

**Annual Return of Statistics relating
to Forest Administration in British
India for the year 1923-24**

(With which is incorporated
the Quinquennial Review,
ending 31st March 1924.)



CALCUTTA: GOVERNMENT OF INDIA
CENTRAL PUBLICATION BRANCH
1926

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GOVERNMENT OF INDIA.

DEPARTMENT OF EDUCATION, HEALTH AND LANDS.

Simla, the 2nd October 1925.

FORESTS.

The following review of Forest Administration in British India during the five years ending the 31st March 1924 is published for general information. Constitution of the Forests.

At the close of the quinquennial period under review the forest areas in British India, including the Shan States, amounted to 2,28,850 square miles of which 1,03,449 square miles are reserved, 7,931 square miles protected, and 1,17,470 square miles unclassified State forests, the whole representing 20·8 per cent. of the total area of British India (with the Shan States) or, taking into account only reserved and protected forests, 10·1 per cent.

A small increase occurred in the area of reserved and protected forests under the Forest Department, though, as a set off against this, mention must be made of the fact that 829 square miles in the Punjab were disforested principally for colonization purposes, and smaller areas in Bombay, Madras and the Central Provinces were also disforested. The largest increase in area occurred in Burma—a net increase of 1,409 square miles being reported.

2. The areas surveyed by the Survey of India amounted to 8,563 square miles, mostly on the two inch scale, and 1,065 sheets were published. The cost debited to the Forest Department on account of mapping and publishing and the cost of special surveys, etc., amounted to Rs. 11,19,813, as compared with a sum of Rs. 1,96,781 during the previous period.

The outstanding event under this head was the successful survey from the air of the forests, aggregating 1,350 square miles, in the Delta of the Irrawaddy, during 1923-24. The results are of considerable value and both the Government of Burma and the Survey of India are to be congratulated on putting the matter through.

3. The appointment of Inspector General of Forests was held by Sir George Hart, K.B.E., C.I.E., until 23rd February 1921, when he proceeded on leave preparatory to retirement. Sir George Hart retired on the 14th October 1921 and was succeeded by Sir Peter Clutterbuck, C.I.E., C.B.E., the present incumbent.

During the period now being dealt with, the tours of the Inspector General of Forests extended over portions of every province in India, the Andamans and Kashmir. These visits are of great value not only to the local Governments concerned but also to the Government of India; to the former as it enables them to obtain independent and expert advice on professional questions from an officer of ability and much experience, and to the latter as these tours help considerably to maintain a continuous forest policy throughout the country.

Many changes occurred under administration in the provincial forest departments during the five years under review, the principal of which may be mentioned. In Madras, the Presidency was divided into six Conservators' circles, whilst in Burma the territorial circles were increased from 4 to 7 and the special circles of Working plans and Utilization were created. In this province also the post of Silviculturist was filled in 1920-21 and ten new forest divisions, including the Myitmaka Extraction division, were formed. A Working plan and Research

Note.—The Forest year was abolished in 1921 and the Financial year adopted for future Annual Forest reports, that for 1920-21 covering the period 1st July 1920 to 31st March 1921. The effect of this change is that the present review actually covers a period of only four and three quarter years.

circle, with a Conservator and five major charges, was created in the United Provinces and in the Punjab a Utilization circle was formed in 1921 and at the same time a post of Chief Conservator was sanctioned for general administration. On the other hand, the two posts of Conservator of Forests, Utilization circle and Working plan circle, Bombay, created during the period, were held in abeyance as a retrenchment measure after having been filled for some time.

With a view to keep the Government in touch with non-official opinion in regard to forest policy in Madras, a standing forest advisory committee was formed in 1921 consisting of non-official members of the Legislative Council presided over by the Hon'ble Member in charge of the forest portfolio. In addition, in furtherance of the policy of enlisting public opinion in local forest matters, committees of local forest officers, members of the Legislative Council and non-official gentlemen were appointed in Madras to enquire into forest grievances in certain districts and submit recommendations.

4. No change occurred in the method of recruitment of officers for this service till 1920, since when, as a result of the orders *Recruitment and training.* passed on the recommendations of the *(a) Indian Forest Service.* Islington Commission of 1915, recruitment of probationers for the Indian Forest Service has been made—

(i) by direct recruitment in England and India ; and

(ii) by promotion from the Provincial Forest Service in India.

Recruitment in England for direct appointment is carried out under regulations laid down by the Secretary of State for India. Similarly, recruitment in India is carried out under regulations laid down by the Government of India. These latter regulations were issued in 1920, and under them, for the first time, recruits were appointed in India and sent to England for training. This procedure was regularly adopted up to the year 1924. European candidates who had rendered war service were recruited as a special case both in England and India during the years 1919, 1920, 1921 and 1922. Before appointment to the Indian Forest Service probationers selected directly in England and India at present undergo professional training at the Universities in the United Kingdom. In view of the practical difficulties of securing the joint training of European and Indian recruits at one institution in the United Kingdom the question of the place at which Indian Forest Service recruits should be trained in future was considered during the quinquennium. The matter was discussed in both the chambers of the Indian Legislature who recommended that all recruits should be trained in India as soon as the necessary arrangements could be made. Final conclusions on these proposals however were not reached before the close of the period.

The provincial cadres were reorganised between the years 1916—21. The sanctioned strength of the Indian Forest Service in March 1924 was 399, of which *Strength of the cadre.* 353 are to be direct recruits and 46 promoted Provincial Forest Service officers. The actual number of officers in service on the 1st July 1923 was 306. Of these 255 were directly recruited Europeans, 5 promoted Europeans of non-Asiatic domicile and 46 Indians. Of the latter 27 were Indians and 19 Anglo-Indians or Statutory natives of India. On the 31st March 1924 the position was as follows—

| | | | | | | |
|----------------------------------|----|----|----|-------|----|-------|
| Europeans (direct) | .. | .. | .. | .. | .. | 268 |
| Europeans (promoted) | .. | .. | .. | .. | .. | 9 |
| Indians—Anglo-Indians (promoted) | .. | .. | .. | .. | .. | 15 |
| Indians (direct) | .. | .. | .. | .. | .. | 33 |
| Indians (promoted) | .. | .. | .. | .. | .. | 17 |
| Burmese | .. | .. | .. | .. | .. | 2 |
| | | | | | | <hr/> |
| | | | | Total | .. | 344 |
| | | | | | | <hr/> |

There were 38 probationers under training in the United Kingdom at that time.

Before 1920 the only avenue for appointment to the Indian Forest Service ordinarily open to Indians was that of direct appointment by the Secretary of State after selection and training in England. With the exception of two officers (one of whom joined in 1869 and another who was promoted from the Provincial Forest Service in 1907) no Indians entered the service between 1866 and 1910. Thereafter one joined in each of the years 1911, 1913, 1915, and 1919. In 1920, in consequence of the recommendations of the Islington Commission, the Secretary of State sanctioned the following alterations affecting the appointment of Indians :—

- Indianization.*
- (i) $12\frac{1}{2}$ per cent. of the directly recruited posts in the Indian Forest Service in each province were to be regarded as ' listed ' posts to be filled by the promotion of present and future members of the Provincial Forest Service other than those who were then Extra Deputy Conservators, who were also to be promoted at once if qualified.
 - (ii) In 1920, 40 per cent. of the vacancies for probationers directly appointed by the Secretary of State in England were to be reserved for Indians if available. (In the result 4 Indians out of a total of 29 recruits or 14 per cent. were so appointed.) From 1921 onwards up to $\frac{40}{33}$ per cent. of the vacancies for direct appointment were to be filled by ^{Indians}_{Burmese} recruited both in ^{India}_{Burma} and in England. The question of further increasing the rate of Indianization in the Forest Service was under the consideration of the Lee Commission when the period of the review closed.

In consequence of the recommendations of the Islington Commission the time-scale of pay for Assistant and Deputy Conservators of Forests was from July 1919 increased to Rs. 450 a month in the 1st year of service rising by annual increments of Rs. 50 to Rs. 1,600 a month in the 23rd year of service with an efficiency bar at Rs. 850. At the same time rates of pay for Conservators of Forests were altered to an incremental scale of Rs. 1,750—50—2,000, the previous system of payment by grades being abolished. For Chief Conservators an incremental scale of Rs. 2,500—125—2,750 was introduced and the pay of the Inspector General of Forests was fixed at Rs. 3,250 a month.

The rates of basic pay at present in force were brought into effect from 1st December 1919 when the principle of a standard rate of pay, coupled with overseas pay in the case of officers of non-Asiatic domicile, was accepted. From the end of April 1921 the pay of Conservators was raised to Rs. 1,750—100—2,150 and from the same date the overseas pay was also raised by Rs. 50 per mensem in the case of officers in their 7th to 12th years of service.

There was no change in the methods of recruitment and training for the Provincial Forest Service. All Extra Deputy Conservators of Forests who were considered to be fully qualified to hold a major charge were transferred to the Indian Forest Service from 12th March 1920 and now hold ' listed ' posts in the cadre of that service. Those not so promoted continue to be styled Extra Deputy Conservators. Except for these unpromoted officers, of whom there were five on the 1st July 1923, the class of Extra Deputy Conservators has been abolished and the service consists of Extra Assistant Conservators only.

Officers of the Provincial Service are now eligible for promotion to $12\frac{1}{2}$ per cent. of the posts in the Indian Forest Service, such promotion being made by local Governments. The strength of the Provincial Service, which is determined in each province by the local Government, was 301 on the 1st July 1923. Consequent on the grant of enhanced financial powers from 1st April 1921 it now rests with the Provincial Governments to determine the pay of the Provincial Forest Service subject to the proviso that the maximum rate of pay of a permanent post shall not exceed Rs. 1,200 a month. The scales of pay of this service were revised in most provinces during the period of the quinquennium.

The question of the decentralization of the training of rangers was a matter that continued to attract attention but for various reasons, the principal of which was the general financial stringency which existed during the quinquennium, no change in this direction was made.

5. Towards the close of the last quinquennium proposals were formulated for the formation of a Forest Engineering Service and the sanction of the Secretary of State to the scheme was received in 1919. Seventeen recruits concluded their training in America and Europe and, of these, sixteen joined their appointments in India. The term of appointment of the two Consulting Forest Engineers referred to in the last quinquennial review expired during the period under report but one of them was re-employed as Chief Forest Engineer under the Government of Madras. These two officers accomplished much valuable work but it is to be feared that financial straits and the lack of the provision of funds for considerable capital expenditure, whatever the prospect of heavy returns, will entail delay in carrying out their recommendations.

6. A class was started at Dharwar, in Bombay, in 1920-21 for training rangers, but, on account of financial stringency, it was abolished in 1922-23. At the request of the local Government, therefore, the Government of India agreed to train, at the Forest College, Dehra Dun, with effect from the 1st April 1922, up to a maximum of 10 ranger students annually from Bombay for the next five years. It was therefore found necessary to increase the sanctioned staff of two Imperial and two Provincial Forest Service Instructors at Dehra Dun for the ranger classes by one additional Imperial and one additional Provincial instructor from the 1st April 1922 and by the same number from the 1st April 1923. Subsequently at the instance of the Government of Madras an arrangement was arrived at which insures that the Dehra Dun College and the Coimbatore College do not compete with each other but co-operate in imparting forest education to ranger students. Dehra Dun will train rangers for the Punjab, North-West Frontier Province, the United Provinces, Bengal and Assam, while the sphere of the Coimbatore College will be Bombay, Central Provinces, Bihar and Orisa, Orissa Feudatory States, Central India States and the States of Hyderabad, Mysore, Travancore and Cochin. Consequently the additional posts referred to above are no longer required.

The standard of instruction given at the Bengal Forest School at Kurseong has been raised gradually and the training has increased the efficiency of the subordinate staff to such an extent that 18 of them have attained the rank of ranger while one has been promoted to the Provincial Forest Service. A new course at the Rangoon University for a degree of B. Sc., in Forestry to provide probationers for the Burma Forest Service was started in 1923. In 1921-22 extensions to the Pyinmana Forest School were completed to allow of two classes, English and Vernacular, of 25 students each. Separate training classes were started in each territorial circle in the United Provinces in 1920 but, chiefly from the necessity for keeping down expenditure, these were suspended towards the end of the quinquennium. In Bombay, vernacular forest classes for training foresters and round-guards were started in 1922-23 the course consisting mainly of practical training in the field.

7. The recommendations of the Indian Retrenchment Committee in respect of expenditure on the Forest Department were fully considered during the end of the quinquennial period. The principal result effected was the decision to limit expenditure on the Forest Research Institute and College, Dehra Dun, to Rs. 8,73,000 per annum for 1923-24 and the two following years. The question, which also arose on the Committee's proposals, as to whether the appointment of the Director, Indian Forest Studies in England, should be retained or abolished, pending future arrangements for the training of the Indian Forest recruits, was still under consideration when the quinquennium closed. Similarly the proposals of the Committee, viz., that the control of the Forest Department be vested in a manager with commercial knowledge in the timber industry and that the accounts of the Forest Department be placed on a commercial basis, were also under discussion in 1924. In order to facilitate the disposal of these recommendations a committee was appointed to make recommendations regarding the management of the forests.

directly under the Central Government with a view to the introduction of commercial accounts and to ensuring a source of steady revenue. The report of the committee was submitted at the end of the quinquennium and was still under consideration when the period ended.

8. The area over which special protection was attempted shows a decrease of about 3 per cent. in 1923-24 as compared with the figure for 1918-19. Small increases appear in four out of five provinces, Madras alone showing a substantial increase of, 592 square miles under this head. In Madras the system of early burning under departmental supervision was introduced for the first time in the Nallamalais in the Kurnool District in 1919-20 and was extended to other districts with much success. The grass is burnt as soon as it is dry enough, the resulting fire being less severe than if it occurred later in the season and doing very little damage. As a result of the adoption of this system in Madras there has been a considerable saving in the expenditure under fire protection which fell from Rs. 1,19,994 in 1918-19 to Rs. 59,929 in 1923-24. The figures for the other provinces show a total decrease of 3,274 square miles, the principal of these occurring in Burma, 1,202 square miles, Central Provinces, 1,137 square miles and Bombay 577. The decrease in Burma was due to the definite change of policy in regard to fire protection which, briefly stated, is to protect from fire only areas, mainly those under regeneration, where it is definitely known that such protection will be beneficial. The area under systematic protection was reduced in the Central Provinces by further extensions of early burning. Still better results would have been obtained but for the abnormally dry season experienced and indifference to the necessity for protection on the part of the people, who rarely rendered prompt assistance in extinguishing fires. In Bombay the decrease is attributed to the exclusion of large areas immune from fire for which no special measures against fire were necessary. The average success of area attempted throughout India, 93.2 per cent., is about the same as the figure for the previous quinquennium (*i.e.*, 95.5) though, as pointed out in the last review, the reliability of the figures is again often open to doubt and the nature of the season has, more often than not, more to do with the measure of failure or success than the protective methods adopted.

9. During the year 1923-24 over 13,300,000 animals were provided with grazing free. The figures for 1918-19 were 13,300,000 (5,300,000 free) and for 1914-15 14,300,000 (4,500,000 free). The improvement mentioned in the last review as regards the number of goats and sheep admitted to the forests has unfortunately not been maintained as there has been an increase of nearly 500,000 over the figure for 1918-19. There is nothing of special importance to record under this head, the figures quoted merely going to show that the forests as a whole have as yet obtained little relief from this heavy burden. In Madras with the extension of the forest village and *panchayat* (village council) systems, the villagers have begun to evince interest in the conservancy and improvement of the grazing grounds adjacent to villages. The slight increase reported from Madras was chiefly due to grazing concessions allowed in the closing year of the quinquennium in certain districts on account of the unfavourable season. The average grazing incidence in the Presidency during the last year of the period worked out to 4.59 acres per animal. In Burma the incidence of grazing in reserved forests was not serious except in the dry zone. Grazing is however a distinct menace in areas under regeneration though, it is understood, that the measures taken against it in such cases are sufficient.

10. Good progress has been made in the important work of afforesting denuded ravine lands in the United Provinces and attempts undertaken to reclaim certain areas in the Punjab. During the quinquennium the area of plantations in the United Provinces increased from 3,100 to 10,000 acres, the cost of afforestation being Rs. 56 per acre in 1917-18, Rs. 76 in

1920-21 and thereafter Rs. 59. The work has been extended to Agra, Jalaun, Cawnpore, Unao and Aligarh districts. Owing to financial stringency no special effort was made to extend the scope of the work but the ability to afforest ordinary ravine and waste land having been demonstrated extensions will present no difficulty. Many private persons in the United Provinces have become interested in this work and the division already supplies 44,000 maunds of grass, most of which is used by the local population. The sale of firewood has also commenced on a small scale and 42,000 cubic feet were disposed of in 1923-24. In the Punjab the results of reclamation work over 615 acres was promising. The experience gained will be of considerable value in extending such work to the Hoshiarpur Siwaliks and the eroded hill sides in the Ambala and Gurgaon districts.

Plantation work continues to make good progress in many provinces, the figures for 1923-24 being (a) regular plantations 97,935 acres; (b) Taungyas 1,26,742 acres, or a total of 2,24,677 acres, as against 63,568 acres, 94,446 acres, and 1,58,014 acres, respectively, in 1918-19, the last year of the last quinquennium. The cost of the operations during the quinquennium worked out at Rs. 2.07 per acre as compared with Rs. 1.63 per acre for the last quinquennial period.

In the Punjab the total area sown in the new irrigated plantations at the commencement of the period was 6,123 acres. This figure rose to 13,320 acres by the end of 1923-24. Up to the end of the quinquennium the total expenditure incurred on the four plantations in existence amounted to Rs. 6,27,157 and the total revenue derived from them to Rs. 18,57,359, the revenue being obtained partly from temporary cultivation on the unplanted portions. The area of plantations in Burma increased from 82,049 acres to 1,15,539 acres during the period, the increase being chiefly in the Pegu Yoma reserves. In the Andamans 500.5 acres of rubber plantations were handed over to the Settlement, whilst in Assam no further extensions were made to the rubber plantations in the Darrang and Kamrup districts, owing, in the latter case, to the fact that the plantations are now of no commercial value and there is no prospect of tapping in the future. The extension of the *taungya* method is encouraging and is proving of much benefit to those local Governments who have decided to introduce it. The adoption of this method, combined with careful work and continual supervision, has raised the standard of plantation work very greatly during the period under review.

Exploitation and commercial development.

11. A satisfactory feature of forest administration during the quinquennium has been the useful work that has been carried out in this connection, the average expenditure for the five years under review working out at Rs. 33.28 lakhs per annum against an average of Rs. 17.44 lakhs for the quinquennium ending 1918-19. The construction of numerous forest roads has been undertaken, ropeways and tramways have continued to be made more use of and much has been accomplished in the erection of quarters for subordinates and rest houses for inspecting officers. While the work carried out during the period indicates progress in the improvement of communications and transport facilities generally the continued financial stringency caused the postponement of many profitable projects which in normal times would have been sanctioned. The improvement of tanks and the construction of wells also received considerable attention. The expenditure, such as it is, has been heavy but the necessity for suitable accommodation in the interests of the staff has been amply demonstrated; while the extension of road communication is the main line by which forest development can advance. It is obviously difficult to show immediate profits from such works but it should be borne in mind that a road made in a forest tract almost always proves to be of the greatest use not only to Government as the owner of the forest, but also to the villagers of the neighbourhood.

12. The average annual outturn of timber and fuel from all sources during the quinquennium under review was 34,06,40,000 cubic feet against an average of 30,72,00,000 cubic feet per annum attained in the previous quinquennial

period. The highest figure ever attained under this head occurred in 1921-22 when a total of 36,13,83,000 cubic feet was reached, the year 1923-24 coming next with 35,36,90,000 cubic feet. The figures quoted for 1921-22 and 1923-24 represent respectively 2.3 and 2.4 cubic feet per acre of all classes of forests. For reserved forests only the yield in 1923-24 was 3.7 cubic feet per acre as compared with 3.3 cubic feet per acre in 1918-19 the last year of the last quinquennium. In this connection it is interesting to note that the year 1921-22 was marked by a phenomenal output of teak in Burma, viz., 600,000 tons (30,000,000 cubic feet) which was more than 74 per cent. above the average annual output of the preceding quinquennium. With the teak output of the year the revenue in Burma soared to Rs. 2,21,16,786 and the surplus to Rs. 1,30,33,692. The total outturn for the five years amounted to 2,476,849 tons, an increase of 751,000 tons or 44 per cent. over the output of the previous quinquennium.

The results on the whole, considering the general trade depression, are most satisfactory and point to more intensive working of the forests and to better exploitation. High as the figures quoted above appear to be there can be no doubt that the forests are capable of producing a higher yield, except as regards teak in Burma, and this result can only be achieved by the employment of better methods of extraction than have been followed in the past. There is however reason to believe that this side of the work is engaging the earnest attention of the various local Governments and that even more satisfactory results than are now reported are likely to be obtained in the near future.

The figures for the quinquennium also show that in 1923-24 the ratio of timber extracted by Government agency to that removed by purchasers was 5 to 29 compared with a ratio of 5 to 27 in the year 1919-20. During the period the outturn removed by Government agency rose by 41 per cent. whilst that removed by purchasers increased by 19 per cent.

Timber and fuel to the value of Rs. 11,140 lakhs and minor products, including bamboos and grass, valued at Rs. 375 lakhs were removed by purchasers during the period. For the quinquennium ending 1918-19, the figures were Rs. 10,190 lakhs and Rs. 355 lakhs respectively.

13. The agreement with Messrs. Martin and Company, the Government Agencies for the sale of Indian timber in Calcutta, was renewed for a further period of 3 years from the 1st November 1921; and was still in force when the quinquennium closed. Messrs. W. W. Howard Brothers and Company continued to act as sole Agents for the sale of Government timber in London and during the period consignments were regularly sent to England for disposal. The principal consignors for both Agencies were the Andamans and Burma. At the close of the period, however, the shipment of teak from Burma was discontinued on the representation of the teak firms. The results of the shipments showed that whilst there were prospects of improving the prices of the better quality of timber by consignments to Europe, there was little hope of finding a market for the poorer grades. In the case of timber other than teak it was found, in Burma, that much spade work would still be necessary to establish a market. As in the case of teak the standard of the European market is so high as to render only a small proportion of the output acceptable in the round and greater success would be possible with shipment of beams and scantlings to specified sizes. Apart from this however it is satisfactory to observe that the various local Governments utilize the services of both agencies as occasion arises. There is little doubt that the policy of retaining the services of the firms concerned has proved of the greatest assistance in making better known to the outside world the value of hitherto unknown timbers.

The total value of the timbers supplied to Messrs. Howard Brothers during the last years of the quinquennium had not been definitely ascertained when the period closed but it is a great satisfaction to notice that in 1921-22 alone sales were effected amounting to £ 73,000. The total sales from Messrs. Martin and Company during the quinquennium amounted to Rs. 20,46,000.

Forest Manage-
ment.
Working Plans.

14.

| Period ending June 30th.* | | | | | | | | Area under working plans at the end of last year of the period. | Increase or de- crease during the quinquennium. |
|---------------------------|----|----|----|----|----|----|----|---|---|
| | | | | | | | | Square miles. | Square miles. |
| 1880 | .. | .. | .. | .. | .. | .. | .. | 912 | .. |
| 1894 | .. | .. | .. | .. | .. | .. | .. | 10,279 | +9,367 |
| 1899 | .. | .. | .. | .. | .. | .. | .. | 21,620 | +11,341 |
| 1904 | .. | .. | .. | .. | .. | .. | .. | 34,222 | +12,602 |
| 1909 | .. | .. | .. | .. | .. | .. | .. | 48,104 | +13,882 |
| 1914 | .. | .. | .. | .. | .. | .. | .. | 53,926 | +5,822 |
| 1919 | .. | .. | .. | .. | .. | .. | .. | 60,670 | 6,744 |
| 1924 | .. | .. | .. | .. | .. | .. | .. | 59,566 | - 1,104 |

The statement hardly conveys the whole truth. Most provinces show an increase in the area under working plans. The decrease is accounted for by five provinces, the Punjab, Assam, Central Provinces, the North-West Frontier Province and Madras. In the Punjab the following decreases took place:—*Jagir* forests were excluded during the revision of the Kangra Working Plan, certain areas for which the working plans were not wanted were excluded, and 50 square miles for which a revised plan is under preparation were also excluded. In Assam large exclusions took place in the Garo Hills, Sibsagar and Goalpara. In the Central Provinces the South Raipur Working Plan has been excluded because it had never been sanctioned. In Madras the decrease is caused by recomputation of areas.

Bengal, the United Provinces, Burma, Bihar and Orissa and the North-West Frontier Province have all done a large amount of work on plans during the quinquennium.

In almost all provinces most of the working plans are of fairly recent date: even in a large province like Burma the oldest plans are 20 years old and there are very few as old as that. The oldest plans are in the Central Provinces, some of these being 30 years old, and on the whole the Central Provinces plans are not up to date. In Burma the selection system, which was the main feature of all the old teak working plans, was subjected to much criticism, and concentrated working was strongly advocated. There was a tendency to adopt the latter without sufficient consideration, but concentrated methods are now accepted for the areas where extraction of species other than teak is, or can be made, a practical and paying proposition, and selection methods accompanied by improvement fellings will continue over the other areas.

The appointment of special working plans conservators in Burma and the United Provinces has undoubtedly improved the standard greatly in those provinces.

* In 1924 the quinquennial period ended March 31st and not June 30th.

| Method of treatment. | 1913-14* | | 1918-19.† | | 1923-24.‡ | | System of Management. |
|--|--------------------|---|--------------------|---|--------------------|---|-----------------------|
| | Area square miles. | Per cent. of total area under each method of treatment. | Area square miles. | Per cent. of total area under each method of treatment. | Area square miles. | Per cent. of total area under each method of treatment. | |
| Simple Coppice | 161 | 1 | 1,009 | 2 | 1,858 | 3 | |
| Coppice with standards | 3,235 | 8 | 7,060 | 13 | 6,855 | 12 | |
| Regular High Forest— | | | | | | | |
| (a) Clear felled (includes taungya) | 14 | 0 | 263 | 0 | 5,224 | 9 | |
| (b) Shelterwood system (includes groups, strips, etc.). | 150 | 0 | 552 | 1 | 2,311 | 4 | |
| Irregular High Forest— | | | | | | | |
| (a) Selection system (includes group selection, selection <i>cum</i> improvement, etc.). | 15,897 | 41 | 16,009 | 30 | 18,149 | 30 | |
| (b) Improvement fellings | 8,880 | 23 | 12,254 | 23 | 9,654 | 16 | |
| (x) Unallotted | 10,432 | 27 | 15,955 | 31 | 15,515 | 26 | |
| Total .. | 38,769 | 100 | 53,102 | 100 | 59,566 | 100 | |

The introduction of the Bombay figures would seem to render comparison with the previous period impossible, but, although it renders a comparison of the *actual* figures impossible, an analysis showed that the inclusion of Bombay has not materially affected the *percentage* figures, except under clear fellings, which seem to have risen from 0 to 9 per cent., whereas excluding Bombay they have only risen from 0 to 4 per cent.

This table shows much better than that in the previous paragraph the great progress in working plans during the quinquennium. It is only fair to say that, though the figures show an increase in regular high forest from 1 to 13 per cent., the forest is not actually yet regular—that will take years—but it does literally mean that 13 per cent. of the forests are now under working plans for regular high forests and are therefore in process of conversion to regular forest.

The decrease in the percentage under improvement fellings is also gratifying. While nobody pretends that the excellence of management can really be judged by the percentage under regular high forest, coppice, or similar systems, the names selection, improvement, etc., are in India really often euphemisms for no system at all, and the increase in regular high forest is almost synonymous with increase in scientific management. The following small table shows the

(x) Includes forests for which working plans have been prepared but which are not at present under any definite system of working, *e.g.*, unworkable areas including those considered to be inaccessible, included in working plans, areas devoted to grazing, etc.

* Excludes Madras and Bombay.

† Includes Madras but excludes Bombay.

‡ Includes both Madras and Bombay.

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increase in percentage for areas under regular high forest in certain provinces during the quinquennium:—

| Province. | PERCENTAGE UNDER REGULAR HIGH FORESTS. | |
|--------------------------------------|--|-------|
| | 1919. | 1924. |
| Bengal | under 1 | 16 |
| United Provinces | 9 | 30 |
| Punjab | under 1 | 17 |
| Burma | 3 | 10 |
| Bihar and Orissa | under 1 | 13 |
| North-West Frontier Province | 1 | 35 |

The Assam forests are still entirely managed under improvement fellings.

16. An important feature of the quinquennium was the development of the forest *panchayat* system in Madras. A special staff consisting of a forest panchayat officer and six panchayat inspectors was appointed and their operations were confined to eleven of the principal districts of the Presidency. At the close of the period under review 858 square miles of forests had been placed under panchayat management and there were also 38 panchayats administering an area of 124 square miles in districts not under the control of the special staff. The spread of the movement has rendered possible the abolition of two ranges, one in the Bellary district and the other in Cuddapah. As the further expansion of the system is beyond the capacity of the existing staff, proposals for increasing the staff and extending the sphere of its activities are under consideration. The Punjab Government also approved of a scheme for the constitution in selected areas in the Western Circle, of village panchayats which were to take over the protection of the forests of their respective areas and themselves issue grazing permits to the villagers without the intervention of the Forest staff, the panchayat paying to the Department a fixed sum on account of the grazing lease. The scheme however has not so far proved a success.

The constitution of forest villages, with the object of increasing labour for planting and forest work generally, has grown apace during the quinquennium. The matter suffered from undue enthusiasm at first and there have been a few failures but the policy has now settled down on systematic lines. The system has been introduced more or less in all provinces and many new settlements were successfully established during the period.

Exhibitions.

17. The Government of India decided to participate in the British Empire Exhibition at Wembley in 1924 by the contribution of forest exhibits. A sum of £20,000 was sanctioned for the purpose and arrangements were in train at the end of the quinquennium to make the exhibit as great a success as possible. The preparation of the exhibits and all other preliminary arrangements in London were left in the hands of Messrs. Howard Brothers, the Government Agents for the sale of Indian timber in England. Burma had a separate exhibit.

Financial results.

18. The following statement shows the growth of forest revenue and expenditure during the past 60 years, the figures in all cases being the annual averages

of the quinquennial periods.

| Quinquennial period. | Gross revenue (Average per annum). | Expenditure (Average per annum). | Surplus (Average per annum). | Percentage of surplus to gross revenue. |
|----------------------------|--|--|------------------------------------|--|
| | Lakhs. | Lakhs. | Lakhs. | Lakhs. |
| 1864-65 to 1868-69 | 37.4 | 23.8 | 13.6 | 36.4 |
| 1869-70 to 1873-74 | 56.3 | 39.3 | 17.0 | 30.2 |
| 1874-75 to 1878-79 | 66.6 | 45.8 | 20.8 | 31.2 |
| 1879-80 to 1883-84 | 88.2 | 56.1 | 32.1 | 36.4 |
| 1884-85 to 1888-89 | 116.7 | 74.3 | 42.4 | 36.3 |
| 1889-90 to 1893-94 | 159.5 | 86.0 | 73.5 | 46.1 |
| 1894-95 to 1898-99 | 177.2 | 98.0 | 79.2 | 44.7 |
| 1899-00 to 1903-04 | 196.6 | 112.7 | 83.9 | 42.7 |
| 1904-05 to 1908-09 | 267.0 | 141.0 | 116.0 | 45.1 |
| 1909-10 to 1913-14 | 296.0 | 163.7 | 132.3 | 44.7 |
| 1914-15 to 1918-19 | 371.3 | 211.1 | 160.0 | 43.0 |
| 1919-20 to 1923-24 | 551.7 | 367.1 | 184.6 | 33.5 |

The gross revenue and surplus were Rs. 468.2 lakhs and Rs. 179.4 lakhs in 1918-19 and Rs. 544.9 lakhs and Rs. 195.6 lakhs in 1923-24 respectively.

The surplus rose from Rs. 1,79,42,726 in 1918-19 to Rs. 2,19,12,540 in 1919-20 but during the next three years it steadily decreased, rising again to Rs. 1,94,60,547 during the last year of the quinquennium. The surplus in 1923-24 represents an average of 2.1 annas per acre of all classes of forest against 1.8 annas in 1918-19. The total surplus rose from Rs. 1,79,42,726 in 1918-19 to Rs. 1,95,60,943 in 1923-24.

Financially the Forest Department has had during the quinquennium to undergo a severe strain, ever since the general slump set in following on the short-lived post-war boom in trade. But development solely with a view to increase the resources and earning capacity of the forests has never been lost sight of. Judging by the perceptible improvement in the general financial results all round it is confidently expected that the improvements initiated in this quinquennial period will produce much better results when the slump ends.

19. In the last quinquennial review it was noted that proposals for greatly Research.
General. enlarging the scope of the work of the
 Forest Research Institute had received the
 sanction of the Secretary of State after the close of the period under report.

Some 1,300 acres of land were acquired about 3 miles from Dehra Dun and were taken possession of in 1920. The first work undertaken on the site was the construction of workshops for the Economic Branch and these were completed in 1923. The machinery was installed in 1923-24 and work in all the sections began before the end of the period under review. Plans for the large main building were sanctioned and the preliminary work in connection with its erection was done. During the quinquennium all the branches continued their work at the Research Institute at Chandbagh, but when the new building is complete it will be possible to undertake forest research on a very much larger and more elaborate scale.

A list of the publications of the Forest Research Institute during the period under review is given at the end of this report.

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20. It was reported in the last quinquennial report that problems had been attacked from a new point of view and that previous ideas had in some cases been revolutionised. During the present quinquennium the previous rather nebulous ideas have been crystallised into tangible systems.

The most important new policy is the appointment of local silviculturists in Bengal, the United Provinces, Burma, Bihar and Orissa, the Central Provinces and Madras. These officers have not in all cases continued to hold their posts very long and good results in research must depend on continuity of effort.

Perhaps the most striking silvicultural achievement is the systematic transmutation of the destructive *taungya* cultivation into a scientific silvicultural system. This adaptation of agriculture to forestry (originally used in India by Sir Dietrich Brandis) is now a common mode of management in Bengal and Burma, and is spreading either experimentally or actually to parts of most other provinces.

The problem of natural *sal* (*Shorea robusta*) regeneration from seed is still unsolved. The United Provinces and Bihar and Orissa have certainly made progress but it is a subject not yet fully understood. Its artificial regeneration has however been solved in places where conditions are suitable. The artificial regeneration of *sal* is very largely a labour problem and the same may be said regarding many other species. One great problem that remains to be solved is the regeneration of the magnificent evergreen forests of Assam, Burma, and the West Coast. These huge areas contain enormous quantities of valuable timbers but their exploitation must to a large extent be conditional on the proper replacement of the forest and forest officers have so far been able to do little to arrange for this. The extremely perishable nature of Dipterocarp seed is one of the important factors.

The quinquennium saw the publication of the first *sal* yield table which was largely used in working plan revision in the United Provinces. Statistical work has so progressed that shortly after the close of the period complete statistical data for *sal* will be ready both on standard and on commercial definitions of timber, and data for *chir* (*Pinus longifolia*) deodar (*Cedrus Deodara*), teak (*Tectona grandis*) and other species are nearing completion. The publication of these data will materially alter working plans and the accuracy of timber estimates for sales. The number of permanent, properly laid out, sample plots is increasing rapidly throughout India and these plots will in the future provide us with a large and very valuable mass of data.

The quinquennium has also seen the issue of much other silvicultural literature. Troop's "Silviculture of Indian Trees" appeared, and the creation of local silviculturists has stimulated publication. Useful works on silviculture or management have been published, principally by Bengal, the United Provinces, Burma and the Central Institute.

Reference is invited to these various publications and the annual Forest Research reports. It is no exaggeration to say that, short though five years is in the life of a tree, the end of the present quinquennium leaves us an appreciable step forward along the path of knowledge.

21. The expansion of the branch of forest economy has been one of the chief reasons for the acquisition of the new site and the establishment of the new workshops. Mr. Pearson, Forest Economist, went to America and England in 1919 to investigate forest research in those countries, and to obtain the necessary machinery to start the workshops at the new site, and a great part of his time and that of his staff was occupied during the quinquennium in establishing and developing research in forest economy on the new expanded lines. Six new sections were sanctioned by the Secretary of State, *viz.*, Wood Technology, Timber Seasoning, Timber Testing, Wood Preservation, Minor Forest Products and Paper Pulp.

Dr. Brown of the Syracuse University, United States of America, spent some years at Dehra when he investigated the structures of Indian timber. He has prepared an elementary manual of Wood Technology for the forest students, and has continued this work in America, after he returned to his University, with a view to producing, in collaboration with Mr. Pearson, a more elaborate work on a similar subject.

For the Seasoning Section two Sturtevant and three Tiemann kilns were erected and a great deal of experimental work has been done with these kilns with a view to discovering the best methods of seasoning of important Indian timbers. Considerable progress has also been made in the air seasoning of these timbers.

In the Timber Testing Section much progress has been made and at the end of the period under report well equipped timber-testing shops have been established, containing modern machines for testing timber in all the various ways that have been worked out in the United States of America, Canada, and Great Britain:

For Wood Preservation a large modern experimental preservation plant has been installed and many timbers have been treated with a number of different preservatives. Elaborate records are being maintained showing moisture content, the quantities of preservatives taken up and other details, which are required to determine the value of the preservation of timber for use in India. A large number of these experiments have been carried out with railway sleepers, as very large quantities of Indian timbers are used for this purpose, and this is an enquiry of the utmost economic importance.

In the section of Minor Forest Products a certain amount of progress was made in the investigation of numerous forest products and the dissemination of information to enquirers, but the progress made in this section was by no means all that might be desired, because it was found necessary owing to financial stringency to dispense with the services of a special officer.

The Paper Pulp Section has continued to do excellent work in experimenting with grasses and bamboos for the manufacture of pulp. There is no doubt whatever that Indian and Burmese bamboos can produce excellent pulp at a cheap rate, and the development of the industry merely awaits the formation of companies adequately equipped with funds and technical knowledge to make the industry a success.

Considerable additions have been received for the timber and economic museums and the completion of the new building will give an opportunity for the adequate display of these products as this is now quite impossible in the present Institute at Chandbagh.

During the period under review the Economic Branch has kept in constant touch with the railways and other commercial interests which are specially interested in the use of the forest products of India, and the enquiries received, not only from India but from other parts of the world, give striking evidence of the valuable work that the Economic Branch has done under the able guidance of Mr. Pearson.

A Tan Expert was employed for some time during the period under report and much valuable information regarding the tan values of Indian trees was collected. These were principally chestnuts, oaks, Dipterocarps and the trees of the mangrove forests of India and Burma. Mr. Pilgrim, who was in charge of the tannin investigations, relinquished his duties in June 1923 after being connected with the Institute for 8 years.

Wood working has been much developed at the Institute and many most useful investigations in the properties and uses of Indian timbers have been completed. Thorough training has been given to a number of carpenters and much progress has been made in this line of investigation.

In the Mechanical sub-section also much useful work was done in erecting machines and maintaining the boilers, electric plant and machinery in good order. Repairs are done on the spot and the workshop can undertake the manufacture of bolts, washers and many other minor fittings required.

22. The work done by the Forest Botanist during the period under report has embraced many fields of activity.

Forest Botany.

Systematic Botany has made great strides at the Institute and the herbarium has been very greatly enlarged. Much work was done on the identification of specimens, both for the officers of the Institute and for forest officers all over India, and the help given by the Forest Botanist to the Economic Branch has been most valuable.

A considerable number of investigations were carried on regarding that perennial puzzle, spike disease in sandal-wood, but it is not possible yet to say that the enquiry is by any means concluded. The Forest Botanist suggested that it is possible that spike is caused by a very dilute solution of an Enzyme excreted by certain fungi which may only be able to enter the main water and sap currents in the plant when the damage is unusually severe or prolonged, when the plant has been weakened by other factors or under other special conditions. Such a hypothesis would harmonise with practically all the theories which so far have been advanced regarding this disease.

The Forest Botanist continued his investigations regarding regeneration of *Sal* and a great deal of information on this subject has been recorded. A summary of most of the experimental work carried out up-to-date on the factors influencing the development of *Sal* seedlings was published during the year 1921.

Progress in mycology has not been rapid, as up-to-date it has not been found possible to engage a qualified mycologist, but a certain amount of useful work was done with regard to certain fungi which attack *Sal*, *Dalbergia Sissoo*, deodar and one or two other important species.

The number of floras for various parts of India is gradually increasing and this important branch of the work of the Forest Botanist received a considerable amount of attention.

23. During the past 5 years a great advance has taken place in the study of

Forest Entomology.

forest entomology at the Institute. The Forest Entomologist has developed his work on broad lines, and the systematic study of insects important in the forest has resulted in a very great increase in our knowledge of Indian entomology generally. Many thousands of insects which are found in the forest have been collected, or bred, and examined and the study of their life histories has made a very great advance. The importance of correlating the study of insects which damage forests with that of other insects whose life history is intimately connected with them has received full recognition.

One of the most important enquiries has been concerned with insects which damage the *Sal* tree. This is a very important wood in the United Provinces and it is easier for the Entomological Branch to study *Sal* in detail than to study any other tree. The wood borer, *Hoplocerambyx spinicornis*, has been extensively investigated, and as remarked by the Forest Entomologist:—

“ The entomological side of the problem starts with the application of general principles based on the forest entomology of Europe and North America, which soon give place to new conceptions arising from acquaintance with local conditions. The control measures suggested are mainly theoretical, and, as they necessarily involve extraordinary expenditure or departure from routine, are adopted by the departmental executive with reluctance. If applied thoroughly the results are measurable with great difficulty, and, finally, if the control measures can be demonstrated as successful, the cost of application and the value of the damage prevented cannot be calculated.”

In a subsequent note the Forest Entomologist was more hopeful as to the possibility of calculating these figures. He states that in a certain forest this insect was responsible for a depreciation in the value of *Sal* timber varying between 2 as. 7 p. and 4 as. 10 p. per c. ft. In the years 1916-19, during which the damage was uncontrolled over 7 miles of *Sal* forest, a million c. ft. of timber were damaged, resulting in a loss of 2½ lakhs of rupees. In the period 1920-23, during which remedies were applied, the loss has been reduced to a total of half a lakh and to Rs. 7,000 in the year 1923. It is probable that a loss of 1 to 3 lakhs has been prevented and there was a considerable profit on the timber sales. This is the first occasion on which the large scale control of a forest insect in India has been shown to be a profitable operation.

As regards damage done to teak, a certain amount of investigation was carried out as regards the Beehole Borer in burma, and it is very desirable, in view of the enormous damage caused by this moth, that more adequate measures should be

taken to ensure a complete enquiry. Owing to paucity of staff, however, little was done in the years under report. Insects which eat the leaves of teak also received a considerable amount of attention, and this enquiry is in progress, particularly at Nilambur in Madras.

When opportunities occurred the damage done by various insects in the coniferous forests of the Himalayas was also investigated but considerably greater attention will be paid to this when staff allows.

The evergreen forests of Assam were also studied and it was found that Shothole borers were the principal factor causing damage in felled timber.

Progress on the systematic side of forest entomology was a very satisfactory feature during the period. The foundations of a reliable reference collection have been laid on authoritative determinations, provision has been made for the permanent preservation of part of it, satisfactory relations have been established with many foreign specialists and institutions and many of the thousands of unnamed specimens have now been named.

A certain amount of work was done on lac, and this extremely important product is receiving a great deal of attention.

Other minor investigations included insects damaging *Cryptomeria*, Alder, Eucalyptus, *Bucklandia*, Oak, *Gmelina*, etc.

The museum, like the economic museum, is now so full that an adequate display cannot be made until the new building is ready.

24. Generally speaking the work carried out by the Chemical Branch during the 5 years ending in 1924 was concerned with investigations into gums, resins, oleo-

Forest Chemistry.

resins and essential oils.

The turpentine from *Pinus longifolia* was further examined and its constitution reported on. Study of the turpentine derived from all the species of pine occurring in India has now been completed, and the results have been published in the Forest Records.

Oils from grasses, such as *Andropogon*, were analysed, and other plants which yield oil from various parts were also investigated. These included the leaves of the Himalayan Cypress, leaves of Himalayan Juniper, root-bark of *Morinda*, leaves of *Skimmia*, seeds of *Zanthoxylum*, Deodar wood-oil, Camphor leaf-oil from Formosan Camphor grown at Dehra, seeds of *Garcinia*, leaves of blue pine, have been examined and a number of reports published. The list will be found at the end of this report.

The Forest Chemist has also assisted other branches in subjects such as the constituents of wood preservatives and the valuable properties in certain minor products.

R. B. EW BANK,

Officiating Secretary to the Government of India.

*List of Forest Publications issued by the Forest Research Institute, Dehra Dun, during
the 5 years period ending 31st March 1924.*

| 1.—BULLETINS (NEW SERIES). | | | Rs. <small>₹</small> p. |
|----------------------------|--|--|-------------------------|
| No. | | | |
| 38. | The Construction of Calcareous Opercula by Longicorn Larvæ of the Group <i>Cerambycini</i> by C. F. C. Beeson. | | 0 3 0 |
| 39. | Note on Hollong Timber (<i>Dipterocarpus pilosus</i> , Roxb) by R. S. Pearson . | | 0 4 0 |
| 40. | Note on Pynma, Ajhar or Jarul Wood (<i>Lagerstræmia Flos Reginz</i> , Retz.), by the same author. | | 0 6 0 |
| 41. | Note on Weights of Seeds, by S. H. Howard | | 0 3 0 |
| 42. | Note on Haldu (<i>Adina cordifolia</i> , Hook, f.) by C. E. C. Cox | | 0 8 0 |
| 43. | Note on <i>Odina Wodier</i> , Roxb., by the same author | | 0 8 0 |
| 44. | Note on Semal or Cotton Wood, by the same author | | 0 10 0 |
| 45. | Note on the Miscellaneous Forests of the Kumaon Bhabar, by E. A. Smythies. | | 1 0 0 |
| 46. | Rate of Growth of Bengal Sal, 1 Quality, by S. H. Howard | | 1 0 0 |
| 47. | Volume Tables and Form Factor Tables for Sal (<i>Shorea robusta</i>) by the same author. | | 0 6 0 |
| 48. | Note on Kindal (<i>Terminalia paniculata</i>), by R. S. Pearson | | 0 6 0 |
| 49. | Note on Thingan (<i>Hopæ odorata</i> , Roxb.), by A. Rodger | | 0 7 0 |
| 50. | Note on Gurjan or Kanyin, by W. A. Robertson | | 0 4 0 |
| 51. | An Investigation of certain Factors concerning the Resin Tapping Industry in <i>Pinus Longifolia</i> , by H. G. Champion. | | 0 8 0 |
| 52. | Classification of Thinnings | | 0 6 0 |
| 53. | Summary of results of Treated and Untreated Experimental Sleepers laid in the various Railway Systems of India, by R. S. Pearson. | | 0 6 0 |
| 54. | Dry Slides and Flumes (Wet Slides), by C. G. Rogers | | 3 12 0 |
| 55. | Animal Haulage, Caterpillar Tractors and Portable Sawmills, by the same author. | | 7 0 0 |
| 2.—RECORDS. | | | |
| Vol. VII, | Part III.—Note on <i>Hopea canarensis</i> , Hole, by R. S. Hole | | 0 3 0 |
| „ VII, | „ IV.—Note on <i>Izora Butterwickii</i> , Hole, by the same author | | 0 3 0 |
| „ VII, | „ V.—Notes on the Larvæ and Life Histories of Prionine Beetles, Coleoptera, Cerambycidae, Prionine, by C. F. C. Beeson. | | 0 8 0 |
| „ VII, | „ VI.—Note on the Mechanical Strength and Seasoning Properties of <i>Shorea robusta</i> (Sal) Timber by R. S. Pearson. | | 0 8 0 |
| „ VII, | „ VII.—The Life History of the Toon Shoot and Fruit Borer, <i>Hypsipyla robusta</i> , Moore, with suggestions for its control, by C. F. C. Beeson. | | 2 4 0 |
| „ VII, | „ VIII.—Afforestation of Ravine Lands in the Etawah District, United Provinces, by E. A. Smythies. | | 2 0 0 |
| „ VIII, | „ I.—Report on Lac and Shellac, by H. A. F. Lindsay and C. M. Harlow. | | 2 12 0 |
| „ VIII, | „ II.—The Regeneration of Sal (<i>Shorea robusta</i>) Forests, by R. S. Hole. | | 2 2 0 |
| „ VIII, | „ III.—Note on the Bee Hole Borer of Teak, by C. F. C. Beeson | | 3 0 0 |
| „ VIII, | „ IV.—Notes on Artificial Regeneration in Bengal, by A. K. Glasson, P. T. Russell, E. O. Shebbeare, and L. E. S. Teague. | | 2 0 0 |
| „ VIII, | „ V.—Note on the Essential Oil from the leaves of <i>Abies Pindrow</i> , Spach, by J. L. Simonsen. | | 2 0 0 |
| „ IX, | „ I.—Results of Antiseptic Treatment of Sleepers, by R. S. Pearson. | | 2 0 0 |
| „ IX, | „ II.—On Chalcidoidea (Mainly bred at Dehra Dun from pests of <i>Sal</i> , <i>Toon</i> , <i>Chir</i> and <i>Sundri</i>) by James Waterston. | | 1 2 0 |
| „ IX, | „ III.—Oils and Fats from the Seeds of Indian Forest Trees, Parts I—V, by M. Gopal Rau and J. L. Simonsen. | | 0 3 0 |
| „ IX, | „ IV.—The Constituents of some Indian Essential Oils, Parts I—VII, by J. L. Simonsen and M. Gopal Rau. | | 0 6 0 |
| „ IX, | „ V.—Further Experiments in the Air Seasoning of Indian Timbers and general recommendations as to Seasoning Methods, by C. V. Sweet with chapter on "Damage to Timber by Insects," by C. F. C. Beeson. | | 2 8 0 |

2.—RECORDS—contd.

| | | | Rs. | A. | P. |
|----------|---|--|-----|----|----|
| Vol. IX, | Part VI.—The Constituents of some Indian Essential Oils, Part VIII. The Essential Oil from the gum-oleo-resin of <i>Bosicellia serrata</i> (Roxb), by J. L. Simonsen. | | 0 | 3 | 0 |
| „ IX, | „ VII.—Note on the Possibilities of Camphor Cultivation from <i>Cinnamomum Camphora</i> in Northern India, by S. H. Howard, W. A. Robertson and J. L. Simonsen. | | 1 | 4 | 0 |
| „ IX, | „ VIII.—The Constituents of some Indian Essential Oils, Parts IX and X, by J. L. Simonsen. | | 0 | 4 | 6 |
| „ IX, | „ IX.—Note on the Work of Extraction of Broad Gauge Sleepers from Nepal, by J. V. Collier. | | 1 | 11 | 0 |
| „ X, | „ I.—The Constituents of some Indian Essential Oils, Part XI. The Essential Oil from the leaves of <i>Cupressus torulosa</i> , Don, by J. L. Simonsen. | | 0 | 3 | 0 |
| „ X, | „ II.—Oils and Fats from the Seeds of Indian Forest Plants, Part VI. The Oil from the Seeds of <i>Aleurites montana</i> , Wils., by R. S. Parker, M. Gopal Rau, W. A. Robertson and J. L. Simonsen, and Part VII. The Oil from the Seeds of <i>Salvia plebeia</i> , R. Br., by M. Gopal Rau and J. L. Simonsen. | | 0 | 9 | 0 |
| „ X, | „ III.—A Sal Yield Table for the United Provinces, by E. A. Smythies and S. H. Howard. | | 1 | 5 | 0 |
| „ X, | „ IV.—The Constituents of some Indian Essential Oils, Part XII. The Essential Oil from the Oleoresin of <i>Pinus Merkusii</i> , by J. L. Simonsen. | | 0 | 2 | 0 |
| „ X, | „ V.—Analysis of the Tanning Properties of certain Burma <i>Iagerstramias</i> , by E. Pasupati. Reported by J. A. Pilgrim. | | 0 | 7 | 0 |
| „ X, | „ VI.—General Volume Tables for Sal (<i>Shorea robusta</i>), by S. H. Howard. | | 1 | 7 | 0 |
| „ X, | „ VII.—Interim Report on the Work under Projects No. 0 and 1, by L. N. Seaman. | | 0 | 9 | 0 |

3.—OTHER PUBLICATIONS.

| | | | | | |
|--|--|--|----|----|---|
| Progress Report of the Forest Research Institute, Dehra Dun, for the year 1918-19. | | | | | |
| Progress Report of Forest Research Work in India (including the Administration Report of the Forest Research Institute, Dehra Dun), for the year 1919-20. | | | 0 | 9 | 0 |
| Progress Report of Forest Research Work in India (including the Administration Report of the Forest Research Institute, Dehra Dun), for the year 1920-21. | | | 2 | 0 | 0 |
| Progress Report of Forest Research Work in India (including the Administration Report of the Forest Research Institute, Dehra Dun), for the year 1921-22. | | | 2 | 0 | 0 |
| Progress Report of Forest Research Work in India (including the Administration Report of the Forest Research Institute, Dehra Dun), for the year 1922-23. | | | 2 | 12 | 0 |
| Progress Report of the Imperial Forest College, Dehra Dun, for the year 1918-1919. | | | 1 | 6 | 0 |
| Progress Report of the Imperial Forest College, Dehra Dun, for the year 1919-1920. | | | 1 | 6 | 0 |
| Progress Report of the Imperial Forest College, Dehra Dun, for the year 1920-1921. | | | 1 | 14 | 0 |
| Progress Report of the Imperial Forest College, Dehra Dun, for the year 1921-1922. | | | 1 | 12 | 0 |
| Progress Report of the Imperial Forest College, Dehra Dun, for the year 1922-1923. | | | 1 | 8 | 0 |
| Forest Research Institute and College Calendar, 1919 | | | 1 | 0 | 0 |
| Forest Research Institute and College Calendar, 1922 | | | 2 | 12 | 0 |
| Code for the Collection and Tabulation of Statistical Data, by S. H. Howard . | | | 2 | 0 | 0 |
| Mechanical, Physical and Structural Properties of Wood grown in India, Project No. 1, by L. N. Seaman. | | | 2 | 0 | 0 |
| The methods of preparing Volume and Money Yield Tables for Teak Woods and Volume and Form Factor Tables for Teak Trees, from data collected in the Nilambur Teak Plantations, South Malabar Division, South India, by R. Bourne. | | | 9 | 0 | 0 |
| A Forest Flora of the Andaman Islands, by C. E. Parkinson | | | 12 | 8 | 0 |

STATEMENT I.

Area of forests under the control of the Forest Department.

| PROVINCE. | | FOREST AREA IN SQUARE MILES. | | | | Percentage of forests to whole area of Province. | REMARKS. |
|--|-----------------------|------------------------------|------------|------------------|---------|--|--|
| Name. | Area in square miles. | Reserved. | Protected. | Unclassed State. | Total. | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Bengal | 76,822 | (a) 5,270 | (b) 1,702 | 4,183 | 11,155 | 14.5 | (a) Excludes 18 square miles of reserved forests not under the management of the Forest Department. (b) Excludes 51 square miles of other protected forests not under the control of the Forest Department. |
| United Provinces | 106,720 | (c) 7,341 | 4 | 41 | 17,386 | 6.9 | (c) Includes 156 square miles of leased forests. |
| Punjab | 97,281 | (d) 1,653 | (e) 4,036 | (f) 507 | 6,196 | 6.4 | (d) Includes 356 square miles of leased forests, but excludes 501 square miles of reserved forests not under the control of the Forest Department. |
| Burma | 243,207* | 27,890 | .. | 94,355 | 122,245 | 50.3 | (e) Excludes 377 square miles not under the control of the Forest Department. (f) Excludes 1,640 square miles not under the control of the Forest Department. |
| Bihar and Orissa | 82,987 | 1,754 | (g) 1,017 | 7 | 2,778 | 3.3 | (g) Excludes 1,050 square miles not under the control of the Forest Department. |
| Assam | 51,825 | 5,814 | .. | 15,602 | 21,416 | 41.3 | |
| Central Provinces (including Berar). | 99,947 | (h) 19,680 | .. | .. | 19,680 | 19.9 | (h) Includes 174 square miles of leased forests. |
| Coorg | 1,582 | 520 | .. | .. | 520 | 32.9 | |
| North-West Frontier Province. | 13,057 | (i) 236 | (j) | 9 | 245 | 1.9 | (i) Excludes 14 square miles of military and civil reserved forests. (j) 121 square miles of civil protected forests are not shown. |
| Ajmer | 2,767 | 142 | (k) | .. | 142 | 5.1 | (k) There are only 115 acres of protected forests in Ajmer. |
| Baluchistan (portions under British Administration). | 54,228† | 313 | .. | 472 | 785 | 1.4 | |
| Andamans and Nicobar | 3,143† | 82 | .. | 2,122 | 2,204 | 70.1 | |
| Madras | 143,312 | 18,956 | .. | (l) 172 | 19,128 | 13.3 | (l) Reserved lands. |
| Bombay (including Sind) | 123,234 | (m) 13,798 | (n) 1,172 | .. | 14,970 | 12.1 | (m) Excludes 516 square miles in charge of the Revenue Department. (n) Excludes 656 square miles in charge of the Revenue Department. |
| Total 1923-24 | 1,100,112‡ | 103,449 | 7,931 | 117,470 | 228,850 | 20.8 | |
| TOTAL 1922-23 | 1,100,902‡ | 100,922 | 7,238 | 115,544 | 223,704 | 20.3 | |
| " 1921-22 | 1,098,341 | 103,789 | 7,550 | 138,165 | 249,504 | 22.7 | |
| " 1920-21 | 1,082,266 | 103,491 | 7,516 | 139,466 | 250,473 | 23.1 | |
| " 1919-20 | 1,080,814 | 103,003 | 7,941 | 140,005 | 250,949 | 23.2 | |

* Including 60,693 square miles for the Shan States and Karonni.
† Figures taken from the Census Report of 1921.
‡ Excluding Delhi Province and Pargana Manpur.

STATEMENT II.

Progress made in Forest Settlements during the year 1922-23.

| PROVINCE. | AREA IN SQUARE MILES. | | | COST DURING YEAR. | | Entire cost per square mile of areas finally settled. |
|--|------------------------------|----------------------------------|----------------------------|---------------------|--------------------|---|
| | Finally settled during year. | In hand at commencement of year. | Taken in hand during year. | In Forest Accounts. | In other Accounts. | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| | | | | Rs. | Rs. | Rs. |
| Bengal | 143 | 1 | .. | .. | .. | .. |
| United Provinces | 5 | 3 | 2 | .. | .. | .. |
| Punjab | 2 | .. | 2 | .. | .. | .. |
| Burma | 488 | 2,822 | 459 | 3,873 | .. | .. |
| Bihar and Orissa | 1 | 51 | 50 | .. | .. | .. |
| Assam | 218 | 400 | 4 | 71 | .. | .. |
| Central Provinces | .. | .. | 1 | .. | .. | .. |
| Coorg | .. | .. | .. | .. | .. | .. |
| North-West Frontier Province | .. | .. | .. | .. | .. | .. |
| Ajmer | .. | .. | .. | .. | .. | .. |
| Baluchistan | .. | 313 | .. | .. | .. | .. |
| Andamans | .. | 85 | .. | .. | .. | .. |
| Madras | 20 | 151 | .. | 4,068 | .. | .. |
| Bombay | 67 | 28 | 149 | 1,928 | .. | .. |
| 1923-24 | 944 | 3,854 | 667 | 9,940 | .. | .. |
| 1922-23 | 478 | 3,627 | 629 | 27,219 | .. | .. |
| TOTAL 1921-22 | 480 | 4,081 | 489 | 38,807 | .. | .. |
| 1920-21 | 758 | 4,388 | 315 | 11,484 | 1,961 | .. |
| 1919-20 | 1,774 | 3,876 | 1,982 | 32,871 | .. | .. |

STATEMENT III.

Demarcation and maintenance of boundaries.

| PROVINCE. | Length of boundaries artificially demarcated during the year. | Length of previously existing boundaries repaired. | Length of previously existing boundaries not repaired. | Total length of artificially marked boundaries at the close of the year. | Length of boundaries not demarcated at the close of the year. | Length of natural boundaries not repairing artificial marks. | Total length of boundaries at the close of the year. | EXPENDITURE ON DEMARCATION DURING THE YEAR. | |
|---------------------------------|---|--|--|--|---|--|--|---|-------------|
| | | | | | | | | On new work. | On repairs. |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Rs. | Ra. |
| Bengal | 103 | 1,060 | 775 | 1,938 | 117 | 1,178 | 3,233 | 1,685 | 7,500 |
| United Provinces | 41 | 2,135 | 9,288 | 11,464 | 10 | 2,892 | 14,366 | 7,082 | 25,125 |
| Punjab | 158 | 846 | 7,515 | 8,519 | 21 | 1,418 | 9,958 | 103 | 4,085 |
| Burma | 175 | 2,882 | 14,033 | 17,090 | 234 | 3,140 | 20,464 | 4,198 | 28,079 |
| Bihar and Orissa | .. | 3,134 | 1,513 | 4,647 | .. | 361 | 5,008 | 25 | 1,812 |
| Assam | 17 | 1,231 | 1,209 | 2,457 | 22 | 2,058 | 4,537 | 254 | 5,877 |
| Central Provinces | 19 | 3,206 | 22,443 | 30,668 | 213 | 3,255 | 34,136 | 72 | 15,835 |
| Goorg | .. | .. | .. | 480 | .. | 56 | 536 | .. | 866 |
| North-West Frontier Province. { | .. | 150 | 627 | 777 | .. | 139 | 916 | .. | 884 |
| Ajmer | .. | 10 | 233 | 243 | .. | 158 | 401 | .. | 301 |
| Baluchistan | .. | 2 | 458 | 460 | .. | 77 | 537 | .. | .. |
| Andamans | .. | .. | 24 | 24 | 33 | 72 | 129 | .. | .. |
| Madras | 94 | 21,599 | 9,440 | 31,132 | 656 | 2,109 | 33,897 | 2,221 | 4,734 |
| Bombay | 43 | 25,195 | 14,533 | 39,771 | 93 | 2,826 | 42,690 | 313 | 3,256 |
| 1923-24 | 650 | 66,450 | 82,091 | 149,670 | 1,399 | 19,739 | 170,808 | 15,953 | 98,420 |
| 1922-23 | 403 | 66,742 | 82,665 | 149,809 | 1,456 | 19,273 | 170,547 | 12,311 | 1,08,537 |
| TOTAL 1921-22 | 962 | 67,045 | 83,123 | 151,130 | 1,527 | 19,870 | 172,527 | 31,056 | 99,918 |
| 1920-21 | 922 | 59,827 | 90,443 | 151,192 | 1,400 | 19,776 | 172,368 | 20,853 | 87,481 |
| 1919-20 | 865 | 64,505 | 86,330 | 151,700 | 1,504 | 19,009 | 172,273 | 30,306 | 99,753 |

STATEMENT IV.

Forest Survey operations from 1st April 1923 to 31st March 1924.

| PROVINCE. | Forest Surveys. | NATURE OF SURVEY OPERATIONS. | | | | | | TOTAL AREA OF DETAIL SURVEY. | | Expenditure of the year including mapping and publishing charges debitable to "Forests." | REMARKS. |
|---------------------|------------------|------------------------------|------------|-------------------|------------|-------------------|------------|------------------------------|-------------------|--|--|
| | | 1" DETAIL SURVEY. | | 2" DETAIL SURVEY. | | 4" DETAIL SURVEY. | | 1923-24. | Total up to date. | | |
| | | Area. | Cost rate. | Area. | Cost rate. | Area. | Cost rate. | Sq. m. | Sq. m. | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| | | Sq. m. | Rs. | Sq. m. | Rs. | Sq. m. | Rs. | Sq. m. | Sq. m. | Rs. A. P. | |
| Andamans | | .. | .. | .. | .. | .. | .. | .. | 527 | .. | |
| Assam | Lakhimpur | .. | .. | .. | .. | .. | .. | .. | 4,973 | 555 4 0 | The area entered under 1-inch detail survey against Sibsagar was surveyed on the 1/2 inch scale. Cost of surveys not debitable to "Forests." |
| | Sibsagar | 34 | 10-8 | .. | .. | .. | .. | 84-0 | | | |
| | Sadiya | 132 | 60-8 | .. | .. | .. | .. | 132-0 | | | |
| Baluchistan | | .. | .. | .. | .. | .. | .. | 227 | .. | | |
| Bengal | | .. | .. | .. | .. | .. | .. | 3,265 | .. | | |
| Bihar and Orissa | Sambalpur | .. | .. | .. | .. | .. | .. | .. | 1,805 | 549 0 0 | |
| | Santhal Parganas | .. | .. | .. | .. | .. | .. | .. | | | |
| Bombay | Surat | .. | .. | .. | .. | .. | .. | .. | 12,083 | 1,166 12 0 | |
| | Nasik West | .. | .. | .. | .. | .. | .. | .. | | | |
| | Thana East | .. | .. | .. | .. | .. | .. | .. | | | |
| | Poona | .. | .. | .. | .. | .. | .. | .. | | | |
| | Kanara East | .. | .. | .. | .. | .. | .. | .. | | | |
| Burma | Prome | .. | .. | .. | .. | .. | .. | .. | 21,063 | 5,11,489 2 0 | 84-3 linear miles of boundaries were traversed. Cost not debitable to "Forests." 50 linear miles of boundaries were surveyed with Planetable. Cost not debitable to "Forests." The area entered under 1 inch detail survey was surveyed on 1/2-inch scale. Cost not debitable to "Forests." Cost of survey debitable to "Forests." Ditto. The area entered under 4-inch detail survey was surveyed by aerial photography for reproduction on 3-inch scale. Cost of survey debitable to "Forests." Cost of 4-inch survey only is debitable to "Forests." Cost of survey debitable to "Forests." 196-9 linear miles of boundaries were traversed. 95-7 linear miles of boundaries were traversed. 111-1 linear miles of boundaries were traversed. Cost of survey debitable to "Forests." 92-8 linear miles of boundaries were traversed. 131-8 linear miles of boundaries were traversed. Cost of survey debitable to "Forests." 45 linear miles of new roads were surveyed on the 4-inch scale. 10 linear miles of boundaries were traversed. Cost of survey not debitable to "Forests." Cost of survey is debitable to "Forests." The area entered under 1-inch detail survey was surveyed on the 1/2-inch scale. Cost of survey not debitable to "Forests." 92-4 linear miles of boundaries were traversed. |
| | Tharrawady | .. | .. | .. | .. | .. | .. | .. | | | |
| | Insein | .. | .. | .. | .. | .. | .. | .. | | | |
| | Theyotmyo | 0-3 | 59-1 | .. | .. | .. | .. | 0-3 | | | |
| | Henzada-Ma-ubin | .. | .. | 448-5 | 139-7 | .. | .. | 448-5 | | | |
| | Bassein | .. | .. | 244-2 | 139-7 | .. | .. | 244-2 | | | |
| | Delta | .. | .. | .. | .. | 1016 | 247-5 | 1016-0 | | | |
| | Arakan North | 7-8 | 44-8 | .. | .. | 5-6 | 367-1 | 12-9 | | | |
| | Arakan South | .. | .. | 23-5 | 175-8 | .. | .. | 23-5 | | | |
| | Toungoo North | .. | .. | .. | .. | .. | .. | .. | | | |
| | Toungoo South | .. | .. | .. | .. | .. | .. | .. | | | |
| | Shwegyin | .. | .. | .. | .. | .. | .. | .. | | | |
| | Pegu North | .. | .. | .. | .. | .. | .. | .. | | | |
| | Pegu South | .. | .. | 2-0 | 139-7 | 4-0 | 310-0 | 6-0 | | | |
| | Thaton | .. | .. | .. | .. | .. | .. | .. | | | |
| Salween | .. | .. | .. | .. | .. | .. | .. | | | | |
| Tenasserim South | .. | .. | .. | .. | .. | .. | .. | | | | |
| Thaungyin | .. | .. | .. | .. | 5-7 | 272-9 | 5-7 | | | | |
| Ataran | 5-1 | 48-6 | 130-0 | 137-1 | 9-8 | 272-9 | 144-9 | | | | |
| Katha | .. | .. | 75-5 | 139-7 | .. | .. | 75-5 | | | | |
| Minbu | 115-1 | 20-1 | .. | .. | .. | .. | 115-1 | | | | |
| Fyinmana | .. | .. | .. | .. | .. | .. | .. | | | | |
| Maymyo | .. | .. | .. | .. | .. | .. | .. | | | | |
| Myitnaka Extraction | .. | .. | .. | .. | .. | .. | .. | | | | |
| Do org | | .. | .. | .. | .. | .. | .. | 478 | 377 8 0 | | |

STATEMENT IV—concl'd.

Forest Survey operations from 1st April 1923 to 31st March 1924—concl'd.

| PROVINCE. | Forest Surveys. | NATURE OF SURVEY OPERATIONS. | | | | | | TOTAL AREA OF DETAIL SURVEY. | | Expenditure of the year including mapping and publishing charges debitablc to "Forests." | REMARKS. |
|--------------------------|------------------------------------|------------------------------|------------|-------------------|------------|-------------------|------------|------------------------------|-------------------|--|--|
| | | 1" DETAIL SURVEY. | | 2" DETAIL SURVEY. | | 4" DETAIL SURVEY. | | 1923-24. | Total up to date. | | |
| | | Area. | Cost rate. | Area. | Cost rate. | Area. | Cost rate. | Sq. m. | Sq. m. | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| | | Sq. m. | Rs. | Sq. m. | Rs. | Sq. m. | Rs. | Sq. m. | Sq. m. | Rs. A. P. | |
| Central Provinces | Damoh | .. | .. | .. | .. | .. | .. | .. | 19,515 | 542 0 0 | |
| | Hosangabad | .. | .. | .. | .. | .. | .. | .. | | | |
| | Berar | .. | .. | .. | .. | .. | .. | .. | | | |
| | Balaghat | 1.1 | 14.3 | .. | .. | .. | .. | 1.1 | | | |
| | Vizagapatam | .. | .. | .. | .. | .. | .. | .. | | | |
| | Anantapur | .. | .. | .. | .. | .. | .. | .. | | | |
| | Cuddapah North | 135.3 | 13.3 | .. | .. | .. | .. | 135.5 | | | |
| | Cuddapah West | 172.7 | 5.1 | .. | .. | .. | .. | 172.7 | | | |
| Madras | Cuddapah South | .. | .. | .. | .. | .. | .. | .. | 17,490 | 4,037 14 0 | The 2nd area entered under col. "1-inch detail survey" was surveyed on the 1/4-inch scale. Cost of surveys not debitablc to "Forests." |
| | Nellore | .. | .. | .. | .. | .. | .. | .. | | | |
| | Vellore South | .. | .. | .. | .. | .. | .. | .. | | | |
| | Vellore West | .. | .. | .. | .. | .. | .. | .. | | | |
| | Salem North | .. | .. | .. | .. | .. | .. | .. | | | |
| | Salem Central | .. | .. | .. | .. | .. | .. | .. | | | |
| | Salem East | .. | .. | .. | .. | .. | .. | .. | | | |
| | Trichinopoly | .. | .. | .. | .. | .. | .. | .. | | | |
| | Tinnevelly | .. | .. | .. | .. | .. | .. | .. | | | |
| | Coimbatore-kollegal | .. | .. | .. | .. | .. | .. | .. | | | |
| N.-W. Frontier Province. | Coorg | .. | .. | .. | .. | .. | .. | .. | 445 | 1,253 8 0 | |
| | Hazara | .. | .. | .. | .. | .. | .. | .. | | | |
| Punjab | Punjab | .. | .. | .. | .. | .. | .. | .. | 4,365 | 829 12 0 | |
| | Jhelum | .. | .. | .. | .. | .. | .. | .. | | | |
| | Southern Plantation | .. | .. | .. | .. | .. | .. | .. | | | |
| United Provinces | Chakrata | .. | .. | .. | .. | .. | .. | .. | 7,102 | 2,521 1 0 | The area revised on the 1/4-inch scale is covered by existing 4-inch maps. Cost of survey not debitablc to "Forests." |
| | Dehra Dun | .. | .. | .. | .. | .. | .. | .. | | | |
| | Saharanpur | .. | .. | .. | .. | .. | .. | .. | | | |
| | Kheri North | .. | .. | .. | .. | .. | .. | .. | | | |
| | Kheri South | .. | .. | .. | .. | .. | .. | .. | | | |
| | Banda | .. | .. | .. | .. | .. | .. | .. | | | |
| | Utilisation | .. | .. | .. | .. | .. | .. | .. | | | |
| Afforestation | .. | .. | .. | .. | .. | .. | .. | | | | |
| Ajmer | .. | .. | .. | .. | .. | .. | .. | 144 | | | |
| India | .. | .. | .. | .. | .. | .. | .. | .. | 126 8 0 | | |
| TOTAL 1923-24 | 1st April 1923 to 31st March 1924. | *281 | .. | 924 | .. | 125 | .. | 2,566 | 94,382 | 5,24,078 0 0 | Cost of mapping, publishing and special surveys only. Excluding Forest Map Office Head-quarters charges 92,254 |
| " 1922-23 | 1st April 1922 to 31st March 1923. | 831 | .. | 649 | .. | 10 | .. | 1,507 | 91,814 | 2,23,205 0 0 | Ditto 9 2,124 |
| " 1921-22 | 1st April 1921 to 31st March 1922. | 819 | .. | 1,413 | .. | 64 | .. | 1,796 | 90,807 | 1,77,130 0 0 | Ditto 86,991 |
| " 1920-21 | 1st July 1920 to 31st March 1921. | 86 | .. | 1,294 | .. | 40 | .. | 1,420 | 88,511 | 96,573 0 0 | Ditto 125 |
| " 1919-20 | 1st July 1919 to 30th June 1920. | 281 | .. | 860 | .. | 35 | .. | 1,185 | 87,091 | 99,325 0 0 | Ditto 61,000 |

NOTE.—The figures in column (10) for each Province have been obtained by adding column (9) to the figures given in column (10) of the published statement in the Annual Return of Statistics for the year 1922-23.

* Excludes 322 square miles surveyed on the 1/4-inch scale.

† " 1016 " " " by aerial Photography for reproduction on the 3/4 scale.

STATEMENT V.

Progress made in working plans.

| PROVINCE. | AREA UNDER SANCTIONED WORKING PLANS. | | | | | AREA NOT UNDER WORKING PLANS. | | | | REVISIONS. | | | |
|-------------------------------|--------------------------------------|------------------------|---------------------------|-------------------|--|-------------------------------|----------------------|--------------------------|---|------------------|-------------------------------------|---|---|
| | At commencement of the year. | Added during the year. | Deducted during the year. | AT CLOSE OF YEAR. | | PLANS NOT UNDER PREPARATION. | | | | Due or required. | In progress at the end of the year. | Revised plans sanctioned during the year. | Expenditure on working plans during the year. |
| | | | | Actual area. | Percentage of total forest area (as shown in column 10). | Plans under preparation. | Required at present. | Not required at present. | Total forest area in Statement I. (Total of columns 5, 7, 8 and 9.) | | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) |
| Bengal | 4,745 | 1,853 | 1 | 6,597 | 59 | 210 | 40 | 4,376 | 11,223 | .. | 403 | 26 | 16,871 |
| United Provinces | 6,028 | 56 | 21 | 6,063 | 82 | 608 | 4 | 711 | 7,386 | .. | 1,648 | 1,043 | 44,849 |
| Punjab | 2,438 | 178 | 178 | 2,438 | 39.3 | 200 | 40 | 3,518 | 6,196 | 226 | 31 | 627 | 9 |
| Burma | 10,011 | 258 | .. | 10,269 | 37 | 3,248 | 6,433 | 7,940 | 27,890 | 1,484 | 2,358 | 1,203 | 38,387 |
| Bihar and Orissa | 1,484 | .. | .. | 1,484 | 53.4 | .. | .. | 1,295 | 2,779 | 872 | 640 | 524 | 2,161 |
| Assam | 238 | .. | .. | 238 | 1.1 | 1,502 | 2,166 | 17,510 | 21,416 | .. | .. | .. | .. |
| Central Provinces | 16,077 | 20 | 25 | 16,072 | 81.7 | 513 | 1,299 | 1,796 | 19,680 | 2,600 | .. | .. | .. |
| Coorg | 520 | 104 | 104 | 520 | .. | .. | .. | .. | 520 | .. | .. | .. | .. |
| North-West Frontier Province. | 185 | .. | .. | 185 | 78.4 | .. | .. | 51 | 236 | 97 | 77 | 62 | 1,159 |
| Ajmer | 142 | .. | .. | 142 | .. | .. | .. | .. | 142 | .. | .. | .. | .. |
| Baluchistan | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Andamans | 708 | 317 | 317 | 708 | 34.9 | .. | .. | 1,318 | 2,026 | .. | .. | .. | .. |
| Madras | 5,611 | 647 | .. | 6,258 | 32.7 | 2,292 | 5,219 | 5,359 | 19,128 | .. | .. | .. | .. |
| Bombay | 7,869 | 16 | 13 | 7,872 | 63 | 920 | 1,102 | 2,591 | 12,485 | 1,257 | 648 | 35 | 15,697 |
| TOTAL 1923-24 | 56,056 | 3,449 | 659 | 58,846 | 44.9 | 9,493 | 16,303 | 46,465 | 131,107 | 6,536 | 5,805 | 3,520 | 119,133 |
| .. 1922-23 | 57,463 | 768 | 1,598 | 56,633 | 25.6 | 8,303 | 19,540 | 139,228 | 220,712 | 9,332 | 6,623 | 1,706 | 94,505 |
| .. 1921-22 | 58,955 | 2,172 | 108 | 61,019 | 24.5 | 7,113 | 18,184 | 163,188 | 249,504 | 11,744 | 6,105 | 46 | 52,387 |
| .. 1920-21 | 59,455 | 1,593 | 1,464 | 59,584 | 23.8 | 8,013 | 18,491 | 164,385 | 250,473 | 8,766 | 4,578 | 2,898 | 51,445 |
| .. 1919-20 | 60,190 | 452 | 1,122 | 59,520 | 23.7 | 8,704 | 18,151 | 164,561 | 250,936 | 9,052 | 6,919 | .. | 24,165 |

STATEMENT VI.

Expenditure on communications and buildings.

| PROVINCE. | NEW WORKS. | | REPAIRS. | | Other Works. | TOTAL. |
|--|------------|-----------|------------|----------|--------------|-----------|
| | Buildings. | Roads. | Buildings. | Roads. | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| Bengal | 14,240 | 8,648 | 37,296 | 27,450 | 7,588 | 95,222 |
| United Provinces | 1,35,748 | 55,528 | 1,04,415 | 1,40,116 | 20,407 | 4,56,214 |
| Punjab | 21,560 | 5,718 | 18,263 | 22,781 | 9,582 | 77,904 |
| Burma | 1,71,351 | 2,34,740 | 1,00,700 | 1,15,898 | 51,616 | 6,74,305 |
| Bihar and Orissa | 64,122 | 19,197 | 29,756 | 36,024 | 9,807 | 1,58,906 |
| Assam | 24,217 | 24,287 | 28,152 | 46,406 | 12,179 | 1,35,241 |
| Central Provinces | 67,734 | 51,011 | 44,992 | 53,362 | 21,804 | 2,38,903 |
| Coorg | 18,628 | 4,966 | 9,574 | 54,698 | 6,001 | 93,867 |
| North-West Frontier Province | 1,748 | 17,216 | 2,483 | 3,027 | 1,436 | 25,910 |
| Ajmer | 220 | 90 | 140 | 159 | 5,611 | 6,220 |
| Baluchistan | 2,000 | .. | 276 | 44 | 18 | 2,338 |
| Andamans | (a) 4,804 | .. | .. | 2,715 | .. | 7,519 |
| Madras | 71,889 | 1,08,083 | 73,064 | 94,230 | 11,048 | 3,58,314 |
| Bombay | 98,454 | 1,56,506 | 30,239 | 80,952 | 16,451 | 3,82,602 |
| 1923-24 | 6,96,715 | 6,85,990 | 4,79,350 | 6,77,862 | 1,73,548 | 27,13,465 |
| 1922-23 | 8,05,788 | 10,00,959 | 4,70,949 | 6,66,099 | 2,99,615 | 32,43,410 |
| TOTAL } 1921-22 | 14,21,419 | 9,54,239 | 4,69,804 | 6,75,470 | 1,92,875 | 37,13,607 |
| 1920-21 | 13,73,451 | 8,96,500 | 3,55,044 | 5,90,017 | 1,40,735 | 33,55,747 |
| 1919-20 | 15,01,544 | 9,96,550 | 3,74,667 | 5,92,748 | 1,49,898 | 36,15,407 |

(a) Cost of labour only. Timber and material supplied Departmentally and not taken into account.

STATEMENT VII.

Breaches of forest rules.

| PROVINCE. | Cases pending from 1922-23. | NEW CASES OF THE YEAR. | | | | | Total new cases of the year. | Total cases. | DISPOSED OF DURING THE YEAR. | | | | | | Cases pending at close of year. |
|---|-----------------------------|---------------------------|---|---|-----------------|-------------|------------------------------|--------------|------------------------------|--------|----------|--------|----------|--------|---------------------------------|
| | | Injury to forest by fire. | Unauthorised felling or appropriation of wood and minor forest produce. | Grazing without permission or in tracts in which grazing is prohibited. | Other offences. | CONVICTION. | | | ACQUITTALS. | | TOTAL. | | | | |
| | | | | | | Cases. | | | Persons. | Cases. | Persons. | Cases. | Persons. | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | |
| Bengal | A. | 43 | 3 | 134 | 23 | 40 | 200 | 243 | 116 | 332 | 22 | 58 | 138 | 300 | 88 |
| | B. | 130 | 15 | 1,095 | 1,298 | 1,037 | 3,445 | 3,575 | 3,383 | 6,099 | 11 | 13 | 3,394 | 6,112 | 163 |
| | C. | .. | 06 | 80 | 10 | 27 | 218 | 218 | .. | .. | .. | .. | .. | .. | .. |
| | Total | 173 | 114 | 1,809 | 1,331 | 1,104 | 3,858 | 4,031 | 3,499 | 6,431 | 33 | 71 | 3,532 | 6,502 | 251 |
| United Provinces | A. | 60 | 26 | 112 | 32 | 46 | 216 | 276 | 145 | 392 | 45 | 86 | 190 | 478 | 86 |
| | B. | 108 | 43 | 1,466 | 2,170 | 292 | 3,971 | 4,079 | 3,576 | 8,026 | 351 | 824 | 3,927 | 9,810 | 152 |
| | C. | .. | 116 | 108 | 6 | 11 | 241 | 241 | .. | .. | .. | .. | .. | .. | .. |
| | Total | 168 | 185 | 1,686 | 2,208 | 349 | 4,428 | 4,596 | 3,721 | 9,378 | 396 | 910 | 4,117 | 10,288 | 238 |
| Punjab | A. | 172 | 7 | 237 | 202 | 114 | 560 | 732 | 313 | 699 | 48 | 485 | 361 | 1,184 | 357 |
| | B. | 584 | 12 | 2,804 | 4,332 | 1,190 | 8,338 | 8,922 | 7,900 | 12,029 | 118 | 206 | 8,018 | 12,235 | 869 |
| | C. | .. | 83 | 7 | 5 | 14 | 109 | 109 | .. | .. | .. | .. | .. | .. | .. |
| | Total | 756 | 102 | 3,048 | 4,539 | 1,318 | 9,007 | 9,763 | 8,213 | 12,728 | 166 | 691 | 8,379 | 13,419 | 1,226 |
| Burma | A. | 385 | 3 | 608 | 20 | 145 | 776 | 1,161 | 834 | 1,380 | 143 | 286 | 977 | 1,675 | .. |
| | B. | 1,174 | 36 | 6,202 | 240 | 2,151 | 8,629 | 9,808 | 7,458 | 10,671 | .. | .. | 7,458 | 10,671 | .. |
| | C. | .. | .. | 83 | .. | 11 | 94 | 94 | .. | .. | .. | .. | .. | .. | .. |
| | Total | 1,559 | 39 | 6,893 | 260 | 2,307 | 9,499 | 11,058 | 8,292 | 12,060 | 143 | 286 | 8,435 | 12,346 | 2,165 |
| Bihar and Orissa | A. | 88 | 3 | 196 | 42 | 65 | 306 | 394 | 236 | 691 | 41 | 157 | 327 | 1,048 | 45 |
| | B. | 95 | 10 | 1,166 | 213 | 61 | 1,450 | 1,545 | 1,444 | 4,335 | 1 | 7 | 1,445 | 4,342 | 91 |
| | C. | .. | 117 | .. | .. | .. | 117 | 117 | .. | .. | .. | .. | .. | .. | .. |
| | Total | 183 | 130 | 1,362 | 255 | 126 | 1,873 | 2,056 | 1,730 | 5,226 | 42 | 164 | 1,772 | 5,390 | 136 |
| Assam | A. | 80 | .. | 124 | 26 | 79 | 219 | 308 | 203 | 618 | 21 | 134 | 224 | 752 | 84 |
| | B. | 85 | .. | 524 | 114 | 252 | 890 | 975 | 882 | 2,302 | .. | .. | 882 | 2,302 | 93 |
| | C. | .. | .. | 1 | .. | 5 | 6 | 6 | .. | .. | .. | .. | .. | .. | .. |
| | Total | 174 | .. | 649 | 140 | 326 | 1,115 | 1,239 | 1,085 | 2,920 | 21 | 134 | 1,106 | 3,054 | 177 |
| Central Provinces | A. | 53 | 53 | 79 | 141 | 24 | 297 | 350 | 231 | 602 | 68 | 322 | 290 | 924 | 36 |
| | B. | 1,788 | 149 | 6,066 | 6,703 | 798 | 13,716 | 15,504 | 13,590 | 38,298 | 16 | 29 | 13,606 | 39,327 | 1,837 |
| | C. | .. | 429 | 589 | 133 | 32 | 1,183 | 1,183 | .. | .. | .. | .. | .. | .. | .. |
| | Total | 1,841 | 631 | 6,734 | 6,977 | 854 | 15,196 | 17,037 | 13,821 | 38,900 | 84 | 351 | 13,905 | 39,251 | 1,873 |
| Coorg | A. | .. | .. | 2 | 1 | 1 | 4 | 4 | 1 | 1 | .. | .. | 1 | 1 | 1 |
| | B. | .. | .. | .. | .. | 11 | 11 | 11 | 11 | 18 | .. | .. | 11 | 18 | .. |
| | C. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Total | .. | .. | 2 | 1 | 12 | 15 | 15 | 12 | 19 | .. | .. | 12 | 19 | 1 |
| North-West Frontier Provinces | A. | 104 | 2 | 152 | 89 | .. | 243 | 347 | 195 | 501* | 26 | 71 | 221 | 572 | 123 |
| | B. | .. | .. | 540 | 1,104 | 16 | 1,660 | 1,660 | 1,660 | 2,780† | .. | .. | 1,660 | 2,780† | .. |
| | C. | .. | 18 | 17 | 9 | .. | 44 | 44 | .. | .. | .. | .. | .. | .. | .. |
| | Total | 104 | 20 | 709 | 1,202 | 16 | 1,947 | 2,051 | 1,855 | 3,281 | 26 | 71 | 1,881 | 3,352 | 123 |

* Also 2 villages.

† Also 1 village.

STATEMENT VII—contd.

Breaches of forest rules—contd.

| PROVINCE. | Cases pending from 1921-22. | NEW CASES OF THE YEAR. | | | | | Total cases. | DISPOSED OF DURING THE YEAR. | | | | | | Cases pending at close of year. | |
|-------------------------|-----------------------------|---------------------------|---|---|-----------------|------------------------------|--------------|------------------------------|----------|-------------|----------|---------|----------|---------------------------------|-------|
| | | Injury to forest by fire. | Unauthorised felling or appropriation of wood and minor forest produce. | Grazing without permission or in tracts in which grazing is prohibited. | Other offences. | Total new cases of the year. | | CONVICTIONS. | | ACQUITTALS. | | TOTALS. | | | |
| | | | | | | | | Cases. | Persons. | Cases. | Persons. | Cases. | Persons. | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | |
| Ajmer | A. | 1 | 2 | 1 | 3 | 1 | 7 | 8 | 5 | 9 | 2 | 5 | 7 | 14 | 1 |
| | B. | .. | 27 | 474 | 745 | 329 | 1,575 | 1,575 | 1,574 | 3,138 | 1 | 1 | 1,575 | 3,139 | .. |
| | C. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Total | 1 | 29 | 475 | 748 | 330 | 1,582 | 1,583 | 1,579 | 3,147 | 3 | 6 | 1,582 | 3,153 | 1 |
| Baluchistan | A. | 2 | .. | 30 | 2 | .. | 32 | 34 | 24 | 45 | 5 | 12 | 29 | 57 | 5 |
| | B. | .. | .. | 99 | 92 | .. | 191 | 191 | 191 | 241 | .. | .. | 191 | 241 | .. |
| | C. | .. | 1 | 3 | .. | .. | 4 | 4 | .. | .. | .. | .. | .. | .. | .. |
| | Total | 2 | 1 | 132 | 94 | .. | 227 | 229 | 215 | 236 | 5 | 12 | 220 | 298 | 5 |
| Andamans | A. | .. | .. | 8 | .. | .. | 8 | 8 | 4 | 5 | 4 | 11 | 8 | 16 | .. |
| | B. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | C. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Total | .. | .. | 8 | .. | .. | 8 | 8 | 4 | 5 | 4 | 11 | 8 | 16 | .. |
| Madras | A. | 3,583 | 47 | 6,080 | 2,161 | 377 | 8,665 | 12,248 | 6,448 | 18,301 | 2,575 | 7,349 | 9,023 | 25,650 | 3,225 |
| | B. | 4,804 | 85 | 15,628 | 4,938 | 804 | 21,455 | 26,259 | 19,719 | 44,973 | 1,463 | 4,828 | 21,132 | 49,301 | 5,077 |
| | C. | .. | 1,051 | 489 | 18 | 28 | 1,586 | 1,586 | .. | .. | .. | .. | .. | .. | .. |
| | Total | 8,387 | 1,133 | 22,197 | 7,117 | 1,209 | 31,708 | 40,093 | 26,167 | 63,274 | 4,038 | 11,677 | 30,205 | 74,951 | 8,302 |
| Bombay | A. | 174 | 52 | 130 | 75 | 31 | 288 | 462 | 317 | 712 | 37 | 113 | 354 | 825 | 95 |
| | B. | 1,526 | 210 | 6,135 | 6,139 | 1,303 | 13,787 | 15,313 | 13,756 | 34,857 | .. | .. | 13,756 | 34,857 | 1,512 |
| | C. | .. | 1,461 | 1,276 | 50 | 50 | 2,837 | 2,837 | .. | .. | .. | .. | .. | .. | .. |
| | Total | 1,700 | 1,723 | 7,541 | 6,264 | 1,384 | 16,912 | 18,612 | 14,073 | 35,569 | 37 | 113 | 14,110 | 35,682 | 1,607 |
| GRAND TOTAL | A. | 4,754 | 198 | 7,893 | 2,817 | 913 | 11,821 | 16,575 | 9,122 | 24,407 | 3,037 | 9,089 | 12,159 | 33,586 | 4,146 |
| | B. | 10,294 | 587 | 42,199 | 28,088 | 8,244 | 79,118 | 89,412 | 75,144 | 168,727 | 1,961 | 5,408 | 77,105 | 174,135 | 9,794 |
| | C. | .. | 3,372 | 2,953 | 231 | 178 | 6,434 | 6,434 | .. | .. | .. | .. | .. | .. | .. |
| TOTAL 1923-24 | 15,048 | 4,157 | 52,745 | 31,136 | 9,385 | 97,373 | 112,421 | 84,266 | 193,224 | 4,998 | 14,497 | 89,264 | 207,721 | 16,105* | |
| .. 1922-23 | 14,973 | 4,298 | 49,505 | 30,611 | 7,875 | 92,289 | 105,279 | 80,456 | 182,488 | 4,956 | 13,913 | 85,412 | 196,401 | 14,936 | |
| .. 1921-22 | 15,160 | 5,598 | 46,437 | 27,682 | 8,820 | 88,597 | 103,757 | 76,078 | 182,377 | 4,171 | 14,024 | 80,249 | 197,301 | 15,060 | |
| .. 1920-21 | 14,000 | 3,786 | 33,779 | 25,412 | 6,322 | 69,299 | 83,299 | 60,089 | 145,249 | 2,532 | 7,561 | 62,621 | 152,810 | 15,116 | |
| .. 1919-20 | 14,854 | 4,652 | 43,779 | 31,584 | 7,410 | 87,425 | 102,227 | 78,252 | 186,793 | 2,772 | 8,887 | 81,024 | 195,680 | 14,294 | |

N.B.—A. Cases taken into Court.
B. Cases compounded.
C. Undetected cases.

* Burma has not shown separately "A" and "B" in column 15. It has given the figures for the total of pending cases at the close of the year as 2,165.

STATEMENT VIII.

Area protected from fire.

| PROVINCE. | AREA IN SQUARE MILES. | | Percentage of forests under fire protection to total area of reserves. | PERCENTAGE OF FAILURE TO AREA ATTEMPTED. | | REMARKS. |
|--|-----------------------|------------|--|--|----------|---|
| | Attempted. | Protected. | | Average of past five years to 1922-23. | 1923-24. | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Bengal | 684 | 565 | 13.0 | 3.1 | 17.4 | |
| United Provinces | 3,695 | 3,620 | 50.3 | 6.9 | 2.0 | |
| Punjab | 1,217 | 1,212 | 73.6 | 4.5 | .4 | |
| Burma | 142 | 135 | .5 | 10.4 | 4.9 | |
| Bihar and Orissa | 1,492 | 1,430 | 85.1 | 9.7 | 4.2 | |
| Assam | 12 | 9 | .2 | 10.4 | 25.9 | |
| Central Provinces | 8,563 | 7,839 | 43.5 | 6.1 | 8.5 | |
| Coorg | 154 | 134 | 29.6 | 5.9 | 13.0 | |
| North-West Frontier Province | 78 | 76 | 33.1 | 10.1 | 2.6 | |
| Ajmer | 141 | 141 | 99.3 | .3 | .. | |
| Madras | 17,672* | 17,129 | 93.2 | 5.4 | 3.1 | * Includes wrongly 1,084 square miles subjected to early burning. |
| Bombay | 10,678 | 10,281 | 77.0 | 22.2 | 3.7 | |
| TOTAL 1923-24 | 44,528 | 42,571 | 43.0 | 10.0 | 4.4 | |
| „ 1922-23 | 41,857 | 30,189 | 41.5 | 5.6 | 27.9 | |
| „ 1921-22 | 45,957 | 42,266 | 44.3 | 5.0 | 8.0 | |
| „ 1920-21 | 45,779 | 43,225 | 44.2 | 5.1 | 5.6 | |
| „ 1919-20 | 45,535 | 43,067 | 44.2 | 4.7 | 5.4 | |

STATEMENT IX.

Causes of forest fires.

| PROVINCE. | Fires originating in departmental fire conservancy operations. | | External fires crossing the fire traces. | | Fires due to carelessness of outsiders. | | Fires originating from intention or malice. | | Fires due to unknown causes. | | TOTAL. | | |
|--|--|-----------|--|------------|---|------------|---|-----------|------------------------------|------------|--------------|--------------|------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| | No. | Sq. M. | No. | Sq. M. | No. | Sq. M. | No. | Sq. M. | No. | Sq. M. | No. | Sq. M. | |
| Bengal | 1 | .. | 11 | 12 | 29 | 15 | 2 | .. | 45 | 53 | 88 | 80 | |
| United Provinces | 22 | 3 | 37 | 11 | 81 | 16 | 28 | 16 | 72 | 30 | 240 | 76 | |
| Punjab | 8 | 2 | 7 | 1 | 68 | 3 | 28 | 2 | 8 | .. | 119 | 8 | |
| Burma | 6 | .. | 8 | .. | 18 | 2 | 14 | 2 | 21 | 3 | 67 | 7 | |
| Bihar and Orissa | 3 | .. | 15 | 8 | 16 | 13 | 9 | 7 | 50 | 35 | 93 | 63 | |
| Assam | .. | .. | 2 | .. | 3 | .. | 9 | 2 | 3 | .. | 17 | 2 | |
| Central Provinces | 17 | 17 | 120 | 139 | 99 | 78 | 19 | 16 | 366 | 473 | 621 | 723 | |
| Coorg | .. | .. | 2 | 1 | .. | .. | 4 | 2 | 5 | .. | 11 | 3 | |
| North-West Frontier Province | .. | .. | .. | .. | 11 | .. | 9 | 2 | .. | .. | 20 | 2 | |
| Ajmer | .. | .. | 1 | .. | 8 | .. | 1 | .. | 6 | .. | 16 | .. | |
| Baluchistan | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | |
| Andamans | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Madras | 1 | .. | 9 | 2 | 37 | 2 | 55 | 3 | 68 | 9 | 170 | 16 | |
| Bombay | 48 | 10 | 119 | 25 | 433 | 99 | 206 | 35 | 925 | 274 | 1,731 | 443 | |
| TOTAL 1923-24 | 106 | 32 | 331 | 199 | 803 | 228 | 384 | 87 | 1,570 | 877 | 3,194 | 1,423 | |
| .. 1922-23 | 191 | 62 | 560 | 399 | 1,037 | 367 | 1,290 | 784 | 2,125 | 1,084 | 5,017 | 2,489 | |
| .. 1921-22 | 240 | 101 | 716 | 655 | 1,229 | 491 | 1,497 | 1,169 | 2,525 | 1,448 | 6,207 | 3,864 | |
| .. 1920-21 | 225 | 113 | 511 | 600 | 1,034 | 320 | 676 | 514 | 1,945 | 1,051 | 4,391 | 2,658 | |
| .. 1919-20 | 219 | 86.4 | 672 | 588 | 1,198 | 341 | 1,112 | 709.1 | 2,246 | 1,106.1 | 5,447 | 2,500.6 | |

STATEMENT X.

Area closed and open to grazing.

| AREA IN SQUARE MILES | | | | | | | | |
|--|------------------------|---------------|------------------|---------------|---|---------------|-------------|----------|
| PROVINCE. | CLOSED TO ALL ANIMALS. | | OPEN TO GRAZING. | | | | Total area. | REMARKS. |
| | Whole year. | Part of year. | Of all animals. | | Of all animals except browsers (camels, sheep and goats). | | | |
| | | | Whole year. | Part of year. | Whole year. | Part of year. | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Bengal | 6,240 | .. | 4,847 | .. | 73 | 63 | 11,223 | |
| United Provinces | 2,201 | 73 | 4,288 | 10 | 806 | 8 | 7,386 | |
| Punjab | 474 | 25 | 5,027 | 172 | 350 | 148 | 6,196 | |
| Burma | 21,368 | .. | 65 | 162 | 1,782 | 4,510 | 27,887 | |
| Bihar and Orissa | 1,168 | .. | 187 | 191 | 1,183 | 43 | 2,772 | |
| Assam | 5,423 | 62 | 14,214 | 1 | 1,713 | 3 | 21,416 | |
| Central Provinces | 3,446 | 7 | 4,775 | 7 | 11,424 | 28 | 19,687 | |
| Coorg | 88 | 419 | .. | .. | 13 | 419 | 939 | |
| North-West Frontier Province | 52 | ... | 8 | .. | 175 | .. | 235 | |
| Ajmer | 59 | 79 | .. | .. | 3 | 79 | 220 | |
| Baluchistan | 204 | .. | 96 | 4 | 13 | .. | 317 | |
| Andamans | 82 | .. | ... | .. | 342 | .. | 424 | |
| Madras | 3,091 | 840 | 14,300 | 48 | 855 | .. | 19,134 | |
| Bombay | 2,316 | 199 | 3,322 | .. | 9,133 | .. | 14,970 | |
| TOTAL { | | | | | | | | |
| 1923-24 | 46,212 | 1,704 | 51,129 | 595 | 27,865 | 5,301 | 132,806 | |
| 1922-23 | 45,228 | 1,911 | 143,661 | 680 | 27,945 | 5,188 | 224,613 | |
| 1921-22 | 47,000 | 2,237 | 166,670 | 652 | 27,619 | 5,326 | 249,504 | |
| 1920-21 | 46,835 | 2,515 | 167,139 | 955 | 26,959 | 6,141 | 250,544 | |
| 1919-20 | 47,161 | 1,602 | 171,683 | 1,885 | 25,742 | 5,317 | 253,389 | |

STATEMENT XI.
Protection from Cattle.

| PROVINCE. | GRAZED ON PAYMENT, NUMBER OF ANIMALS. | | | | | | | | | |
|--|---------------------------------------|--------------------|------------------|---------|----------------|------------------------|--------------------|------------------|---------|----------------|
| | AT FULL RATES. | | | | | AT PRIVILEGED RATES. | | | | |
| | Buffaloes. | Cows and bullocks. | Goats and sheep. | Camels. | Other animals. | Buffaloes. | Cows and bullocks. | Goats and sheep. | Camels. | Other animals. |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| Bengal | 8,810 | 1,502 | 237 | .. | 53 | 102 | 42,372 | .. | .. | 11 |
| United Provinces | 70,343 | 169,750 | 158,074 | 887 | 2,809 | 6,104 | 20,565 | 7,853 | .. | 246 |
| Punjab | 8,537 | 15,527 | 199,555 | 65,836 | 1,105 | 1,704 | 12,963 | 401,418 | 1,247 | 211 |
| Burma | 5,379 | 26,897 | 40 | 1 | 158 | 8 | .. | .. | .. | .. |
| Bihar and Orissa | 10,901 | 33,150 | 2,846 | .. | 4 | 273 | 6,137 | .. | .. | .. |
| Assam | 6,006 | 1,391 | 318 | .. | 274 | 108 | 38 | .. | .. | .. |
| Central Provinces | 239,921 | 672,266 | 356,623 | 361 | 2,232 | 128,098 | 1,748,877 | 2,920 | .. | 153 |
| Coorg | 268 | 3,805 | .. | .. | 20 | .. | .. | .. | .. | .. |
| North-West Frontier Province | 650 | 527 | 110 | .. | 8 | .. | .. | .. | .. | .. |
| Ajmer | 747 | 7,494 | .. | .. | 6 | 4,062 | 15,262 | .. | .. | .. |
| Baluchistan | 18 | 1,013 | 2,800 | .. | 5 | .. | .. | .. | .. | .. |
| Madras | *108,233 | 1,068,008 | 754,535 | .. | 7 | 11,774 | 187,256 | 14,957 | .. | .. |
| Bombay | †157,448 | .. | 78,495 | 786 | 6,344 | 1,199,264 [†] | .. | 473,189 | .. | 3,508 |
| TOTAL 1923-24 | 614,261 | 2,001,330 | 1,553,633 | 67,871 | 13,025 | 1,351,497 | 2,033,470 | 900,337 | 1,247 | 4,129 |
| „ 1922-23 | 232,301 | 1,030,338 | 1,016,118 | 50,915 | 11,212 | 179,885 | 1,807,728 | 890,578 | 1,491 | 5,262 |
| „ 1921-22 | 384,102 | 1,394,579 | 1,060,663 | 15,812 | 10,704 | 322,002 | 2,712,765 | 743,156 | 1,223 | 5,761 |
| „ 1920-21 | 486,688 | 1,343,327 | 953,766 | 20,662 | 12,289 | 255,600 | 2,819,343 | 602,187 | 1,628 | 6,581 |
| „ 1919-20 | 531,396 | 1,497,340 | 1,153,310 | 20,886 | 13,491 | 258,528 | 2,794,840 | 619,689 | 132 | 20,537 |

*Includes animals grazed at enhanced or special rates.
† Includes cows and bullocks.

MENT XI.

from cattle.

| GRAZED FREE, NUMBER OF ANIMALS. | | | | | | | | | | |
|---------------------------------|--------------------|------------------|---------|----------------|---|--------------------|------------------|---------|----------------|---------------------------------|
| BY RIGHT UNDER SETTLEMENT. | | | | | DURING PLEASURE OF GOVERNMENT OR OTHERWISE THAN UNDER SETTLEMENT. | | | | | Total number of animals grazed. |
| Buffaloes. | Cows and bullocks. | Goats and sheep. | Camels. | Other animals. | Buffaloes. | Cows and bullocks. | Goats and sheep. | Camels. | Other animals. | |
| (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | |
| .. | .. | .. | .. | .. | 834 | 2,782 | 85 | .. | .. | 56,788 |
| 41,153 | 478,362 | 48,543 | .. | 1,398 | 8,669 | 35,150 | 61,044 | .. | 144 | 1,111,094 |
| 131,650 | 650,573 | 1,298,309 | 285 | 184,458 | 3,864 | 20,084 | 20 | 776 | 2,775 | 3,000,897 |
| 144,602 | 356,016 | .. | .. | 928 | 15,054 | 472 | .. | .. | 12,031 | 561,586 |
| 41,711 | 234,545 | 42,359 | .. | .. | 146 | 1,233 | 581 | .. | .. | 373,886 |
| 29 | 88 | .. | .. | .. | 4,764 | 8,124 | 2,316 | .. | .. | 23,456 |
| .. | 375 | .. | .. | .. | 1,835 | 234,609 | 465 | .. | 98 | 3,388,833 |
| 35 | 498 | .. | .. | .. | .. | 10,129 | .. | .. | .. | 14,755 |
| 5,366 | 6,699 | .. | .. | .. | 8,355 | 13,618 | .. | .. | .. | 35,333 |
| .. | .. | .. | .. | .. | 347 | 1,922 | .. | .. | .. | 29,840 |
| .. | 3,310 | 53,226 | 1 | 1,193 | .. | .. | .. | .. | .. | 61,566 |
| 672 | 4,442 | 2,120 | .. | .. | 9,392 | 76,220 | 453 | .. | .. | 2,235,069 |
| 1,889 | 5,071 | .. | .. | 37 | 509,466 [†] | .. | 639 | 685 | 2,068 | 2,438,889 |
| 367,107 | 1,739,979 | 1,444,557 | 286 | 188,014 | 562,726 | 404,343 | 65,603 | 1,461 | 17,116 | 13,331,992 |
| 365,575 | 1,789,026 | 1,441,645 | 286 | 189,217 | 128,484 | 615,890 | 68,244 | 1,226 | 19,043 | 9,844,464 |
| 378,682 | 2,029,210 | 1,464,585 | 473 | 188,086 | 155,000 | 834,991 | 168,524 | 5,516 | 21,255 | 11,897,069 |
| 406,376 | 1,778,504 | 1,440,990 | 287 | 188,166 | 222,779 | 1,393,225 | 210,512 | 2,300 | 13,943 | 12,159,153 |
| 405,022 | 1,830,657 | 1,435,699 | 186 | 188,850 | 223,495 | 1,372,687 | 147,698 | 6,086 | 15,648 | 12,537,077 |

STATEMENT XII.

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

| PROVINCE. | AREA IN ACRES AT CLOSE OF THE YEAR. | | | Cost of operations during the year. |
|--|-------------------------------------|-----------|---------|-------------------------------------|
| | Regular plantations. | Taungyas. | TOTAL. | |
| (1) | (2) | (3) | (4) | (5) |
| Bengal | 7,155 | 6,499 | 13,654 | Rs. 69,737 |
| United Provinces | 25,412 | 318 | 25,730 | 81,570 |
| Punjab | 13,310 | .. | 13,310 | 1,15,280 |
| Burma | 4,419 | 98,740 | 103,159 | 1,47,844 |
| Bihar and Orissa | 3,492 | 542 | 4,034 | 6,904 |
| Assam | 3,236 | 7,051 | 10,287 | 5,054 |
| Central Provinces | 1,216 | 9,743 | 10,959 | 888 |
| Coorg | 1,312 | 3,849 | 5,161 | 8,847 |
| North-West Frontier Province | 42 | .. | 42 | 144 |
| Ajmer | 598 | .. | 598 | 22 |
| Baluchistan | 52 | .. | 52 | 215 |
| Andamans | 1,631 | .. | 1,631 | .. |
| Madras | * 34,259 | .. | 34,259 | 46,512 |
| Bombay | 1,801 | .. | 1,801 | 7,365 |
| TOTAL 1923-24 | 97,935 | 126,742 | 224,677 | 4,90,382 |
| „ 1922-23 | 80,457 | 124,990 | 205,447 | 3,92,552 |
| „ 1921-22 | 47,119 | 101,109 | 148,223 | 4,36,231 |
| „ 1920-21 | 65,157 | 104,018 | 169,175 | 2,99,233 |
| „ 1919-20 | 66,210 | 101,321 | 167,531 | 2,80,252 |

* Includes Taungya plantation and cultural operations.

STATEMENT XIII.

Outturn of forest produce.

| PROVINCE. | RESERVED FORESTS. | | PROTECTED FORESTS. | | UNCLASSIFIED FORESTS. | | TOTAL. | | AVERAGE OUTTURN PER SQUARE MILE. | | | | | | | |
|-------------------------------|-------------------|------------------|--------------------|----------------|-----------------------|----------------|-------------------|----------------|----------------------------------|----------------|--------------------|----------------|-----------------------|----------------|------------------|----------------|
| | Timber and fuel. | Minor produce. | Timber and fuel. | Minor produce. | Timber and fuel. | Minor produce. | Timber and fuel. | Minor produce. | RESERVED FORESTS. | | PROTECTED FORESTS. | | UNCLASSIFIED FORESTS. | | TOTAL. | |
| | | | | | | | | | Timber and fuel. | Minor produce. | Timber and fuel. | Minor produce. | Timber and fuel. | Minor produce. | Timber and fuel. | Minor produce. |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) |
| | C. ft. | Rs. | C. ft. | Rs. | C. ft. | Rs. | C. ft. | Rs. | C. ft. | Rs. | C. ft. | Rs. | C. ft. | Rs. | C. ft. | Rs. |
| Bengal | (a) 27,001,000 | (b) 3,86,981 | 1,381,000 | 18,897 | 529,000 | 40,874 | 28,911,000 | 4,46,752 | 5,123 | 73 | 811 | 11 | 126 | 10 | 2,592 | 40 |
| United Provinces | (b) 39,578,000 | (b) 22,47,217 | 1,000 | 3,925 | 58,000 | 5,580 | 39,632,000 | 32,56,675 | 540 | 306 | 250 | 982 | 1,415 | 96 | 5,866 | 306 |
| Punjab | (b) 9,686,000 | (b) 12,57,047 | 17,620,000 | 10,04,658 | 5,034,000 | 2,69,827 | 32,340,000 | 25,81,592 | 5,860 | 760 | 4,806 | 249 | 9,029 | 532 | 5,210 | 409 |
| Burma | 39,028,000 | 5,34,885 | .. | .. | 59,390,000 | 8,01,748 | 98,418,000 | 13,86,558 | 1,399 | 21 | .. | .. | 629 | 8 | 805 | 11 |
| Bihar and Orissa | 5,929,000 | 1,31,042 | 7,563,000 | 1,92,289 | .. | .. | 13,491,000 | 3,23,331 | 3,380 | 75 | 7,436 | 189 | .. | .. | 4,856 | 116 |
| Assam | (c) 5,510,000 | 1,71,196 | .. | .. | (c) 9,366,000 | 6,71,429 | 15,376,000 | 8,42,625 | 948 | 29 | .. | .. | 632 | 43 | 718 | 39 |
| Central Provinces | 45,265,000 | 22,38,444 | .. | 6,34,834 | .. | 46,459 | 45,265,000 | 29,19,737 | 2,300 | 114 | .. | .. | .. | .. | 2,300 | 148 |
| Coorg | 212,167 | 23,112 | 191,607 | 776 | .. | .. | 403,774 | 23,889 | 408 | 45 | .. | .. | .. | .. | 776 | 46 |
| North-West Frontier Province. | (d) 2,943 | 39,346 | .. | .. | .. | .. | (d) 2,943 | 39,346 | 12 | 167 | .. | .. | .. | .. | 12 | 161 |
| Ajmer | 306,729 | 60,824 | .. | .. | .. | .. | 306,729 | 60,824 | 2,160 | 425 | .. | .. | .. | .. | 2,160 | 425 |
| Baluchistan | 45,680 | 43,211 | .. | .. | 284,858 | 32 | 330,540 | 43,243 | 146 | 138 | .. | .. | 603 | .. | 421 | 55 |
| Andamans | 519,148 | 2,984 | .. | .. | 711,747 | 4,119 | 1,230,895 | 7,103 | 6,331 | 32 | .. | .. | 335 | 2 | 654 | 3 |
| Madras | (b) 18,508,000 | 19,96,785 | .. | .. | 7,242,000 | 93,113 | 25,750,000 | 20,89,898 | 976 | 105 | .. | .. | 42,105 | 541 | 1,346 | 109 |
| Bombay | (b) 51,423,000 | 18,53,731 | 787,000 | 11,522 | 14,000 | .. | (c) 52,229,000 | 18,65,253 | 3,727 | 134 | 672 | 10 | .. | .. | 3,489 | 125 |
| TOTAL 1923-24 | 243,014,669 | 1,10,36,255 | 27,542,607 | 12,66,904 | 83,129,605 | 19,35,131 | 353,686,881 | 1,48,36,290 | 2,349 | 107 | 3,478 | 295 | 708 | 16 | 1,545 | 65 |
| „ 1922-23 | 221,168,091 | 1,15,54,229 | 37,957,254 | 11,87,870 | 90,833,629 | 18,29,419 | 349,958,974 | 1,45,71,518 | 2,191 | 114 | 5,244 | 164 | 786 | 16 | 1,564 | 66 |
| „ 1921-22 | 218,580,978 | 1,06,97,572 | 35,535,818 | 13,10,719 | 107,266,278 | 17,98,973 | 361,383,074 | 1,38,07,264 | 2,106 | 103 | 4,701 | 174 | 776 | 13 | 1,448 | 56 |
| „ 1920-21 | 185,012,636 | 1,00,06,763 | 34,539,446 | 12,06,466 | 79,101,907 | 23,90,398 | 298,653,980 | 1,36,00,627 | 1,788 | 97 | 4,595 | 161 | 567 | 17 | 1,192 | 54 |
| „ 1919-20 | 205,357,371 | 93,16,424 | 37,516,337 | 14,75,964 | 96,642,122 | 20,84,800 | 339,515,833 | 1,28,77,188 | 1,994 | 91 | 4,724 | 166 | 690 | 15 | 1,353 | 51 |

(a) Includes leased lands.
(b) " " forests.
(c) Excludes shared forests.
(d) " " Guzars " "
(e) Sandal wood—
Khs. m. lbs. 216 14 15
444 rejected cut.
185 trees.
353 roots.
127 billets.

STATEMENT XIV.

Forest produce removed by different agencies.

Part I.—Timber and Fuel.

| PROVINCE. | TIMBER. | | | | | FUEL. | | | | | |
|--|---------------------|-------------------|----------------------|----------------------|--------------------|---------------------|--------------------|----------------------|----------------------|--------------------|--------|
| | By Govern- ment. | By purchasers. | By free grantees. | By right holders. | TOTAL. | By Govern- ment. | By purchasers. | By free grantees. | By right holders. | TOTAL. | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. |
| Bengal | 322,000 | 16,425,000 | 27,000 | .. | 16,774,000 | 285,000 | 10,238,000 | 1,664,000 | .. | 12,137,000 | |
| United Provinces | 378,000 | 7,724,000 | 129,000 | 770,000 | 9,001,000 | 419,000 | 10,730,000 | 610,000 | 18,872,000 | 20,631,000 | |
| Punjab | 1,750,000 | 1,338,000 | 110,000 | 1,812,000 | 4,510,000 | 1,821,000 | 2,275,000 | 22,000 | 23,712,000 | 27,830,000 | |
| Burma | 5,880,000 | 38,157,000 | 402,000 | 1,684,000 | 46,218,000 | 3,500,000 | 44,352,000 | 131,000 | 4,132,000 | 52,205,000 | |
| Bihar and Orissa | 68,000 | 2,001,000 | 18,000 | 272,000 | 2,359,000 | 1,102,000 | 4,072,000 | 43,000 | 5,915,000 | 11,132,000 | |
| Assam | 232,000 | 7,458,000 | 605,000 | .. | 8,295,000 | 23,000 | 3,708,000 | 3,746,000 | 7,000 | 7,484,000 | |
| Central Provinces | 2,714,000 | 7,656,000 | 287,000 | 66,000 | 10,703,000 | 1,900,000 | 30,593,000 | 1,511,000 | 558,000 | 34,562,000 | |
| Coorg | 96,152 | 66,532 | .. | .. | 162,734 | 85,515 | 155,525 | .. | .. | 241,040 | |
| North-West Frontier Province | 648 | 13 | 20 | 5 | 686 | 435 | 286 | 1,222 | 316 | 2,259 | |
| Ajmer | .. | 6,680 | .. | 745 | 7,425 | 93,478 | 205,626 | .. | .. | 299,304 | |
| Baluchistan | .. | 20,286 | 868 | .. | 21,154 | 21,778 | 287,488 | 120 | .. | 309,386 | |
| Andamans | 800,226 | 8,218 | 34,230 | 7,367 | 850,036 | 417,940 | 12,800 | 273,840 | 120,560 | 825,140 | |
| Madras | 1,813,000 | 3,277,000 | 349,000 | 37,000 | 4,976,000 | 1,414,000 | 19,156,000 | 50,000 | 154,000 | 20,774,000 | |
| Bombay | 1,735,000* | 4,530,000 | 70,000 | 11,000 | 6,346,000* | 5,620,000 | 33,362,000 | 24,000 | 6,877,000 | 45,883,000 | |
| TOTAL 1923-24 | 15,239,026 | 63,667,774 | 2,102,118 | 4,160,117 | 110,219,036 | 16,743,146 | 159,147,925 | 8,076,182 | 80,347,876 | 244,315,129 | |
| .. 1922-23 | 14,974,943 | 86,631,547 | 2,116,348 | 4,017,237 | 107,640,095 | 10,778,094 | 140,514,225 | 10,524,440 | 71,849,120 | 242,665,879 | |
| .. 1921-22 | 16,899,862 | 95,612,688 | 2,434,684 | 4,041,720 | 119,899,054 | 21,780,923 | 136,780,927 | 14,205,170 | 68,730,000 | 241,497,020 | |
| .. 1920-21 | 13,256,619 | 72,374,084 | 1,940,100 | 3,131,627 | 90,702,430 | 16,693,042 | 114,656,636 | 21,759,881 | 64,660,000 | 207,969,559 | |
| .. 1919-20 | 14,929,994 | 80,685,176 | 2,116,673 | 6,089,160 | 100,821,003 | 22,217,740 | 137,726,267 | 12,318,823 | 66,670,000 | 236,532,830 | |

* And also Sandalwood—
Khs. m. lbs.
216 14 15
444 rejected.
c. ft. 185 trees,
353 roots,
127 billets.

STATEMENT XIV—contd.

Forest produce removed by different agencies—contd.

Part II.—Value of minor forest produce.

| PROVINCE. | BAMBOOS. | | | | | GRAZING AND FODDER GRASS. | | | | | OTHER MINOR PRODUCTS. | | | | |
|-------------------------------|----------------|----------------|-------------------|-------------------|-----------|---------------------------|----------------|-------------------|-------------------|-----------|-----------------------|----------------|-------------------|-------------------|-----------|
| | By Government. | By purchasers. | By free grantees. | By right holders. | TOTAL. | By Government. | By purchasers. | By free grantees. | By right holders. | TOTAL. | By Government. | By purchasers. | By free grantees. | By right holders. | TOTAL. |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| Bengal | 173 | 1,01,721 | 749 | .. | 1,02,643 | .. | 33,283 | 20,294 | .. | 59,177 | 4,184 | 2,67,704 | 12,984 | .. | 2,84,932 |
| United Provinces | 488 | 2,05,572 | 46 | 7,553 | 2,13,659 | 14,095 | 1,86,687 | 10,960 | 2,97,08 | 5,08,778 | 8,86,602 | 10,84,566 | 7,602 | 55,378 | 15,84,238 |
| Punjab | 66,857 | 1,739 | 971 | 12 | 69,029 | 14 | 1,71,027 | 36,356 | 20,01,083 | 22,08,432 | 1,87,989 | 18,958 | 2,117 | 44,357 | 2,53,421 |
| Burma | 1,020 | 2,33,490 | 206 | 12,167 | 2,46,883 | .. | 18,850 | 69,871 | 1,65,536 | 2,53,757 | 3,797 | 7,17,934 | 960 | 1,13,252 | 8,35,943 |
| Bihar and Orissa | 17,540 | 61,726 | 289 | 26,936 | 1,06,491 | .. | 12,635 | 740 | 99,197 | 1,12,572 | 16,924 | 67,572 | 66 | 19,706 | 1,04,268 |
| Assam | 161 | 54,636 | 16,783 | .. | 71,580 | .. | 18,319 | 18,715 | 22 | 37,056 | 47,906 | 5,13,084 | 1,79,016 | .. | 7,40,008 |
| Central Provinces | 4,789 | 4,18,721 | 5,918 | 3,931 | 4,33,359 | 3,732 | 16,16,176 | 1,45,810 | 2,54,074 | 20,19,792 | 1,59,410 | 2,89,731 | 13,960 | 3,485 | 4,64,686 |
| Coorg | 3 | 1,940 | .. | .. | 1,943 | 380 | 1,073 | .. | .. | 1,453 | .. | 20,492 | .. | .. | 20,492 |
| North-West Frontier Province. | .. | .. | .. | .. | .. | .. | 1,341 | 18,625 | 5,713 | 25,679 | 12,547 | 1,020 | 100 | .. | 13,667 |
| Ajmer | .. | 959 | .. | .. | 959 | 1,052 | 9,550 | 1,402 | 44,072 | 56,076 | 420 | 2,860 | .. | .. | 3,280 |
| Baluchistan | .. | .. | .. | .. | .. | .. | 705 | .. | 41,470 | 42,175 | 134 | 443 | 491 | .. | 1,068 |
| Andamans | 176 | 58 | 1,142 | 174 | 1,550 | .. | .. | .. | .. | .. | 635 | 136 | 3,764 | 968 | 5,553 |
| Madras | 54,208 | 3,45,119 | 4,339 | 143 | 4,03,809 | .. | 9,11,738 | 22,435 | 5,963 | 9,40,131 | 28,499 | 7,13,835 | 2,810 | 764 | 7,45,908 |
| Bombay | 23 | 1,33,889 | 721 | 9,207 | 1,43,845 | 12,037 | 7,85,327 | 33,882 | 6,29,240 | 14,60,486 | 9,227 | 2,15,079 | 2,013 | 34,603 | 2,30,922 |
| TOTAL 1923-24 | 1,45,443 | 16,99,620 | 31,164 | 60,123 | 18,46,350 | 31,310 | 37,71,856 | 3,79,092 | 35,43,406 | 77,25,664 | 8,58,414 | 39,13,488 | 2,25,853 | 2,72,513 | 62,70,293 |
| .. 1922-23 | 95,105 | 15,19,146 | 33,486 | 1,18,401 | 17,71,140 | 17,576 | 34,64,968 | 4,47,417 | 34,91,233 | 74,21,164 | 19,99,668 | 29,57,079 | 2,47,056 | 1,79,694 | 53,88,397 |
| .. 1921-22 | 76,393 | 13,32,686 | 23,292 | 63,543 | 15,05,934 | 29,859 | 27,81,431 | 3,75,444 | 33,63,375 | 65,50,109 | 23,37,079 | 26,83,135 | 3,21,970 | 4,12,088 | 57,54,271 |
| .. 1920-21 | 83,354 | 18,40,193 | 24,389 | 59,117 | 12,07,053 | 40,851 | 34,03,339 | 8,01,609 | 30,14,370 | 72,60,219 | 20,23,005 | 25,73,501 | 2,99,280 | 2,37,569 | 51,33,855 |
| .. 1919-20 | 1,75,122 | 13,50,352 | 31,136 | 53,917 | 16,15,527 | 1,79,952 | 36,44,395 | 7,64,529 | 30,20,093 | 76,08,969 | 27,25,985 | 31,42,920 | 2,54,989 | 2,80,307 | 64,64,301 |

STATEMENT XV.

Exports of forest produced by sea from British India.

| ARTICLES OF FOREST PRODUCE. (1) | QUANTITY IN TONS OF 20 CWT. IN THE CASE OF TEAK AND OTHER TIMBERS, OURIC TONS. | | VALUATION AT PORT OF SHIPMENT IN 1923-24. | |
|---|---|-------------|--|-------------|
| | Average of 5 years 1918-19 to 1922-23. | In 1923-24. | Total. | Per ton. |
| | (2) | (3) | (4) | (5) |
| | | | Rs. | Rs. |
| Caoutchouc, raw | 5,723 | 6,889 | 1,14,46,018 | 1,661 |
| Lac | Button 571 Shell 16,054 Stick, seed and other kinds 1,722 | 843 | 38,45,642 | 4,562 |
| | | 19,857 | 8,06,96,260 | 4,064 |
| | | 3,583 | 60,85,241 | 1,698 |
| Outch and gambier | 2,222 | 2,343 | 9,52,686 | 407 |
| Myrabolams | 61,545 | 66,238 | 72,62,422 | 110 |
| Cardamoms | 369 | 314 | 17,56,768 | 5,595 |
| Sandal | 347 | 739 | 11,22,148 | 1,518 |
| Ebony and other ornamental wood | * | * | 1,87,815 | ... |
| Teak | 33,187 | 40,097 | 1,06,94,024 | 267 |
| Other timbers | 4,791 | 4,067 | 4,05,342 | 100 |
| | | | | |
| | TOTAL IN 1923-24 | .. | 12,44,54,366 | .. |
| | .. 1922-23 | .. | 12,79,97,378 | .. |
| | .. 1921-22 | .. | 9,98,56,627 | .. |
| | .. 1920-21 | .. | 10,94,79,350 | .. |
| | .. 1919-20 | .. | 11,78,26,680 | .. |

* Quantity not recorded.

STATEMENT XV (a).

| Year (calendar). | Imports of timber into British India, 1920-1924. | | Imports of sleepers of wood* for railways into British India, 1920-1924. | |
|------------------|---|-------------|--|-----------|
| | Cubic tons. | Rs. | Cubic tons. | Rs. |
| 1920 | 68,560 | 1,16,08,544 | 10,272 | 19,89,780 |
| 1921 | 60,381 | 91,99,142 | 23,681 | 46,78,556 |
| 1922 | 38,527 | 49,13,195 | 18,926 | 29,44,791 |
| 1923 | 30,427 | 39,75,721 | 29,447 | 39,25,249 |
| 1924 | 60,844 | 32,32,327 | 645 | 87,662 |

* Includes sleepers of Jarrah and other wood.

STATEMENT XVI.

Estimated value of forest produce given away free or at reduced rates.

| PROVINCE. | Timber. | Fuel. | Bamboo. | Grass and grazing. | Other minor produce. | TOTAL. |
|--|-----------------|------------------|---------------|--------------------|----------------------|------------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| Bengal | 2,095 | 34,273 | 16,016 | 34,892 | 12,984 | 1,00,260 |
| United Provinces | 89,054 | 1,62,001 | 7,599 | 3,06,707 | 62,880 | 6,28,301 |
| Punjab | 89,519 | 7,55,330 | 983 | 20,37,441 | 46,474 | 29,29,747 |
| Burma | 1,21,697 | 1,257 | 231 | 69,871 | 798 | 1,93,854 |
| Bihar and Orissa | 39,084 | 1,75,127 | 27,225 | 99,937 | 20,584 | 3,61,957 |
| Assam | 31,466 | 55,571 | 16,783 | 18,664 | 1,97,753 | 3,20,239 |
| Central Provinces | 15,866 | 28,911 | 6,423 | 1,48,310 | 10,955 | 2,10,465 |
| Coorg | .. | .. | .. | 2,670 | .. | 2,670 |
| North-West Frontier Province | 2,401 | 43,085 | .. | 24,338 | 100 | 69,924 |
| Ajmer | .. | .. | .. | 45,474 | .. | 45,474 |
| Baluchistan | 219 | 6 | .. | 469 | 25 | 719 |
| Andamans | 4,869 | 2,465 | 1,315 | .. | 4,733 | 13,382 |
| Madras | 56,302 | 1,343 | 4,593 | 28,706 | 3,831 | 94,775 |
| Bombay | 23,603 | 2,29,208 | 9,928 | 6,63,122 | 36,616 | 9,62,477 |
| TOTAL 1923-24 | 4,76,177 | 14,88,577 | 91,096 | 34,80,661 | 3,97,733 | 59,34,244 |
| .. 1922-23 | 5,75,162 | 18,05,969 | 1,96,619 | 46,44,162 | 4,34,589 | 76,58,501 |
| .. 1921-22 | 6,16,536 | 24,89,425 | 1,50,469 | 46,16,914 | 8,96,935 | 85,70,269 |
| .. 1920-21 | 5,05,706 | 23,82,766 | 1,54,418 | 48,47,013 | 8,96,897 | 87,86,800 |
| .. 1919-20 | 5,20,673 | 23,62,430 | 1,68,218 | 49,95,316 | 7,12,909 | 87,59,346 |

STATEMENT XVII.

Details of revenue and expenditure for the Forest year 1923-24.

| | | Rs. | Percentage of each item to total. | | |
|--|--|---|--|-------------|------|
| Gross Receipts | (a) Wood | 4,28,80,694 | 78.7 | | |
| | (b) Minor forest produce | 46,14,160 | 8.5 | | |
| | (c) Forest stamps and commutation fees for forest produce | 1,45,233 | .3 | | |
| | (d) Grazing | 37,66,063 | 6.9 | | |
| | (e) Revenue from forests not managed by Government | 3,95,994 | .7 | | |
| | (f) Miscellaneous | 26,89,081 | 4.9 | | |
| | Total Revenue | | 5,44,91,224 | | |
| Expenditure | (a) Administration. | (i) Superior Staff | 1,66,90,450 | 47.8 | |
| | | (ii) Subordinate Staff (including Rangers, Foresters and Guards). | | | |
| | | (iii) Office Establishments (including Contingencies). | | | |
| | A. Recurring | (b) Working | (1) Extraction | 1,07,02,331 | 30.6 |
| | | | (2) Roads and Buildings | 23,86,615 | 6.8 |
| | | | (3) Fire protection | 3,43,953 | 1.0 |
| | | | (4) Cultural operations | 10,25,366 | 2.9 |
| | | | (5) Live-stock, stores and plant | 9,66,160 | 2.8 |
| | | | (6) Working-plans | 90,750 | .3 |
| | | | (7) Rent for leased forests | 3,54,869 | 1.0 |
| | | | (8) Miscellaneous | 5,89,575 | 1.7 |
| | (c) Expenditure on realization of revenue from forests not managed by Government. | 22,900 | .1 | | |
| | (d) Forest Science and Education (including all "A" and "B" charges of Imperial Forest College and Research Institute*). | 7,75,642 | 2.2 | | |
| | Total | | 3,39,48,611 | | |
| | B. Extraordinary | (e) Forest Settlement | 33,229 | .1 | |
| (f) Forest Survey | | 5,44,458 | 1.6 | | |
| (g) Forest Demarcation | | 1,27,687 | .3 | | |
| (h) Gain or loss by exchange on English transactions, interest on capital outlay, etc. | | 2,76,296 | .8 | | |
| Total | | 9,81,670 | | | |
| GRAND TOTAL OF EXPENDITURE | | 3,49,30,281 | | | |
| Net Revenue | | 1,95,60,943 | | | |

*Expenditure under this head in provinces has been included in (a) Administration.

STATEMENT XVIII.

**Summary of revenue and expenditure of the Forest
Department in India for the financial
year 1922-23.**

Summary of revenue and expenditure of the

| Budget Heads. | Imperial. | Bengal. | United Provinces. | Punjab. | Burma. | *Bihar and Orissa. | Assam. |
|--|-----------------|------------------|-------------------|------------------|--------------------|--------------------|------------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| REVENUE. | | | | | | | |
| I.—Timber and other produce removed from the forests by Government agency. | 22,436 | 3,74,463 | 16,13,474 | 31,91,625 | 41,40,482 | 58,268 | 2,90,539 |
| II.—Timber and other produce removed from the forests by consumers or purchasers. | 6,290 | 17,87,983 | 53,84,107 | 5,27,778 | 1,33,12,445 | 9,26,172 | 14,52,948 |
| III.—Drift and waif wood and confiscated forest produce. | .. | 12,382 | 6,493 | 31,467 | 3,05,439 | 57 | 19,504 |
| IV.—Revenue from forests not managed by Government. | .. | .. | 41,796 | 3,481 | 2,17,475 | .. | 66,385 |
| V.—Miscellaneous | 825 | 86,687 | 3,10,159 | 6,32,182 | —2,82,537 | 44,588 | 1,44,916 |
| Total Revenue | 29,551 | 22,61,515 | 73,56,029 | 43,86,533 | 1,76,93,304 | 10,29,085 | 19,74,292 |
| EXPENDITURE. | | | | | | | |
| A.—CONSERVANCY AND WORKS. | | | | | | | |
| I.—Timber and other produce removed from the forest by Government agency. | 3,538 | 1,46,797 | 11,51,422 | 11,36,646 | 33,38,511 | 35,600 | 2,16,247 |
| II.—Timber and other produce removed from the forests by consumers or purchasers | .. | 1,63,057 | 2,34,122 | 1,950 | 2,71,144 | 25,817 | 27,491 |
| III.—Drift and waif wood and confiscated forest produce. | .. | 1,493 | 1,432 | 12,294 | 1,91,901 | 24 | 979 |
| IV.—Revenue from forests not managed by Government. | .. | .. | 21,554 | .. | 1,128 | .. | .. |
| V.—Rent of leased forests and payments to shareholders in forests managed by Government. | .. | 429 | 1,33,698 | 92,727 | .. | .. | 41,877 |
| VI.—Live-stock, stores, tools and plant | .. | 22,760 | 1,26,731 | 28,878 | 3,10,017 | 13,391 | 34,134 |
| VII.—Communications and buildings | 880 | 1,01,172 | 4,56,218 | 84,845 | 5,08,839 | 1,62,825 | 1,35,636 |
| VIII.—Demarcation, improvements and extension of forests. | 370 | 1,25,228 | 3,70,278 | 2,25,265 | 2,14,922 | 37,667 | 28,769 |
| IX.—Miscellaneous | .. | 12,082 | 48,089 | 2,15,160 | 5,63,016† | 8,829 | 17,134 |
| Total A.—Conservancy and Works | 4,788 | 5,73,018 | 25,43,544 | 17,97,765 | 53,99,478 | 2,84,153 | 5,02,267 |
| B.—ESTABLISHMENTS. | | | | | | | |
| Total B.—Establishment including Salaries, Travelling and other allowances and contingencies. | 1,39,701 | 6,69,654 | 17,75,113 | 10,96,819 | 40,17,593 | 4,60,806 | 6,24,375 |
| Total gain or loss by exchange on English transactions, interest on capital outlay, etc. | .. | .. | 32,038 | 21,451 | .. | 5,698 | 33,203 |
| GRAND TOTAL OF EXPENDITURE | 1,44,489 | 12,42,672 | 43,50,695 | 29,16,035 | 94,17,071 | 7,50,657 | 11,59,845 |
| SURPLUS | .. | 10,18,843 | 30,05,334 | 14,70,498 | 82,76,233 | 2,78,428 | 8,14,447 |
| DEFICIT | 1,14,938 | .. | .. | .. | .. | .. | .. |
| Proportion of surplus to gross revenue | .. | 45 | 41 | 34 | 47 | 27 | 41 |
| Net revenue per square mile of forest area under control of Forest Department. | .. | 91 | 407 | 237 | 67 | 100 | 38 |

* Includes Angul Division.

† Includes Rs. 4,38,094 on account of Forest Surveys.

MENT XVIII.

Forest Department in India for the financial year 1923-24.

| Central Provinces. | Coorg. | North-West Frontier Province. | Ajmer. | Baluohistan. | Andamans. | Forest College and Research Institute. | Forest Surveys (Imperial). | Madras. | Bombay. | TOTAL. |
|--------------------|----------|-------------------------------|--------|--------------|-----------|--|----------------------------|-----------|-----------|-------------|
| (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) |
| Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| 7,76,691 | 6,51,401 | 4,61,879 | 14,135 | 4,105 | 5,91,748 | .. | .. | 17,08,583 | 22,46,740 | 1,61,46,519 |
| 40,27,142 | 42,553 | 21,220 | 34,316 | 2,757 | 1,816 | .. | .. | 31,61,027 | 45,11,246 | 3,51,99,800 |
| 2,230 | .. | 768 | 3 | 33 | .. | .. | .. | 15,654 | 4,553 | 3,98,583 |
| 22,578 | .. | 2,931 | .. | 14,008 | .. | .. | .. | 6 | 27,334 | 3,05,994 |
| 2,76,288 | 6,993 | 46,534 | 6,968 | 1,500 | 17,818 | 1,67,339 | .. | 5,30,337 | 3,59,731 | 23,50,328 |
| 51,04,929 | 7,00,947 | 5,33,332 | 55,422 | 22,403 | 6,11,382 | 1,67,339 | .. | 54,15,557 | 71,49,604 | 5,44,91,224 |
| 2,13,575 | 2,12,860 | 2,88,000 | 7,658 | 1,901 | 5,48,973 | .. | .. | 5,08,131 | 15,36,256 | 93,46,115 |
| 2,11,116 | .. | .. | 514 | .. | 667 | .. | .. | 1,70,631 | 39,990 | 11,46,409 |
| 165 | .. | 32 | .. | .. | .. | .. | .. | 1,136 | 261 | 2,09,717 |
| .. | .. | .. | .. | 165 | .. | .. | .. | .. | 53 | 22,900 |
| 22,477 | .. | 6,427 | 6,202 | .. | .. | .. | .. | 3,739 | 47,293 | 3,54,869 |
| 69,164 | 47,621 | 3,899 | 429 | 11 | 99,284 | 69,268 | .. | 2,10,003 | —162 | 10,35,428 |
| 2,20,667 | 94,118 | 25,665 | 6,217 | 2,337 | 64,419 | 14,083 | .. | 3,73,670 | 1,49,107 | 24,00,698 |
| 2,22,903 | 32,970 | 4,351 | 2,675 | 720 | 48,667 | .. | 95,944 | 1,78,489 | 1,38,131 | 17,27,349 |
| 56,009 | 7,390 | 5,894 | 972 | 320 | 10,680 | 1,32,412 | .. | 21,430 | 60,664 | 11,60,081 |
| 10,16,076 | 3,94,959 | 3,34,268 | 24,667 | 5,454 | 7,72,690 | 2,15,763 | 95,944 | 14,67,229 | 19,71,593 | 1,74,03,856 |
| 20,00,604 | 1,70,639 | 1,24,299 | 24,787 | 25,986 | 1,23,524 | 5,59,879 | .. | 31,03,544 | 23,33,006 | 1,72,50,329 |
| 24,428 | .. | .. | .. | .. | .. | .. | .. | 63,053 | 96,425 | 2,76,296 |
| 30,41,108 | 5,65,598 | 4,58,567 | 49,454 | 31,440 | 8,96,214 | 7,75,642 | 95,944 | 46,33,826 | 44,01,024 | 1,34,93,281 |
| 20,63,821 | 1,35,349 | 74,765 | 5,968 | .. | .. | .. | .. | 7,81,731 | 27,48,580 | 2,06,73,997 |
| .. | .. | .. | .. | 9,037 | 2,84,832 | 6,08,303 | 95,944 | .. | .. | 11,13,054 |
| 40 | 19 | 14 | 11 | .. | .. | .. | .. | 14 | 38 | 36 |
| 105 | 260 | 305 | 42 | .. | .. | .. | .. | 41 | 184 | 85 |

Revenue of the Forest Department throughout India for the 25 financial years

(I) REVE

| PROVINCE. | Average of 1869-70 to 1873-74. | Average of 1874-75 to 1878-79. | Average of 1879-80 to 1883-84. | Average of 1884-85 to 1888-89. | Average of 1889-90 to 1893-94. | Average of 1894-95 to 1898-99. | 1899-1900. | |
|--|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------|--------------------|
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| Imperial* | 2,175 | 31,717 | 25,429 | 10,866 | 5,147 | 9,688 | 6,090 | |
| Bengal† | 1,64,368 | 2,89,772 | 6,06,578 | 6,31,384 | 7,66,431 | 10,49,364 | 11,38,910 | |
| United Provinces | 12,59,979 | 12,21,650 | 11,34,615 | 14,63,525 | 16,89,190 | 15,31,824 | 16,14,740 | |
| Punjab | 6,87,423 | 7,05,558 | 7,37,338 | 9,11,950 | 9,00,417 | 11,39,510 | 14,00,770 | |
| Burma | 8,94,298 | 14,29,175 | 19,88,356 | 25,01,318 | 49,78,654 | 66,15,542 | 78,12,050 | |
| Bihar and Orissa | .. | .. | .. | .. | .. | .. | .. | |
| Assam‡ | .. | 1,01,098 | 1,91,887 | 2,32,055 | 3,82,750 | 4,15,912 | 5,68,100 | |
| Central Provinces and Berar | 7,41,879 | 9,79,936 | 12,81,992 | 14,11,163 | 16,98,505 | 13,75,958 | 12,97,490 | |
| Coorg | 92,491 | 78,887 | 1,03,170 | 1,13,024 | 1,53,136 | 1,33,456 | 1,62,410 | |
| North-West Frontier Province | .. | .. | .. | .. | .. | .. | .. | |
| Ajmer | 65 | 1,152 | 4,475 | 11,859 | 15,233 | 14,162 | 10,270 | |
| Baluchistan | .. | .. | 8,556 | 10,973 | 17,998 | 15,330 | 17,060 | |
| Andamans | 5,467 | 4,485 | 34,840 | 57,633 | 2,79,028 | 2,54,438 | 2,60,600 | |
| Imperial Forest College and Research Institute. | .. | .. | .. | 397 | 1,636 | 3,040 | 3,210 | |
| Forest Surveys (Imperial) | .. | 17 | 139 | 206 | 668 | 300 | 420 | |
| Madras | 6,03,243 | 5,88,389 | 8,06,020 | 13,00,481 | 17,14,328 | 21,10,988 | 23,02,290 | |
| Bombay | 11,77,673 | 12,28,561 | 18,93,818 | 30,11,314 | 33,54,893 | 30,46,244 | 24,15,200 | |
| GRAND TOTAL | 56,30,061 | 66,60,397 | 88,17,213 | 1,16,63,148 | 1,59,49,014 | 1,77,15,756 | 1,90,09,610 | |
| | 1907-08. | 1908-09. | 1909-10. | 1910-11. | 1911-12. | 1912-13. | 1913-14. | 1914-15. |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| Imperial* | 7,666 | 8,189 | 10,632 | 3,662 | 10,680 | 12,837 | 11,471 | 12,047 |
| Bengal† | 11,97,650 | 11,84,845 | 10,80,640 | 11,67,444 | 11,22,442 | 16,00,601 | 15,16,111 | 13,04,496 |
| United Provinces | 24,09,745 | 21,75,406 | 23,01,164 | 23,73,439 | 30,16,160 | 35,43,963 | 37,12,487 | 31,35,235 |
| Punjab | 14,57,449 | 12,88,792 | 10,32,633 | 12,17,988 | 13,10,077 | 12,39,033 | 13,54,943 | 14,38,005 |
| Burma | 86,63,989 | 91,92,032 | 93,58,077 | 10,07,117 | 99,67,594 | 1,09,22,393 | 1,14,25,430 | 97,07,694 |
| Bihar and Orissa | .. | .. | .. | .. | 4,07,213 | 4,38,958 | 4,91,735 | 5,49,779 |
| Assam‡ | 14,30,447 | 14,46,368 | 15,54,732 | 18,90,635 | 11,46,320 | 11,42,091 | 10,97,969 | 8,32,874 |
| Central Provinces and Berar | 22,90,128 | 20,78,162 | 20,78,340 | 21,14,226 | 25,49,854 | 31,71,815 | 31,86,453 | 32,72,529 |
| Coorg | 2,74,756 | 2,24,330 | 2,13,129 | 2,76,056 | 2,95,170 | 2,81,652 | 3,29,227 | 1,99,237 |
| North-West Frontier Province | 2,38,490 | 1,22,782 | 1,73,305 | 2,05,342 | 1,58,171 | 2,37,183 | 2,66,741 | 2,38,013 |
| Ajmer | 29,864 | 27,615 | 23,990 | 33,846 | 26,361 | 36,596 | 33,897 | 31,170 |
| Baluchistan | 24,829 | 23,305 | 18,729 | 23,212 | 20,117 | 20,159 | 19,988 | 19,058 |
| Andamans | 2,19,822 | 2,02,018 | 2,59,477 | 4,16,773 | 5,22,160 | 4,49,925 | 4,45,811 | 3,39,248 |
| Imperial Forest College and Research Institute. | 6,137 | 4,680 | 4,909 | 4,080 | 5,550 | 7,611 | 5,806 | 8,617 |
| Forest Surveys (Imperial) | .. | .. | .. | .. | .. | .. | .. | .. |
| Madras | 38,93,830 | 38,90,919 | 41,78,381 | 38,80,411 | 41,68,921 | 41,12,473 | 42,00,320 | 39,41,537 |
| Bombay | 36,46,177 | 35,87,356 | 37,57,656 | 37,18,224 | 43,30,569 | 49,92,519 | 51,03,156 | 46,80,242 |
| GRAND TOTAL | 2,58,62,979 | 2,54,56,799 | 2,60,25,794 | 2,74,05,454 | 2,90,57,359 | 3,22,09,809 | 3,33,01,545 | 2,97,09,784 |

* Includes pay of Inspector-General of Forests, Assistant Inspector-General of Forests
† Includes figures up to 1910-11 for districts subsequently transferred to Bihar and
‡ Includes figures up to 1910-11 for Eastern Bengal districts subsequently transferred

MENT XIX.

from 1899-1900 to 1923-24 and the average of 6 quinquennial years from 1869-70 to 1898-99.

NUE.

| 1900-01. | 1901-02. | 1902-03. | 1903-04. | 1904-05. | 1905-06. | 1906-07. | PROVINCE. | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---|-------------|---|
| Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | | | |
| 2,463 | 3,484 | 3,659 | 7,455 | 3,768 | 7,255 | .. | Imperial.* | | |
| 12,33,339 | 12,92,237 | 12,56,247 | 10,65,523 | 11,67,472 | 11,18,542 | 10,65,859 | Bengal.† | | |
| 15,65,463 | 17,15,508 | 20,25,324 | 22,80,446 | 23,97,318 | 24,33,428 | 25,02,664 | United Provinces. | | |
| 13,50,842 | 14,47,558 | 15,86,408 | 17,17,797 | 18,74,443 | 17,81,653 | 16,05,284 | Punjab. | | |
| 80,54,444 | 58,73,938 | 67,39,053 | 82,68,535 | 89,59,756 | 1,03,29,869 | 98,12,519 | Burma. | | |
| .. | .. | .. | .. | .. | .. | .. | Bihar and Orissa. | | |
| 5,49,521 | 5,12,963 | 5,80,200 | 6,75,732 | 8,15,677 | 11,06,096 | 13,20,592 | Assam.‡ | | |
| 12,65,614 | 15,79,116 | 16,84,428 | 19,98,032 | 20,13,459 | 24,49,131 | 24,01,159 | Central Provinces and Berar. | | |
| 1,37,596 | 1,70,242 | 1,90,730 | 2,24,031 | 1,93,087 | 2,45,419 | 2,35,909 | Coorg. | | |
| .. | 13,012 | 1,01,123 | 1,01,833 | 90,991 | 1,28,529 | 1,83,214 | North-West Frontier Province. | | |
| 10,646 | 6,865 | 9,736 | 13,884 | 17,297 | 15,002 | 18,335 | Ajmer. | | |
| 16,956 | 14,712 | 19,336 | 18,363 | 22,555 | 21,481 | 21,195 | Baluchistan. | | |
| 2,77,886 | 2,66,903 | 3,26,035 | 4,32,381 | 6,20,796 | 5,82,511 | 6,07,027 | Andamans. | | |
| 3,697 | 3,545 | 3,252 | 3,038 | 3,557 | 3,080 | 4,579 | Imperial Forest College and Research Institute. | | |
| 327 | 473 | 3,034 | 431 | .. | .. | .. | Forest Surveys (Imperial). | | |
| 23,40,170 | 25,43,430 | 26,13,819 | 26,57,727 | 28,29,216 | 29,67,604 | 32,90,669 | Madras. | | |
| 29,61,529 | 23,79,729 | 23,29,156 | 27,51,539 | 30,20,558 | 38,84,993 | 34,22,481 | Bombay. | | |
| 1,97,70,493 | 1,78,23,715 | 1,94,71,540 | 2,22,16,747 | 2,40,29,950 | 2,66,74,593 | 2,64,91,486 | GRAND TOTAL. | | |
| 1915-16. | 1916-17. | 1917-18. | 1918-19. | 1919-20. | 1920-21. | 1921-22. | 1922-23. | 1923-24. | PROVINCE. |
| Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| 23,457 | 24,546 | 51,720 | 27,488 | 24,527 | 27,122 | 27,803 | 26,553 | 29,551 | Imperial.* |
| 11,45,610 | 13,38,779 | 13,76,969 | 19,44,104 | 20,51,237 | 21,84,763 | 18,98,959 | 23,11,226 | 22,61,515 | Bengal.† |
| 37,38,831 | 50,40,932 | 61,16,697 | 66,37,166 | 74,71,954 | 87,79,781 | 86,46,677 | 83,72,803 | 73,56,029 | United Provinces. |
| 17,27,283 | 16,87,801 | 21,17,776 | 21,54,178 | 38,45,878 | 38,05,058 | 49,91,178 | 34,44,443 | 43,86,533 | Punjab. |
| 96,99,217 | 1,23,79,531 | 1,23,61,499 | 1,25,28,852 | 1,64,35,262 | 1,89,75,060 | 2,21,16,787 | 1,89,43,952 | 1,76,93,304 | Burma. |
| 5,17,727 | 5,29,081 | 7,53,625 | 9,44,763 | 8,17,458 | 8,10,602 | 9,00,373 | 8,81,904 | 10,29,085 | Bihar and Orissa. |
| 10,55,052 | 11,48,621 | 13,09,956 | 14,92,718 | 14,81,590 | 15,31,944 | 12,97,027 | 17,13,853 | 19,74,292 | Assam.‡ |
| 32,78,262 | 33,71,578 | 34,66,493 | 34,88,422 | 45,46,723 | 43,94,526 | 41,33,693 | 47,06,979 | 51,04,929 | Central Provinces and Berar. |
| 4,49,155 | 4,87,314 | 4,58,673 | 6,77,873 | 9,48,028 | 4,27,351 | 7,33,731 | 9,42,653 | 7,00,947 | Coorg. |
| 1,86,815 | 2,40,985 | 3,37,711 | 3,81,322 | 4,62,541 | 2,19,779 | 5,74,853 | 7,27,659 | 5,33,332 | North-West Frontier Province. |
| 23,445 | 21,272 | 27,733 | 37,280 | 34,914 | 48,112 | 40,812 | 43,978 | 55,422 | Ajmer. |
| 21,633 | 18,277 | 17,934 | 25,108 | 17,937 | 22,544 | 17,229 | 14,939 | 22,403 | Baluchistan. |
| 4,34,784 | 6,49,711 | 7,93,656 | 11,84,383 | 8,00,795 | 6,24,374 | 5,50,098 | 5,88,027 | 6,11,382 | Andamans. |
| 6,995 | 8,199 | 8,304 | 9,083 | 8,308 | 12,648 | 24,117 | 1,84,763 | 1,47,339 | Imperial Forest College and Research Institute. |
| .. | .. | .. | .. | .. | .. | .. | .. | .. | Forest Surveys (Imperial). |
| 41,06,838 | 45,96,126 | 54,58,489 | 47,91,460 | 62,34,149 | 53,81,446 | 48,69,171 | 52,72,956 | 54,15,557 | Madras. |
| 47,01,263 | 55,10,177 | 63,12,022 | 1,04,94,031 | 84,94,438 | 68,98,585 | 74,93,563 | 70,37,384 | 71,49,604 | Bombay. |
| 3,11,16,367 | 3,70,61,930 | 4,09,69,257 | 4,08,18,231 | 5,36,75,739 | 5,41,43,495 | 5,83,16,071 | 5,52,14,072 | 5,44,91,224 | GRAND TOTAL. |

Office Establishment, and undistributable and petty local items and revenues and charges, on Indore and Bangalore. Excludes House Charges. Orissa. to Bengal.

Expenditure of the Forest Department throughout India for the 25 financial years

(II) EXPEN

| PROVINCE. | Average of 1869-70 to 1873-74. | Average of 1874-75 to 1878-79. | Average of 1879-80 to 1883-84. | Average of 1884-85 to 1888-89. | Average of 1889-90 to 1893-94. | Average of 1894-95 to 1898-99. | 1899-1900 | |
|--|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------|--------------------|
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| Imperial* | 63,685 | 67,102 | 80,454 | 87,135 | 84,125 | 82,816 | 96,550 | |
| Bengal† | 1,11,084 | 2,12,024 | 3,55,147 | 3,94,347 | 4,04,147 | 5,38,652 | 5,45,210 | |
| United Provinces | 9,63,005 | 8,39,709 | 8,38,658 | 9,17,898 | 9,46,423 | 9,35,078 | 9,42,380 | |
| Punjab | 8,29,326 | 5,57,148 | 5,41,242 | 6,44,372 | 6,46,374 | 7,50,224 | 12,11,460 | |
| Burma | 4,02,847 | 6,12,279 | 10,12,512 | 13,22,424 | 16,72,383 | 21,20,642 | 24,47,440 | |
| Bihar and Orissa | .. | .. | .. | .. | .. | .. | .. | |
| Assam‡ | .. | 88,293 | 1,62,460 | 2,11,655 | 2,68,159 | 2,86,870 | 3,57,140 | |
| Central Provinces and Berar | 3,99,072 | 4,33,734 | 6,13,539 | 7,37,805 | 10,10,657 | 11,78,660 | 12,75,820 | |
| Coorg | 40,684 | 36,591 | 62,248 | 73,907 | 77,016 | 82,146 | 74,220 | |
| North-West Frontier Province | .. | .. | .. | .. | .. | .. | .. | |
| Ajmer | 6,197 | 18,692 | 13,197 | 17,620 | 14,061 | 16,722 | 15,350 | |
| Baluchistan | .. | .. | 12,594 | 16,130 | 39,452 | 33,508 | 28,680 | |
| Andamans | 739 | 481 | 5,129 | 41,108 | 1,76,139 | 1,85,428 | 1,40,940 | |
| Imperial Forest College and Research Institute. | .. | .. | .. | 28,746 | 45,023 | 65,120 | 73,550 | |
| Forest Surveys (Imperial) | 11,911 | 63,288 | 40,447 | 24,477 | 24,491 | 31,936 | 33,980 | |
| Madras | 4,56,834 | 5,76,976 | 6,20,660 | 10,67,521 | 12,85,113 | 15,06,756 | 16,53,530 | |
| Bombay | 6,48,046 | 8,70,487 | 12,51,292 | 18,41,812 | 19,09,789 | 19,81,582 | 21,28,430 | |
| GRAND TOTAL | 39,33,430 | 45,76,804 | 56,09,579 | 74,26,956 | 86,03,352 | 97,96,140 | 1,10,24,680 | |
| | 1907-08. | 1908-09. | 1909-10. | 1910-11. | 1911-12. | 1912-13. | 1913-14. | 1914-15. |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| Imperial* | 1,00,204 | 1,04,183 | 1,04,332 | 92,606 | 94,714 | 1,04,162 | 99,296 | 99,478 |
| Bengal† | 7,13,394 | 5,83,981 | 5,91,099 | 6,43,285 | 7,06,374 | 6,60,794 | 6,40,157 | 6,70,935 |
| United Provinces | 11,94,013 | 12,22,436 | 12,09,308 | 12,37,938 | 13,63,873 | 16,29,264 | 18,96,014 | 23,17,740 |
| Punjab | 11,76,696 | 8,51,627 | 6,87,752 | 7,46,542 | 7,65,146 | 7,99,176 | 9,19,177 | 8,89,302 |
| Burma | 35,51,532 | 37,17,247 | 36,83,618 | 38,42,799 | 41,31,162 | 41,38,584 | 42,74,901 | 46,80,447 |
| Bihar and Orissa | .. | .. | .. | .. | 3,00,916 | 3,75,894 | 3,55,648 | 3,84,371 |
| Assam‡ | 8,00,373 | 8,91,349 | 10,12,541 | 10,87,340 | 8,41,013 | 8,08,911 | 9,10,240 | 8,98,339 |
| Central Provinces and Berar | 15,83,407 | 17,53,307 | 15,86,852 | 15,89,533 | 18,38,379 | 19,46,735 | 19,53,129 | 19,36,569 |
| Coorg | 1,04,819 | 99,595 | 1,07,822 | 1,07,679 | 1,21,174 | 1,61,544 | 1,78,514 | 1,75,833 |
| North-West Frontier Province | 88,400 | 81,413 | 77,391 | 72,492 | 89,436 | 1,22,173 | 1,31,023 | 1,25,539 |
| Ajmer | 18,188 | 19,916 | 19,272 | 19,918 | 22,343 | 29,714 | 23,595 | 21,733 |
| Baluchistan | 31,258 | 36,586 | 26,549 | 26,387 | 28,947 | 28,527 | 25,310 | 26,000 |
| Andamans | 2,29,267 | 1,80,941 | 1,94,159 | 2,26,963 | 2,61,732 | 2,55,141 | 2,74,676 | 2,58,056 |
| Imperial Forest College and Research Institute. | 1,58,038 | 1,83,191 | 1,96,174 | 2,19,183 | 2,63,441 | 2,68,445 | 2,98,338 | 3,31,091 |
| Forest Surveys (Imperial) | 27,060 | 39,128 | 41,062 | 41,140 | 38,798 | 35,809 | 37,743 | 42,353 |
| Madras | 27,80,857 | 29,17,261 | 33,39,635 | 32,25,801 | 34,14,882 | 31,50,482 | 29,35,817 | 28,60,685 |
| Bombay | 19,55,427 | 20,43,873 | 20,63,088 | 20,70,417 | 26,64,436 | 26,94,455 | 25,89,877 | 24,87,925 |
| GRAND TOTAL | 1,45,12,933 | 1,47,26,034 | 1,49,20,654 | 1,52,44,023 | 1,69,46,566 | 1,72,07,810 | 1,75,43,455 | 1,82,06,450 |

* Includes pay of Inspector-General of Forests, Assistant Inspector-General of Forests
† Includes figures up to 1910-11 for districts subsequently transferred to Bihar and
‡ Includes figures up to 1910-11 for Eastern Bengal districts subsequently transferred

MENT XIX—contd.

from 1899-1900 to 1923-24 and the average of 6 quinquennial years from 1869-70 to 1892-99.

DITURE.

| 1900-01. | 1901-02. | 1902-03. | 1903-04. | 1904-05. | 1905-06. | 1906-07. | PROVINCE. |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---|
| Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| 83,578 | 79,539 | 85,017 | 89,345 | 83,058 | 83,767 | 95,472 | Imperial.* |
| 5,70,806 | 6,57,131 | 6,38,014 | 7,03,508 | 6,88,539 | 5,93,509 | 6,33,386 | Bengal † |
| 9,63,439 | 10,08,739 | 10,13,998 | 10,81,438 | 13,91,583 | 14,05,182 | 13,06,651 | United Provinces. |
| 8,87,343 | 9,38,335 | 9,60,095 | 11,56,415 | 10,12,354 | 12,65,664 | 11,44,403 | Punjab. |
| 26,54,717 | 24,46,457 | 23,90,263 | 33,52,404 | 34,46,924 | 39,38,063 | 36,59,753 | Burma. |
| .. | .. | .. | .. | .. | .. | .. | Bihar and Orissa. |
| 3,47,972 | 3,29,112 | 3,27,498 | 4,25,484 | 5,03,656 | 5,93,910 | 7,07,860 | Assam. ‡ |
| 11,65,866 | 12,00,904 | 12,57,288 | 12,80,966 | 13,20,615 | 13,07,153 | 13,42,898 | Central Provinces and Berar |
| 70,905 | 82,333 | 89,437 | 92,191 | 83,820 | 95,748 | 1,02,855 | Coorg. |
| .. | 19,510 | 54,086 | 60,603 | 74,958 | 95,258 | 92,650 | North-West Frontier Province. |
| 16,782 | 15,927 | 16,377 | 16,680 | 15,641 | 17,131 | 16,715 | Ajmer. |
| 29,254 | 24,480 | 23,240 | 21,697 | 24,672 | 25,743 | 26,322 | Baluchistan. |
| 1,40,137 | 2,04,667 | 2,81,702 | 2,66,121 | 3,42,431 | 3,35,985 | 2,95,136 | Andamans. |
| 71,238 | 76,290 | 66,338 | 59,339 | 61,424 | 80,669 | 1,37,486 | Imperial Forest College and Research Institute. |
| 33,991 | 33,730 | 33,985 | 33,935 | 28,229 | 30,044 | 30,389 | Forest Surveys (Imperial). |
| 17,15,431 | 17,09,554 | 18,35,552 | 17,50,930 | 19,86,098 | 22,66,602 | 24,80,660 | Madras. |
| 24,08,581 | 17,19,680 | 16,76,441 | 17,75,937 | 19,03,804 | 21,26,093 | 19,90,183 | Bombay. |
| 1,11,60,040 | 1,07,46,388 | 1,12,49,331 | 1,21,66,993 | 1,29,67,856 | 1,42,58,521 | 1,40,63,799 | GRAND TOTAL. |

| 1915-16. | 1916-17. | 1917-18. | 1918-19. | 1919-20. | 1920-21. | 1921-22. | 1922-23. | 1923-24. | PROVINCE. |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---|
| Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| 1,09,502 | 1,03,248 | 90,332 | 1,10,638 | 1,32,777 | 1,68,993 | 2,57,011 | 4,33,494 | 1,44,489 | Imperial.* |
| 5,93,635 | 6,19,649 | 7,38,712 | 8,25,835 | 9,72,307 | 13,36,750 | 12,88,122 | 12,31,249 | 12,42,672 | Bengal. † |
| 25,66,307 | 27,35,915 | 32,04,928 | 45,98,963 | 61,55,475 | 70,43,578 | 74,04,688 | 61,58,486 | 43,50,695 | United Provinces. |
| 9,23,878 | 9,34,662 | 11,58,048 | 17,95,804 | 24,16,120 | 35,75,749 | 43,76,076 | 49,06,871 | 29,16,035 | Punjab. |
| 48,86,241 | 49,36,588 | 54,87,179 | 56,91,982 | 65,38,200 | 73,07,014 | 90,83,094 | 99,72,149 | 94,17,071 | Burma. |
| 3,61,550 | 4,47,972 | 3,90,716 | 4,30,849 | 5,06,800 | 5,89,118 | 9,94,665 | 7,17,531 | 7,50,657 | Bihar and Orissa. |
| 7,55,214 | 6,76,033 | 6,86,627 | 6,90,961 | 8,21,717 | 9,66,601 | 9,91,511 | 11,14,634 | 11,59,845 | Assam. ‡ |
| 17,34,336 | 17,68,775 | 18,72,124 | 20,15,548 | 23,76,230 | 27,33,601 | 27,15,821 | 30,34,417 | 30,41,108 | Central Provinces and Berar. |
| 1,76,633 | 1,60,492 | 1,99,941 | 4,25,572 | 5,07,547 | 4,66,758 | 6,30,645 | 5,86,007 | 5,65,508 | Coorg. |
| 1,04,795 | 1,18,070 | 1,53,875 | 2,07,357 | 3,01,453 | 4,54,197 | 7,49,384 | 6,12,383 | 4,58,567 | North-West Frontier Province. |
| 25,152 | 26,634 | 26,504 | 28,508 | 47,282 | 37,417 | 41,320 | 39,840 | 49,454 | Ajmer. |
| 27,995 | 26,929 | 29,990 | 28,787 | 25,314 | 28,761 | 53,275 | 36,468 | 31,440 | Baluchistan. |
| 4,30,832 | 4,28,652 | 3,97,724 | 6,12,826 | 9,71,491 | 13,27,930 | 12,87,027 | 8,05,184 | 8,96,214 | Andamans |
| 2,78,518 | 3,05,498 | 2,89,694 | 2,98,048 | 3,18,503 | 4,57,484 | 7,32,824 | 7,39,586 | 7,75,642 | Imperial Forest College and Research Institute. |
| 48,663 | 17,407 | 56,597 | 59,110 | 59,953 | 90,448 | 1,07,113 | 1,19,935 | 95,944 | Forest Surveys (Imperial). |
| 29,27,318 | 28,42,678 | 30,20,349 | 31,82,520 | 36,93,348 | 45,30,486 | 51,15,356 | 47,89,463 | 46,73,826 | Madras. |
| 26,42,038 | 25,64,681 | 33,53,714 | 78,72,197 | 59,18,682 | 53,05,022 | 50,23,946 | 40,14,344 | 44,01,024 | Bombay. |
| 1,85,92,607 | 1,87,43,883 | 2,11,57,063 | 2,88,75,505 | 3,17,63,199 | 3,64,19,907 | 4,08,51,878 | 3,93,12,041 | 3,49,30,281 | GRAND TOTAL. |

Office Establishment, and undistributable and petty local items and revenues and charges, on Indore and Bangalore. Excludes Home charges, Orissa. to Bengal.

Surplus of the Forest Department throughout India for the 25 financial years

(IID) SUR

| PROVINCE. | Average of 1869-70 to 1873-74. | Average of 1874-75 to 1878-79. | Average of 1879-80 to 1883-84. | Average of 1884-85 to 1888-89. | Average of 1889-90 to 1893-94. | Average of 1894-95 to 1898-99. | 1899-1900. | |
|--|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------|--------------------|
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| Imperial* | -61,510 | -35,385 | -55,025 | -76,269 | -78,978 | -73,128 | -90,460 | |
| Bengal† | 53,284 | 77,748 | 2,51,431 | 2,37,037 | 3,62,284 | 5,10,712 | 5,93,700 | |
| United Provinces | 2,96,974 | 3,81,941 | 2,95,957 | 5,45,627 | 7,42,767 | 5,96,746 | 6,72,360 | |
| Punjab | 1,41,903 | 1,48,410 | 1,96,096 | 2,67,578 | 2,54,043 | 3,89,286 | 1,89,310 | |
| Burma | 4,91,451 | 6,16,896 | 9,75,844 | 11,78,894 | 33,06,271 | 44,94,900 | 53,64,610 | |
| Bihar and Orissa | .. | .. | .. | .. | .. | .. | .. | |
| Assam‡ | .. | 12,805 | 29,427 | 20,400 | 1,14,591 | 1,29,042 | 2,10,960 | |
| Central Provinces and Berar | 3,42,807 | 5,46,202 | 6,68,453 | 6,73,358 | 6,78,848 | 1,97,298 | 21,670 | |
| Coorg | 52,807 | 42,296 | 40,922 | 39,117 | 76,120 | 51,310 | 88,190 | |
| North-West Frontier Province | .. | .. | .. | .. | .. | .. | .. | |
| Ajmer | -6,132 | -17,540 | -8,722 | -5,761 | 1,172 | -2,560 | -5,080 | |
| Baluchistan | .. | .. | -4,038 | 5,157 | -21,454 | -18,178 | -11,620 | |
| Andamans | 4,728 | 4,004 | 29,711 | 16,525 | 1,02,889 | 69,010 | 1,19,660 | |
| Imperial Forest College and Research Institute. | .. | .. | .. | -28,349 | -43,387 | -62,080 | -70,340 | |
| Forest Surveys (Imperial) | -11,911 | -63,271 | -40,308 | -24,271 | -23,823 | -31,636 | -33,560 | |
| Madras | 1,46,409 | 11,413 | 1,85,360 | 2,32,960 | 4,29,215 | 6,04,232 | 6,48,760 | |
| Bombay | 5,29,627 | 3,58,074 | 6,42,526 | 11,69,502 | 14,45,104 | 10,64,662 | 2,86,770 | |
| GRAND TOTAL | 16,96,631 | 20,83,593 | 32,07,634 | 42,41,192 | 73,45,662 | 79,19,616 | 79,84,930 | |
| | 1907-08. | 1908-09. | 1909-10. | 1910-11. | 1911-12. | 1912-13. | 1913-14. | 1914-15. |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| Imperial* | -92,538 | -95,994 | -93,700 | -83,944 | -84,034 | -91,325 | -87,825 | -87,431 |
| Bengal† | 4,84,256 | 6,00,864 | 4,89,541 | 5,24,159 | 4,16,068 | 19,39,807 | 9,75,954 | 6,33,561 |
| United Provinces | 12,15,732 | 9,52,970 | 10,91,586 | 11,40,501 | 16,52,487 | 19,14,699 | 18,16,473 | 8,17,495 |
| Punjab | 2,80,753 | 4,37,165 | 3,64,881 | 4,77,446 | 5,44,931 | 4,39,857 | 4,35,766 | 5,48,703 |
| Burma | 51,12,457 | 54,74,785 | 56,74,459 | 62,27,318 | 58,36,432 | 67,83,809 | 71,50,529 | 50,27,247 |
| Bihar and Orissa | .. | .. | .. | .. | 1,06,297 | 63,064 | 1,36,087 | 1,65,408 |
| Assam‡ | 6,30,074 | 5,55,019 | 5,22,191 | 8,03,295 | 3,05,307 | 3,33,180 | 1,87,729 | -65,462 |
| Central Provinces and Berar | 7,06,721 | 3,24,855 | 4,91,488 | 5,24,693 | 7,11,475 | 12,25,080 | 12,33,324 | 13,35,960 |
| Coorg | 1,69,937 | 1,24,735 | 1,05,307 | 1,68,376 | 1,73,996 | 1,20,108 | 1,50,713 | 23,404 |
| North-West Frontier Province | 1,50,090 | 41,369 | 95,914 | 1,32,850 | 68,735 | 1,15,010 | 1,35,718 | 1,12,420 |
| Ajmer | 11,676 | 7,699 | 4,718 | 13,928 | 4,018 | 6,882 | 10,302 | 9,437 |
| Baluchistan | -6,429 | -13,281 | -7,820 | -3,175 | -8,830 | -8,368 | -5,322 | -6,942 |
| Andamans | 62,555 | 21,077 | 65,318 | 1,89,810 | 2,60,428 | 1,94,784 | 1,71,135 | 81,192 |
| Imperial Forest College and Research Institute. | -1,51,901 | -1,78,511 | -1,91,265 | -2,15,103 | -2,57,891 | -2,60,834 | -2,92,532 | -3,22,474 |
| Forest Surveys (Imperial) | -27,060 | -39,128 | -41,062 | -41,140 | -38,798 | -35,809 | -37,743 | -42,363 |
| Madras | 11,12,973 | 9,73,858 | 8,38,746 | 6,54,610 | 7,54,039 | 9,61,991 | 12,64,503 | 10,80,852 |
| Bombay | 16,90,750 | 15,43,483 | 16,94,568 | 16,47,807 | 16,66,133 | 23,00,064 | 25,13,279 | 21,92,317 |
| GRAND TOTAL | 1,13,50,046 | 1,07,30,765 | 1,11,05,140 | 1,21,61,431 | 1,21,10,793 | 1,50,01,999 | 1,57,58,090 | 1,15,03,334 |

* Includes pay of Inspector-General of Forests, Assistant Inspector-General of Forests
† Includes figures up to 1910-11 for districts subsequently transferred to Bihar and
‡ Includes figures up to 1910-11 for Eastern Bengal districts subsequently transferred

MENT XIX—concl'd.

from 1899-1900 to 1923-24 and the average of 6 quinquennial years from 1869-70 to 1898-99.

PLUS.

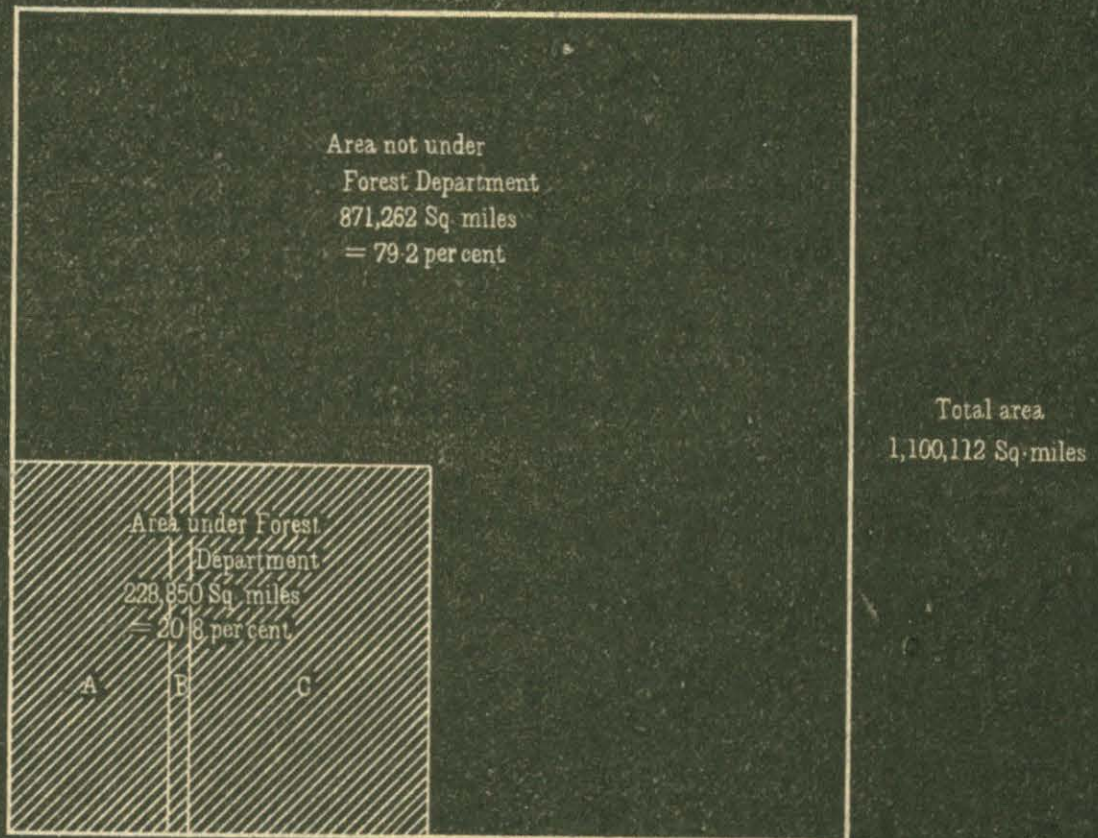
| 1900-01. | 1901-02. | 1902-03. | 1903-04. | 1904-05. | 1905-06. | 1906-07. | PROVINCE. |
|-----------|-----------|-----------|-------------|-------------|-------------|-------------|---|
| Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| —81,115 | —76,055 | —81,358 | —81,890 | —79,290 | —76,512 | —95,472 | Imperial.* |
| 6,62,533 | 6,35,106 | 6,18,233 | 3,62,015 | 4,78,883 | 5,25,033 | 4,32,473 | Bengal.† |
| 6,02,024 | 7,06,769 | 10,11,326 | 11,99,008 | 10,05,735 | 10,28,246 | 11,96,013 | United Provinces. |
| 4,63,499 | 5,09,223 | 6,26,313 | 5,61,382 | 8,62,089 | 5,17,989 | 4,60,381 | Punjab. |
| 53,99,727 | 32,27,481 | 38,48,790 | 49,16,131 | 55,12,332 | 63,91,806 | 61,52,766 | Burma. |
| .. | .. | .. | .. | .. | .. | .. | Bihar and Orissa. |
| 2,01,549 | 1,83,851 | 2,52,701 | 2,50,248 | 3,12,021 | 5,12,186 | 6,12,732 | Assam.‡ |
| 99,748 | 3,78,212 | 4,27,140 | 7,17,066 | 6,92,844 | 11,41,978 | 10,58,281 | Central Provinces and Berar. |
| 66,691 | 87,909 | 1,01,293 | 1,31,840 | 1,09,267 | 1,49,671 | 1,33,054 | Coorg. |
| .. | 6,498 | 47,038 | 41,230 | 16,033 | 33,271 | 89,564 | North-West Frontier Province. |
| —6,136 | —9,062 | —6,641 | 2,796 | 1,656 | —2,129 | 1,620 | Ajmer. |
| —12,298 | —9,768 | —3,904 | 3,334 | —2,117 | —4,262 | —5,127 | Baluchistan. |
| 1,37,749 | 62,236 | 44,333 | 1,66,260 | 2,78,365 | 2,46,526 | 3,11,891 | Andamans. |
| —67,541 | —72,745 | —63,086 | —56,301 | —57,867 | —77,580 | —1,32,907 | Imperial Forest College and Research Institute. |
| —33,664 | —33,257 | —30,951 | —33,504 | —28,229 | —30,644 | —30,389 | Forest Surveys (Imperial). |
| 6,24,739 | 8,33,876 | 7,78,267 | 9,06,797 | 8,43,118 | 7,01,002 | 8,10,009 | Madras. |
| 5,52,948 | 6,60,040 | 6,52,715 | 9,75,602 | 11,16,954 | 13,58,900 | 14,32,298 | Bombay. |
| 86,10,453 | 70,77,327 | 82,22,209 | 1,00,49,754 | 1,10,62,094 | 1,24,16,072 | 1,24,27,687 | GRAND TOTAL. |

| 1915-16. | 1916-17. | 1917-18. | 1918-19. | 1919-20. | 1920-21. | 1921-22. | 1922-23. | 1923-24. | PROVINCE. |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---|
| Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| —86,045 | —78,702 | —38,612 | —83,150 | —1,08,250 | —1,41,871 | —2,29,208 | —4,06,941 | —1,14,938 | Imperial.* |
| 5,51,975 | 7,19,130 | 6,38,257 | 11,18,269 | 10,78,930 | 8,48,013 | 6,10,837 | 10,79,977 | 10,18,843 | Bengal.† |
| 11,72,524 | 23,05,017 | 29,11,769 | 20,38,203 | 13,16,479 | 17,36,203 | 12,41,989 | 22,14,317 | 30,05,334 | United Provinces |
| 8,03,405 | 7,53,139 | 9,59,728 | 3,58,374 | 14,29,758 | 2,29,309 | 6,15,102 | —14,62,428 | 14,70,498 | Punjab. |
| 48,12,976 | 74,42,943 | 68,74,320 | 68,36,870 | 98,97,062 | 1,16,68,046 | 1,30,33,693 | 89,71,803 | 82,76,233 | Burma. |
| 1,56,177 | 81,109 | 3,62,909 | 5,13,914 | 3,10,658 | 2,21,484 | —94,292 | 1,64,373 | 2,78,428 | Bihar and Orissa. |
| 2,99,838 | 4,72,588 | 6,23,329 | 8,01,757 | 6,59,873 | 5,65,343 | 3,05,516 | 5,99,219 | 8,14,447 | Assam.‡ |
| 15,43,926 | 16,02,803 | 15,94,369 | 14,72,874 | 21,70,493 | 16,60,925 | 14,17,872 | 16,72,562 | 20,63,821 | Central Provinces and Berar. |
| 2,72,522 | 3,26,822 | 2,58,732 | 2,52,301 | 4,40,481 | —39,407 | 1,03,086 | 3,56,646 | 1,35,349 | Coorg. |
| 82,020 | 1,22,915 | 1,83,836 | 1,73,965 | 1,61,088 | —2,34,418 | —1,74,531 | 1,15,276 | 74,765 | North-West Frontier Province. |
| —1,707 | —5,362 | 1,229 | 8,772 | —12,368 | 10,695 | —508 | 4,138 | 5,968 | Ajmer. |
| —6,362 | —8,652 | —12,065 | —3,679 | —7,377 | —6,217 | —36,046 | —21,529 | —9,037 | Baluchistan. |
| 3,952 | 2,21,059 | 3,95,932 | 5,71,557 | —1,70,696 | —7,03,556 | —7,36,929 | —2,17,157 | —2,84,832 | Andamans. |
| —2,71,523 | —2,97,299 | —2,81,390 | —2,88,965 | —3,10,195 | —4,44,836 | —7,08,707 | —5,54,823 | —6,08,303 | Imperial Forest College and Research Institute. |
| —48,663 | —47,407 | —56,597 | —59,110 | —59,953 | —90,448 | —1,07,113 | —1,19,935 | —95,944 | Forest Surveys (Imperial). |
| 11,79,520 | 17,53,448 | 24,38,140 | 16,08,940 | 25,40,801 | 8,50,760 | —2,46,185 | 4,83,493 | 7,81,731 | Madras. |
| 20,59,225 | 29,54,496 | 29,58,308 | 26,21,834 | 25,75,756 | 15,93,563 | 24,69,617 | 30,23,040 | 27,48,580 | Bombay. |
| 1,25,23,760 | 1,83,18,047 | 1,98,12,194 | 1,79,42,726 | 2,19,12,540 | 1,77,23,588 | 1,74,64,193 | 1,59,02,031 | 1,95,60,943 | GRAND TOTAL. |

Office Establishment, and undistributable and petty local items and revenues and charges, on Indore and Bangalore. Excludes Home charges. Orissa. to Bengal.

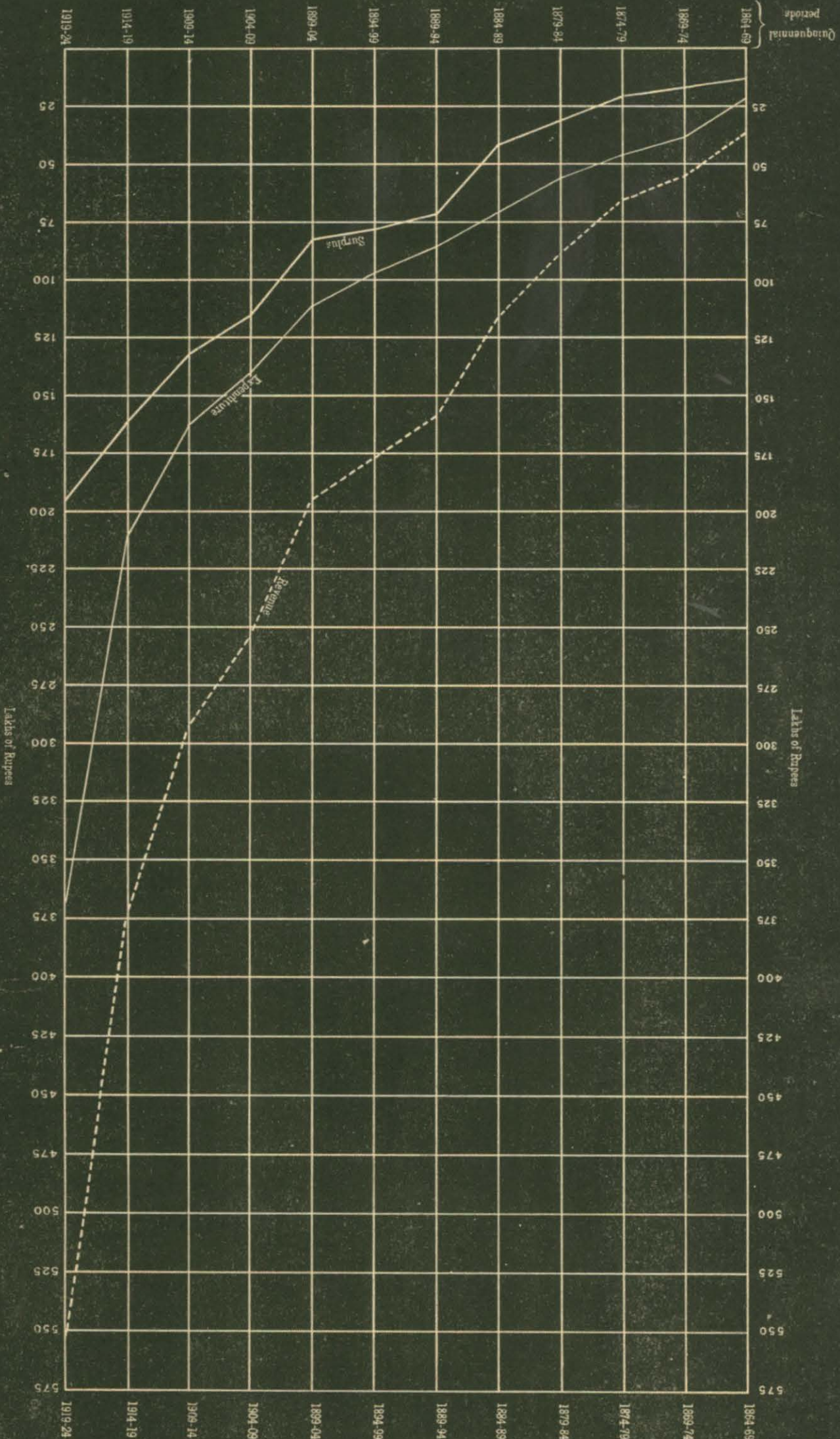
STATISTICAL DIAGRAMS RELATING TO FOREST ADMINISTRATION IN BRITISH INDIA

I. Area under the control of the Forest Department compared with the total area of British India (including the Shan States)



Reg. No. 616 F. 25-500

A. Reserved Forests 103,449 Sq. miles
B. Protected do 7,931 do
C. Unclassed do 117,470 do



II. Growth of Forest Revenue & Expenditure by Quinquennial Periods since 1864-69

DIAGRAM SHOWING
ANNUAL FOREST REVENUE, EXPENDITURE & SURPLUS.
FOR THE 10 YEARS 1914-15 TO 1923-24

