	17,479	2,19,868	11,324	1,19,749	Burma.
15,485	40,538,177	2,084,373	1,870,400	67,575	2,30,817	3,4 5, 23 7	14,043	Eastern Bengal and Assam.
146,205	20,845,600	330,706	609,000	12,957	11,96.414	19,892	89,388	Central Provinces including Berr
***	192,420	8,500	•••	*** ,	16,157	23	***	Coorg.
***	101	•••	•••	480	. 11,620	7,024	723	North-West Frontier.
194	4,357	***	•••	1,461	5,207	9,526	7,020	Ajmer.
***	\$43	. 684	419	26	1,656	906	9,891	Baluchistan.
•374,905	20,400	396,600	ent	7,084	, 191	2,529	, 100	Andamans.
1,254,030	149,061,525	2,889,655	11,090,256	1,93,496	22,80,225	4,13,501	7,32,415	1905-06
960,359	151,636,335	4,141,920	10,474,500	1,61,594	20,45,299	4,13,578	7,28,069	1904-05 Total Bengal.
2,574,515	29,208,397	240,024	22,080	55,877	13,03,891	559	41,024	Madras.
9,178	7,033,707	98,004	6,680,400	2,35,728	5,90,778	23,007	1,36,371	Bombay.
3,837,723	185,306,629	3,236,683	17,792,745	4,85,101	41,74,894	4,37,067	9,0 9,810	1905-06 } GBAND TOTAL
1,639,150	196,705,592	4,420,082	12,496,355	2,57,165	37,52,518	4,35,105	13,82,138	1904-05 SEARD TOTAL

^{*}Includes 364,905, removed by District Officers.

APPENDIX XIX.

[Vide paragraphs 39 to 41.]

Comparative Statement of Revenue and Expenditure.

		Rever	IVE.	Subp	Lus.	Der	icit.	Propertion	Det revenu
Profince.		1905-06,	Average for preceding 5 years.	1906-06.	Average for preceding 5 years.	1905-08.	Average for preceding 5 years.	of Surplus to Gress Revenue.	mile of lam under contro of Forest Department
		R			B	. R	R	Per cent.	R
mperial		7,255	4,166	•••	***	76,512	79,942		••• ,
Bengal		11,18,542	12,02,924	b,29,669	5,51,373			47:3	69
United Provinces		24,33,428	19,96,812	10,28,246	9,04,972	110		42:3	247
Punjab	•	17,81,653	15,95,410	5,17,990	6,04,501		,.,	29.1	5.5
Burma		1,03,29,869	75,81,125	63,91,598	45,80,992	105		61.9	5
Eastern Bengal and Assam		11,06,097	6,26,819	5,12,186	2,40,074	***	***	46'3	11
Central Provinces and Berar	•	24,49,131	15,54,941	11,41,978	4,63,002	***	182	46-6	5
Coorg	•	2,45,419	1,83,137	1,49,671	99,400	***		61-0	29
North-West Frontier .		1,28,529	76,740	33,271	20,860		1,299	25-9	14:
Ajmer . ,	•	15,002	11,686	, ***	331	2,129	, 4:927	***	Pot
Baluchistan		21,481	18,384	,***	***	4,262	6,284		•••
Andamans	٠	5,82,511	3,84,800	2,46,526	1,37,789		***	42.3	126
Porest School	•	3,080	3,418	144	104	77,589	63,508		. •••
Forest Surveys		***	853		694	30,044	31,921		14d
Total Bengal	•	2,02,22,000	1,53,77,115	1,03,56,172	69,35,112	***	• • •	51.2	5
fadras	•	29,67,609	25,96,872	7,01.000	7,97,359	144		23.6	3
Sombay	•	34,84,993	26,88,502	13,58,900	7,91,614	***	-60	39 0	5
1905-06		2,66,74,593	2,06,62 489	1,24,16,072	85,24,085	•••	519	46.5	5
1904-05	•	2,40,29,950	1,96,58,421	1,10,62,192	83,88,934	•••	•••	46.0	4

APPENDIX XX.

[Vide paragraphs 39 to 41].

Estimated value of Forest Produce given away free or at reduced rates.

Province:	Timber.	Fuel.	Bamboos.	Minor produce.	Grass and Grazing.	TOTAL.
,	R	n.	æ	æ	B .	æ
Bengal	9,995	51,344	5,282	49,348	65,341	1,81,810
United Provinces	76,617	61,441	942	7,318	1,04,111	`2,50,429
Punjab	1,11,921	2,51,065	•••	49,524	3,23,391	7,35,901
Burma	1,01,269	20,607	17,624	10,427	1,18,198	2,68,125
Eastern Bengal and Assam .	31,967	63,961	9,465	2,02,640	1,59,640	4,67,673
Central Provinces including Berar.	(a) 15,368	(a)76,732	(a)11,363	(a)20,784	(a) 38,435	(a)1,62,682
Coorg	151	***	29	23	426	629
North-West Frontier		43,116	•••	7,747	7,650	58,518
Ajmer	42	•••	•••	16	19,923	19,981
Baluchistan	2,195	16	•••	906	10,025	18,142
Andamans	3,264	6,638	951	2,999	•••	13,846
Total Bengal .	3,52,789	5,74,920	45,656	3,51,726	8,47,140	21,72,231
Madras	49,460	5,003	2,149	89,111	3,496	99,219
Bombay	19,221	1,88,790	32,090	1,19,083	8,65,489	12,24,623
GRAND TOTAL {	4,21,470	7,68,713	79,895	5,09,870	17,16,125	34,96,073
GRAND TOTAL 2 1904-05 .	3,92,364	7,57,149	81,908	4,95,513	17,73,727	85,00,661

⁽a) There figures are merely an estimate. They include an estimate of the value of general forest concessions in Berar, but not as regards the Northern and Southern Circles. Excluding the estimated value of the Berar concessions, the figures would be as follows:

4,219 6,919 1,848 8,004 11,827 32,817.

APPENDIX XXI.

[Vide paragraphs 39 to 41.]

Details of Revenue and Expenditure.

		R
1	(a) Wood	2,05,17,696
- 1	(b) Minor forest produce	19,77,327
S 7 /	(c) Forest stamps and commutation fees for forest produce	8,17,960
Gross Receipts	(d) Grazing	20,86,409
. [(e) Revenue from forests not managed by Government	4,71,140
1	(f) Miscellaneous	8,04,061
	Total Revenue	2,66,74,593
	(i) Superior Staff	23,23,653
	(ii) Exchange Compensation Allowance.	84,248
-	(iii) Subordinate Staff (including Rangers, tion. Foresters and Guards).	21,12,654
	(iv) Office Establishments (including Contingen- cies).	10,41,514
	/ (1) Extraction	44,34,528
	(2) Roads and Buildings .	8,63,004
	Recurring . (3) Fire-protection .	5,77,787
	(4) Cultural operations	5,18,295
:	(b) Working . (5) Live-stock, stores and plant.	5,08,153
	(6) Working-Plans	86,741
Expenditure . ((7) Rent for leased forests .	8,57,939
•	(S) Miscellaneous	2,08,980
	(c) Expenditure on realization of revenue from forests not managed by Government.	21,363
	(d) Forest Science and Education (including all	80,669
	Total	1,37,19,523
	(c) Forest Settlement	79,366
	$\left\{\begin{array}{c} \mathbf{B} \\ \mathbf{Extraordinary} \end{array}\right\} (f) \text{ Forest Surveys} \qquad . \qquad . \qquad .$	3,26,091
	(g) Forests Demarcation	1,33,536
	Total .	5,38,993
`	GRAND TOTAL EXPENDITURE	1,42,58,521
	Net Revenue	1,24,16,072

APPENDIX XXII. Summary of Revenue and Expenditure of the Forest Department in India for the financial year 1905-06.

APPEN

[Fide paragraphs

Summary of Revenue and Expenditure of the

						, un <u>n</u>				,
Budget Heads.	Imperial.	Bengal.	United Provinces.	Punjab,	Burma (Lower.)	Burma (Upper.)	Eastern Bengal and Assam.	Central Provinces including Berar.	Coorg.	North- West Frontier Province.
						,			!	
revenue.							,			
I.—Timber and other produce removed from the forests by Government agency.	3,011	96,837	4,48,013	12,22,268	43,42,285	10,65,876	2,43,660	3,60,676	1,86,167	58,175
II.—Timber and other produce removed from the forests by consumers or purchasers.	4,244	9,62,907	18,82,249	4,45,326	14,66,198	26,40,995	6,64,542	20,15,482	42,619	64,186
III.—Drift and waif wood and confiscated forest produce.	***	6,767	19,951	75,167	2,97,900	46,128	25,835	1,582	tes	. 12
IV.—Revenue from forests not managed by Government.		494	13,039	8,478	3,32,233	440	96,356	130	***	~ •
VMiscellaneous		52,031	70,176	85,419	83,690	55,164 ·	75,708	71,261	16,633	6,156
TOTAL REVENUE	7,255	11,18,542	24,33,428	17,81,653	65,21,706	38,08,163	11,06,096	24,49,131	2,45,419	1,28,529
*				İ						- {
EXPENDITURE.		•			,				.	
A.—CONSERVANCY AND WORKS. I.—Timber and other produce removed from the forests by		60,038	2 ,44,46 7	3,94,333	11,49,108	3,89,0 20 ,	1,47,563	1,13,865	14,443	31,360
Government agency. II.—Timber and other produce removed from the forests by consumers or purchasers.	,,,+	89,462	37,988	1,292	30,344	23,652	11,787	1,19,733	***	100
III.—Drift and waif wood and con- fiscated forest produce,		2,826	6,890	14,565	104,591	80,206	969	12	***	·
IV.—Revenue from forests not managed by Government.		146	3,827	84	2,295	o et1	14,850	***	h+E	·
V.—Rent of leased forests and payments to shareholders in forests managed by Govern- ment.	100	94 9	9,58,426	4,13,312		442	24,984	•4•	***	15,850
VI.—Live-stock, stores, tools and plant.	5 25 4	7,824	23,867	5,576	66,459	40,875	24,960	33,624	10,927	449
VII.—Communications and buildings		79,456	1,66,790	. 48,363	65,759	73,102	45,391	1,02,021	8,631	5, 705
VIII —Demarcation, improvement, and extension of forests.	134	45,391	1,10,730	44,687	8,69,140	2,83,710	67,416	1,44,795	11,823	10,900
IX.—Miscellaneous	353	4,116	7,897	4,086	19,888	11,336	4,614	16,112	872	817
Total A.—Conservancy and Works .	487	2,89,111	9,60,877	9,26,228	18,01,584	8,60,901	3,42,534	5,30,162	41,202	65,181
,									<u>`</u>	
		i			ļ				.[
B.—Establishments.			.							İ
L—Salaries	65,637	2,47,385	3,56,866	2,65,942	5,41,307	5,16,872	2,03,448	6,57,952	47,176	24,496
IL—Travelling allowances	13,083	43,065	55,825	47,301	72,948	84,581	84,217	65,398	6,146	8,753
III.—Contingencies	4,560	13,948	31,614	24,198	83,518	26,357	18,711	68,641	1,224	1,828
Total B.—Establishments .	83,280	3,04,898	4,44,805	3,37,436	6,47,768	6,27,810	2,51,876	7,78,991	54,546	30,077
GEAND TOTAL OF EXPENDITURE .	83,767	5,98,509	14,05,182	12,63,664	24,49,352	14,88,711	5,93,910	18,07,158	95,748	95,258
SURPLUS .	140	5,25,033	10,28,246	6,17,989	40,72,354	28,19,452	5,12,186	11,41,978	1,49,671	83,271
Desicit .	76,512	. •••		,			***	***	,,,	

DIX XXII.

59, 40, and 41.1

Forest Department in India for the financial year 1905-06.

Ajmer.	Baluchis- tan.	Andamans.	Forest School.	Forest Surveys (Impe- rial.)	Total Bengal Presidency.	Madras.	Bombay.	GBAND Total.	BUDGET HEADS.
	·	` ,							
	•					,		1	REVENUE.
2 ₂ 668	7,599	5,77,167	444	344	86,14,402	9,08,784	14,83,564	1,10,06,750	I.—Timber and other product removed from the forests b
11,289	2,615	8,564			1,02,06,214	19,05,324	18,87,684	1,39,99,222	Government agency. II.—Timber and other produce removed from the forests by
11	- 7	100		***	4,72,760	16,777	8,549	4,93,086	consumers or purchasers. III.—Drift and waif wood and confiscated forest produce.
.**	11,034	30Å	500	•••	4,56,266	=0 6	14,875	4,71,140	IV.—Revenue from forests no managed by the Government.
9,084	228	1,780	3,080	, +4.0	4,72,355	1,36,719	95,321	7,04,395	V.—Miscellaneous.
15,002	21,481	5,82,511	3,080		2,02,21,996	29,67,604	84,84,998	2,66,74,593	TOTAL REVENUE
							ľ		
١	•			1					EXPENDITURE.
					1				AConservance and Works.
970	Б, 381	1,49,394	***	,	26,99,946	5,12,11 3	5,12,738	87,24,797	L—Timber and other product removed from the forests be Government agency.
91	VAF	100	, t	***	3,14,444	1,18,707	1,14,462	5,47,613	. II.—Timber and other production removed from the forests he
	***	1	***	***	1,60,067	1,865	186	1,62,118	III.—Drift and waif wood and confiscated forest produce.
151	. 357	400	, ,an	• ***	21,363	***	• •••	21,363	IV.—Revenue from forests no managed by Government.
.***	***	***	377	334	8,12,572	18,615	26,752	8,57,989	V.—Rent of leased forests an payments to shareholders i forests managed by Govern ment.
605'	53	126,843	1,506	***	8,52,568	1,38,919	18,172	5,09,659	VI. – Live-stock, stores, tools an plant.
1,032	399	8,577	1,114	001	6,01 ,34 0	1,41,304	1,21,474	8,64,118	VII Communications and buildings.
1,675	150	11,513	- așe	30,044	11,32,108	3,88,430	2,06,278	17,21,816	VIII.—Demarcation, improvement, an extension of forests.
143	40	7,251	2,973	,,, ,	73,978	8,758	1,29,217	2,11,958	IX. — Miscolianeous.
4,524	6,380	3,C3,578	5,593	30,044	61,68,386	13,23,711	11,29,279	86,21,376	Total A Conservancy and Works.
		1							
		1			}				B.—Establishments.
10,626	15,875	28,121	60,248) , 481	30,41,951	7,12,313	8,33,487	45,87,751	I Salaries.
1,032	2,798	3,538	8,633	4E1	4,42,818	1,61,664	1,11,569	7,15,791	II.—Travelling allowances.
949	690	748	6,19	9	2,13,171	68,914	51,518	8,33,603	III.—Contingencies.
12,607	19,363	32,407	75,076	***	36,97,440	9.42,8.1	9,96,814	58,87,145	Total B.—Establishments.
17,181	25,748	3,35,985	80,669	80,044	98,65,826	22,66,602	21,26,0./8	7,42,58,521	Grand Total of Expenditure.
		2,46,526	***	***	1,03,56,170	7,01,002	13,58,900	1,24,16,072	Surplus.
2,129		1							

APPEN

[Vide paragraphs

Revenue, Expenditure and Surplus of the Forest Department throughout India during

(I) REVE

Province.	. ,	1881-82.	1882-53.	1863-84.	1864-85.	1885-86,	1696-87.	1867-88.	1889-59.	1899-90.	1890-91	1692-92,	1692-93.	18:3-91
	**	B	n	B	R	R	R	R	R	R	B	· B	12.	B
Imperial* Bengal United Provinces		27,407 6,33,734 10,66,094	30,732 6,93,959 10,13, 1 03	32,907 6,94,334 16,11,383	26,574 5,71,152 15,72,319	14,708 5,97,432 14,61,495	4,186 6,53,634 15,73,556	4,847 6,57,794 12,47,451	4,017 6,76,907 14,62,802	4,759 7,68,718 17,14,159	6,370 7,27,:92 16,37,879	6,688 7,89,553 17,31,514	5,240 7,44,880 16,52,540	2,86 0 8,01,610 17,09,860
Punjab Borma (Lower) Borma (Upper) Eastern Bengal and Assam Central Provinces Coorg Rorta West Frontier Ajmer Andamans Forest School Forest Surveys (Imperial)		6,88,309 22,31,501 1,66,054 11,72,884 1,00,364 4,065 48,497	7,66,709 25,03,896	9,10,177 25,69,275	7,49,352 16,70,982 1,87,414 10,27,202 1,13,233 10,456 22,213 23,4	8,50,419 20,23,859	11,27,277 19,98,667 1,08,074 2,12,12,13 95,7410 99,291 11,274 31,870	7,86,936 22,18,897 2,96,876 2,67,312 10,93,369 1,27,028 14,293 1,04,062	1,50,103	11,30,101 92,753 11,592	8,37,370 26,77,671 16,44,237 3,26,793 12,13,461 1,35,561 15,266 1,58,326 1,114 2,104	10,20,074 28,58,114 13,27,300 4,36,129 13,59,900 1,82,897 19,799 2,72,338 1,77,6	12,30,850 1,80,650	9,18,300 34,89,350 2,45,750 4,88,500 11,31,480 1,73,790 14,620 4,41,790 1,990
Madras	:::	61,39,121 8,96,908 18,28,117	61,51,305 9,06,442 20,90,353	70,85,108 9,53,704 25,03,100	59,44,204 11,66,916 27,74,842	63,04,965 11,98,650 33,66,286	67,77,936 12,46,911 30,32,676	68,19,685 13,74,920 30,32,577	91,19,610 15,15,006 28,50,190	1,01,53,811 15,57,627 31,37,696	93,80,674 17,95,4:8 32,88,220	99,06,351 16,94,216 32,84,649	1,10,47,530 15,77,210 32,69,550	1,14,67,961 19,47,180 37,91,350
Total (British India) Berar Forest Surveys (Berar) Baluchistan		87,74,148 2,33,511 18,616	***	1,05,41,912 3,08,218 4,752	98,85,962 2,97,185 934 6,089	1,08,69,901 3,19,851 631 14,962	1,10,57,493 3,26,261 651 14,981	1,12,27,182 4,06,447 596 14,063	1,34,84,806 4,67,977 5,668	1,48,49,134 4,40,541 13,897	1,44,64,302 4,87,109 15,724	1,18,58 216 5,11,185 20,609	1,58,94,290 4,31,020 19,030	1,72,09,490 4,82,800 20,730
GRAND TOT	A.	90,26,273	97,45,153	1,08,54,882	1,01,90,170	1,12,05,345	1,13,98,486	1,16,48,288	1,38,98,451	1,53,03,572	1,49,67,13	1 11 17,010	1,63,44,340	1,77,13,020

The figures in this statement have been Includes tertain home receipts and †Amalgamated with the Centra

(II) EXPEN

															•		
Imperial* Rengal United Provinces	:	:	:	:	77,635) 3,94,612 9,16,212	87,268 3,82,183 8,39,025	98,265 3,87,813 10,41,885	96,306 4,11,915 10,20,101	88,245 3,70,399 9,74, 519	85,299 4,22,781 9,19,580	78,626 3,90,368 8,30,748	86,199 3,76,270 8,44,511	81,311 3,98,150 9,63,151	85,414; 4,14,004 9,19,195	65,788 4,22,530 9,58,211	1,07,270 3,81,610 9,28,540	80,840 4,04,046 9,63,020
Punjab Burna (Lower) Eastern Rengal and Central Provinces Coorty North-West Frontic American		* * * * * *	•		1,65,361 4,97,013 59,796 13,954 2,346	5,60,750 12,28,955 1,71,823 4,12,247 64,770 11,284 1,810	6,53,116 12,17,824 1,99,562 4,36,058 75,023 14,574 12,161	5,58,070 12,12,233 1,97,699 4,95,821 76,961 16,316 22,760 22,568 19,823	6,75,483 11,50,952 2,11,494 4,45,432 65,690 16,469 37,035 24,239	7,16,510 10,75,830 2,138 2,12,287 4,99,293 74,088 20,744 25,769 30,631 28,348	6,77,912 10,32,694 1,21,152 2,26,892 5,52,939 72,629 118,897 62,679 33,129 32,868	5,93,885 12,31,941 7,85,129 2,09,905 6,68,697 80,175 15,676 57,295 32,961	6,45,855 13,32,834 27,73,800 2,57,129 6,96,445 72,420 12,701 94,975 29,685	6,53,041 10,86,479 3,02,315 2,83,852 7,35,554 65,818 12,720 1,30,052 35,191	6,40,275 12,25,121 3,73,859 2,67,525 8,63,975 86,860 13,986 1,76,999 44,347 26,882	6,56,270 13,63,250 4,41,750 2,64,070 8,51,400 73,090 15,000 2,31,210 50,400 22,160	6,36,430 13,41,640 5,20,860 2,68,220 9,32,120 86,890 15,900 2,44,550 65,530
Porest Surveys (Imp Madras Bombay	perisi)	To	tal		42,489 38,35,871 6,03,419 11,69,181	38,01,740 6,35,352 12,78,770	30,940 41,67,252 7,86,733 15,64,172	19,823 41,50,563 8,96,505 17,78,723	19,180 40,79,137 9,37,972 18,39,461	23,348 41,14,548 11,53,122 19,52,910	32,868 41,31,533 11,29,212 19,44,005	22,164 50,04,844 12,20,794 16,93,962	21,188 48,79,615 11,61,237 17,70,691	24,324 47,47,954 12,46,913 18,69,887		22;160 53,86,020 13,30,390 19,04,970	27,900
Total (British Indi Berar Forest Surveys (Be Baluchistan	•	:	:		56,08,477 1,52,985 17,682	57,25,862 1,55,054 11,962	65,18,157 1,56,779 15,043 16,911	68,25,791 1,52,649 34,801 13,266	68,56,570 1,59,232 42,940 15,799	72,20,589 1,71,704 45,472 17,836	72,04,750 1,83,765 42,098 17,753	79,19,600 1,70,212 23,955 15,991	78,11,543 1,76,549 6,464 17,962	78,64,754 1,68,921 29,450	84,65,319 1,98,366 30,497	86,21,380 2,29,230 55,620	90,22,720 2,54,259 63,730
	Grand ·	To	. II		57,79,138	58,92,878	67,06,890	70,26,510	70,71,551	74,55,592	74,48,366	81,29,761	80,12,518	80,63,125	86,94,182	89,06,230	93,40,700

Includes pay of Inspector General of Forests
† Amalgamated with the Cantral Provinces

(III) SUR

																•	,
Imperial* Bengal United Provinces	:	:	:	:[-50,228 2,39,122 1,49,882	- 56,536 3,11,776 1,74,378	-65,359; 3,06,521 5,69,498	-69,732 1,59,237 5,52,218	-73,537 2,27,033 4,86,976	-82,113 2,30,853 6,53,976	-73,779 2,67,426 4,16,706	-82,182 8,00,637 6,18,258	-76,552 3,70,568 7,51,008	-79,044 3,13,388 7,18,684	-59,100 3,66,623 7,73,303	-1,02,030 3,63,270 7,24,000	-78,160 3,97,570 7,46,840
Central Provinces		n.	:		1,72,039 10,81,580 693 6,75,871 40,568	2,05,959 12,74,941 76,782 5,6t,900	2,57,031 12,91,451 11,883 5,58,711 12,799	1,91,282 4,58,749 —17,285 5,31,381 36,282	1,74,936 8,72,907 - 14,838 5,91,462 23,696	4,10,767 9,22,837 1,05,886 -276 4,58,117 25,203	1,09,024 11,86,203 1,75,724 40,420 5,40,430 54,399	4.51,883 13,77,361 7,94,799 93,977 5,11,708 26,008	2,75,858 18,01,872 15,32,270 1,22,369 4,59,736 20,333	1,81,329 15,91,197 13,41,982 92,941 4,77,907 69,743	3,79,799 15,32,993 9,53,441 68,664 5,55,985 96,037	1,56,360 22,20,120 16,34,880 1,18,760 3,79,450 1,07,598	2,76,870 21,47,710 17,74,890 2,20,28) 2,02,290 86,900
Coorg North-West Frontie Ajmer Andamens Forest School Forest Surveys (Im	•	:	:		-9,889 -96,101 -92,489	73,252 - 4,159 69,618 - 41,217	-6,376 12,601 -30,904	-5,860 -547 -22,495 -19,588	23,680 6,772 13,091 23,966 18,978	20,203 9,470 6,101 30,416 28,107	-4,674 -4,674 -31,383 -32,352 -32,828	25,008 2,107 48,780 32,512 21,849	20,333 1,109 67,220 28,409 20,968	69,743 2,546 28,274 -34,007 -22,220	96,037 5,813 92,429 42,559 26,625		26,900 -1,280 1,97,240 -63,540 -27,660
Madras Bombay	:	.:	otal	:	23,03,250 2,03,489 6,58,936	26,49,565 2,61,690 8,11,583	29,17,856 1,66,971 9,38,928	17,93,641 2,70,411 9,96,119	22,25,828 2,60,678 15,26,825	26,63,358 93,789 10,79,766	26,88,152 2,45,708 10,88,572	41,14,766 2,94,212 11,56,228	52,74,196 3,96,390 13,57,005			56,61,510 2,46,820 13,64,580	58,79,950 5,84,410 17,22,410
Total (British Indi Berer Forest Surveys (Be Balachistan		:	•		31,65,675 80,526 934	37,22,238 1,36,960 —B,923	40,23,755 1,51,439 -15,043 -12,159	30,60,171 1,44,536 -32,870 -7,177	40,13,231 1,60,609 -42,509 -837	38,36,913 1,54,557 44,821 3,755	40,22,432 2,72,682 -41,502 -3,690	55,65,206 2,37,765 24,955 10,326	70,37,591 2,63,992 -6,464 -4,065	65,99,548 3,18,188 —13,726	64,19,897 3,12,819 —9,888	72,72,910 2,01,790 -36,590	2,28,550
	Grani	D Te	712	•	32,47,135	38,52,275	41,47,992	\$1,63,660	41,30,794	39,42,894	41,99,922	57,68,690	72,91,054	69,04,010	67,22,828		83,72,320

Includes pay of inspector General of Forests, certain hom.

DIX XXIII

39 to 41.]

the 25 (financial) years from 1881-82 to 1905-06.

NUE.

]:94-95.	1895- 96 ,	1698-97.	1697-98.	. 1896-99.	1699-1900.	1900-01.	1901-07,	1902-08.	1903-04.	1904-05.	.1905-06.	PROVINCE.
B	R	11.	B	B.	n.	B.	B. /	R	B.	R .	R	
4,980 7,95,670 16,58,250	2,690 8,18,710 16,01,340	4,100 13,7·,850 14,44,820	19,139 11,89,286 13,86,670	17,540 9,72,310 15,68,040	8,690 11,38,910 16,14,740	2,463 12,33,339 15,65,463	3,484 12,92,237 17,15,508	3,658 12,56,217 20,24,324	7,455 10,65,523 22,80,446	3,768 11,67,472 23,97,318	7,255 11,18,542 24,33,428	Imperial.* Bengal. United Provinces.
10,32,430 32,74,200 21,62,580 4,35,090 10,68,630 1,53,050	10,14,500 34,14,550 22,81,280 4,25,030 9,96,940 1,35,250	11,07,720 38,18,270 25,61,68) 4,36,440 7,73,320 93,000	10,68,470 40,86,200 31,29,660 3,81,820 7,80,050 1,30,910	14,74,430 42,22,960 41,27,930 3,98,180 9,95,100 1,55,670	14,00,770 43,05,230 35,06,820 5,68,109 8,19,260 1,62,410		14,47,558 36,06,453 22,67,485 5,12,963 11,15,723 1,70,242 13,012	15,86,408 37,22,602 30,16,451 5,80,200 16,84,428 1,90,730 1,01,123 3,26,035 3,252 3,031	17,17,7-7 49,78,247 33,45,288 6,75,732 19,98,032 2,24,031 1,01,833 13,884 4,32,381 3,033 431	18,74,443 54,85,760 31,74,056 8,15,677 20,13,459 1,93,087 1,93,981 17,297 6,20,746 3,557	17,81,853 65,21,7.6 38,08,163 11,06,098 24,49,131 2,45,419 1,28,529 1,5,002 5,82,511	Panjab. Burma (Lower), Bur a (Upper. Kastorn Bengal and Assam. Courst Provinces. Course.
"12,810 1,14,530 2,790 80	15,610 1,32,120 4,310 510				10,270 2,60,600 3,210 420		2,66,903 3,545 473	3,26,035 3,25,252 3,034	13,884 4,32,381 3,033 431	6,20,746 3,557	5,82,511 3,080	North-West Frontier, Ajmer. Andamane, Forest School, Forest Surveys (Imperial).
1,05,55,120 18,94,030 37,50,030	1,09,42,870 21,10,570 35,36,670	1,19,87,190 23,-3,430 30,32,710	1,26,26,950 21,36,490 26,16,660	1,41,78,090 21,10,520 22,95,150	1,37,95,830 23,02,290 24,15,200	1,41,49,286 22,41,170 29,61,529	1,24,22,451 25,43,430 23,79,729	1,45,09,229 26,13,819 23,29,156	1,67,89,118 26,57,727 27,51,539	, 1, 81,57,621 28,29,216 30,20,558	2,02,00,515 29,67,604 34,84,993	Total. Madras. Bombay.
1,62,99,180 4,73,400 16,300	1,65,90,110 1,94,340 "11,630	. دست	***	1,85,93,760 4,39,840 14,920		,			2,21,98,384 ‡ 18,363			Berne. Forest Surveys (Barne).
1,67,88,880	1,70,99,38 0	1,78,56,510	1,77,95,490	1,90,38,520	1,90,09,610	1,97,70,495	1,78,23,715	1,94,71,540	2,22,16,747	2,40,29,950	2,66,74,59	Grand Total.

furnished by the Comptroller and Auditor General, undistributable and petty local items.

DITURE.

84 950 8 97, 390 9,36,310 7,27,120 13,78,230 5,9760 7,72,010 97,60 95,140 14,20 14,20 15,380 22,840	80,410 4,66,070 9,42,860 6,78,420 12,57,740 7,75,850 2,85,110 9,72,740 85,810 115,730 1,72,730 20,850 22,850	78,950 6,90,040 8,05,040 7,23,300 15,03,254 6,25,30 9,50,990 71,630 22,610 3,16,600 87,380 31,970		85,460 9,86,320 9,72,130 8,55,340 15,29,570 8,96,360 8,71,330 80,100 1,83,400 1,83,400 23,570	96,550 5,45,210 9,42,380 12,11,468 16,45,01,470 9,45,01,470 9,45,110 74,220 1,40,340 73,550 33,980		79.539 6.57.131 10.08.739 9.38.335 14.26.435 12.20.011 3.29.111 9.75.217 82.333 19.510 2,76.290 33.730	6,38,014 10,13,998 9,60,095 15,53,753	11,56,415 20,30,397	83,258 6,88,559 13,91,563 10,12,354 20,06,666 11,49,258 5,03,656 13,32,615 33,820 74,958 11,611 3,82,431 61,422 28,229	83,767 5,98,579 14,05,182 12,63,564 24,49,352 14,88,157 15,533,910 13,97,153 55,238 17,51,718 55,238 17,35,915 13,35,915 13,35,915 13,35,915	Punish.
56,26,470 13,86,350 20,67,92u	56,41,330 14,45,610 19,58,390	62,70,050 15,34,300 19,69,160	62,78,310 15,72,850 20,73,190	63,34,170 15,91,670 18,39,250	69,79,660 16,53,530 21,28,430	67,71,671 17,15,431 24,08,581	70,68,987 17,09,554 17,19,680	77,14,098 18,35,552 16,76,441	85,18,429 17,50,930, 17,75,937	90,53,282 19,86,098 19,03 801	98,40,083 22,66 602 21,26,093	Total . Madras. Bombay.
90,80,740 2,51,540 "40,910	90,45,330 2,45,510 41,770	97,73,510 2,41,879 29,770		97,68,090 2,38,070 27,760	1,07,61,62 2,34,380 "28,680			1,12,26,091 23,210		1,29,43,184 † 24,672	1,42,33,778 "25,743	Total (British India). B-rar. Forest Surveys (Berar). Baluchletan.
92,73,290	93,82,610	1,00,45,150	1,01,95,730	1,00,33,920	1,10,21,680	1,11,60,010	1,07,46,388	1,12,49,321	1,21,66,993	1,29,67,856	1,42,58,521	Grand Torle.

certain home tharges, and undistributable and petty loss; items,

PLUS.

_	2020												
	-79,970 3,98,280 7,21,910	-77,720 4,52,640 6,58,480	-74,950 6,80,810 5,38,430	65,170 5,35,840 \$,68,820	-67,920 4.85,990 5,93,690	9 0,460 5,93,700 6,72,360		-76,056 6,31,106 7,06,769	-\$1,358 6,18,233 10,11,326			-76,512 5,25,033 10,28,246	Imperiaj ^a . Bengal. Uuiied Provinces.
	3,10,310 18,95,970 16,22,820 1,63,080 22,570 66,810	3,36,090 20,56,810 17,05,420 1,38,890 44,600 49,410	3,81,420 27,14,980 19,35,150 1,54,430 1,77,670 21,370	2,96,530 26,82,090 23,36,556 95,990 -1,41,390 43,890	'	1,89,310 28,03,760 25,60,850 2,10,950 -2,22,180 88,190	4,63,499 30,18,597 23,81,130 2,01,549 32,299 66,691	5,01,223 21,80,017 10,47,464 1,83,851 1,40,506 87,909 —6,498 —9,0-2 62,236 —72,746 —33,257	6.26, ~13 21,63,849 16,79,941 2,52,701 4,27,149 1,01,233 47,038 44,333 -63,086 -30,981	5,61,382 28,92,850 20,23,781 2,50,218 7,17,066 1,31,840 41,240 2,796	8,62,089 34,79,034 20,3*,798 3,12,021 6,52,284 1,09,267 16,033 1,66 2,78,355 —57,867 —28,229	5,17,989 40,72,354 23,19,452 5,12,186 11,41,978 1,49,671	Punjab, Burma (Lower), Burma (Upp. r)- Burma (Upp. r)- Easter Regal and Assam, Gentral Provinces, Coorg. North-West Frontier, Ajmer, Adds mans, Forest School.
	-2.060 -8,250 -6,190 -29,760	-90 30,100 -63,640 -29,440	-9,610 45,770 -61,530 -31,570	870 1,86,370 58,030 33,730	—1,880 91,050 —61,016 —23,680	-5,080 1,19,660 -70,340 -33,560	-6,136 1,37,749 -67,511 -32,661	-9,0-2 62,236 -72,746 -33,257	-5,611 44,333 -63,086 -30,951	-2,796 1,66,260 -56,301 -23,503	16,033 1,656 2,78,355 —57,867 —28,229	2,129 2,46,526 -77,569 -30,044	Notth-West Frontier, Ajmer, Addemans, Forest School, Forest Surveys (Imperial).
	50,28,650 5,07,680 16,82,110	53,01,540 6,64,960 15,78,280	57,17,140 7,69,030 10,63,550	63,48,610 5,63,610 5,13,470	78,43,920 5,15,850 4,55,900	68,17,170 6,48,760 2,86,770	73,77,615 6,24,739 5,52,918	53,55,464 8,33,376 6,60,049	67,95,131 7,78,267 6,52,715	81,70,689 9,06,797 9,75,602	91,04,339 8,43,118 11,16,754	1,03.60,432 7,01,002 13,58,900	Madras.
	72,18,440 2,21,760 —24,610	75,44,780 2,48,830 —25,840	75,49,720 2,75,950 —14,310	74,55,750 1,56,300 -12,290		77,52,700 2,43,850 —11,620	l i	2,37,706		1,00,53,088 —3,334	1,10,61,211 † —2,117	1,24,20,334	Total (British India). Berar. Forset Surveys (Beras). Balushistan.
	74,15,590	77,66,770	78,11,360	75,99,760	90,04,600	79,84,930	86,10,453	70,77,327	82,22,209	1,00,49,754	1,10,62,091	1,24,16,072	Grind Solfer

barges and undistributable and petty local items,

APPENDIX XXIV.

[Vide Paragraph 43.] EXPORTS OF FOREST PRODUCE.

ABTICLES OF FOREST PRODUCE.	QUANTITY IN TO IN THE CASE OUBIO T	OF TEAK,	VALUATION AT PORT OF SHIPMENT IN 1905-06.			
AMERICAN OF PUREST PRODUCE,	Average of 5 years 1900-01 to 1904-05.	In 1905-06.	Total.	Per ton.		
			H	Ð.		
Caoutchoue	189	279	12,82,129	4,595		
Button	1,824	2,093	44,41,287	2,122		
Lac Shell	8,841	10,880	2,64,58,774	2,481		
Stick and other kinds	323	750	9,06,100	1,208		
Lac-dye	(a)·05	•••		•••		
Sandal, ebony and other ornamental woods.	(6)	(8)	11,70,206	•••		
Cutch and gambier	4,141	2,754	8,64,331	314		
Myrabolams	56,057	60,320	44,60,676	. 74		
Teak	62,672	52,768	70,41,660	133		
Cardamoms	95	132	2,97,513	2,254		
Total in 1905-06 .		•••	4.69,17,676	•••		
,, ,, 1904-05		•••	4,41,66,143			

⁽a) Represents figures for 1990-01; there were no exports in 1901-02 to 1904-05.
(b) Figures are not available.